

KEEI MONTHLY KOREA ENERGY TRENDS



COAL 3.9%
PETROLEUM 3.8%
LNG 7.5%
NUCLEAR 9.9%
NEW & RENEWABLE 17.6%
FEBRUARY, 2022



**This publication is derived from Energy Demand & Supply
Statistics and Energy Price Statistics issued until February 2022**



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1. The Economy and the Industry

□ The mining & manufacturing production index posted a year-on-year growth of 6.3% in February, despite a drop in iron & steel production, as the overall industrial activities increased.

- The semiconductor production index went up by 31.0% YoY, as the utilization rate of semiconductor factories increased, and the semiconductor export remained robust (23.8%, based on export value).
- The production index of basic chemical materials began to decline after an upward trend since February last year, because the utilization rate of basic petrochemical facilities decreased (-3.9%, based on the utilization rate index) following an explosion.
- The iron & steel production index dropped by 0.2% year-on-year, partly because the situation in Ukraine disrupted the supply of major raw materials such as iron ore and bituminous coal.
- The automobile production index rose by 3.7% year-on-year due to base effect and the completion of maintenance work at some factories.

□ The service production index picked up 3.8% year-on-year in February, which was affected by the recovery in the consumer sentiment index and base effect.

- In the wholesale and retail industries, the production index grew by 1.9%, as larger social gatherings were allowed compared to the same month last year, and the consumer sentiment recovered. The production index of transport service rose by 7.5% yoy, led by the aviation and road transport sectors.
- The food and accommodation production index went up by 11.1% year-on-year as larger gatherings led to the growth in service production in the restaurant, bar and accommodation sectors.

► Major economic and industrial indicators

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
GDP (trillion won)	1 836.9	-	-	1 910.7	504.3	-	-
	(-0.9)	-	-	(4.0)	(4.2)	-	-
Total export (\$billion, customs clearance basis)	512.5	48.0	44.7	644.4	60.7	55.4	54.0
	(-5.5)	(11.4)	(9.3)	(25.7)	(18.3)	(15.5)	(20.8)
Industrial production index (2015=100)	106.4	110.4	100.7	114.3	127.0	115.1	107.0
	(-0.3)	(8.1)	(1.1)	(7.4)	(7.4)	(4.3)	(6.3)
Semi-conductors	230.7	243.9	244.6	298.6	353.7	318.4	320.5
	(22.7)	(19.6)	(19.7)	(29.4)	(29.7)	(30.5)	(31.0)
Basic chemical products	101.1	106.9	102.4	107.9	112.9	112.8	100.8
	(-7.1)	(-5.6)	(-4.7)	(6.7)	(8.7)	(5.5)	(-1.6)
Iron & Steel	92.1	96.2	89.0	97.4	98.0	100.4	88.8
	(-6.3)	(1.6)	(-6.6)	(5.8)	(-0.6)	(4.4)	(-0.2)
Cars	84.4	92.2	79.3	88.2	97.6	83.7	82.2
	(-9.6)	(19.6)	(23.3)	(4.5)	(7.7)	(-9.2)	(3.7)
Service production index (2015=100)	106.2	104.7	101.6	110.9	123.2	109.6	105.5
	(-2.0)	(-2.0)	(0.9)	(4.3)	(5.8)	(4.7)	(3.8)
Wholesale & Retail	101.9	101.1	95.2	106.0	112.9	105.6	97.0
	(-2.6)	(-2.0)	(3.0)	(4.0)	(4.2)	(4.5)	(1.9)
Food & Accommodation	79.6	60.1	65.7	80.7	91.9	82.5	73.0
	(-18.4)	(-36.6)	(-11.1)	(1.4)	(38.4)	(37.3)	(11.1)

Note: Figures are based on the real price of 2015, P means provisional, () is year-on-year growth rates (%)

Source: BOK Economic statistics system, Korea International Trade Association, Korea Statistical Information Service

2. Energy Prices¹

Global Energy Prices

- **Global oil price jumped 10.3% in February from the previous month amid escalating geopolitical risks from the Russia-Ukraine crisis.**
 - Global oil price grew rapidly, as geopolitical risks increased following Russia's invasion of Ukraine and Western sanctions on Russia.
 - Global coal price was up 12.7% than a month ago, owing to the supply disruptions from major coal exporting countries and growing coal demand to replace the use of natural gas.
 - Global natural gas price declined from the previous month, because heating demand went down due to an abnormally warm winter in the European region.

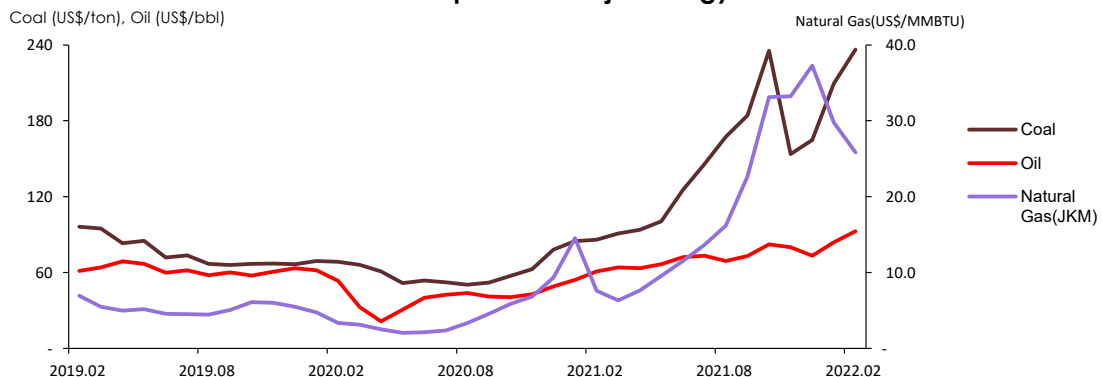
► Global energy prices

	2019	2020	2021				2022	
			M1	M2		M12	M1	M2
Crude oil (US\$/bbl)	61.6	41.6	54.1	60.7	69.4	73.2	84.0	92.7
	(-10.2)	(-32.4)	(10.3)	(12.3)	(66.7)	(-8.4)	(14.7)	(10.3)
Coal (US\$/ton)	78.0	60.2	84.9	86.1	136.4	164.6	209.6	236.2
	(-27.2)	(-22.8)	(8.5)	(1.4)	(126.5)	(7.1)	(27.3)	(12.7)
Natural gas (US\$/MMBTU)								
TTF	4.8	3.2	7.3	6.2	16.2	38.0	28.2	27.2
	(-32.7)	(-32.3)	(24.0)	(-15.3)	(398.7)	(37.9)	(-25.7)	(-3.7)
JKM	5.6	4.2	14.5	7.6	17.8	37.3	29.8	25.8
	(-36.6)	(-25.2)	(55.4)	(-47.7)	(326.0)	(12.2)	(-20.1)	(-13.3)

Note: All data are futures prices., Oil price is the average of Brent, Dubai and WTI, Coal price is based on Australian coal. () is month-on-month growth rates (%)

Source: www.petronet.co.kr, World Bank(Commodity Markets), CME Group

► Global prices of major energy sources



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

Domestic energy prices

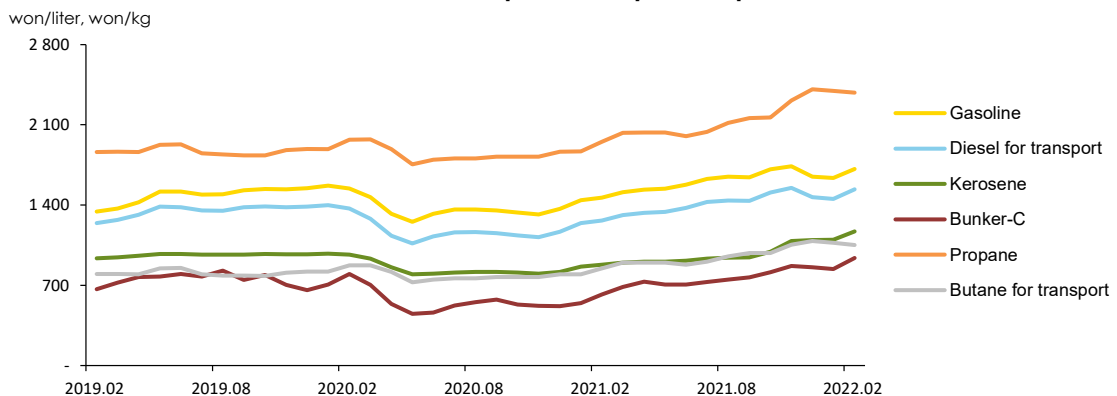
- **Gasoline and diesel prices went up by 4.9% and 5.7% respectively in February from the prior month, in line with the global oil price trend, even though the fuel tax cut was still in place.**
 - The average gasoline and diesel prices at gas stations increased month-on-month due to the global oil price increase.
 - Bunker-C oil price was up 11.6% month-on-month and 51.3% year-on-year also due to the rising global oil price.
- **Propane and butane prices dropped by 0.7% and 2.0% respectively in February than the previous month, as domestic LPG price was cut down.**
 - Saudi Aramco's global propane and butane contract prices were reduced in January, and accordingly, domestic LPG importers (SK Gas, E1) lowered the LPG price by KRW 40/kg in February.
- **The relative price of propane versus city gas for industrial customers (propane/city gas) went down by 0.8% to 1.17 in February.**
 - Even though the industrial propane and city gas prices all declined, the relative price of propane in terms of city gas decreased, because propane price fell more sharply.

► Domestic petroleum product prices

	2019	2020	2021				2022	
			M1	M2		M12	M1	M2
Gasoline (won/liter)	1 472.6 (-6.9)	1 381.2 (-6.2)	1 441.8 (5.4)	1 463.2 (1.5)	1 591.1 (15.2)	1 646.4 (-5.2)	1 635.2 (-0.7)	1 714.6 (4.9)
Diesel for transport (won/liter)	1 340.6 (-3.7)	1 189.5 (-11.3)	1 242.4 (6.3)	1 263.4 (1.7)	1 392.0 (17.0)	1 468.9 (-5.2)	1 453.5 (-1.0)	1 536.6 (5.7)
Bunker-C (won/liter)	744.5 (1.3)	572.9 (-23.0)	545.5 (5.1)	619.6 (13.6)	732.2 (27.8)	859.0 (-1.0)	840.4 (-2.2)	937.4 (11.6)
Propane (won/kg)	1 869.6 (-2.6)	1 850.3 (-1.0)	1 868.1 (0.2)	1 952.5 (4.5)	2 093.4 (13.1)	2 410.1 (4.2)	2 395.0 (-0.6)	2 379.0 (-0.7)
Butane for transport (won/liter)	806.3 (-7.8)	790.8 (-1.9)	797.2 (0.0)	847.8 (6.4)	932.3 (17.9)	1 087.5 (3.2)	1 071.8 (-1.4)	1 050.7 (-2.0)

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

► Domestic petroleum product prices



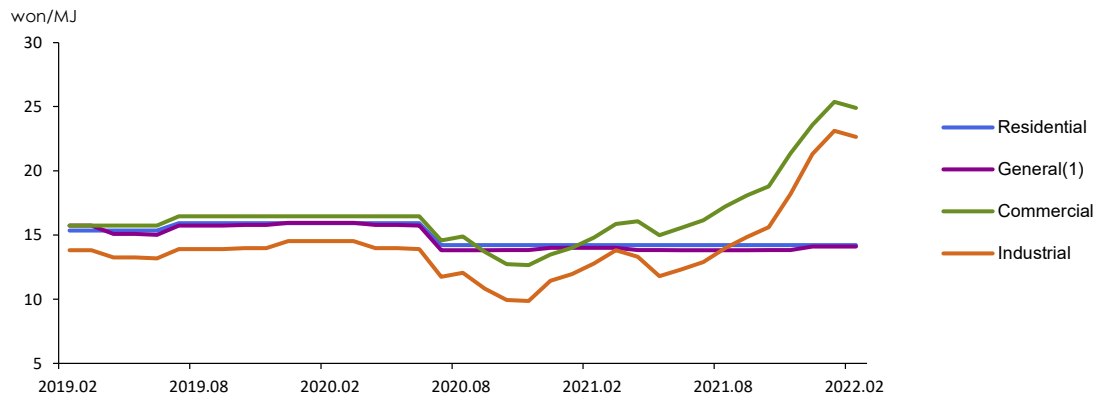
□ **City gas rates for office heating and industrial customers fell by 2.0% and 2.2% respectively in February on a month-on-month basis.**

- City gas rates for office heating and industrial customers, adjusted each month under the Fuel Cost Adjustment scheme, decreased month-on-month, as its wholesale price declined due to a drop in global natural gas price. City gas rates for residential and general customers, which are categorized as civilian use, were steady.

□ **Electric rate was flat in February compared to the prior month, as Fuel Cost Pass-Through Adjustment Rate was kept at KRW 0/kWh.**

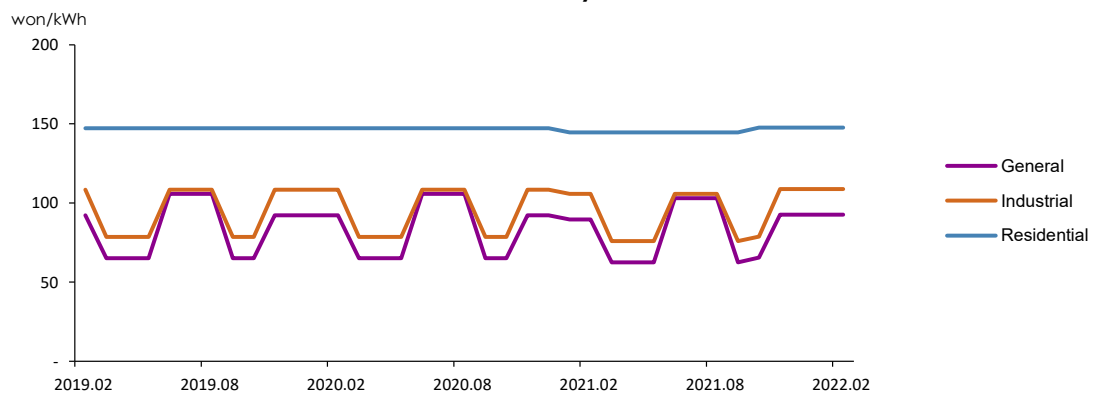
- Fuel Cost Past-Through Adjustment Rate was set at KRW 14.8/kWh in 1Q 2022 due to a surge in global energy prices, and after the quarterly rate cap was applied, it was KRW 3/kWh. However, the rate remained the same as the previous quarter at KRW 0/kWh, considering the prolonged Covid-19 situation and high inflation rates.

► **City gas rates by end-use sectors**



Source: Seoulgas

► **Electric rates by end-use sectors**



Note: The electric rates 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 dropped by 1.3% year-on-year in February because of a sharp drop in gas import, although the import of most energy sources increased.**
 - The import volume of crude oil was up 5.7% year-on-year due to the low base effect of the same month last year (-13.1%) and bigger input to oil refineries (8.7%). As of the end of February, crude inventory increased by 4.7% year-on-year.
 - The import volume of petroleum products jumped 11.5% year-on-year, led by bunker-C oil and propane.
 - The import volume of bituminous coal rose by 1.2% year-on-year despite a surge in global coal price (174.5% yoy). It is assumed that demand for inventory increased amid an unstable global situation.
 - The gas import volume decreased by 32.7% year-on-year, as it was replaced by other energy sources in the power generation and industrial sectors due to the faster rise in global gas price.

► Import and domestic production of energy

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
Import volume							
Crude oil (Mbbbl)	980.3 (-8.6)	76.9 (-17.1)	75.0 (-13.1)	960.1 (-2.1)	86.9 (2.9)	94.8 (23.3)	79.3 (5.7)
Petroleum product (Mbbbl)	347.4 (-1.4)	28.9 (-26.7)	29.6 (-6.7)	389.1 (12.0)	37.9 (33.8)	36.2 (25.4)	33.0 (11.5)
Bituminous coal (Mton)	115.5 (-13.0)	8.8 (-15.0)	7.9 (-5.9)	108.0 (-6.4)	9.1 (-10.6)	10.2 (16.3)	8.0 (1.2)
Anthracite (Mton)	6.3 (-8.3)	0.6 (-2.2)	0.2 (-28.0)	6.5 (3.0)	0.4 (-41.7)	0.5 (-29.5)	0.4 (62.7)
LNG (Mton)	40.0 (-1.9)	4.4 (6.7)	5.2 (9.3)	45.9 (14.9)	3.9 (-9.3)	5.0 (13.0)	3.5 (-32.7)
Import volume (Mtoe)	325.4 (-6.8)	27.5 (-12.1)	26.9 (-6.7)	332.6 (2.2)	29.5 (1.8)	31.9 (15.7)	26.6 (-1.3)
Import value (billion US\$, CIF)	86.6 (-31.7)	8.2 (-32.4)	9.6 (-9.7)	137.2 (58.5)	15.8 (106.0)	18.2 (121.3)	14.9 (55.5)
Energy share of total import value (%)	18.4	18.5	22.5	22.1	25.9	30.2	28.0
Foreign energy dependence (%)*	92.7	93.8	93.2	92.8	93.8	93.3	92.5
Domestic production							
Hydropower (TWh)	7.15 (14.4)	0.52 (-4.0)	0.48 (-9.5)	6.74 (-5.8)	0.52 (4.5)	0.52 (0.7)	0.49 (2.8)
Anthracite (Mton)	1.02 (-6.0)	0.08 (-4.1)	0.06 (-30.0)	0.90 (-11.9)	0.08 (-6.1)	0.07 (-6.5)	0.06 (-4.8)
Natural gas (Mton)	0.14 (-28.6)	0.01 (-58.2)	0.00 (-69.7)	0.04 (-70.3)	0.00 (-87.6)	- (-100.0)	- (-100.0)
Renewable energy (Mtoe)	18.98 (7.3)	1.60 (12.2)	1.54 (4.9)	20.08 (5.8)	1.67 (0.9)	1.86 (16.5)	1.82 (17.6)

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

4. Energy Consumption

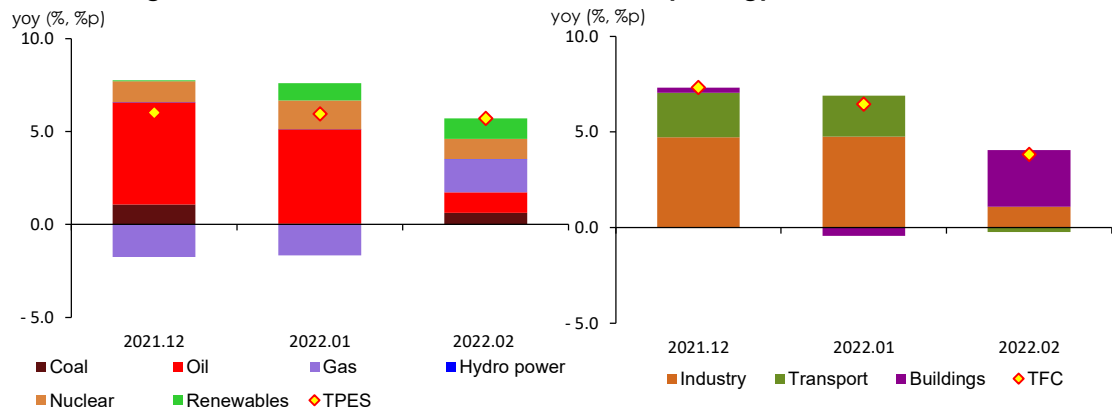
- **Total Primary Energy Supply(“TPES”) increased by 5.7% year-on-year in February despite the slower growth in petroleum use, as the use of coal and gas rebounded.**
 - Coal use bounced back (3.9%) on a year-on-year basis, as it rose sharply by almost 9% in the power generation sector, offsetting a drop in gas-fired generation, although the industrial coal use decreased due to the sluggish production in the primary metals sector.
 - Petroleum use grew at a much slower pace, because its demand declined in the transport sector, especially road transport, and naphtha use also dropped following an accident at some naphtha cracking centers, although industrial petroleum use went up by 3.8% year-on-year to replace the use of gas.
 - Gas use posted a year-on-year growth of 7.5%, led by a sharp increase in the buildings sector amid cold winter weather, although it declined in the power generation sector, as it was replaced by other energy sources due to a surge in global LNG price.
- **Total Final Consumption(“TFC”) was up 3.8% year-on-year in February owing to the surging energy use in buildings, although the industrial energy use grew more slowly.**
 - Industrial energy use rose by 1.9% year-on-year, as it grew rapidly in the fabricated metals and petrochemical sectors along with the increased number of work days (0.5). The growth, however, was much slower due to decreased use of naphtha and other energy sources in the primary metals sector.
 - Transport energy use fell by 1.6% year-on-year, with the road transport sector leading the downward trend amid the global oil price hike, although the energy use increased in the aviation and navigation sectors due to growing demand for transport services and base effect.
 - Energy use in buildings went up by 10.9% year-on-year, driving the growth in TFC, as the service production index increased, and heating degree days surged (23.9%), although city gas rates for office heating rose sharply on a year-on-year basis.

► Energy consumption

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
TPES (Mtoe)	292.1	28.3	24.6	305.3	29.6	30.0	26.0
	(-3.6)	(3.8)	(-1.2)	(4.5)	(6.0)	(5.9)	(5.7)
- Feedstock excluded	212.5	21.4	17.9	217.7	21.7	22.3	19.5
	(-3.2)	(7.3)	(-2.2)	(2.4)	(3.2)	(4.1)	(9.0)
TFC (Mtoe)	222.6	21.7	19.7	234.7	22.6	23.1	20.5
	(-3.8)	(1.4)	(0.8)	(5.4)	(7.3)	(6.5)	(3.8)

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 posted a year-on-year growth of 3.9% in February, with the power generation sector taking the lead, although its industrial use declined.

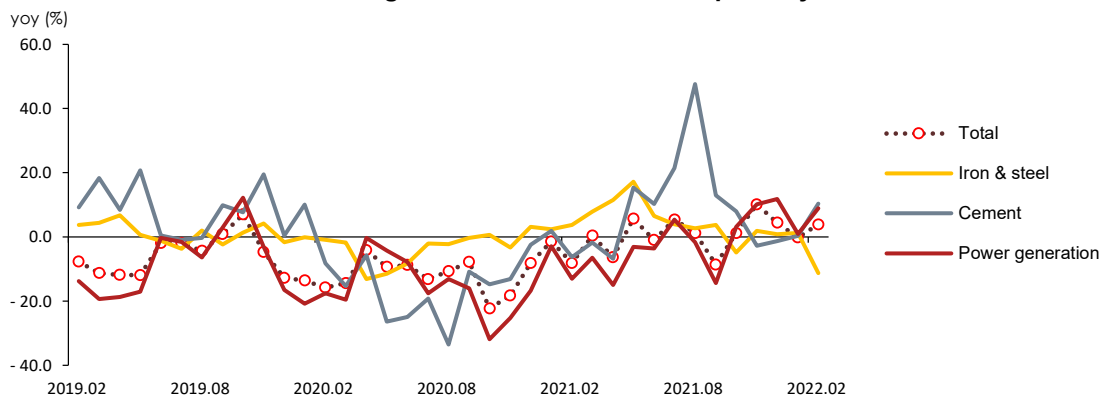
- Industrial coal use decreased, despite growing coal demand for cement production, as it rapidly declined in the steelmaking sector.
- Coal use grew by nearly 9% year-on-year in the power generation sector as a result of the growth in installed capacity and growing coal demand to replace gas-fired generation, even though some coal-fired generation was restricted under the fine dust seasonal management system (Dec-Feb).
- Nuclear and coal-fired generation increased to offset a drop in gas-fired generation that was faced with more intense cost pressure; the unit cost of gas-fired generation surged by 167.5%, while the unit cost of bituminous coal power generation went up by 91.8% year-on-year.

► Coal consumption

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
Coal (Mton)	116.6	10.5	8.5	116.8	10.5	10.5	8.9
	(-12.4)	(-1.4)	(-8.1)	(0.2)	(4.4)	(-0.2)	(3.9)
Industry	45.3	4.0	3.4	47.4	4.0	4.0	3.3
	(-4.7)	(1.3)	(0.3)	(4.6)	(-5.1)	(-1.8)	(-3.3)
-Coking-coal	33.8	3.0	2.8	35.3	3.1	3.0	2.5
	(-3.3)	(2.4)	(3.7)	(4.5)	(0.8)	(1.2)	(-11.3)
Buildings	0.5	0.1	0.0	0.5	0.1	0.1	0.0
	(-20.8)	(-5.2)	(-20.8)	(-11.6)	(-6.3)	(-7.3)	(-7.9)
Power generation	70.7	6.4	5.1	68.9	6.4	6.5	5.5
	(-16.6)	(-3.0)	(-13.0)	(-2.5)	(11.8)	(0.9)	(8.9)

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 increased by 3.8% year-on-year in February, while it declined in the transport sector and grew more slowly in the industrial sector.**

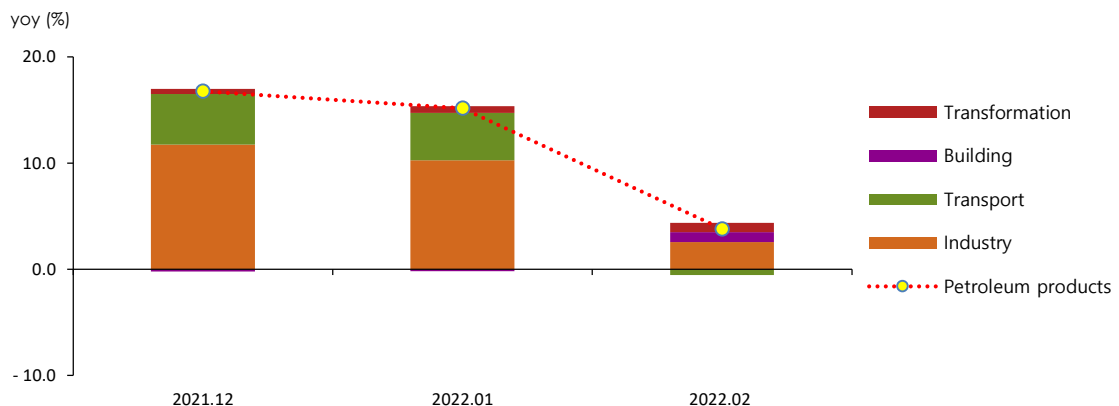
- Industrial petroleum use grew more slowly, by 4.1% year-on-year, due to lower naphtha demand.
- Transport petroleum use fell by 1.9% year-on-year, as it dropped by over 4% in the road transport sector due to the rising oil price.
- Petroleum use in buildings jumped 14.0% year-on-year, as it increased in all end-use sectors amid the extremely cold weather.
- Petroleum use in the residential and commercial sectors went up by 15.7% and 10.4% respectively, as the number of heating degree days rose by 23.9% on a year-on-year basis.

► Petroleum product consumption by end-use sectors

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
Petroleum (Mbbbl)	872.4	75.5	72.1	932.2	88.2	86.9	74.9
	(-5.9)	(-6.5)	(0.4)	(6.9)	(16.8)	(15.2)	(3.8)
Industry	543.9	45.9	45.1	597.1	54.5	53.6	47.0
	(-4.0)	(-11.0)	(0.5)	(9.8)	(19.4)	(16.9)	(4.1)
-Naphtha	405.3	34.6	34.6	450.9	41.5	40.3	34.4
	(-7.6)	(-12.5)	(-2.5)	(11.3)	(23.3)	(16.5)	(-0.7)
Transport	277.2	21.5	21.4	280.1	26.7	24.9	21.0
	(-8.6)	(-6.4)	(-3.3)	(1.1)	(15.5)	(15.7)	(-1.9)
Buildings	44.7	6.5	4.8	46.4	5.7	6.4	5.5
	(-8.9)	(22.6)	(9.2)	(3.7)	(-2.8)	(-2.1)	(14.0)
Power generation	6.6	1.6	0.9	8.7	1.3	2.0	1.5
	(-23.2)	(94.9)	(84.9)	(31.4)	(38.9)	(30.7)	(71.9)

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

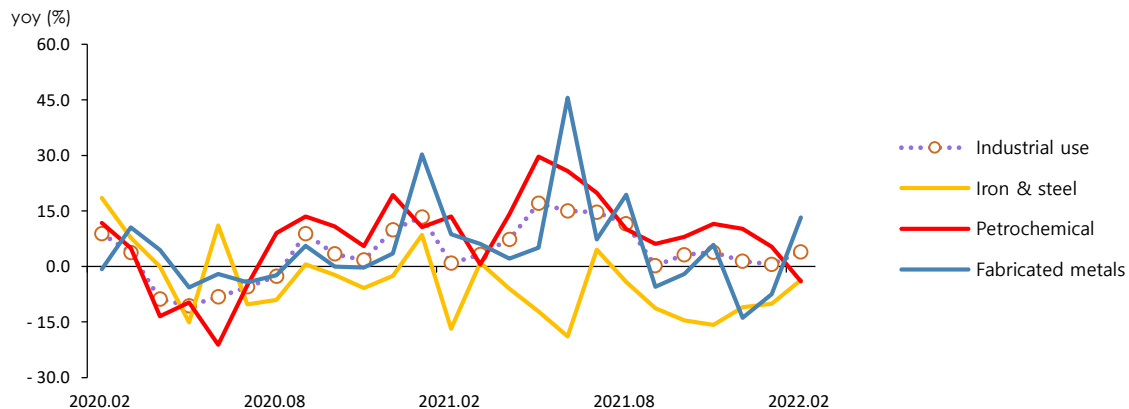
- **Gas use posted a year-on-year growth of 7.5% in February, despite a drop in gas use for power generation, as it rose fast in the industrial and buildings sectors.**
 - Gas use declined in the power generation sector despite a decent growth of power demand (5.2%), as gas-fired generation decreased while baseload (nuclear + coal) generation grew rapidly (10.0%), affected by rising natural gas price in the global market.
 - Gas use surged in the fabricated metals sector, driving the growth in the total industrial gas use, as automobile production rebounded, and semiconductor export remained strong, although it declined in the petrochemical and primary metals sectors.
 - Gas use grew by 17.5% year-on-year in commercial buildings partly due to the growth in service production (3.8%, based on the production index), and it was up 13.2% in residential buildings owing to the temperature effect such as the increased number of heating degree days (23.9%).

► Natural gas and city gas consumption

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
LNG (Mton)	42.1	5.8	4.5	45.8	5.1	5.4	4.8
	(2.7)	(16.4)	(0.2)	(8.7)	(-6.9)	(-6.2)	(7.5)
Power generation	18.6	2.2	1.8	21.5	1.8	1.8	1.7
	(3.7)	(13.0)	(2.9)	(15.7)	(-14.4)	(-15.8)	(-6.3)
City gas production	18.2	3.1	2.3	19.3	2.7	3.0	2.6
	(-3.1)	(22.6)	(2.0)	(5.9)	(-0.8)	(-2.9)	(14.0)
Industry (Direct private importer)	2.8	0.2	0.2	2.7	0.3	0.3	0.2
	(23.8)	(-5.0)	(-16.9)	(-3.4)	(0.5)	(25.1)	(27.8)
City gas (Bm³)	25.9	3.9	3.2	27.0	3.3	3.9	3.5
	(-0.6)	(16.1)	(3.1)	(4.0)	(-0.6)	(-1.0)	(10.4)
Industry (including directly imported)	11.1	1.2	1.0	11.9	1.2	1.2	1.0
	(-0.3)	(13.4)	(0.9)	(7.2)	(1.4)	(0.6)	(4.0)
Buildings	13.8	2.6	2.1	14.1	2.1	2.6	2.4
	(0.0)	(18.4)	(5.0)	(2.0)	(-1.8)	(-1.7)	(13.8)
Transport.	1.1	0.1	0.1	1.0	0.1	0.1	0.1
	(-9.6)	(-9.1)	(-14.6)	(-3.5)	(0.9)	(-1.1)	(-0.4)

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

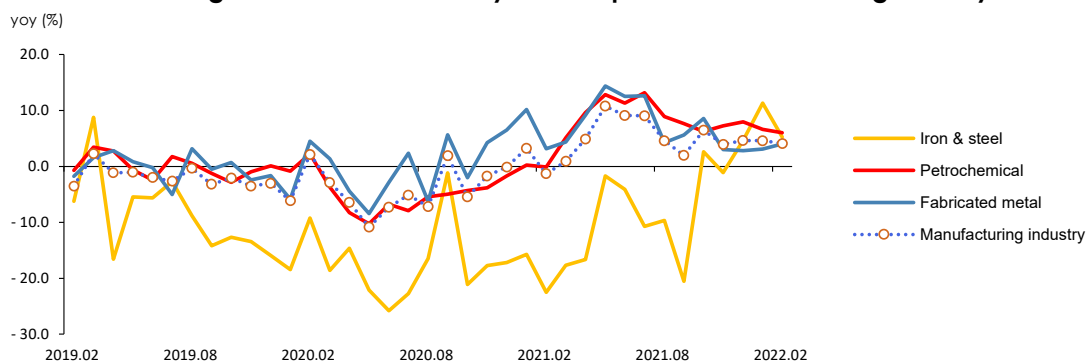
- **Electricity use went up by 5.2% year-on-year in February, as production activities increased in the industrial and commercial sectors.**
 - Industrial electricity use increased by 4.5% year-on-year, because it grew decently in the three largest power consuming sectors.
 - Electricity use in buildings was up 5.9% year-on-year, which was attributed to the increased number of heating degree days and stronger service production.
 - In particular, commercial electricity use grew rapidly, partly because the production index jumped 11.1% in the food & accommodation sector, which is one of the most energy-intensive industries.

► Electricity consumption by end-use sectors

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
Electricity (TWh)	509.3	48.8	45.2	533.4	47.3	49.8	47.5
	(-2.2)	(5.2)	(1.5)	(4.7)	(4.9)	(2.1)	(5.2)
Industry	268.7	24.5	22.3	282.4	24.8	25.6	23.4
	(-4.0)	(4.1)	(-0.4)	(5.1)	(4.6)	(4.5)	(4.5)
Transport	3.2	0.3	0.3	3.1	0.3	0.3	0.3
	(8.4)	(-6.1)	(0.4)	(-1.3)	(-13.8)	(12.5)	(3.8)
Buildings	237.4	24.0	22.6	247.9	22.2	23.9	23.9
	(-0.2)	(6.6)	(3.6)	(4.4)	(5.6)	(-0.3)	(5.9)
Residential	74.1	6.9	6.7	77.6	6.2	6.9	6.8
	(5.1)	(10.8)	(6.6)	(4.7)	(0.4)	(-1.2)	(2.2)
Commercial	132.1	13.8	12.9	136.9	12.3	14.4	14.1
	(-2.3)	(4.2)	(1.8)	(3.6)	(4.0)	(4.7)	(8.7)

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

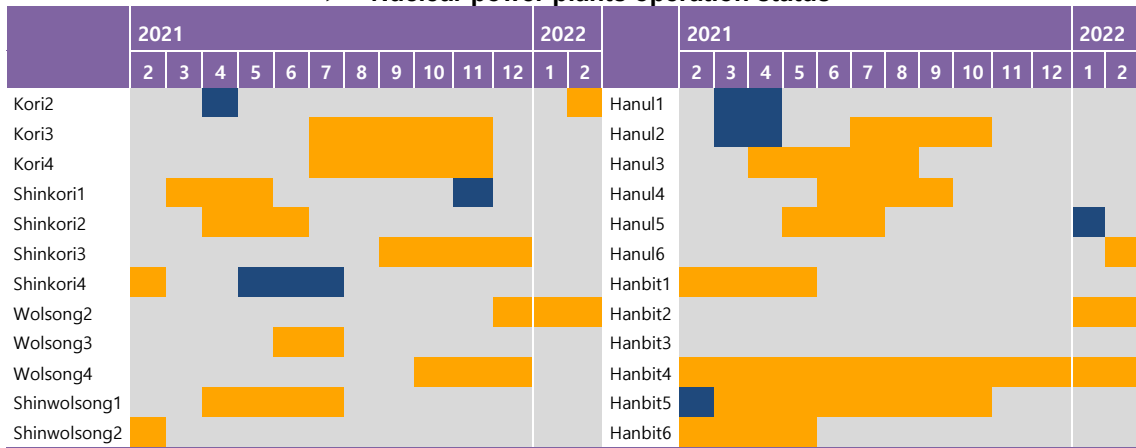
► The growth rate of electricity consumption in manufacturing industry



9. Nuclear

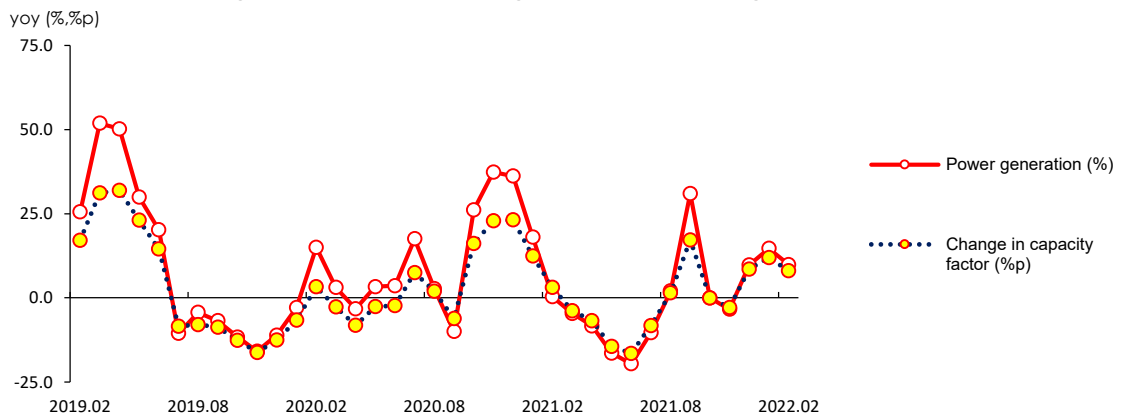
- **The total nuclear generation rose by 9.9% year-on-year in February along with increased capacity factors, as the number of reactors that were subject to an unscheduled shutdown decreased.**
 - The average nuclear capacity factor went up by 8%p year-on-year, as the number of reactors that experienced an unscheduled shutdown declined by one reactor, compared to the same month last year, and relatively small-scale reactors were under preventive maintenance.
 - Nuclear's share of the total power generation fell to the low 20% range in July 2021 but rapidly rebounded to over 30% by December, and as of February 2022, it was nearly 30%.

► **Nuclear power plants operation status**



Notes: ■ normal operation, ■ preventive 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

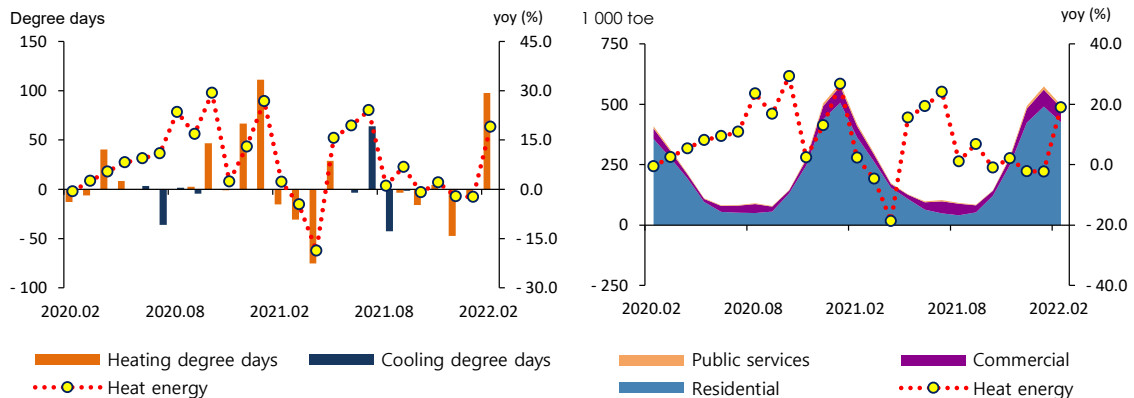
□ **Heat energy use posted a year-on-year growth of 18.9% in February, as it increased in all end-use sectors, with the residential sector taking the lead in the growth.**

- Heat energy use rose by 17.5% year-on-year in the residential sector, which accounts for a large share of the total heat energy use, affected by temperature conditions such as the increased number of heating degree days (23.9%). It also grew by 30.2% in the commercial sector, as service production increased (3.8%, based on the production index) thanks to larger social gatherings than the same month last year (4→6 people) along with temperature effect.

□ **Renewable & other energy generation² grew by 24.9% year-on-year in February, led by bioenergy, solar PV and fuel cells.**

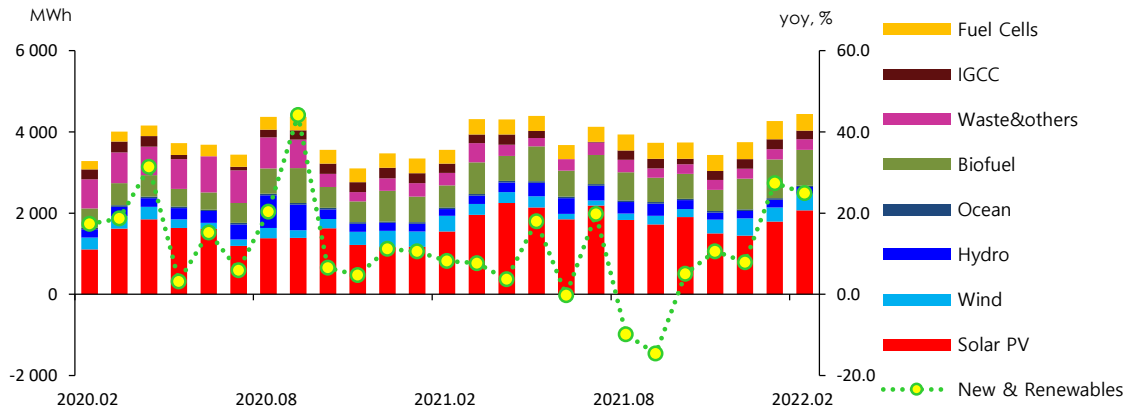
- Renewable & other energy generation jumped almost 25% year-on-year, because the power generation from bioenergy, solar PV and fuel cells increased, although IGCC and hydropower generation decreased.
- Solar PV, bioenergy and fuel cell contributed 14.8%p, 9.3%p and 2.1%p respectively to the growth in renewable & other energy generation.

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



² The installed capacity and power generation figures were derived from the 'Renewable energy' and 'Other energy' categories in KEPCO's 'The Monthly Report on Electric Power Statistics'. From March 2021, waste energy was integrated into the 'Other energy' category, which was then renamed 'Waste & Other energy'. Hydropower is excluded in renewable & other energy generation data in Energy Balance.

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



11. Industry

□ Industrial energy use increased by 1.9% year-on-year in February, driven by growing energy use in the petrochemical and fabricated metals sectors.

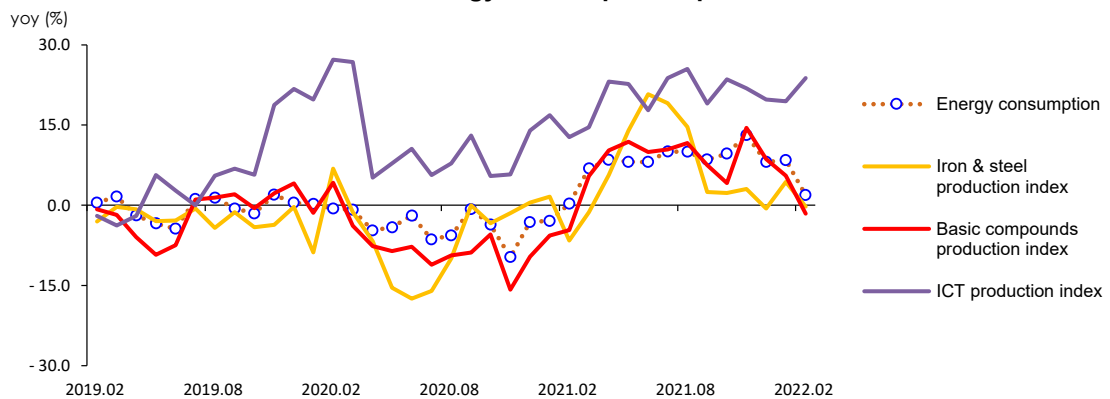
- Energy use grew in the petrochemical and fabricated metals sectors due to the increased number of work days (0.5), driving the growth in the total industrial energy use. The growth, however, was much slower, because the use of naphtha and other energy sources was on a downward trend in the petrochemical and primary metals sectors respectively.
- Energy use grew decently in the fabricated metals sector, as vehicle production rebounded following the completion of equipment work at some factories, and semiconductor production was also robust owing to the increased production capacity and strong exports.

► Industrial energy consumption

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
Industry (Mtoe)	138.0	12.2	11.3	148.0	13.3	13.2	11.6
	(-3.5)	(-2.9)	(0.3)	(7.3)	(8.1)	(8.4)	(1.9)
Petrochemical	69.2	6.0	5.9	76.6	7.0	6.9	6.0
	(-4.0)	(-9.5)	(0.2)	(10.8)	(20.3)	(15.0)	(2.5)
- Naphtha	49.7	4.2	4.2	55.3	5.1	4.9	4.2
	(-7.6)	(-12.5)	(-2.5)	(11.3)	(23.3)	(16.5)	(-0.7)
Iron & Steel	28.2	2.5	2.3	28.8	2.5	2.5	2.1
	(-4.5)	(1.3)	(-0.5)	(2.2)	(0.1)	(1.0)	(-9.5)
-Coking coal	23.6	2.1	2.0	24.6	2.1	2.1	1.7
	(-3.3)	(2.4)	(3.7)	(4.5)	(0.8)	(1.2)	(-11.3)
Fabricated metal	11.4	1.2	1.0	12.2	1.1	1.2	1.1
	(-0.5)	(15.9)	(5.1)	(7.8)	(-0.5)	(-0.3)	(5.5)
Share of feedstock (%)	57.5	55.9	58.9	59.0	59.4	57.6	56.1

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

► Industrial energy consumption & production index



12. Transport

□ **Transport energy use dropped by 1.6% year-on-year in February, as it declined in the road transport sector owing to the higher price of transport fuel.**

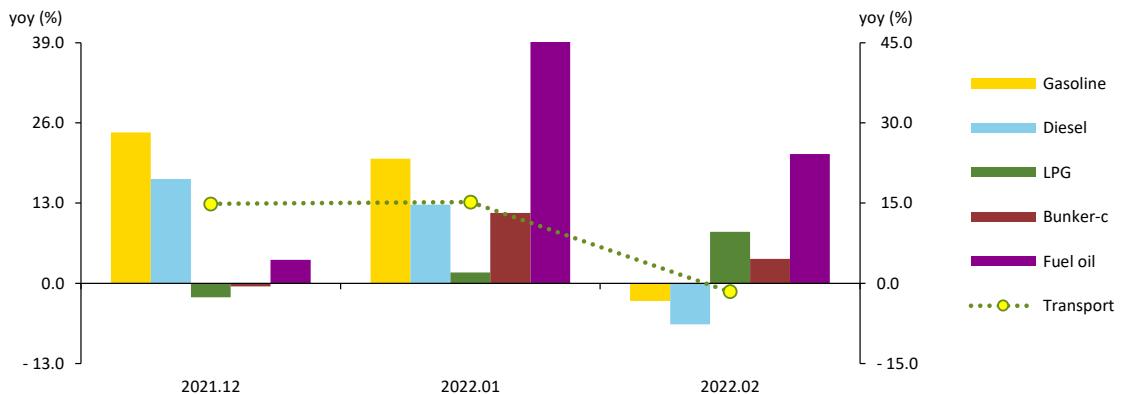
- Energy use in the road transport sector was down 4.4% year-on-year, which was affected by rising oil prices amid the unstable international situation.
- Energy use in the aviation sector grew by 20.9% year-on-year, as demand for air transport grew at slower pace due to the spread of the Omicron variant.
- Energy use in the navigation sector jumped 14.7% year-on-year as a result of steadily increasing coastal transport.
- The use of bunker-C oil and diesel for sea transport rose by 3.6% and 39.7% respectively on a year-on-year basis.

► The growth rate of petroleum consumption in the transport sector

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
Transport (Mtoe)	39.44 (-8.2)	3.05 (-5.9)	3.01 (-4.0)	39.78 (0.9)	3.77 (14.9)	3.52 (15.2)	2.96 (-1.6)
Road	33.45 (-4.6)	2.57 (2.7)	2.59 (3.6)	33.92 (1.4)	3.23 (15.7)	2.90 (12.8)	2.48 (-4.4)
Navigation	3.11 (17.5)	0.27 (-3.6)	0.22 (-11.6)	3.10 (-0.3)	0.29 (18.4)	0.32 (19.1)	0.25 (14.7)
Aviation	2.56 (-48.1)	0.18 (-57.4)	0.17 (-52.1)	2.46 (-3.9)	0.22 (3.8)	0.27 (44.8)	0.21 (20.9)
Rail	0.32 (-7.5)	0.03 (-10.8)	0.03 (-5.7)	0.31 (-4.5)	0.03 (-12.2)	0.03 (5.5)	0.03 (-1.3)

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

□ **Energy use in buildings rose sharply in February on a year-on-year basis, which was affected by temperature conditions and better performance of the service industry.**

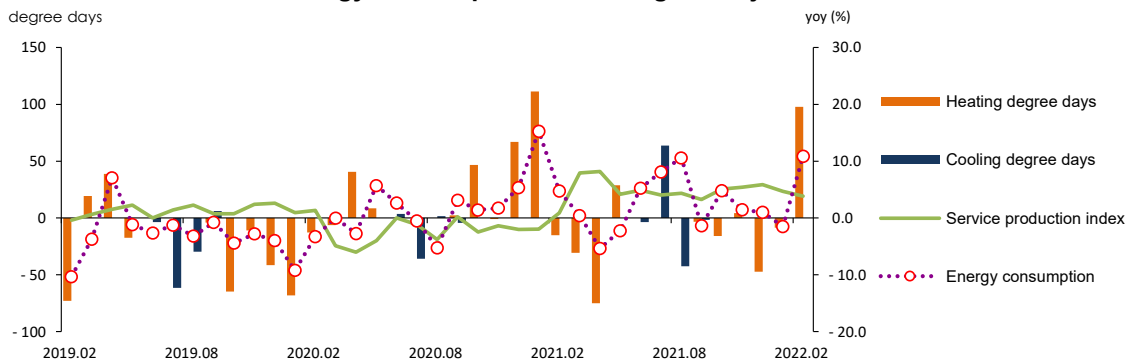
- Energy use in buildings jumped 10.9% year-on-year, especially city gas, driven by growing heating demand amid the increased number of heating degree days in addition to the stronger service production (3.8%, based on the production index).
- Energy use in residential buildings increased, in particular city gas and heat energy (13.2%, 17.5%), because the weather was colder than the same month last year.
- Energy use in commercial buildings surged by 10.7% year-on-year, with the use of all energy sources increasing, which was affected by larger social gatherings compared to the same period last year (4→6 people) and robust production activities in the food & accommodation sector (↑ 11.1%, the production index).

► Energy consumption in buildings

	2020	2021p				2022p	
		M1	M2		M12	M1	M2
Buildings (Mtoe)	45.2	6.4	5.4	46.9	5.5	6.3	5.9
	(-0.7)	(15.3)	(4.8)	(3.8)	(1.0)	(-1.5)	(10.9)
Residential	23.2	3.9	3.1	23.7	3.2	3.8	3.5
	(2.6)	(21.3)	(6.3)	(2.3)	(-2.3)	(-2.0)	(11.4)
Commercial	16.7	2.0	1.7	17.6	1.7	2.0	1.9
	(-4.3)	(7.1)	(2.9)	(5.4)	(4.1)	(2.6)	(10.7)
Public · others	5.3	0.6	0.5	5.6	0.6	0.5	0.5
	(-2.6)	(6.7)	(1.9)	(5.8)	(12.1)	(-12.0)	(7.7)
Heating degree days	2 448.0	591.5	408.9	2 404.7	500.4	583.1	506.7
	(3.3)	(23.2)	(-3.6)	(-1.8)	(-8.6)	(-1.4)	(23.9)
Cooling degree days	85.2	-	-	101.3	-	-	-
	(-29.2)	-	-	(18.9)	-	-	-
Service production index (2015=100)	106.2	104.7	101.6	110.9	123.2	109.6	105.5
	(- 2.0)	-	-	(4.3)	-	-	-

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

► Energy consumption in buildings & major indicators



14. Transformation

□ The total power generation and energy input increased by 7.9% and 7.6% respectively in February on a year-on-year basis due to the growing electricity use.

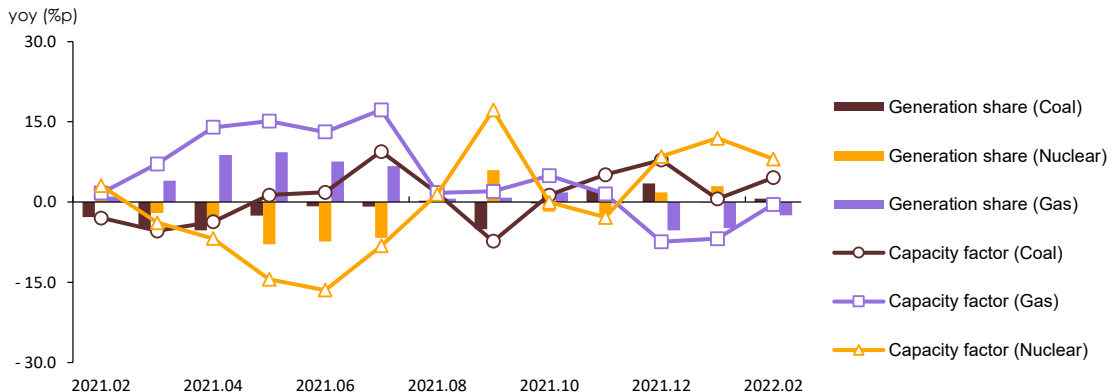
- Electricity use rose by more than 5%, leading to a surge in the total power generation. Coal-fired and nuclear generation increased with the growth in installed capacities and capacity factors, while gas-fired generation continued to fall amid a surge in global natural gas price.
- Coal-fired generation grew by over 10%, as its installed capacity increased following the commissioning of new plants, and as it replaced gas-fired generation.
- The total nuclear power generation picked up almost 10%, as its capacity factor increased by over 8%p due to a drop in the number of reactors that were subject to an unscheduled shutdown.
- Global natural gas price has been on a steep rise, posting a 240.0% growth on a year-on-year basis (JKM futures price), and therefore, gas-fired generation has declined for three months in a row, although the pace of decline was much slower owing to the rapidly growing electricity demand.

► Electricity Generation in the power generation sector

	2020	2021p				2022p	
		M1	M2			M1	M2
Electricity Generation (TWh)	552.2	53.2	45.0	576.1	53.3	54.8	48.5
	(-1.9)	(6.6)	(-3.2)	(4.3)	(3.4)	(3.1)	(7.9)
Coal	196.3	17.8	14.5	196.2	18.2	18.4	15.9
	(-13.7)	(-3.8)	(-11.0)	(-0.0)	(15.1)	(3.2)	(10.1)
Oil	2.3	0.3	0.1	3.5	0.2	0.5	0.2
	(-31.5)	(-4.4)	(13.8)	(53.5)	(-51.1)	(58.8)	(34.1)
Gas	145.9	17.3	13.8	168.4	14.4	15.3	13.7
	(1.1)	(9.8)	(-0.1)	(15.4)	(-13.6)	(-12.0)	(-0.8)
Nuclear	160.2	14.0	12.7	158.0	16.5	16.1	14.0
	(9.8)	(18.0)	(0.3)	(-1.4)	(9.8)	(14.7)	(9.9)
Hydro/other renewables	40.4	3.3	3.5	46.2	3.7	4.2	4.4
	(3.1)	(32.1)	(27.5)	(14.3)	(9.7)	(25.9)	(23.0)
Baseload	356.5	31.8	27.2	354.3	34.7	34.5	29.9
	(-4.5)	(4.7)	(-6.0)	(-0.6)	(12.5)	(8.2)	(10.0)

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				2022		
			M12	M1	M2		M12	M1	M2
GDP (trillion won)	1 852.7 (2.2)	1 836.9 (-0.9)	489.4 (2.6)	- -	- -	1 910.7 (4.0)	484.1 (-1.1)	- -	- -
Private consumption	894.1 (2.1)	849.1 (-5.0)	229.5 (2.2)	- -	- -	879.8 (3.6)	214.4 (-6.6)	- -	- -
Facilities investment	155.3 (-6.6)	166.3 (7.1)	41.3 (-1.7)	- -	- -	180.1 (8.3)	43.9 (6.1)	- -	- -
Construction investment	265.2 (-1.7)	264.1 (-0.4)	73.5 (3.5)	- -	- -	260.1 (-1.5)	71.4 (-2.9)	- -	- -
Consumer price index (2015=100)	104.9	105.4	105.1	101.0	101.6	102.5	105.7	104.7	105.3
USD to KRW exchange rate (won)	1 165.4	1 180.3	1 175.8	1 097.5	1 111.7	1 144.0	1 095.1	1 194.0	1 198.3
Benchmark rate (%)	1.6	0.7	1.3	0.5	0.5	0.6	0.5	1.3	1.3
Coincident composite index (2015=100)	112.1	112.5	113.5	114.3	114.6	116.9	114.4	120.4	120.8
Mining & manufacturing production index (2015=100)	106.7	106.4	115.1	110.4	100.7	114.3	118.3	115.1	107.0
Manufacturing operation ratio index (2015=100)	98.4	95.3	102.5	96.2	87.8	99.8	103.1	100.2	93.6
Average temperature	13.4	13.0	2.5	- 1.1	3.4	13.3	0.3	- 0.8	- 0.1
- year-on-year difference	0.4	- 0.4	1.3	- 3.6	0.0	0.3	- 2.2	0.3	- 3.5
Heating degree days	2 370.9 (-8.7)	2 448.0 (3.3)	480.8 (-7.9)	591.5 (23.2)	408.9 (-3.6)	2 404.7 (-1.8)	547.6 (13.9)	583.1 (-1.4)	506.7 (23.9)
Cooling degree days	120.4 (-42.4)	85.2 (-29.2)	- -	- -	- -	101.3 (18.9)	- -	- -	- -
Energy intensity	0.16 (-3.6)	0.16 (-2.9)	0.16 (-4.1)	- -	- -	0.16 (0.5)	0.16 (-1.7)	- -	- -
Per capita consumption									
oil (bbl)	17.9 (-0.9)	16.8 (-6.0)	1.6 (1.7)	1.5 (-6.3)	1.4 (0.5)	18.0 (7.1)	1.5 (-11.4)	1.7 (15.4)	1.5 (4.0)
Electricity (MWh)	10.1 (-1.4)	9.8 (-2.3)	0.9 (-1.6)	0.9 (5.4)	0.9 (1.7)	10.3 (4.9)	0.9 (0.5)	1.0 (2.4)	0.9 (5.4)
City gas (1 000 m ³)	0.4 (-4.5)	0.4 (-3.7)	0.1 (-5.9)	0.1 (18.2)	0.1 (5.3)	0.5 (5.3)	0.1 (6.9)	0.1 (-2.6)	0.1 (9.3)
Total energy (toe)	5.9 (-1.8)	5.6 (-3.8)	0.5 (-3.5)	0.5 (4.0)	0.5 (-1.1)	5.9 (4.7)	0.5 (-0.4)	0.6 (6.2)	0.5 (5.9)

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 & Operating Ratio by Sectors

(2015=100)

2019=100

	2019	2020	2021				2022		
			M12	M1	M2		M12	M1	M2
Industrial production index									
All industry	108.6 (1.0)	107.4 (-1.0)	121.2 (-0.5)	106.2 (1.4)	101.4 (0.5)	112.7 (4.9)	129.5 (6.8)	110.8 (4.3)	105.7 (4.2)
Mining & manufacturing	106.7 (0.3)	106.4 (-0.3)	118.3 (2.8)	110.4 (8.1)	100.7 (1.1)	114.3 (7.4)	127.0 (7.4)	115.1 (4.3)	107.0 (6.3)
Semiconductor	188.1 (11.7)	230.7 (22.7)	272.8 (17.5)	243.9 (19.6)	244.6 (19.7)	298.6 (29.4)	353.7 (29.7)	318.4 (30.5)	320.5 (31.0)
Iron & steel	98.3 (-2.2)	92.1 (-6.3)	98.6 (0.5)	96.2 (1.6)	89.0 (-6.6)	97.4 (5.8)	98.0 (-0.6)	100.4 (4.4)	88.8 (-0.2)
Cement	94.3 (-5.7)	87.2 (-7.5)	93.9 (-1.8)	68.0 (0.9)	71.6 (-1.8)	91.6 (5.0)	99.5 (6.0)	75.7 (11.3)	71.0 (-0.8)
Basic compound	108.9 (-1.4)	101.1 (-7.1)	103.9 (-9.6)	106.9 (-5.6)	102.4 (-4.7)	107.9 (6.7)	112.9 (8.7)	112.8 (5.5)	100.8 (-1.6)
Transport equipment	93.3 (-0.7)	84.4 (-9.6)	90.6 (-4.2)	92.2 (19.6)	79.3 (23.3)	88.2 (4.5)	97.6 (7.7)	83.7 (-9.2)	82.2 (3.7)
Electric & electronic	109.6 (2.9)	108.5 (-1.0)	126.4 (4.5)	108.0 (10.2)	97.6 (0.7)	115.2 (6.1)	133.0 (5.2)	111.5 (3.2)	107.8 (10.5)
Service	108.4 (1.4)	106.2 (-2.0)	116.4 (-2.0)	104.7 (-2.0)	101.6 (0.9)	110.9 (4.3)	123.2 (5.8)	109.6 (4.7)	105.5 (3.8)
Wholesale and retail	104.6 (-0.4)	101.9 (-2.6)	108.4 (-1.2)	101.1 (-2.0)	95.2 (3.0)	106.0 (4.0)	112.9 (4.2)	105.6 (4.5)	97.0 (1.9)
Food & Accommodation	97.5 (-1.0)	79.6 (-18.4)	66.4 (-39.6)	60.1 (-36.6)	65.7 (-11.1)	80.7 (1.4)	91.9 (38.4)	82.5 (37.3)	73.0 (11.1)
Production output									
Iron & steel - Pig iron	47 520.7 (0.8)	45 359.6 (-4.5)	4 115.2 (4.2)	4 113.5 (3.9)	3 724.9 (4.2)	46 440.5 (2.4)	3 958.0 (-3.8)	3 872.3 (-5.9)	3 336.6 (-10.4)
Iron & steel - Crude steel	71 411.9 (-1.5)	67 078.8 (-6.1)	5 909.6 (0.5)	6 042.6 (5.3)	5 489.5 (1.3)	70 418.0 (5.0)	5 935.3 (0.4)	6 070.7 (0.5)	5 145.5 (-6.3)
Petrochemical - Basic petrochemicals	31 804.1 (2.1)	30 323.6 (-4.7)	2 395.2 (-17.0)	2 597.4 (-10.9)	2 605.7 (-0.9)	34 434.7 (13.6)	3 115.8 (30.1)	3 129.5 (20.5)	2 751.3 (5.6)
Petrochemical - Intermediate raw material	16 014.0 (-5.7)	15 355.4 (-4.1)	1 293.2 (-7.7)	1 338.8 (-8.3)	1 300.1 (-5.0)	15 764.6 (2.7)	1 322.2 (2.2)	1 272.3 (-5.0)	1 147.9 (-11.7)
Petrochemical - 3 major products	21 584.6 (-1.0)	21 252.7 (-1.5)	1 789.1 (-1.1)	1 866.9 (-2.4)	1 746.0 (-3.6)	23 179.1 (9.1)	2 141.7 (19.7)	2 162.2 (15.8)	1 908.9 (9.3)
The number of cars	3 948.1 (-2.1)	3 506.8 (-11.2)	296.9 (-12.0)	314.2 (24.9)	261.0 (37.9)	3 462.4 (-1.3)	319.1 (7.5)	271.1 (-13.7)	264.0 (1.1)

Note: p means provisional

Source: Monthly Energy Statistics, Korea Petrochemical Industry Association

International Energy Prices

	2019	2020	2021				2022		
			M12	M1	M2		M12	M1	M2
Crude oil (USD/bbl)									
WTI	57.0 (-11.9)	39.4 (-30.9)	47.1 (-21.3)	52.1 (-9.4)	59.1 (16.9)	67.9 (72.4)	71.7 (52.3)	83.0 (59.3)	91.6 (55.1)
Dubai	63.5 (-8.5)	42.2 (-33.6)	49.8 (-23.2)	54.8 (-14.8)	60.9 (12.3)	69.3 (64.1)	73.2 (46.9)	83.5 (52.3)	92.4 (51.7)
Brent	64.2 (-10.3)	43.2 (-32.7)	50.2 (-22.9)	55.3 (-13.1)	62.3 (12.3)	70.8 (63.8)	74.8 (48.9)	85.6 (54.7)	94.1 (51.1)
Unit value of import (C&F)	65.5 (-8.2)	44.8 (-31.7)	46.7 (-29.4)	53.7 (-22.3)	59.2 (-7.8)	70.2 (56.9)	79.5 (70.2)	81.7 (52.0)	90.1 (52.3)
LNG									
TTF (USD/MMBTU)	4.8 (-38.3)	3.2 (-32.5)	5.9 (26.8)	7.3 (100.0)	6.2 (111.8)	16.1 (396.9)	38.0 (548.9)	28.2 (288.8)	27.2 (342.0)
JKM (USD/MMBTU)	5.6 (-42.0)	4.2 (-25.4)	9.3 (70.0)	14.5 (206.6)	7.6 (126.7)	17.8 (324.9)	37.3 (298.8)	29.8 (104.9)	25.8 (240.0)
Import price(Japan) (USD/MMBTU)	10.6 (-1.0)	8.3 (-21.3)	7.7 (-23.8)	9.0 (-8.9)	9.9 (-0.2)	10.8 (29.5)	15.3 (100.0)	14.7 (63.1)	17.0 (72.0)
Unit value of import (USD/ton, CIF)	505.4 (-4.0)	390.2 (-22.8)	358.5 (-21.3)	413.7 (-12.0)	531.5 (18.9)	550.7 (41.2)	892.5 (149.0)	1 138.2 (175.1)	843.9 (58.8)
Bituminous coal (USD/ton)									
From Australia	78.1 (-27.1)	60.3 (-22.8)	78.3 (17.5)	84.9 (23.0)	86.1 (25.8)	136.0 (125.8)	164.6 (110.4)	209.6 (146.9)	236.2 (174.5)
Unit value of import (CIF)	100.7 (-11.3)	77.7 (-22.9)	72.2 (-15.2)	77.1 (-11.1)	80.4 (-6.2)	115.1 (48.1)	187.5 (159.6)	183.0 (137.4)	196.8 (144.6)
Petroleum product (USD/bbl)									
Gasoline	72.5 (-9.3)	46.7 (-35.7)	53.5 (-28.5)	60.1 (-15.7)	67.9 (5.4)	80.3 (72.2)	87.9 (64.3)	98.1 (63.2)	110.8 (63.2)
Kerosene	77.3 (-8.9)	44.7 (-42.1)	53.9 (-30.7)	58.0 (-23.0)	65.2 (3.3)	75.1 (67.9)	83.5 (55.0)	95.7 (64.9)	106.2 (63.0)
Diesel	78.2 (-7.9)	49.4 (-36.8)	55.4 (-30.0)	60.0 (-21.6)	67.9 (3.0)	77.6 (57.2)	85.9 (54.9)	99.2 (65.3)	110.8 (63.0)
Bunker-C	57.5 (-11.8)	39.2 (-31.9)	47.4 (9.5)	51.5 (-0.9)	57.6 (23.4)	64.4 (64.3)	65.8 (38.8)	76.1 (47.8)	82.6 (43.4)
Propane	434.6 (-19.8)	397.1 (-8.6)	450.0 (2.3)	550.0 (-2.7)	605.0 (19.8)	647.9 (63.2)	795.0 (76.7)	740.0 (34.5)	775.0 (28.1)
Butane	441.7 (-18.1)	403.8 (-8.6)	460.0 (1.1)	530.0 (-10.2)	585.0 (7.3)	629.6 (55.9)	750.0 (63.0)	710.0 (34.0)	775.0 (32.5)
Naphtha	56.9 (-15.1)	40.5 (-28.9)	47.6 (-25.0)	55.6 (-8.6)	61.6 (17.8)	70.6 (74.6)	77.6 (63.1)	84.4 (51.8)	95.5 (54.9)

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, World Bank, Monthly energy statistics, CME Group, Korea International Trade Association

Domestic Energy Prices

	2018	2020		2021				2022		
			M12	M1	M2		M12	M1	M2	
Petroleum product										
Gasoline (won/liter)	1 581.4 (6.0)	1 381.6 (-6.1)	1 367.8 (-11.7)	1 441.8 (-8.1)	1 463.2 (-5.3)	1 590.5 (15.1)	1 646.4 (20.4)	1 635.2 (13.4)	1 714.6 (17.2)	
Diesel (won/liter)	1 391.9 (8.5)	1 189.8 (-11.2)	1 168.3 (-15.7)	1 242.4 (-11.2)	1 263.4 (-7.8)	1 391.3 (16.9)	1 468.9 (25.7)	1 453.5 (17.0)	1 536.6 (21.6)	
Bunker-C (won/liter)	734.8 (18.6)	573.6 (-22.9)	518.9 (-21.1)	545.5 (-22.8)	619.6 (-22.3)	731.7 (27.6)	859.0 (65.6)	840.4 (54.1)	937.4 (51.3)	
Propane (won/kg)	1 920.5 (4.7)	1 850.7 (-1.0)	1 865.2 (-1.3)	1 868.1 (-1.0)	1 952.5 (-1.0)	2 092.6 (13.1)	2 410.1 (29.2)	2 395.0 (28.2)	2 379.0 (21.8)	
Butane (won/liter)	874.6 (5.8)	791.1 (-1.9)	796.9 (-2.9)	797.2 (-2.9)	847.8 (-3.0)	931.9 (17.8)	1 087.5 (36.5)	1 071.8 (34.5)	1 050.7 (23.9)	
City gas(won/MJ)										
Residential	15.1 (-4.3)	15.1 (-3.6)	14.2 (-10.7)	14.2 (-10.7)	14.2 (-10.7)	14.2 (-5.7)	14.2 -	14.2 -	14.2 -	
General(1)	14.9 (-3.8)	14.9 (-4.7)	14.0 (-12.3)	14.0 (-12.3)	14.0 (-12.3)	13.9 (-6.5)	14.1 (0.6)	14.1 (0.6)	14.1 (0.6)	
Commercial	15.4 (-4.4)	15.1 (-6.4)	13.5 (-18.2)	14.0 (-15.0)	14.8 (-10.1)	17.2 (14.2)	23.6 (75.0)	25.4 (81.4)	24.9 (68.1)	
Industry	13.0 (-2.3)	12.6 (-8.4)	11.4 (-21.4)	12.0 (-17.8)	12.8 (-12.2)	14.4 (14.2)	21.3 (86.5)	23.1 (93.4)	22.6 (77.2)	
Heat(won/Mcal)										
Residential	64.5 (-2.7)	66.2 (0.7)	65.2 (-2.8)	65.2 (-2.8)	65.2 (-2.8)	65.2 (-1.4)	65.2 -	65.2 -	65.2 -	
Commercial	83.8 (-2.7)	85.9 (0.7)	84.7 (-2.8)	84.7 (-2.8)	84.7 (-2.8)	84.7 (-1.4)	84.7 -	84.7 -	84.7 -	
Public	73.2 (-2.7)	75.1 (0.7)	74.0 (-2.9)	74.0 (-2.9)	74.0 (-2.9)	74.0 (-1.4)	74.0 -	74.0 -	74.0 -	
Electricity(won/kWh)										
Residential	147.3 -	147.3 -	147.3 -	142.3 (-3.4)	142.3 (-3.4)	142.3 (-3.4)	142.3 (-3.4)	142.3 -	142.3 -	
General	84.4 -	84.4 -	92.3 -	87.3 (-5.4)	87.3 (-5.4)	79.4 (-5.9)	87.3 (-5.4)	87.3 -	87.3 -	
Industry	96.0 -	96.0 -	108.5 -	103.5 (-4.6)	103.5 (-4.6)	91.0 (-5.2)	103.5 (-4.6)	103.5 -	103.5 -	

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	2020	2021p				2022p		
			M12	M1	M2		M12	M1	M2
Coal (Mton)	133.0	116.6	10.9	10.5	8.5	116.8	10.0	10.5	8.9
	(-5.7)	(-12.4)	(-12.8)	(-1.4)	(-8.1)	(0.2)	(-8.1)	(-0.2)	(3.9)
- Coking coal excluded	98.0	82.8	8.0	7.6	5.7	81.5	7.0	7.5	6.4
	(-7.9)	(-15.6)	(-16.2)	(-2.8)	(-13.0)	(-1.6)	(-12.3)	(-0.8)	(11.4)
Oil (Mbbbl)	927.1	872.4	85.1	75.5	72.1	932.2	75.5	86.9	74.9
	(-0.5)	(-5.9)	(2.0)	(-6.4)	(0.4)	(6.9)	(-11.3)	(15.2)	(3.8)
- Non-energy oil excluded	451.8	423.6	42.9	37.3	34.1	429.6	37.4	42.5	36.8
	(1.4)	(-6.2)	(3.4)	(-2.7)	(1.3)	(1.4)	(-12.8)	(14.1)	(7.8)
LNG (Mton)	41.0	42.1	5.0	5.8	4.5	45.8	5.4	5.4	4.8
	(-3.1)	(2.7)	(2.4)	(16.4)	(0.2)	(8.7)	(8.5)	(-6.2)	(7.5)
Hydro (TWh)	6.2	7.1	0.5	0.5	0.5	6.7	0.5	0.5	0.5
	(-14.1)	(14.4)	(-16.7)	(-4.0)	(-9.5)	(-5.8)	(-0.7)	(0.7)	(2.8)
Nuclear (TWh)	145.9	160.2	11.1	14.0	12.7	158.0	15.1	16.1	14.0
	(9.3)	(9.8)	(-11.0)	(18.0)	(0.3)	(-1.4)	(36.2)	(14.7)	(9.9)
Others (Mtoe)	17.7	19.0	1.5	1.6	1.5	20.1	1.7	1.9	1.8
	(3.3)	(7.3)	(0.7)	(12.2)	(4.9)	(5.8)	(13.3)	(16.5)	(17.6)
TPES (Mtoe)	303.1	292.1	28.0	28.3	24.6	305.3	27.9	30.0	26.0
	(-1.5)	(-3.6)	(-3.2)	(3.8)	(-1.2)	(4.5)	(-0.3)	(5.9)	(5.7)
- Non-energy oil excluded	244.0	236.1	22.7	23.5	19.9	242.3	23.1	24.4	21.3
	(-1.3)	(-3.2)	(-4.1)	(6.9)	(-1.6)	(2.7)	(1.7)	(3.9)	(7.0)
- Non-energy oil&coal excluded	219.6	212.5	20.7	21.4	17.9	217.7	21.0	22.3	19.5
	(-1.5)	(-3.2)	(-4.3)	(7.3)	(-2.2)	(2.4)	(1.6)	(4.1)	(9.0)

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

Share of TPES by Sources

(unit: %)

	2019	2020	2021p				2022p		
			M12	M1	M2		M12	M1	M2
Coal	27.1	24.7	24.1	23.0	21.7	23.8	22.3	21.7	21.2
- Coking coal excluded	19.1	16.7	16.8	15.7	13.8	15.7	14.7	14.7	14.5
Oil	38.7	37.7	38.5	33.7	37.0	38.6	34.5	36.6	36.0
- non-energy oil excluded	19.2	18.6	19.7	16.8	17.7	18.0	17.4	18.1	17.7
LNG	17.7	18.8	23.3	26.7	23.6	19.6	25.4	23.6	24.0
Hydro	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.4
Nuclear	10.3	11.7	8.4	10.6	11.0	11.0	11.5	11.4	11.4
Others	5.8	6.5	5.2	5.6	6.3	6.6	5.9	6.2	7.0
TPES	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	2020	2021p				2022p		
			M12	M1	M2		M12	M1	M2
Industry	142.9 (-0.4)	138.0 (-3.5)	12.3 (-3.1)	12.2 (-2.9)	11.3 (0.3)	148.0 (7.3)	13.3 (8.1)	13.2 (8.4)	11.6 (1.9)
Transport	43.0 (0.0)	39.4 (-8.2)	3.3 (-12.3)	3.1 (-5.9)	3.0 (-4.0)	39.8 (0.9)	3.8 (14.9)	3.5 (15.2)	3.0 (-1.6)
Residential	22.6 (-3.6)	23.2 (2.6)	3.3 (10.4)	3.9 (21.3)	3.1 (6.3)	23.7 (2.3)	3.2 (-2.3)	3.8 (-2.0)	3.5 (11.4)
commercial	17.5 (-2.3)	16.7 (-4.3)	1.7 (-1.9)	2.0 (7.1)	1.7 (2.9)	17.6 (5.4)	1.7 (4.1)	2.0 (2.6)	1.9 (10.7)
Public	5.4 (-3.2)	5.3 (-2.6)	0.5 (0.2)	0.6 (6.7)	0.5 (1.9)	5.6 (5.8)	0.6 (12.1)	0.5 (-12.0)	0.5 (7.7)
TFC	231.4 (-0.9)	222.6 (-3.8)	21.0 (-2.7)	21.7 (1.4)	19.7 (0.8)	234.7 (5.4)	22.6 (7.3)	23.1 (6.5)	20.5 (3.8)
Coal (Mton)	48.2 (-2.2)	45.8 (-4.9)	4.4 (6.4)	4.1 (1.2)	3.5 (0.1)	47.8 (4.4)	4.1 (-5.2)	4.0 (-1.9)	3.4 (-3.3)
Oil (Mbbl)	918.5 (-0.2)	865.8 (-5.7)	74.6 (-11.3)	73.9 (-7.5)	71.3 (-0.2)	923.6 (6.7)	86.9 (16.5)	84.9 (14.8)	73.4 (3.0)
Electricity (TWh)	520.5 (-1.1)	509.3 (-2.2)	45.0 (0.7)	48.8 (5.2)	45.2 (1.5)	533.4 (4.7)	47.3 (4.9)	49.8 (2.1)	47.5 (5.2)
City gas (Bm³)	23.3 (-4.1)	22.4 (-3.5)	3.0 (7.0)	3.6 (17.9)	3.0 (5.1)	23.6 (5.1)	3.0 (-0.7)	3.5 (-2.9)	3.2 (9.0)
Heat:others (1 000 toe)	11.6 (-2.0)	12.3 (6.1)	1.3 (11.3)	1.4 (10.9)	1.2 (-2.2)	12.5 (2.0)	1.3 (-3.2)	1.4 (0.2)	1.3 (10.2)

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

Source: Monthly energy statistics

Share of the Total Final Consumption by Sources

(unit: %)

	2019	2020	2021p				2022p		
			M12	M1	M2		M12	M1	M2
Industry	61.8	62.0	58.4	56.3	57.5	63.1	58.8	57.4	56.5
Transport	18.6	17.7	15.6	14.1	15.3	17.0	16.7	15.2	14.5
Residential	9.8	10.4	15.5	18.0	15.9	10.1	14.1	16.6	17.1
commercial	7.6	7.5	8.0	9.0	8.8	7.5	7.7	8.7	9.4
Public	2.3	2.4	2.4	2.6	2.5	2.4	2.5	2.1	2.6
Final energy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Coal	13.9	13.7	13.6	12.5	12.0	13.6	12.2	11.6	11.0
Oil	50.2	49.1	45.2	43.1	45.7	49.7	48.9	46.5	45.0
Electricity	19.3	19.7	18.4	19.3	19.7	19.6	18.0	18.6	20.0
City gas	11.6	12.0	16.5	18.5	16.7	11.8	15.3	17.2	17.8
Heat:others	5.0	5.5	6.3	6.6	5.9	5.3	5.7	6.2	6.3

Note: p means provisional

Source: Monthly energy statistics

Statistics on Energy Production Facilities

	2019	2020	2021				2022		
			M12	M1	M2		M12	M1	M2
Total capacity (GW)	125.3 (5.2)	129.2 (3.1)	129.2 (3.1)	128.8 (7.9)	129.1 (8.2)	134.0 (6.9)	134.0 (6.9)	133.1 (6.2)	133.6 (6.1)
Nuclear	23.3 (6.4)	23.3 -	23.3 -	23.3 (6.4)	23.3 (6.4)	23.3 -	23.3 -	23.3 -	23.3 -
Bituminous coal	36.4 (0.1)	36.5 (0.1)	36.5 (0.1)	35.5 (-2.6)	35.5 (-2.6)	36.9 (1.5)	36.9 (1.5)	36.3 (-0.4)	36.3 (-0.4)
Gas	39.6 (4.5)	41.2 (4.1)	41.2 (4.1)	41.2 (8.5)	41.2 (8.5)	41.2 (4.2)	41.2 (4.2)	41.2 (0.1)	41.2 (0.1)
Refinery capacity (mil BPSD)	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, Monthly energy statistics

Statistics on Energy Consumption

	2019	2020	2021				2022		
			M12	M1	M2		M12	M1	M2
The number of household demanding city gas (mil)	19.7 (2.8)	20.1 (2.3)	20.1 (2.3)	20.2 (2.6)	20.3 (2.5)	20.5 (2.0)	20.5 (2.0)	20.6 (1.8)	20.6 (1.8)
Registered cars (mil)	23.7 (2.0)	24.4 (2.9)	24.4 (2.9)	24.4 (3.0)	24.5 (3.1)	24.9 (2.2)	24.9 (2.2)	25.0 (2.2)	25.0 (2.2)
- gasoline	11.0 (3.1)	11.4 (4.1)	11.4 (4.1)	11.4 (4.2)	11.5 (4.2)	11.8 (3.1)	11.8 (3.1)	11.8 (3.0)	11.8 (3.0)
- diesel	10.0 (0.3)	10.0 (0.3)	10.0 (0.3)	10.0 (0.4)	10.0 (0.5)	9.9 (-1.2)	9.9 (-1.2)	9.9 (-1.3)	9.9 (-1.4)
- LPG	2.0 (-1.5)	2.0 (-1.3)	2.0 (-1.3)	2.0 (-1.5)	2.0 (-1.6)	1.9 (-1.7)	1.9 (-1.7)	1.9 (-1.6)	1.9 (-1.6)
- hybrid	0.5 (26.1)	0.6 (33.1)	0.6 (33.1)	0.7 (34.5)	0.7 (36.2)	0.9 (34.0)	0.9 (34.0)	0.9 (33.0)	0.9 (32.8)

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

Source: Monthly energy statistics