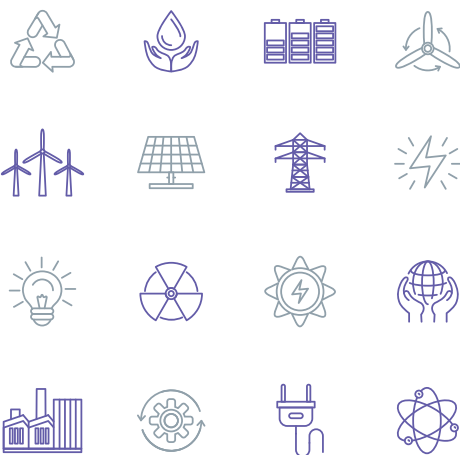


KEEI

MONTHLY

KOREA ENERGY
TRENDS

COAL 5.8%
 PETROLEUM -2.7%
 LNG 36.3%
 NUCLEAR -16.4%
 NEW & RENEWABLE 17.4%
 MAY, 2021

This publication is derived from Energy Demand & Supply Statistics and Energy Price Statistics issued until May 2021.



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1. The Economy and the Industry

- **The mining & manufacturing production index in May grew by 14.9% year-on-year as the economic recovery drove an increase in production activities**
 - The semiconductor production index rose by 26.8% year-on-year as the demand for work from home, online streaming and other 'contact-free' activities went up due to the prolonged enforcement of Social Distancing measures and in turn, the semiconductor demand continued to grow as well
 - With Social Distancing regulations being in place, the basic chemical material production index climbed up by 11.6% year-on-year as the demand for synthetic resin and other synthetic raw materials used in home appliances, disposable products and packing materials went up
 - The steel production index increased by 14.2% year-on-year as the domestic consumption recovered with front industries such as construction, shipbuilding and automobile sectors making rapid improvements and the export volume of steel products mounted up by 14.8%
 - Thanks to the effect of new model releases and the expansion of sales and exports of eco-friendly cars, the automobile production index soared by 31.5% year-on-year
- **Despite of extended enforcement of Social Distancing measures, the service production index grew by 4.2% on a year-on-year basis on the back of increased production activities**
 - In the service sector, production activities gained strength even in the face of Social Distancing measures being extended. This buoyant trend is attributable to the base effect and the rise in the use of multi-purpose facilities, which was caused by the increased number of holidays

► Major economic and industrial indicators

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
GDP (trillion won)	1 836.9	443.7	-	452.3	452.3	-	-
	(-0.9)	(1.5)	-	(1.9)	(1.9)	-	-
Total export (\$billion, customs clearance basis)	512.5	201.3	34.9	248.4	53.7	51.2	50.7
	(-5.1)	(-11.4)	(-23.7)	(23.4)	(16.3)	(41.2)	(45.6)
Industrial production index (2015=100)	106.3	102.8	96.8	110.9	118.8	114.0	111.2
	(-0.3)	(-0.7)	(-10.9)	(7.9)	(4.6)	(12.2)	(14.9)
Semi-conductors	230.6	210.0	223.4	261.2	284.2	249.2	283.3
	(22.6)	(32.8)	(25.8)	(24.4)	(25.5)	(29.7)	(26.8)
Basic chemical products	102.3	104.7	96.6	107.8	112.4	107.3	107.8
	(-6.0)	(-2.5)	(-7.3)	(3.0)	(5.7)	(9.8)	(11.6)
Iron&Steel	92.1	93.9	86.0	96.4	99.1	99.0	98.2
	(-6.3)	(-5.5)	(-15.5)	(2.6)	(-1.0)	(5.9)	(14.2)
Cars	84.1	78.0	64.2	90.8	101.3	97.9	84.4
	(-9.9)	(-18.0)	(-36.8)	(16.4)	(-0.6)	(20.0)	(31.5)
Service production index (2015=100)	106.2	103.4	105.1	107.4	111.5	109.5	109.5
	(-2.0)	(-2.7)	(-4.0)	(3.8)	(7.8)	(8.3)	(4.2)
Wholesale & Retail	101.9	99.5	103.3	103.8	109.3	106.9	106.5
	(-2.6)	(-4.2)	(-4.4)	(4.3)	(8.3)	(9.3)	(3.1)
Restaurant & Accommodation	79.5	78.4	86.6	73.1	76.6	78.5	84.8
	(-18.5)	(-17.6)	(-14.1)	(-6.8)	(19.3)	(8.3)	(-2.1)

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 Prices¹

Global Energy Prices

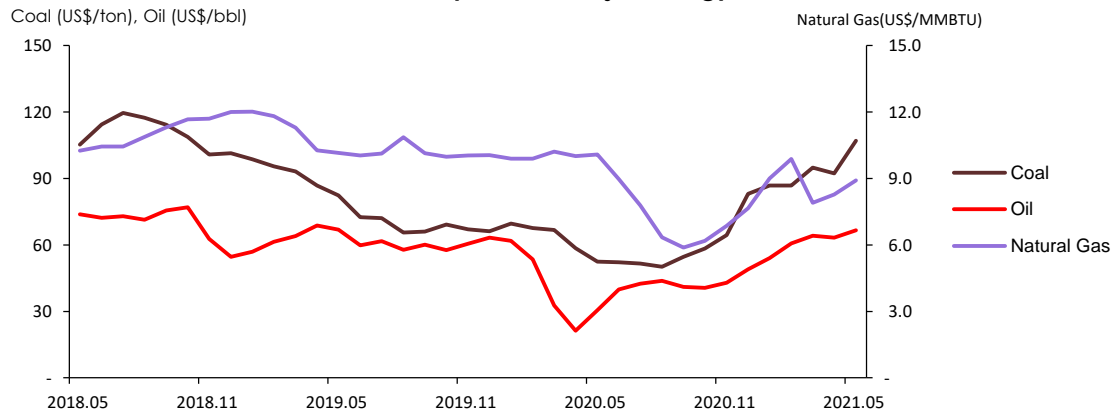
- **Global average crude oil price in May rose by 5.2% month-on-month thanks to expectations for economic recovery in major countries and a decline in U.S. oil reserve**
 - Global oil price in May experienced a month-on-month growth based on several factors including expectations for economic recovery in major countries such as the United States and China, a budget increase of Biden administration for 2022 and a decline in U.S. oil reserve. However, the oil price growth was limited by an interest rate increase and the spread of COVID-19 pandemic across India
 - Global natural gas price rose by 7.7% month-on-month thanks to a decline in natural gas production in the U.S. and expectations for an increase in demand during the summer season

► Global energy prices

	2019	2020				2021		
			M3	M4	M5	M3	M4	M5
Crude oil (US\$/bbl)	61.6	41.6	32.6	21.2	30.5	64.2	63.3	66.6
	(-10.2)	(-32.4)	(-49.1)	(-69.1)	(-54.4)	(96.6)	(198.1)	(118.6)
Natural gas (US\$/MMBTU)	10.6	8.3	10.2	10.0	10.1	7.9	8.3	8.9
	(-1.1)	(-21.3)	(-9.6)	(-2.5)	(-0.7)	(-22.7)	(-17.3)	(-11.5)
Coal (US\$/ton)	77.8	60.8	66.7	58.6	52.5	94.9	92.2	107.0
	(-27.3)	(-21.9)	(-28.3)	(-32.5)	(-36.2)	(42.2)	(57.5)	(103.9)

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

□ Gasoline and diesel prices in May both increased by 0.5% month-on-month driven by an increase in global oil price

- The average prices of gasoline and diesel at gas stations rebounded to post an increase in May, following a minor decline in the end of April. In terms of a month-on-month basis, however, the price increase amounted to a mere 0.5%. On a year-on-year basis, the prices grew by 22.8% and 25.6%, respectively, due to the base effect from the plunge in oil prices in May last year
- Bunker-C price in May dropped by 3.2% month-on-month, declining for the first time in five months. On year-on-year basis, however, the prices skyrocketed by 56.5% due to the base effect from a free fall in oil prices a year earlier

□ Despite of a drop in global price, propane and butane prices in May stayed at last month's level with LPG supply prices being frozen

- Although Saudi Aramco decreased global propane and butane prices by 10.4% and 10.9% in April, LPG supply price was frozen at last month's level with consideration for the price increase factors, which had been accumulated but were not reflected in the supply price

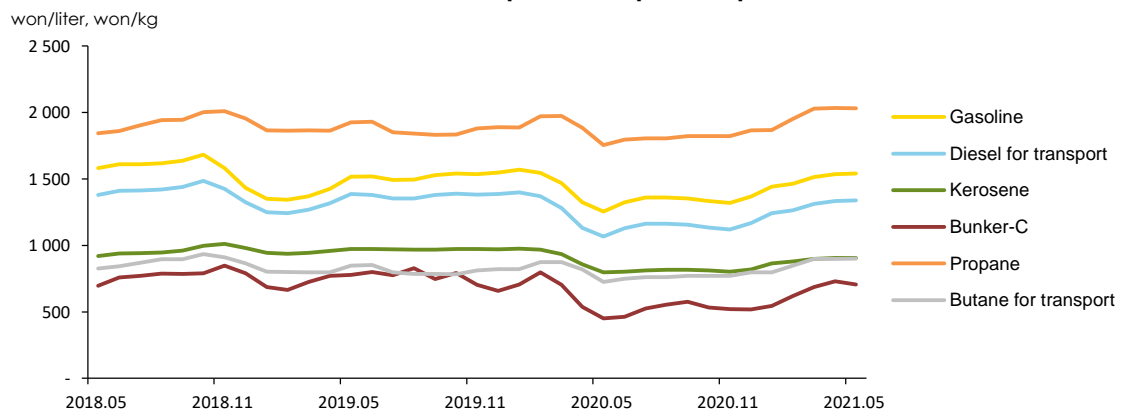
► Domestic petroleum product prices

	2019	2020				2021		
			M3	M4	M5	M3	M4	M5
Gasoline (won/liter)	1 472.6 (-6.9)	1 381.2 (-6.2)	1 469.1 (7.3)	1 323.7 (-7.1)	1 255.1 (-17.3)	1 513.3 (3.0)	1 534.5 (15.9)	1 541.5 (22.8)
Diesel for transport (won/liter)	1 340.6 (-3.7)	1 189.5 (-11.3)	1 280.8 (0.9)	1 132.4 (-14.0)	1 065.8 (-23.1)	1 312.6 (2.5)	1 332.7 (17.7)	1 338.8 (25.6)
Bunker-C (won/liter)	744.5 (1.3)	572.9 (-23.0)	703.1 (-2.9)	536.7 (-30.4)	451.3 (-41.9)	686.0 (-2.4)	730.1 (36.0)	706.4 (56.5)
Propane (won/kg)	1 869.6 (-2.6)	1 850.3 (-1.0)	1 973.2 (5.8)	1 885.5 (1.2)	1 753.8 (-8.9)	2 029.2 (2.8)	2 032.9 (7.8)	2 031.6 (15.8)
Butane for transport (won/liter)	806.3 (-7.8)	790.8 (-1.9)	874.3 (9.6)	818.4 (2.8)	725.0 (-14.5)	898.6 (2.8)	899.2 (9.9)	899.4 (24.1)

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



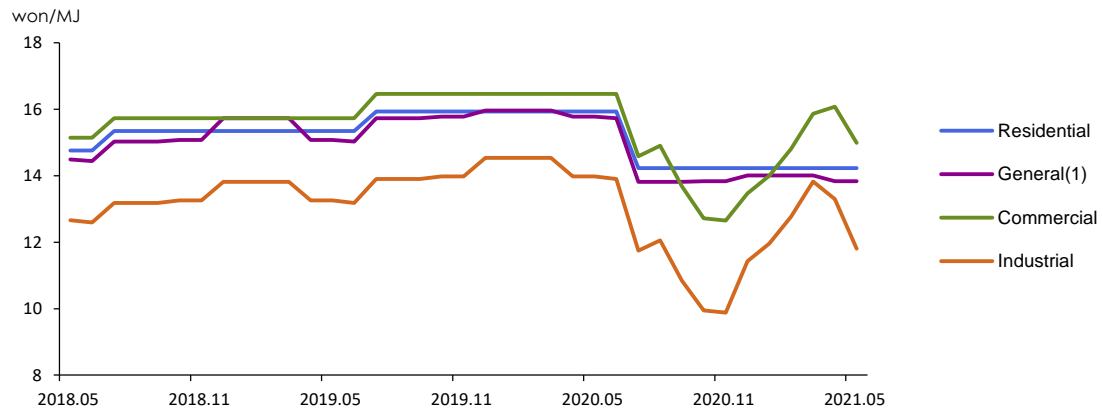
□ In May, city gas prices for commercial use and industrial use dropped by 6.7% and 11.2%, respectively, on a month-on-month basis

- The prices for commercial and industrial city gas uses, adjusted every month under Fuel Adjustment Mechanism (FAM), went down month-on-month as global LNG price kept showing a downward trend until April, while the gas prices for the residential and general uses stayed at last month's level

□ As the electricity prices were fixed in the second quarter, it remained at the level reflecting the drop of 2.7KRW/kWh under the implementation of Fuel Adjustment Mechanism (FAM)

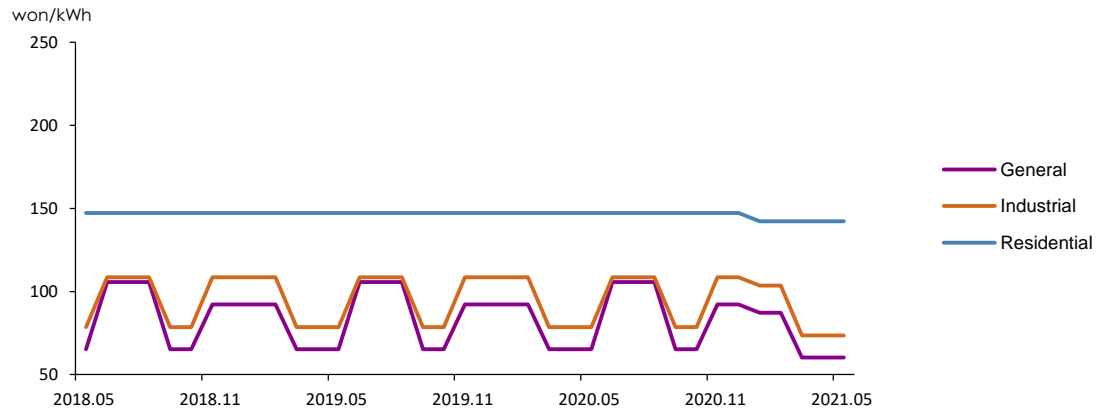
- Under FAM, the electricity price adjusts every three months. From April to June, the price was locked at the previous level to seek price stability amidst economic slump caused by COVID-19 pandemic, despite an increase factor of 2.8KRW/kWh due to increased oil prices
- With Fuel Adjustment Mechanism (FAM) starting from January 1, 2021, Climate Environment Cost of 5KRW/kWh was separated from the existing electricity price to form a new price category of Climate Environmental Price of 5.3KRW/kWh. The actual electricity prices fell by 2.7KRW/kWh from the previous month as Fuel Cost Adjustment rate was reduced by 3KRW/kWh

► 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 energy import volume for all energy sources in May increased by 4.1% year-on-year except for bituminous coal**
 - Even with the import unit cost going up (40.9%, CIF), the import volume of crude oil was up by 2.7% year-on-year due to several factors including an increase in refinery feeds (1.2%) and the base effect from a decline in oil imports (-6.3%) a year earlier
 - With the import volume of LPG and B-C increasing by 20.8% and 319.6%, respectively, the total volume of petroleum product imports grew by 1.8% year-on-year although naphtha, which has a large share in the import mix, decreased by 18.7%
 - The import volume of bituminous coal fell by 10.0% year-on-year as steam coal experienced a huge plunge (-14.3%)
 - The import volume of LNG rose by 14.6% year-on-year owing to a continuous growth in demand and a drop in reserve last month
 - The energy import cost substantially increased by 97.7% year-on-year as crude oil and petroleum products witnessed an explosive growth in import value (180.7% and 166.2%, respectively)

► Import and domestic production of energy

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
Import volume							
Crude oil (Mbbbl)	980.3	424.2	78.8	388.1	71.9	83.4	81.0
	(-8.6)	(-7.5)	(-6.3)	(-8.5)	(-14.5)	(1.3)	(2.7)
Petroleum product (Mbbbl)	347.3	158.0	30.4	149.5	29.1	30.6	30.9
	(-1.4)	(20.2)	(6.7)	(-5.4)	(-8.2)	(23.3)	(1.8)
Bituminous coal (Mton)	115.5	46.3	9.1	41.9	9.4	7.6	8.2
	(-13.0)	(-11.7)	(-14.0)	(-9.6)	(9.4)	(-23.0)	(-10.0)
Anthracite (Mton)	6.3	2.4	0.4	2.6	0.6	0.5	0.6
	(-8.3)	(-22.0)	(-33.3)	(8.2)	(34.3)	(-4.1)	(39.7)
LNG (Mton)	40.0	18.5	3.0	20.0	4.2	2.8	3.4
	(-1.8)	(10.7)	(-0.1)	(8.4)	(18.4)	(-8.3)	(14.6)
Import volume (Mtoe)	325.4	140.3	26.1	135.0	27.8	25.0	27.2
	(-6.8)	(-1.4)	(-6.4)	(-3.8)	(-0.3)	(-3.8)	(4.1)
Import value (billion US\$, CIF)	86.4	42.8	4.9	46.3	9.3	9.7	9.7
	(-31.8)	(-20.8)	(-54.2)	(8.2)	(7.3)	(49.7)	(97.7)
Energy share of total import value (%)	18.4	21.8	14.1	19.8	18.7	19.0	20.2
Foreign energy dependence (%)*	92.9	93.0	92.7	92.7	92.6	92.0	91.8
Domestic production							
Hydropower (TWh)	7.1	2.7	0.6	2.7	0.5	0.6	0.6
	(14.4)	(5.4)	(4.2)	(1.0)	(-4.1)	(8.8)	(13.3)
Anthracite (Mton)	1.0	0.4	0.1	0.4	0.1	0.1	0.1
	(-6.0)	(-5.4)	(-12.0)	(-13.6)	(-17.2)	(-2.2)	(-13.6)
Natural gas (Mton)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
	(-28.6)	(-15.3)	(-17.6)	(-65.0)	(-68.8)	(-64.1)	(-65.1)
Renewable energy (Mtoe)	18.4	7.7	1.5	8.4	1.8	1.8	1.8
	(4.0)	(4.1)	(-1.7)	(9.1)	(8.8)	(5.7)	(17.4)

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 May increased by 3.6% year-on-year with gas and coal consumption growing, although petroleum and nuclear energy usage were down

- Petroleum use in the petrochemical sector grew on the back of the economic recovery in major countries, expansion of petrochemical facilities and 'return-to-service' of some plants after accidents while the consumption declined in the transport sector, mainly in the road transportation. As a result, the petroleum consumption posted a year-on-year decrease of 2.7%
- The final gas consumption went up by 8.5% mainly for industrial use with industrial production recovering. Similarly, the gas use in the power generation sector dramatically grew by 61.0% driven by an increase in electricity consumption and a drop in coal and nuclear generation. Consequently, the total gas consumption soared by 36.3% year-on-year
- Although the coal use for power generation kept declining as several power generators voluntarily put a generation cap on their coal-fired generation output from April to November, the total coal consumption increased by 5.8% year-on-year driven by the industrial sector, which livened up with steel-dependent industries and construction business recovering

□ As industrial energy use grew with domestic and global economies recovering, Total Final Consumption ("TFC") showed a year-on-year increase of 3.0%

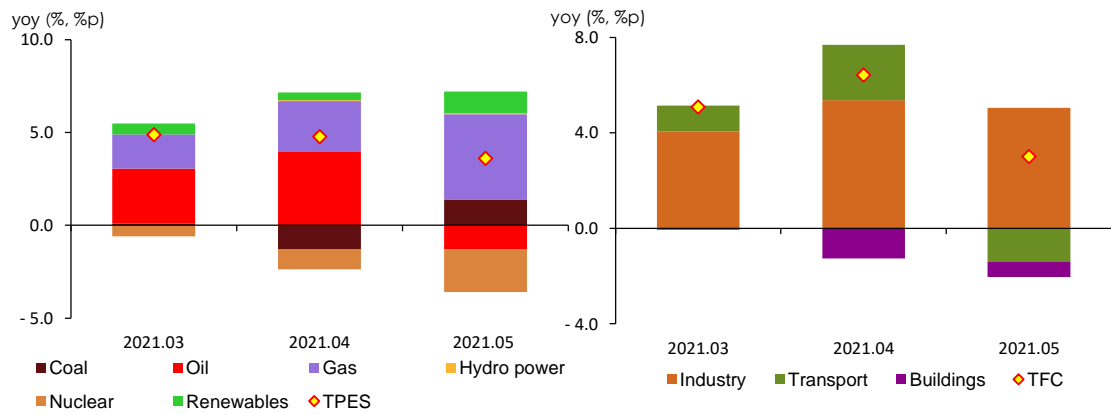
- Despite of a decline (-1 day) in working days, the industrial energy consumption rose by 8.1% year-on-year thanks to production recovery in petrochemical, the iron & steel and fabricated metal industries, driving the growth in TFC
- While the energy use in the marine and air transport sectors increased, the road and railroad transportation witnessed a decline owing to a increase in oil price and extended Social Distancing regulations amidst the fourth wave of COVID-19 pandemic. As a result, the energy consumption in the transport sector posted a year-on-year decline of 7.0%
- The energy use in the building sector declined by 3.6% as the residential as well as public & other sectors showed a decrease, dwarfing the impact of a small growth in the commercial sector

► Energy consumption

	2020	2021p					
		M1~5	M5	M1~5	M3	M4	M5
TPES (Mtoe)	290.8	122.4	23.1	126.3	25.7	23.8	24.0
	(-4.0)	(-4.4)	(-1.4)	(3.2)	(4.9)	(4.8)	(3.6)
- Non-energy oil&coal excluded	211.3	88.7	16.3	91.0	18.2	16.7	16.8
	(-3.8)	(-5.1)	(-1.1)	(2.5)	(2.2)	(1.3)	(2.9)
TFC (Mtoe)	222.0	95.5	18.0	98.6	19.9	18.8	18.5
	(-4.0)	(-3.8)	(0.4)	(3.3)	(5.1)	(6.4)	(3.0)

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

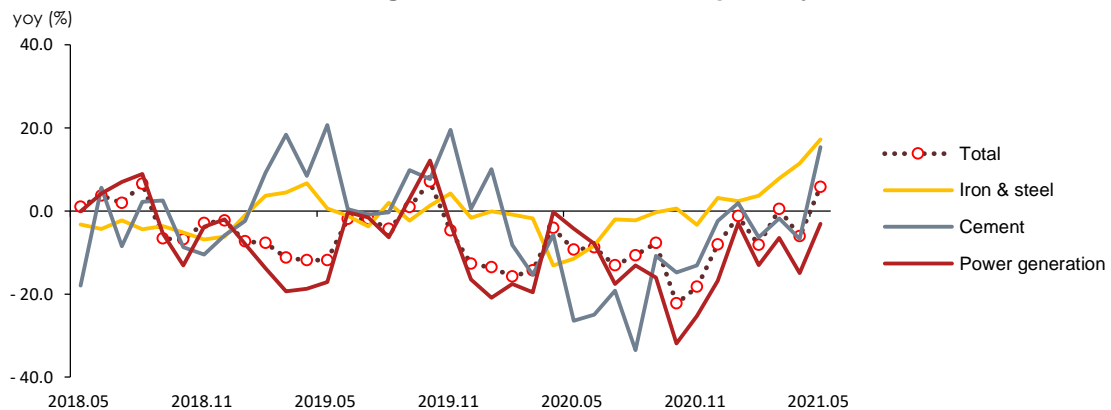
- **Coal use in May posted a year-on-year growth of 5.8% thanks to a substantial increase in the industrial sector, canceling out the impact of a decline in the power generation sector**
 - As coal use in the steel and cement manufacturing industries went up with production activity becoming vigorous, the industrial coal consumption rose by 19.5% year-on-year
 - Coal use in the power generation declined by 3.1% year-on-year due to implementation of a voluntary coal-fired generation cap program and decreased capacity with shut-down of old coal-fired power plants

► Coal consumption

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
Coal (Mton)	116.6	46.4	8.6	45.5	8.9	8.4	9.1
	(-12.4)	(-11.8)	(-9.3)	(-1.9)	(0.4)	(-6.1)	(5.8)
Industry	45.3	18.2	3.4	19.6	4.2	3.9	4.1
	(-4.7)	(-8.4)	(-16.1)	(7.4)	(9.7)	(6.9)	(19.5)
-Coking-coal	33.8	13.6	2.6	14.8	3.1	2.8	3.0
	(-3.3)	(-5.5)	(-11.5)	(8.3)	(7.8)	(11.5)	(17.2)
Buildings	0.5	0.2	0.0	0.1	0.0	0.0	0.0
	(-20.8)	(-22.2)	(-18.3)	(-18.8)	(-26.3)	(-26.9)	(-36.4)
Power generation	70.7	27.9	5.2	25.7	4.7	4.5	5.0
	(-16.6)	(-13.7)	(-4.3)	(-8.0)	(-6.4)	(-14.9)	(-3.1)

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

► The growth rate of coal consumption by use



6. Petroleum

□ Petroleum use in May dropped in transport and building sectors by 2.7% year-on-year except in the industrial sector

- Petroleum use in the industrial sector increased by 2.2% year-on-year as LPG and naphtha consumption grew with new facility expansion in the petrochemical industry
- Petroleum use in the transport sector fell by 7.5% year-on-year with a dramatic drop in the road transport sector, dwarfing the increase in the air transportation sector
- In the building sector, despite of frequent rainfalls and the increased number of heating degree days, petroleum use plunged by 29.3% year-on-year as petroleum consumption in all sectors including residential (-38.1%), commercial (-21.8%) and public (-22.6%) went down

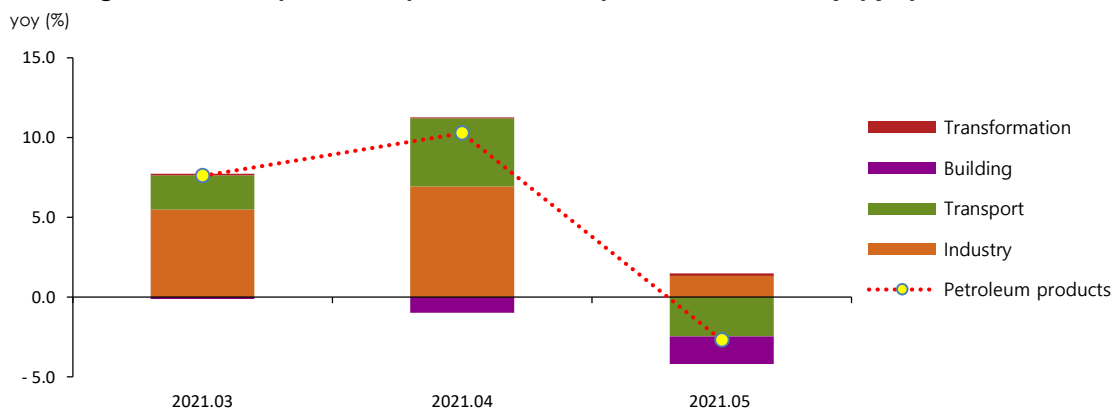
► Petroleum product consumption by end-use sectors

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
Petroleum (Mbbbl)	873.3	370.3	78.2	375.7	76.4	75.7	76.1
	(-5.8)	(-3.3)	(7.8)	(1.5)	(7.6)	(10.3)	(-2.7)
Industry	543.0	232.9	47.8	237.0	49.6	48.1	48.8
	(-4.1)	(1.5)	(3.8)	(1.8)	(8.5)	(11.0)	(2.2)
-Naphtha	405.3	177.1	35.7	180.7	38.5	37.2	35.8
	(-7.6)	(-2.6)	(-2.1)	(2.0)	(11.5)	(17.0)	(0.2)
Transport	273.9	111.1	25.5	111.6	22.0	23.5	23.6
	(-9.6)	(-11.6)	(10.6)	(0.4)	(7.5)	(14.2)	(-7.5)
Buildings	50.1	24.2	4.6	23.5	4.3	3.6	3.3
	(2.1)	(2.1)	(56.1)	(-2.8)	(-2.0)	(-15.7)	(-29.3)
Power generation	6.2	2.2	0.3	3.7	0.5	0.4	0.4
	(-27.7)	(-50.1)	(-45.3)	(64.9)	(16.1)	(13.0)	(47.5)

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 in May soared by 36.3% year-on-year as gas consumption in the final industrial and building sectors increased and gas use for power generation shot up

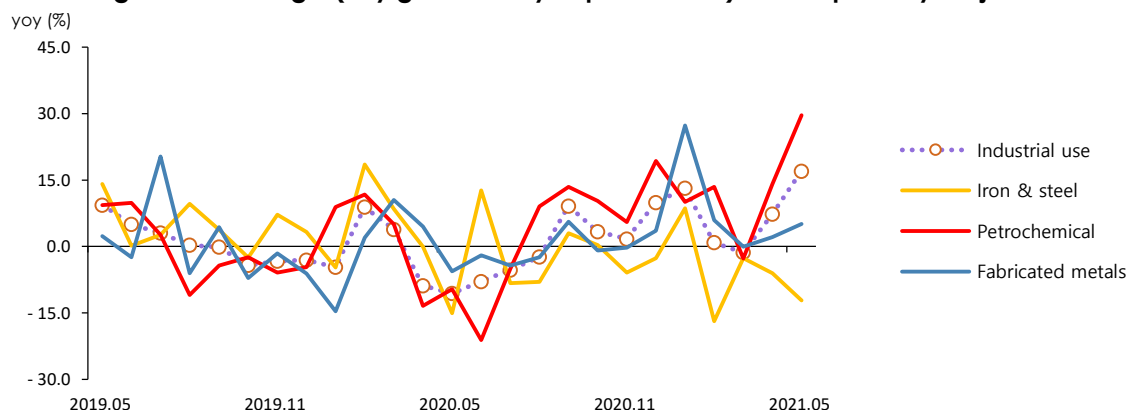
- With electricity use soaring fast(6.4%), gas use for power generation skyrocketed by 61.0% yoy as gas generation for peak load filled in for a decrease in base load generation including nuclear and coal
- While gas use in the iron & steel sector decreased due to the base effect from an increase a year earlier, the use in the petrochemical and fabricated metal sectors went up rapidly with increased production driven by domestic and global economic recovery, driving a growth in overall industrial gas use
- Even in the face of extended enforcement of Social Distancing measures, gas use in the commercial building sector rose substantially with production recovery in wholesale and retail sectors. However, gas use in the residential building sector fell due to the base effect from a significant surge a year earlier

► Natural gas and city gas consumption

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
LNG (Mton)	41.4	18.5	2.3	21.1	4.3	3.4	3.1
	(1.1)	(-2.6)	(-17.2)	(13.9)	(8.8)	(15.9)	(36.3)
Power generation	18.6	7.5	1.0	9.2	2.0	1.7	1.6
	(3.6)	(-0.4)	(-25.6)	(23.6)	(19.6)	(45.6)	(61.0)
City gas production	18.2	9.0	1.0	9.7	1.9	1.4	1.1
	(-3.1)	(-6.8)	(-13.3)	(7.8)	(1.3)	(-6.7)	(17.2)
Industry(Direct private importer)	2.8	1.1	0.2	1.0	0.2	0.2	0.2
	(23.8)	(29.7)	(37.5)	(-3.4)	(-4.9)	(7.2)	(4.4)
City gas (Bm³)	26.0	12.9	1.6	13.7	2.7	2.1	1.8
	(-0.5)	(-3.5)	(-5.1)	(5.7)	(-0.2)	(-3.2)	(8.5)
Industry(including directly imported)	11.1	4.7	0.8	5.0	1.0	1.0	0.9
	(-0.2)	(-2.3)	(-10.6)	(7.0)	(-1.4)	(7.3)	(17.0)
Buildings	13.8	7.8	0.8	8.2	1.6	1.1	0.8
	(0.0)	(-3.8)	(2.6)	(5.5)	(0.4)	(-11.5)	(0.8)
Transport	1.1	0.4	0.1	0.4	0.1	0.1	0.1
	(-8.7)	(-9.4)	(-13.7)	(-4.3)	(1.4)	(2.8)	(-1.4)

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

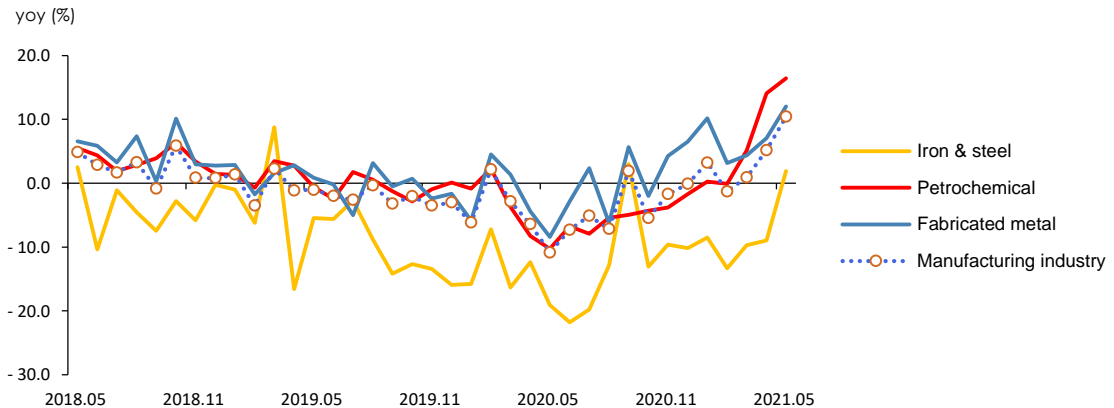
- Electricity use in May grew by 6.4% year-on-year as the industrial sector, which has a large share in electricity consumption, witnessed a massive increase
 - Electricity use in the industrial sector rose by 10.0% year-on-year as industrial production activities rebounded with domestic and global economic recovery
 - Electricity use in the building sector stepped up by 2.2% year-on-year as the commercial building sector showed an increase in electricity consumption with the service sector showing signs of recovering

► Electricity consumption by end-use sectors

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
Electricity (TWh)	509.3	212.5	38.3	219.7	43.1	41.9	40.8
	(-2.2)	(-3.1)	(-5.8)	(3.4)	(0.5)	(3.5)	(6.4)
Industry	268.7	111.8	20.8	116.1	23.4	23.0	22.9
	(-4.0)	(-4.9)	(-10.1)	(3.8)	(1.1)	(4.9)	(10.0)
Transport	2.7	1.1	0.2	1.0	0.2	0.2	0.2
	(-5.9)	(-8.0)	(-15.9)	(-6.5)	(-3.8)	(-10.6)	(-2.8)
Buildings	237.8	99.6	17.3	102.6	19.5	18.7	17.7
	(0.0)	(-0.9)	(0.1)	(3.0)	(-0.2)	(2.0)	(2.2)
Residential	74.1	29.9	5.6	30.9	5.8	5.9	5.6
	(5.1)	(4.7)	(6.7)	(3.3)	(-2.0)	(-0.3)	(0.5)
Commercial	132.5	56.7	9.5	57.9	11.0	10.3	9.8
	(-2.0)	(-2.7)	(-2.4)	(2.1)	(-0.9)	(2.1)	(3.0)

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

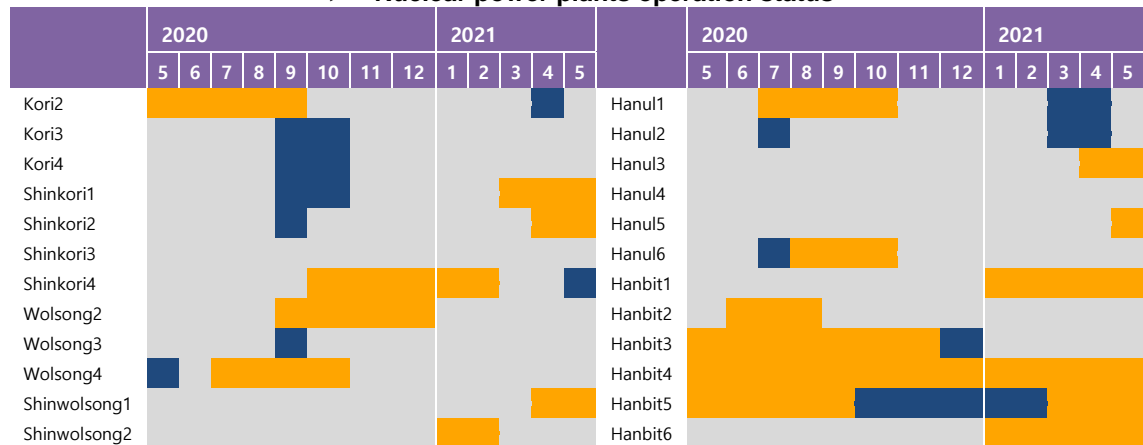
► The growth rate of electricity consumption in manufacturing industry



9. Nuclear

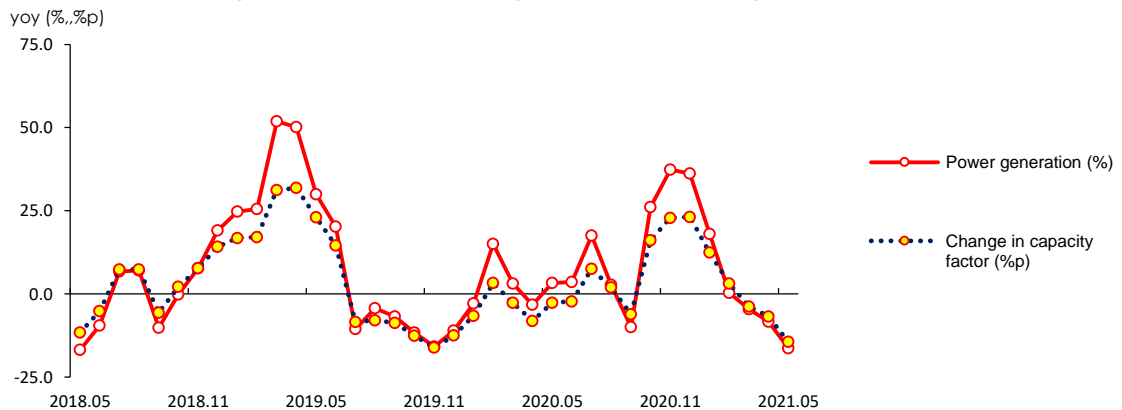
- **Nuclear power generation in May dropped by 16.4% year-on-year as generation facility utilization rate fell due to an increase in the number of nuclear facilities in planned preventive maintenance**
 - Nuclear power utilization rate dropped by 14.4%p year-on-year to record 73.8% as drastically more power plants with relatively large facility capacity, began executing planned preventive maintenance
 - Nuclear energy's share of the total generation fell by 7.9%p to 28.8% 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

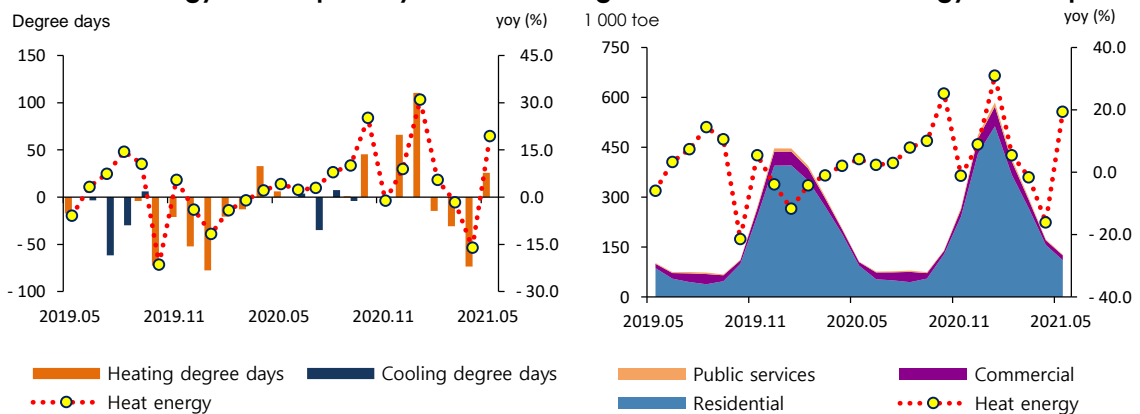


Note: Capacity factor = Ratio of actual power generated to possible power generation when utilizing 100% of available facility. Facility capacity values are based on end-of-the-month data

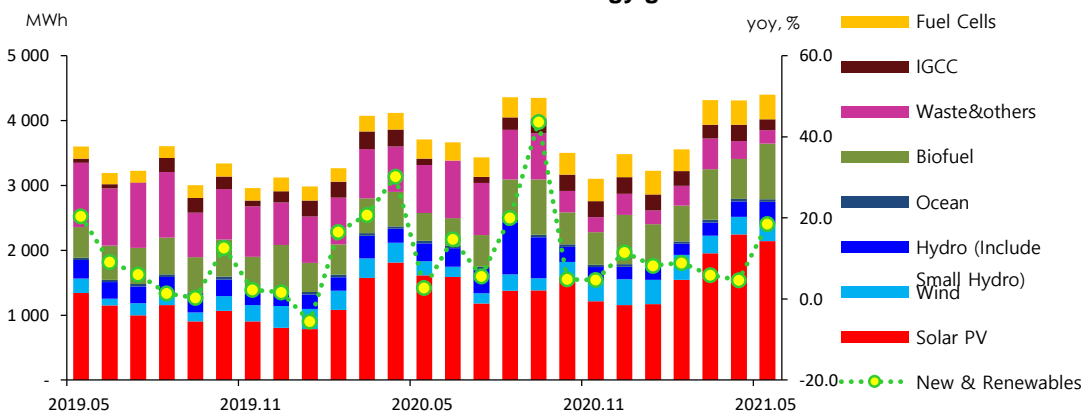
10. Heat and Renewable energy

- Heat energy use in May soared by 19.4% year-on-year as the number of heating degree days went up and production activities became buoyant
- Renewable and other energy generation² rose by 18.5% year-on-year driven by solar PV and bio energy generation with an increase in facility capacity
 - Despite of a dramatic fall in power generation using waste and other materials, renewable and other energy generation posted a year-on-year growth as the amount of mandatory supply went up (around 23%) due to the increase in Renewable Portfolio Standard mandatory ratio (2%p) and the capacity of major energy sources got expanded by 25.2%

► 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

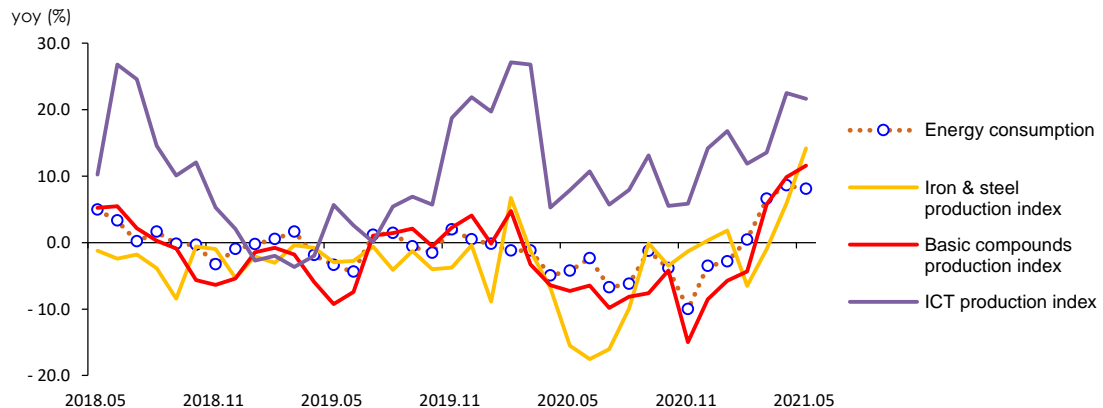
- **Despite of a drop in working days, energy use in the industrial sector stepped up by 8.1% year-on-year as industrial production continued to recover**
 - Although the number of working days dropped by 1 day compared to last year, industrial production and energy consumption went up as domestic and global economies recovered rapidly from the impact of COVID-19 pandemic owing to widespread vaccination and business stimulating measures

► Industrial energy consumption

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
Industry (Mtoe)	137.4	57.7	11.3	60.1	12.5	12.0	12.2
	(-3.8)	(-2.4)	(-4.3)	(4.0)	(6.6)	(8.6)	(8.1)
Petrochemical	69.1	29.6	5.9	30.7	6.3	6.2	6.2
	(-4.1)	(0.9)	(0.8)	(3.5)	(8.6)	(14.1)	(5.6)
- Naphtha	49.7	21.7	4.4	22.1	4.7	4.6	4.4
	(-7.6)	(-2.6)	(-2.1)	(2.0)	(11.5)	(17.0)	(0.2)
Iron & Steel	28.3	11.6	2.2	12.2	2.6	2.3	2.5
	(-4.1)	(-5.9)	(-12.5)	(5.4)	(5.1)	(7.5)	(13.4)
-Coking coal	23.6	9.5	1.8	10.3	2.2	2.0	2.1
	(-3.3)	(-5.5)	(-11.5)	(8.3)	(7.8)	(11.5)	(17.2)
Fabricated metal	11.4	4.8	0.9	5.1	1.0	1.0	0.9
	(-0.1)	(-2.4)	(-7.4)	(8.0)	(3.8)	(6.2)	(10.6)
Share of feedstock (%)	57.7	58.1	60.1	58.7	60.0	59.5	58.5

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 in May dropped by 7.9% year-on-year due to a decline in the road transport sector, canceling out the increase in air and marine transport sectors

- Energy use in the road transport sector fell by 9.4% year-on-year as travel demand witnessed a minor decrease compared to last year. In addition, the retail prices of gasoline and diesel climbed up with global oil price increasing
- Energy use in the air transport sector was up by 6.0% year-on-year as the demand for Jeju travel increased despite COVID-19 pandemic
- Energy use in the marine transport sector rose by 11.9% year-on-year as the export volume showed a year-on-year growth of 21.5%

► The growth rate of petroleum consumption in the transport sector

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
Transport (Mtoe)	38.94 (-9.4)	15.77 (-11.5)	3.62 (9.6)	15.84 (0.4)	3.12 (7.1)	3.35 (13.9)	3.37 (-7.0)
Road	33.09 (-5.6)	13.22 (-8.2)	3.13 (20.0)	13.45 (1.8)	2.62 (4.0)	2.88 (10.0)	2.83 (-9.4)
Navigation	2.97 (12.3)	1.24 (2.4)	0.26 (5.6)	1.29 (3.5)	0.26 (6.4)	0.26 (8.7)	0.29 (11.9)
Aviation	2.55 (-48.2)	1.18 (-42.9)	0.21 (-50.8)	0.98 (-17.0)	0.21 (76.6)	0.19 (210.2)	0.22 (6.0)
Rail	0.32 (-7.6)	0.13 (-7.9)	0.02 (-10.5)	0.12 (-9.3)	0.02 (-5.7)	0.02 (-11.6)	0.02 (-12.5)

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 slight increase in the commercial sector, energy use in the building sector in May fell by 3.6% year-on-year due to the drop in the residential sector

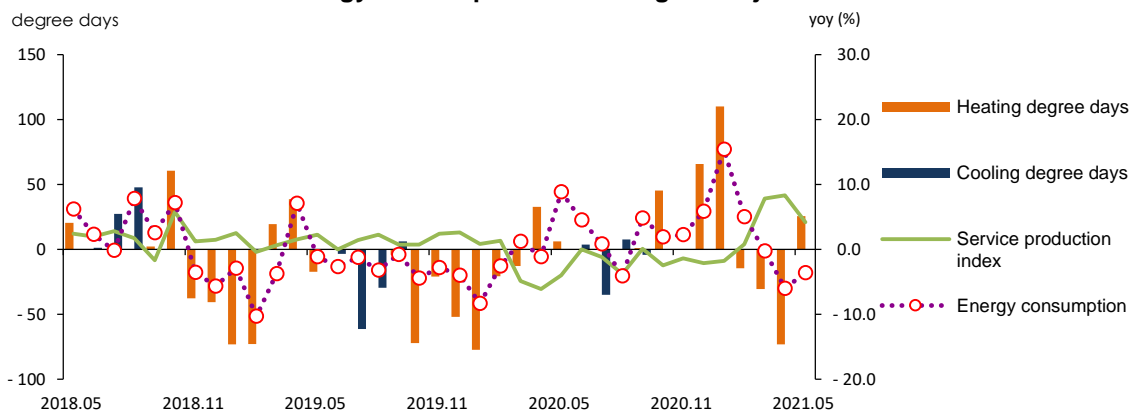
- Due to frequent rainfalls and an increase in heating degree days, the consumption of electricity, heat and city gas climbed up while petroleum use plunged because of the base effect from a dramatic growth (56.1%) a year earlier. Consequently, the energy use in the building sector declined by 3.6% year-on-year
- Energy use in the residential building sector declined by 10.3% year-on-year as petroleum and city gas consumption fell (-38.1% and -3.1%, respectively) owing to the base effect from a substantial increase a year earlier
- Energy use in the commercial and public sectors inched down by 0.3% year-on-year as petroleum consumption dropped significantly driven by the base effect

► Energy consumption in buildings

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
Buildings (Mtoe)	45.7	21.9	3.1	22.7	4.3	3.5	3.0
	(0.5)	(-1.7)	(8.9)	(3.6)	(-0.2)	(-6.0)	(-3.6)
Residential	23.2	12.1	1.5	12.6	2.4	1.8	1.4
	(2.7)	(-0.5)	(17.4)	(4.1)	(-3.0)	(-12.1)	(-7.3)
Commercial	17.1	7.5	1.2	7.7	1.5	1.3	1.2
	(-2.2)	(-3.7)	(0.7)	(2.5)	(1.9)	(0.5)	(0.9)
Public-others	5.4	2.3	0.4	2.4	0.5	0.4	0.4
	(-0.4)	(-1.2)	(6.5)	(4.1)	(7.8)	(3.7)	(-3.7)
Heating degree days	2 382.7	1 439.3	26.5	1 456.6	281.5	140.2	52.1
	(1.7)	(-4.8)	(30.5)	(1.2)	(-9.8)	(-34.3)	(96.6)
Cooling degree days	92.5	-	-	-	-	-	-
	(-23.2)	-	-	-	-	-	-

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

► Energy consumption in buildings & major indicators



14. Transformation

- **As electricity consumption stepped up massively in May, total generation and energy input for generation increased by 6.6% and 4.7% year-on-year, respectively**
 - As electricity consumption posted the largest growth (6.4%) since August 2018 (9.2%), gas-fired generation for peak load soared by 61.2% year-on-year with base load generation (nuclear + coal) decreasing by 8.9%
 - As base-load generation with low generation efficiency went down while gas generation with high efficiency grew significantly, energy input for generation posted a year-on-year increase of a mere 4.7% although the total power generation rose by 6.6%

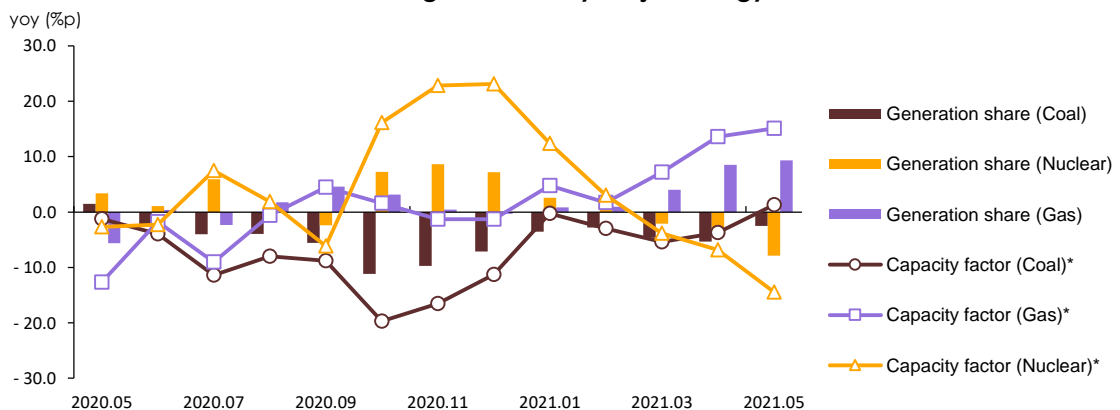
► Electricity Generation in the power generation sector

	2020			2021p			
		M1~5	M5	M1~5	M3	M4	M5
Electricity Generation (TWh)	552.1	226.3	41.6	233.3	47.2	43.6	44.3
	(-1.9)	(-3.0)	(-6.2)	(3.1)	(2.2)	(3.1)	(6.6)
Coal	196.3	77.8	14.7	71.5	11.9	12.9	14.5
	(-13.7)	(-10.4)	(-2.1)	(-8.1)	(-13.7)	(-12.5)	(-1.1)
Oil	2.3	0.7	0.1	2.0	1.2	0.1	0.1
	(-31.5)	(-55.0)	(-54.3)	(163.5)	(915.2)	(38.3)	(81.5)
Gas	146.1	60.1	7.6	72.4	15.7	13.5	12.2
	(1.2)	(-1.5)	(-28.3)	(20.5)	(16.3)	(42.8)	(61.2)
Nuclear	160.2	68.0	15.3	65.9	13.8	12.6	12.8
	(9.8)	(2.6)	(3.3)	(-3.1)	(-4.6)	(-8.3)	(-16.4)
Hydro/other renewables	41.9	16.4	3.4	19.7	4.0	4.3	4.5
	(6.9)	(-3.6)	(-12.2)	(20.4)	(6.8)	(13.6)	(33.9)
Baseload	356.5	145.8	29.9	137.4	25.7	25.4	27.3
	(-4.5)	(-4.8)	(0.6)	(-5.8)	(-9.0)	(-10.5)	(-8.9)

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

Source: Monthly energy statistics

► Power generation by major energy sources



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

Major Statistics & Indicators of the Economy

	2019	2020					2021			
			M1~5	M3	M4	M5	M1~5	M3	M4	M5
GDP (trillion won)	1 852.7 (2.2)	1 836.9 (-0.9)	443.7 (1.5)	443.7 (1.5)	- (-)	- (-)	452.3 (1.9)	452.3 (1.9)	- (-)	- (-)
Private consumption	894.1 (2.1)	849.1 (-5.0)	212.5 (-4.8)	212.5 (-4.8)	- (-)	- (-)	215.1 (1.2)	215.1 (1.2)	- (-)	- (-)
Facilities investment	155.3 (-6.6)	166.3 (7.1)	39.5 (7.4)	39.5 (7.4)	- (-)	- (-)	44.4 (12.4)	44.4 (12.4)	- (-)	- (-)
Construction investment	265.2 (-1.7)	264.1 (-0.4)	54.8 (4.4)	54.8 (4.4)	- (-)	- (-)	53.8 (-1.8)	53.8 (-1.8)	- (-)	- (-)
Consumer price index (2015=100)	104.9	105.4	105.4	105.5	105.0	104.7	107.1	107.2	107.4	107.5
USD to KRW exchange rate (won)	1 165.4	1 180.3	1 206.4	1 220.1	1 225.2	1 228.7	1 116.6	1 131.0	1 119.4	1 123.3
Benchmark rate (%)	1.6	0.7	0.9	0.8	0.8	0.5	0.5	0.5	0.5	0.5
Coincident composite index (2015=100)	111.7	112.3	112.1	112.1	111.1	110.4	115.2	115.1	116.3	116.6
Mining & manufacturing production index (2015=100)	106.7	106.3	102.8	113.6	101.6	96.8	110.9	118.8	114.0	111.2
Manufacturing operation ratio index (2015=100)	98.4	95.6	92.6	103.3	91.2	86.8	97.8	104.4	100.7	99.0
Average temperature	13.5	13.2	8.6	7.9	10.9	17.7	8.4	8.9	13.4	16.9
- year-on-year difference	0.5	- 0.3	0.4	0.4	- 1.1	- 0.9	- 0.2	1.0	2.5	- 0.9
Heating degree days	2 342.9 (-9.8)	2 382.7 (1.7)	1 439.3 (-4.8)	312.2 (-3.9)	213.5 (18.1)	26.5 (30.5)	1 456.6 (1.2)	281.5 (-9.8)	140.2 (-34.3)	52.1 (96.6)
Cooling degree days	120.4 (-42.4)	92.5 (-23.2)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
Energy intensity	0.16 (-3.6)	0.16 (-3.3)	0.17 (-6.0)	0.17 (-6.0)	- (-)	- (-)	0.17 (0.7)	0.17 (0.7)	- (-)	- (-)
Per capita consumption										
oil (bbl)	17.9 (-0.7)	16.9 (-5.9)	7.2 (-3.5)	1.4 (-7.5)	1.3 (-9.2)	1.5 (7.6)	7.3 (1.4)	1.5 (7.5)	1.5 (10.2)	1.5 (-2.8)
Electricity (MWh)	10.1 (-1.3)	9.8 (-2.3)	4.1 (-3.2)	0.8 (-0.6)	0.8 (-4.8)	0.7 (-6.0)	4.2 (3.3)	0.8 (0.4)	0.8 (3.4)	0.8 (6.3)
City gas (1 000 m ³)	0.5 (-4.3)	0.4 (-3.6)	0.2 (-6.4)	0.0 (-3.0)	0.0 (-8.6)	0.0 (-10.6)	0.2 (6.7)	0.0 (0.2)	0.0 (-4.7)	0.0 (9.2)
Total energy (toe)	5.9 (-1.6)	5.6 (-4.2)	2.4 (-4.5)	0.5 (-5.2)	0.4 (-6.5)	0.4 (-1.5)	2.4 (3.1)	0.5 (4.8)	0.5 (4.7)	0.5 (3.5)

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			
			M1~5	M3	M4	M5	M1~5	M3	M4	M5
Industrial production index										
All industry	108.6 (0.9)	107.3 (-1.2)	104.1 (-1.5)	109.6 (0.6)	102.4 (-5.4)	102.9 (-6.1)	108.9 (4.7)	116.0 (5.8)	111.1 (8.5)	110.1 (7.0)
Mining & manufacturing	106.7 (0.3)	106.3 (-0.3)	102.8 (-0.7)	113.6 (7.0)	101.6 (-5.2)	96.8 (-10.9)	110.9 (7.9)	118.8 (4.6)	114.0 (12.2)	111.2 (14.9)
Semiconductor	188.0 (11.7)	230.6 (22.6)	210.0 (32.8)	226.5 (42.1)	192.1 (16.9)	223.4 (25.8)	261.2 (24.4)	284.2 (25.5)	249.2 (29.7)	283.3 (26.8)
Iron & steel	98.3 (-2.2)	92.1 (-6.3)	93.9 (-5.5)	100.1 (-1.3)	93.5 (-6.8)	86.0 (-15.5)	96.4 (2.6)	99.1 (-1.0)	99.0 (5.9)	98.2 (14.2)
Cement	94.3 (-5.7)	86.6 (-8.2)	83.6 (-9.8)	93.5 (-6.3)	97.9 (-8.3)	87.4 (-18.6)	88.3 (5.7)	103.9 (11.1)	103.7 (5.9)	95.2 (8.9)
Basic compound	108.9 (-1.4)	102.3 (-6.0)	104.7 (-2.5)	106.3 (-3.3)	97.7 (-6.4)	96.6 (-7.3)	107.8 (3.0)	112.4 (5.7)	107.3 (9.8)	107.8 (11.6)
Transport equipment	93.4 (-0.6)	84.1 (-9.9)	78.0 (-18.0)	101.9 (3.8)	81.6 (-20.2)	64.2 (-36.8)	90.8 (16.4)	101.3 (-0.6)	97.9 (20.0)	84.4 (31.5)
Electric & electronic	109.6 (2.9)	108.7 (-0.8)	101.4 (-3.6)	113.5 (4.2)	102.9 (-7.0)	94.8 (-14.5)	111.6 (10.0)	122.9 (8.3)	115.2 (12.0)	113.2 (19.4)
Service	108.4 (1.4)	106.2 (-2.0)	103.4 (-2.7)	103.4 (-4.9)	101.1 (-6.1)	105.1 (-4.0)	107.4 (3.8)	111.5 (7.8)	109.5 (8.3)	109.5 (4.2)
Wholesale and retail	104.6 (-0.4)	101.9 (-2.6)	99.5 (-4.2)	100.9 (-6.5)	97.8 (-7.3)	103.3 (-4.4)	103.8 (4.3)	109.3 (8.3)	106.9 (9.3)	106.5 (3.1)
Food & Accommodation	97.5 (-1.0)	79.5 (-18.5)	78.4 (-17.6)	64.2 (-32.6)	72.5 (-24.6)	86.6 (-14.1)	73.1 (-6.8)	76.6 (19.3)	78.5 (8.3)	84.8 (-2.1)
Production output										
Iron & steel - Pig iron	47 520.7 (0.8)	45 359.6 (-4.5)	17 987.3 (-8.5)	3 678.5 (-9.5)	3 290.0 (-14.6)	3 483.6 (-14.4)	19 185.9 (6.7)	3 983.7 (8.3)	3 635.1 (10.5)	3 728.6 (7.0)
Iron & steel - Crude steel	71 411.9 (-1.5)	67 078.8 (-6.1)	27 403.6 (-8.9)	5 783.6 (-7.8)	5 078.9 (-15.4)	5 383.9 (-14.2)	29 227.1 (6.7)	6 062.1 (4.8)	5 753.0 (13.3)	5 880.0 (9.2)
Petrochemical - Basic oil	31 804.1 (2.1)	30 323.6 (-4.7)	13 214.8 (3.2)	2 618.7 (0.8)	2 483.1 (3.6)	2 570.1 (4.8)	13 643.1 (3.2)	2 828.2 (8.0)	2 797.7 (12.7)	2 814.2 (9.5)
Petrochemical - Intermediate raw material	16 014.0 (-5.7)	15 355.4 (-4.1)	6 719.6 (1.2)	1 337.7 (1.8)	1 286.6 (2.5)	1 267.9 (3.4)	6 645.6 (-1.1)	1 409.0 (5.3)	1 281.2 (-0.4)	1 316.4 (3.8)
Petrochemical - 3 major products	21 584.6 (-1.0)	21 252.7 (-1.5)	9 097.3 (0.7)	1 860.4 (-0.2)	1 754.2 (6.4)	1 757.5 (-3.4)	9 313.6 (2.4)	1 919.7 (3.2)	1 857.9 (5.9)	1 923.6 (9.4)
The number of cars	3 950.6 (-1.9)	3 506.8 (-11.2)	1 330.5 (-21.5)	369.0 (6.7)	289.5 (-22.2)	231.1 (-36.9)	1 488.7 (11.9)	333.9 (-9.5)	323.6 (11.8)	256.3 (10.9)

Note: p means provisional

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

International Energy Prices

	2019	2020					2021			
			M1~5	M3	M4	M5	M1~5	M3	M4	M5
Crude oil (USD/bbl)										
WTI	57.0 (-11.9)	39.4 (-30.9)	36.8 (-36.5)	30.5 (-47.7)	16.7 (-73.9)	28.5 (-53.1)	60.1 (63.5)	62.4 (104.8)	61.7 (269.5)	65.2 (128.4)
Dubai	63.5 (-8.5)	42.2 (-33.6)	40.6 (-38.6)	33.7 (-49.6)	20.4 (-71.3)	30.5 (-56.1)	61.9 (52.3)	64.4 (91.2)	62.9 (208.6)	66.3 (117.7)
Brent	64.2 (-10.3)	43.2 (-32.7)	42.4 (-36.5)	33.7 (-49.7)	26.6 (-62.8)	32.4 (-53.9)	63.4 (49.6)	65.7 (94.8)	65.3 (145.3)	68.3 (110.8)
Unit value of import (C&F)	65.5 (-8.2)	44.8 (-31.7)	49.3 (-25.6)	52.8 (-19.7)	34.1 (-51.0)	26.2 (-63.2)	61.4 (24.5)	63.8 (20.7)	64.8 (90.3)	67.2 (156.9)
LNG										
From Indonesia (USD/MMBTU)	10.6 (-1.0)	8.3 (-21.3)	10.0 (-9.8)	10.2 (-9.6)	10.0 (-2.5)	10.1 (-0.7)	8.8 (-12.2)	7.9 (-22.7)	8.3 (-17.3)	8.9 (-11.5)
Unit value of import (USD/ton, CIF)	505.4 (-4.0)	390.2 (-22.8)	465.4 (-14.7)	462.0 (-18.0)	478.9 (-0.6)	469.0 (-2.6)	435.3 (-6.5)	438.3 (-5.1)	385.4 (-19.5)	407.8 (-13.0)
Bituminous coal (USD/ton)										
From Australia	77.9 (-27.2)	60.8 (-22.0)	63.0 (-30.9)	66.7 (-28.3)	58.6 (-32.5)	52.5 (-36.2)	93.6 (48.5)	94.9 (42.2)	92.2 (57.5)	107.0 (103.9)
Unit value of import (CIF)	100.7 (-11.3)	77.7 (-22.9)	87.1 (-20.8)	89.9 (-20.4)	89.6 (-16.8)	83.4 (-25.4)	86.2 (-1.0)	89.6 (-0.4)	91.4 (2.1)	94.4 (13.1)
Petroleum product (USD/bbl)										
Gasoline	72.5 (-9.3)	46.7 (-35.7)	45.2 (-37.0)	36.4 (-51.0)	20.5 (-74.6)	33.5 (-56.2)	70.3 (55.5)	73.5 (101.6)	74.0 (260.7)	76.2 (127.7)
Kerosene	77.3 (-8.9)	44.7 (-42.1)	45.6 (-42.1)	39.3 (-50.8)	21.3 (-74.3)	28.9 (-64.6)	65.7 (44.1)	66.8 (69.9)	66.8 (214.0)	71.7 (148.3)
Diesel	78.2 (-7.9)	49.4 (-36.8)	51.1 (-35.9)	45.5 (-43.9)	31.4 (-62.3)	36.1 (-56.4)	68.1 (33.3)	69.7 (53.3)	68.9 (119.2)	73.9 (104.9)
Bunker-C	57.5 (-11.8)	39.2 (-31.9)	36.0 (-43.6)	31.5 (-52.5)	23.3 (-65.1)	26.7 (-58.6)	57.7 (60.3)	60.7 (93.0)	59.0 (153.0)	59.7 (124.0)
Propane	434.6 (-19.8)	397.1 (-8.6)	414.0 (-13.8)	430.0 (-12.2)	230.0 (-55.3)	340.0 (-35.2)	567.0 (37.0)	625.0 (45.3)	560.0 (143.5)	495.0 (45.6)
Butane	441.7 (-18.1)	403.8 (-8.6)	439.0 (-11.3)	480.0 (-7.7)	240.0 (-55.1)	340.0 (-35.8)	543.0 (23.7)	595.0 (24.0)	530.0 (120.8)	475.0 (39.7)
Naphtha	56.9 (-15.1)	40.5 (-28.9)	37.4 (-35.8)	30.3 (-49.6)	17.3 (-72.6)	26.3 (-56.1)	62.0 (65.6)	64.8 (114.0)	62.2 (259.2)	65.7 (149.6)

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

2. Gasoline type is 95RON, diesel is 0.001%, Bunker-C is high-sulfur oil(180cst/3.5%), for propane and butane, CP is reference value
Source: www.petronet.co.kr, IMF (primary commodity price), Monthly energy statistics

Domestic Energy Prices

	2019	2020					2021			
			M1~5	M3	M4	M5	M1~5	M3	M4	M5
Petroleum product										
Gasoline (won/liter)	1 471.9 (-6.9)	1 381.6 (-6.1)	1 432.3 (2.2)	1 469.1 (7.3)	1 323.7 (-7.1)	1 255.1 (-17.3)	1 498.9 (4.6)	1 513.3 (3.0)	1 534.5 (15.9)	1 541.5 (22.8)
Diesel (won/liter)	1 340.1 (-3.7)	1 189.8 (-11.2)	1 249.5 (-3.3)	1 280.8 (0.9)	1 132.4 (-14.0)	1 065.8 (-23.1)	1 298.0 (3.9)	1 312.6 (2.5)	1 332.7 (17.7)	1 338.8 (25.6)
Bunker-C (won/liter)	743.9 (1.2)	573.6 (-22.9)	639.1 (-11.8)	703.1 (-2.9)	536.7 (-30.4)	451.3 (-41.9)	657.5 (2.9)	686.0 (-2.4)	730.1 (36.0)	706.4 (56.5)
Propane (won/kg)	1 869.7 (-2.6)	1 850.7 (-1.0)	1 894.3 (1.0)	1 973.2 (5.8)	1 885.5 (1.2)	1 753.8 (-8.9)	1 982.9 (4.7)	2 029.2 (2.8)	2 032.9 (7.8)	2 031.6 (15.8)
Butane (won/liter)	806.2 (-7.8)	791.1 (-1.9)	822.6 (1.8)	874.3 (9.6)	818.4 (2.8)	725.0 (-14.5)	868.5 (5.6)	898.6 (2.8)	899.2 (9.9)	899.4 (24.1)
City gas(won/MJ)										
Residential	15.6 (3.9)	15.1 (-3.6)	15.9 (3.8)	15.9 (3.8)	15.9 (3.8)	15.9 (3.8)	14.2 (-10.7)	14.2 (-10.7)	14.2 (-10.7)	14.2 (-10.7)
General(1)	15.6 (4.9)	14.9 (-4.7)	15.9 (2.7)	16.0 (1.5)	15.8 (4.7)	15.8 (4.7)	13.9 (-12.3)	14.0 (-12.3)	13.8 (-12.3)	13.8 (-12.3)
Commercial	16.1 (4.4)	15.1 (-6.4)	16.5 (4.7)	16.5 (4.7)	16.5 (4.7)	16.5 (4.7)	15.1 (-8.0)	15.9 (-3.7)	16.1 (-2.4)	15.0 (-8.9)
Industry	13.8 (6.0)	12.6 (-8.4)	14.3 (5.3)	14.5 (5.2)	14.0 (5.4)	14.0 (5.4)	12.7 (-11.1)	13.8 (-4.9)	13.3 (-4.8)	11.8 (-15.5)
Heat(won/Mcal)										
Residential	65.7 (1.8)	66.2 (0.7)	67.1 (3.8)	67.1 (3.8)	67.1 (3.8)	67.1 (3.8)	65.2 (-2.8)	65.2 (-2.8)	65.2 (-2.8)	65.2 (-2.8)
Commercial	85.3 (1.8)	85.9 (0.7)	87.2 (3.8)	87.2 (3.8)	87.2 (3.8)	87.2 (3.8)	84.7 (-2.8)	84.7 (-2.8)	84.7 (-2.8)	84.7 (-2.8)
Public	74.5 (1.9)	75.1 (0.7)	76.1 (3.8)	76.1 (3.8)	76.1 (3.8)	76.1 (3.8)	74.0 (-2.9)	74.0 (-2.9)	74.0 (-2.9)	74.0 (-2.9)
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 -	76.0 -	65.2 -	65.2 -	65.2 -	71.0 (-6.6)	60.2 (-7.7)	60.2 (-7.7)	60.2 (-7.7)
Industry	96.0 -	96.0 -	90.5 -	78.5 -	78.5 -	78.5 -	85.5 (-5.5)	73.5 (-6.4)	73.5 (-6.4)	73.5 (-6.4)

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-voltage B, 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			
			M1~5	M3	M4	M5	M1~5	M3	M4	M5
Coal (Mton)	133.0 (-5.7)	116.6 (-12.4)	46.4 (-11.8)	8.9 (-14.4)	8.9 (-4.1)	8.6 (-9.3)	45.5 (-1.9)	8.9 (0.4)	8.4 (-6.1)	9.1 (5.8)
- Coking coal excluded	98.0 (-7.9)	82.8 (-15.6)	32.7 (-14.1)	6.0 (-19.3)	6.4 (0.0)	6.0 (-8.4)	30.7 (-6.2)	5.8 (-3.1)	5.5 (-13.2)	6.1 (0.9)
Oil (Mbbbl)	927.1 (-0.5)	873.3 (-5.8)	370.3 (-3.3)	71.0 (-7.4)	68.6 (-9.1)	78.2 (7.8)	375.7 (1.5)	76.4 (7.6)	75.7 (10.3)	76.1 (-2.7)
- Non-energy oil excluded	451.8 (1.4)	424.7 (-6.0)	176.3 (-5.7)	33.3 (-12.6)	32.7 (-13.0)	38.2 (15.9)	175.1 (-0.6)	33.6 (1.0)	34.3 (4.9)	35.8 (-6.3)
LNG (Mton)	41.0 (-3.1)	41.4 (1.1)	18.5 (-2.6)	4.0 (3.6)	3.0 (-10.5)	2.3 (-17.2)	21.1 (13.9)	4.3 (8.8)	3.4 (15.9)	3.1 (36.3)
Hydro (TWh)	6.2 (-14.1)	7.1 (14.4)	2.7 (5.4)	0.5 (18.4)	0.5 (-3.5)	0.6 (4.2)	2.7 (1.0)	0.5 (-4.1)	0.6 (8.8)	0.6 (13.3)
Nuclear (TWh)	145.9 (9.3)	160.2 (9.8)	68.0 (2.6)	14.5 (3.1)	13.7 (-3.3)	15.3 (3.3)	65.9 (-3.1)	13.8 (-4.6)	12.6 (-8.3)	12.8 (-16.4)
Others (Mtoe)	17.7 (3.3)	18.4 (4.0)	7.7 (4.1)	1.6 (6.7)	1.7 (12.9)	1.5 (-1.7)	8.4 (9.1)	1.8 (8.8)	1.8 (5.7)	1.8 (17.4)
TPES (Mtoe)	303.1 (-1.5)	290.8 (-4.0)	122.4 (-4.4)	24.5 (-5.1)	22.8 (-6.4)	23.1 (-1.4)	126.3 (3.2)	25.7 (4.9)	23.8 (4.8)	24.0 (3.6)
- Non-energy oil excluded	244.0 (-1.3)	234.9 (-3.7)	98.2 (-5.2)	19.8 (-5.7)	18.3 (-6.8)	18.1 (-2.2)	101.3 (3.1)	20.3 (2.7)	18.7 (2.3)	18.9 (4.4)
- Non-energy oil&coal excluded	219.6 (-1.5)	211.3 (-3.8)	88.7 (-5.1)	17.8 (-6.1)	16.5 (-6.1)	16.3 (-1.1)	91.0 (2.5)	18.2 (2.2)	16.7 (1.3)	16.8 (2.9)

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

Share of TPES by Sources

(unit: %)

	2019	2020p					2021p			
			M1~5	M3	M4	M5	M1~5	M3	M4	M5
Coal	27.1	24.9	23.5	22.7	24.3	23.2	22.4	21.7	21.9	23.7
- Coking coal excluded	19.1	16.8	15.8	14.5	16.5	15.4	14.3	13.3	13.6	14.9
Oil	38.7	37.9	38.1	36.5	38.1	42.9	37.6	37.6	40.2	40.1
- non-energy oil excluded	19.2	18.7	18.4	17.4	18.3	21.3	17.7	16.8	18.5	19.1
LNG	17.7	18.6	19.7	21.1	17.0	12.7	21.8	21.9	18.8	16.8
Hydro	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.6
Nuclear	10.3	11.7	11.8	12.6	12.8	14.1	11.1	11.5	11.2	11.3
Others	5.8	6.3	6.3	6.7	7.3	6.6	6.7	6.9	7.4	7.5
TPES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: p means provisional
Source: Monthly energy statistics

Total Final Consumption (TFC)

(Unit: Mtoe)

	2019	2020p					2021p			
			M1~5	M3	M4	M5	M1~5	M3	M4	M5
Industry	142.9 (-0.4)	137.4 (-3.8)	57.7 (-2.4)	11.7 (-1.2)	11.0 (-5.0)	11.3 (-4.3)	60.1 (4.0)	12.5 (6.6)	12.0 (8.6)	12.2 (8.1)
Transport	43.0 (0.0)	38.9 (-9.4)	15.8 (-11.5)	2.9 (-20.4)	2.9 (-22.1)	3.6 (9.6)	15.8 (0.4)	3.1 (7.1)	3.3 (13.9)	3.4 (-7.0)
Residential	22.6 (-3.6)	23.2 (2.7)	12.1 (-0.5)	2.5 (3.6)	2.0 (4.3)	1.5 (17.4)	12.6 (4.1)	2.4 (-3.0)	1.8 (-12.1)	1.4 (-7.3)
commercial	17.5 (-2.3)	17.1 (-2.2)	7.5 (-3.7)	1.4 (-1.7)	1.3 (-7.1)	1.2 (0.7)	7.7 (2.5)	1.5 (1.9)	1.3 (0.5)	1.2 (0.9)
Public	5.4 (-3.2)	5.4 (-0.4)	2.3 (-1.2)	0.4 (-1.7)	0.4 (-6.2)	0.4 (6.5)	2.4 (4.1)	0.5 (7.8)	0.4 (3.7)	0.4 (-3.7)
TFC	231.4 (-0.9)	222.0 (-4.0)	95.5 (-3.8)	19.0 (-4.2)	17.7 (-7.6)	18.0 (0.4)	98.6 (3.3)	19.9 (5.1)	18.8 (6.4)	18.5 (3.0)
Coal (Mton)	48.2 (-2.2)	45.8 (-4.9)	18.4 (-8.6)	3.9 (-6.5)	3.6 (-9.2)	3.4 (-16.1)	19.8 (7.2)	4.2 (9.3)	3.9 (6.6)	4.1 (19.3)
Oil (Mbbbl)	918.5 (-0.2)	867.1 (-5.6)	368.1 (-2.8)	70.6 (-6.2)	68.3 (-8.7)	77.9 (8.2)	372.1 (1.1)	75.9 (7.6)	75.3 (10.3)	75.7 (-2.9)
Electricity (TWh)	520.5 (-1.1)	509.3 (-2.2)	212.5 (-3.1)	42.9 (-0.5)	40.5 (-4.6)	38.3 (-5.8)	219.7 (3.4)	43.1 (0.5)	41.9 (3.5)	40.8 (6.4)
City gas (Bm ³)	23.3 (-4.1)	22.5 (-3.4)	11.6 (-6.3)	2.4 (-2.8)	1.9 (-8.5)	1.4 (-10.5)	12.4 (6.8)	2.4 (0.3)	1.8 (-4.7)	1.5 (9.3)
Heat-others (1 000 toe)	11.6 (-2.0)	11.4 (-0.9)	5.2 (-1.6)	1.0 (-0.0)	1.0 (-1.0)	0.8 (-1.3)	5.5 (6.0)	1.1 (2.4)	1.0 (2.0)	0.9 (11.4)

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			
			M1~5	M3	M4	M5	M1~5	M3	M4	M5
Industry	61.8	61.9	60.5	61.7	62.4	62.6	60.9	62.5	63.7	65.7
Transport	18.6	17.5	16.5	15.4	16.6	20.1	16.1	15.7	17.8	18.2
Residential	9.8	10.5	12.7	13.0	11.4	8.2	12.8	12.0	9.4	7.4
Commercial	7.6	7.7	7.8	7.6	7.3	6.7	7.8	7.4	6.9	6.6
Public	2.3	2.4	2.4	2.4	2.3	2.3	2.4	2.4	2.3	2.2
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	12.9	13.6	13.6	12.8	13.3	14.1	13.7	14.6
Oil	50.2	49.3	48.6	46.8	48.8	54.9	47.7	48.1	50.6	51.6
Electricity	19.3	19.7	19.1	19.4	19.7	18.3	19.2	18.6	19.2	18.9
City gas	11.6	12.0	13.9	14.6	12.6	9.4	14.3	13.9	11.4	9.9
Heat-others	5.0	5.2	5.4	5.5	5.4	4.6	5.6	5.4	5.2	5.0

Note: p means provisional
Source: Monthly energy statistics

Statistics on Energy Production Facilities

	2018	2019	2020	2021			2021	M3	M4	M5
				M3	M4	M5				
Total capacity (GW)	119.1 (1.9)	125.3 (5.2)	129.2 (3.1)	125.9 (5.1)	126.3 (5.4)	126.8 (5.8)	129.4 (2.8)	128.4 (1.7)	129.6 (2.2)	
Nuclear	21.9 (-3.0)	23.3 (6.4)	23.3 -	23.3 (6.4)	23.3 (6.4)	23.3 (6.4)	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)	35.5 (-2.7)	34.3 (-5.8)	35.4 (-2.9)	
Gas	37.9 (-0.0)	39.6 (4.5)	41.2 (4.1)	41.2 (8.5)	41.2 (8.5)	41.2 (8.5)	41.2 -	41.2 -	41.2 (-0.0)	
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	M3	M4	M5
				M3	M4	M5				
The number of household demanding city gas (mil)	19.1 (3.1)	19.7 (2.8)	20.1 (2.3)	19.8 (2.4)	19.7 (2.4)	19.7 (2.4)	20.3 (2.5)	20.2 (2.5)	20.2 (2.4)	
Registered cars (mil)	23.2 (3.0)	23.7 (2.0)	24.4 (2.9)	23.8 (2.0)	23.9 (2.2)	23.9 (2.3)	24.5 (3.1)	24.6 (2.9)	24.6 (2.8)	
- gasoline	10.6 (2.5)	11.0 (3.1)	11.4 (4.1)	11.0 (3.3)	11.1 (3.5)	11.2 (3.7)	11.5 (4.1)	11.5 (4.0)	11.6 (3.8)	
- diesel	9.9 (3.7)	10.0 (0.3)	10.0 (0.3)	10.0 (-0.1)	9.9 (-0.1)	9.9 (-0.1)	10.0 (0.5)	10.0 (0.2)	9.9 (-0.1)	
- LPG	2.0 (-3.3)	2.0 (-1.5)	2.0 (-1.3)	2.0 (-0.7)	2.0 (-0.6)	2.0 (-0.6)	2.0 (-1.7)	2.0 (-1.8)	2.0 (-1.9)	
- hybrid	0.4 (30.9)	0.5 (26.1)	0.6 (33.1)	0.5 (24.2)	0.5 (24.3)	0.5 (24.9)	0.7 (37.2)	0.7 (37.7)	0.7 (37.3)	

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