

KEEI MONTHLY KOREA ENERGY TRENDS



COAL **-7.7%**
PETROLEUM **3.0%**
LNG **7.7%**
NUCLEAR **0.5%**
NEW & RENEWABLE **12.3%**
MARCH. 2022

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



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1. The Economy and the Industry

- **The mining & manufacturing production index posted a year-on-year growth of 3.7% in March as a result of the overall increase in industrial production activities except the automobile production.**
 - The semiconductor production index was up 26.5% year-on-year, as a contactless environment pushed up semiconductor demand, which led to the increased utilization rate of semiconductor factories (8.2%, based on the utilization rate index), and as its export has been robust (38.0%, based on export value).
 - The production index of basic chemical materials remained flat compared to the same month last year, despite the construction of additional basic petrochemical facilities, because the utilization rate of some facilities decreased (-2.3%, based on the utilization rate index) following an explosion (Yeocheon NCC).
 - The iron & steel production index went up by 1.8% year-on-year, as the strong export demand continued (26.8%, based on export value).
 - The automobile production index fell by 6.3% yoy partly because of the ongoing supply-demand problem of semiconductors used in automobiles and disrupted supply of some components from China.
- **The service production index increased by 3.7% yoy in March, as social distancing rules were eased.**
 - The wholesale and retail production index went up by 2.7% year-on-year, as the production increased in most sub-sectors except the automobile and component sales, which was affected by a steady recovery in consumer sentiment.
 - The food & accommodation production index went up by 6.3% year-on-year, as larger social gatherings were allowed, and restaurants and cafes have longer business hours.

► Major economic and industrial indicators

| | 2021p | | | 2022p | | | |
|---|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| GDP (trillion won) | 1 915.8 (4.1) | 453.8 (2.2) | 453.8 (2.2) | 467.4 (3.0) | - - | - - | 467.4 (3.0) |
| Total export (\$billion, customs clearance basis) | 644.4 (25.7) | 146.4 (12.5) | 53.7 (16.3) | 173.2 (18.3) | 55.5 (15.5) | 54.0 (20.8) | 63.8 (18.8) |
| Industrial production index (2015=100) | 114.3 (7.4) | 110.0 (4.7) | 118.9 (4.7) | 115.2 (4.7) | 115.1 (4.3) | 107.1 (6.4) | 123.3 (3.7) |
| Semi-conductors | 298.6 (29.4) | 257.6 (21.7) | 284.4 (25.5) | 332.9 (29.2) | 318.4 (30.5) | 320.3 (30.9) | 359.9 (26.5) |
| Basic chemical products | 107.9 (6.7) | 106.9 (-1.7) | 111.5 (5.5) | 108.4 (1.3) | 112.8 (5.5) | 100.8 (-1.6) | 111.5 - |
| Iron&Steel | 97.4 (5.8) | 94.6 (-2.1) | 98.7 (-1.3) | 96.6 (2.1) | 100.4 (4.4) | 89.0 - | 100.5 (1.8) |
| Cars | 88.2 (4.5) | 90.8 (12.2) | 100.9 (-0.4) | 86.8 (-4.4) | 83.7 (-9.2) | 82.1 (3.5) | 94.5 (-6.3) |
| Service production index (2015=100) | 110.9 (4.3) | 106.0 (2.3) | 111.6 (7.9) | 110.2 (4.0) | 109.6 (4.7) | 105.4 (3.7) | 115.7 (3.7) |
| Wholesale & Retail | 106.0 (4.0) | 101.9 (3.1) | 109.4 (8.3) | 105.0 (3.0) | 105.6 (4.5) | 96.9 (1.8) | 112.4 (2.7) |
| Food & Accommodation | 80.7 (1.4) | 67.5 (-13.1) | 76.7 (19.5) | 79.0 (17.0) | 82.5 (37.3) | 73.0 (11.1) | 81.5 (6.3) |

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 prices of major energy sources surged all together in March amid escalating geopolitical risks.**

- Global oil price jumped 19.3% in March from the previous month due to the factors that can disrupt oil supply, such as the Russia-Ukraine war and western sanctions on Russia.
- Global coal price soared by over 50% during the first week of March alone amid concerns on potential coal export disruptions in Russia because of the western sanctions.
- Global natural gas price surged from a month ago, after Russia announced that it would require gas buyers to pay in rubles.

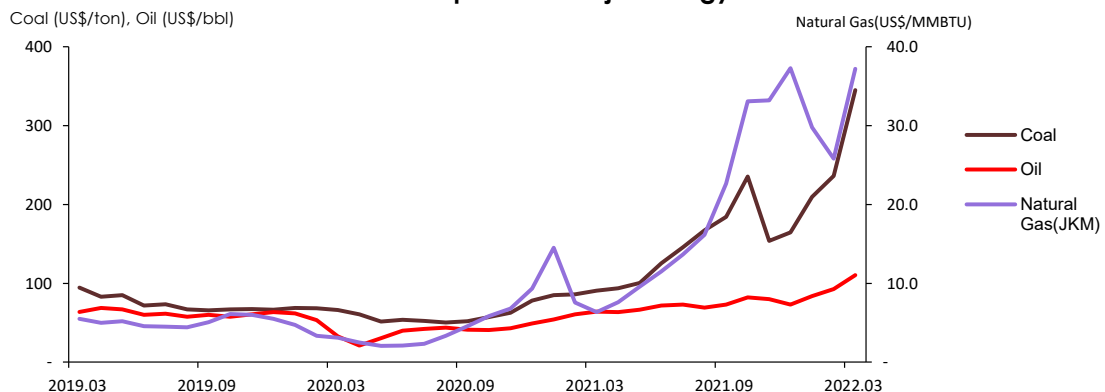
► Global energy prices

| | 2020 | 2021 | M1 | M2 | M3 | 2022 | M1 | M2 | M3 |
|--------------------------|---------|---------|--------|---------|---------|---------|---------|--------|----|
| Crude oil (US\$/bbl) | 41.6 | 69.4 | 54.1 | 60.7 | 64.2 | 84.0 | 92.7 | 110.6 | |
| | (-32.4) | (66.7) | (10.3) | (12.3) | (5.6) | (14.7) | (10.3) | (19.3) | |
| Coal (US\$/ton) | 60.2 | 136.4 | 84.9 | 86.1 | 90.9 | 209.6 | 236.2 | 345.3 | |
| | (-22.8) | (126.5) | (8.5) | (1.4) | (5.6) | (27.3) | (12.7) | (46.1) | |
| Natural gas (US\$/MMBTU) | | | | | | | | | |
| TTF | 3.2 | 16.2 | 7.3 | 6.2 | 6.1 | 28.2 | 27.2 | 42.3 | |
| | (-32.3) | (398.7) | (24.0) | (-15.3) | (-0.5) | (-25.7) | (-3.7) | (55.6) | |
| JKM | 4.2 | 17.8 | 14.5 | 7.6 | 6.3 | 29.8 | 25.8 | 37.2 | |
| | (-25.2) | (326.0) | (55.4) | (-47.7) | (-16.5) | (-20.1) | (-13.3) | (44.1) | |

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 consumed data is available. For more on the latest price trend, see *Energy Supply and Demand Brief*.

Domestic energy prices

- **Gasoline and diesel prices rose sharply in March from the previous month, owing to the global oil price increase.**
 - The average gasoline and diesel prices at gas stations went up by 13.1% and 18.9% respectively than a month ago, which was affected by rising oil price in the global market.
 - Bunker-C oil price rose by 3.9% from the prior month and by 42.0% on a year-on-year basis also because of the global oil price hike.
 - Propane and butane prices were up 1.4% and 3.1% respectively, as their supply prices increased.
- **The relative price of propane versus city gas for industrial customers (propane/city gas) increased by 4.5% to 1.22 in March compared to the previous month.**
 - Industrial propane price increased, while industrial city gas price was flat, and consequently, the relative price increased on a month-on-month basis.
 - On a year-on-year basis, however, industrial propane and city gas prices rose by 37.6% and 63.7% respectively, and accordingly, the relative price of propane in terms of city gas (propane/city gas) fell by 19.8%.

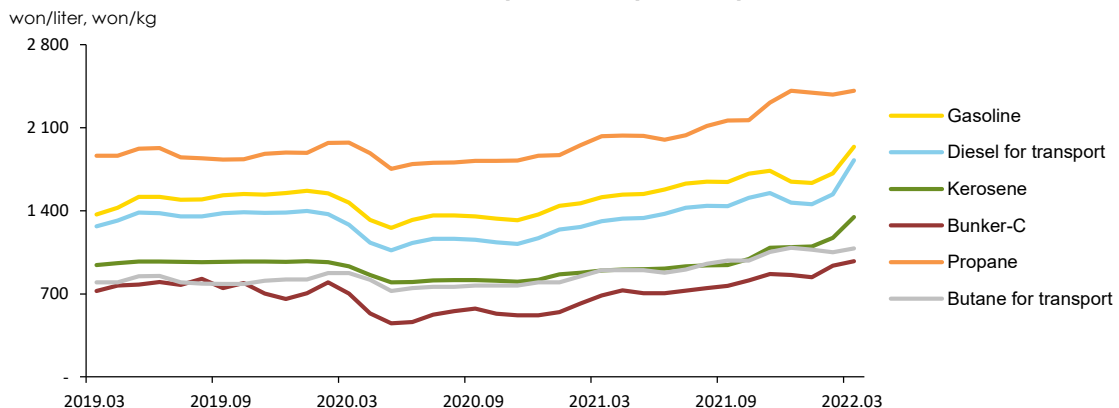
► Domestic petroleum product prices

| | 2020 | 2021 | | | | 2022 | | |
|----------------------------------|--------------------|-------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|
| | | | M1 | M2 | M3 | M1 | M2 | M3 |
| Gasoline (won/liter) | 1 381.2 (-6.2) | 1 591.1 (15.2) | 1 441.8 (5.4) | 1 463.2 (1.5) | 1 513.3 (3.4) | 1 635.2 (-0.7) | 1 714.6 (4.9) | 1 938.5 (13.1) |
| Diesel for transport (won/liter) | 1 189.5 (-11.3) | 1 392.0 (17.0) | 1 242.4 (6.3) | 1 263.4 (1.7) | 1 312.6 (3.9) | 1 453.5 (-1.0) | 1 536.6 (5.7) | 1 826.9 (18.9) |
| Bunker-C (won/liter) | 572.9 (-23.0) | 732.2 (27.8) | 545.5 (5.1) | 619.6 (13.6) | 686.0 (10.7) | 840.4 (-2.2) | 937.4 (11.6) | 974.0 (3.9) |
| Propane (won/kg) | 1 850.3 (-1.0) | 2 093.4 (13.1) | 1 868.1 (0.2) | 1 952.5 (4.5) | 2 029.2 (3.9) | 2 395.0 (-0.6) | 2 379.0 (-0.7) | 2 412.1 (1.4) |
| Butane for transport (won/liter) | 790.8 (-1.9) | 932.3 (17.9) | 797.2 (0.0) | 847.8 (6.4) | 898.6 (6.0) | 1 071.8 (-1.4) | 1 050.7 (-2.0) | 1 083.0 (3.1) |

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



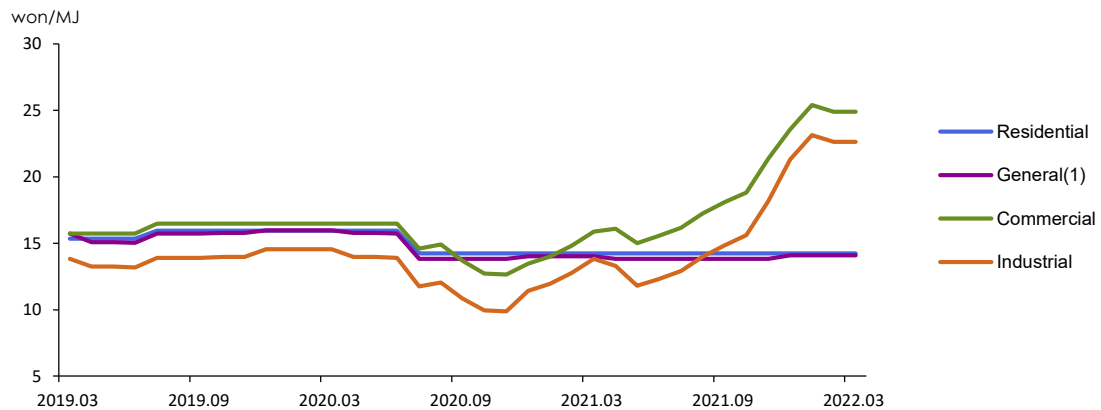
□ **City gas rates remained flat in March at the previous month's level, which was aimed at alleviating the burden on consumers.**

- Wholesale city gas rate was kept unchanged despite some factors that could have raised the rate, such as rising global natural gas price due to the geopolitical risks.

□ **Electric rates for general and industrial customers declined in March, as it was adjusted for the spring/autumn season, while the rate was flat for residential customers compared to the previous month.**

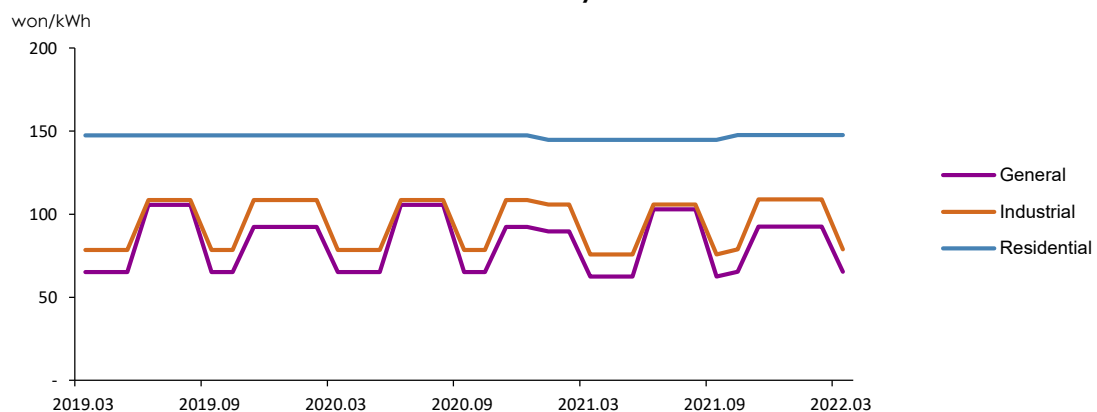
- Electric rates for general and industrial customers, which change by season, dropped by 29.3% and 27.6% respectively in March as a result of the seasonal rate adjustment from winter (Nov-Feb) to spring/autumn (Mar-May, Sept-Oct).

► 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 increased by 7.5% year-on-year in March, as the import of almost all major energy sources increased except coal.**
 - The import volume of crude oil posted a year-on-year growth of 19.0% due to the base effect (-14.5%) of the same month last year and the increased crude oil input to refineries (10.0%). The crude oil inventory jumped 21.6% year-on-year by the end of March.
 - The import volume of petroleum products was up 8.3% year-on-year, led by a surge in LPG (propane + butane) imports.
 - The import volume of bituminous coal dropped by 7.8% year-on-year, as global coal price soared (279.8%, yoy) amid the unstable supply-demand situation, which was caused by the war in Ukraine.
 - The gas import volume rose by 18.1% year-on-year, as its demand increased in the power generation sector (4.5%) and in the city gas production sector (9.0%) as well, with the latter affected by cold weather and the increased number of heating degree days (11.0%).
 - The energy import value (based on CIF price) jumped 100.2% year-on-year, and the energy share of the total import value has been around 30% since January.

► Import and domestic production of energy

| | 2021p | | | 2022p | | | |
|--|---------|---------|---------|----------|----------|----------|----------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| Import volume | | | | | | | |
| Crude oil (Mbbl) | 960.1 | 223.8 | 71.9 | 259.6 | 94.8 | 79.3 | 85.6 |
| | (-2.1) | (-15.0) | (-14.5) | (16.0) | (23.3) | (5.7) | (19.0) |
| Petroleum product (Mbbl) | 392.3 | 88.0 | 29.1 | 100.8 | 36.2 | 33.0 | 31.6 |
| | (12.9) | (-14.4) | (-8.2) | (14.5) | (25.4) | (10.0) | (8.3) |
| Bituminous coal (Mton) | 108.0 | 26.0 | 9.4 | 26.8 | 10.2 | 8.0 | 8.6 |
| | (-6.4) | (-4.5) | (9.4) | (3.0) | (16.3) | (1.2) | (-7.8) |
| Anthracite (Mton) | 6.5 | 1.5 | 0.6 | 1.3 | 0.5 | 0.4 | 0.5 |
| | (3.0) | (4.2) | (34.3) | (-15.1) | (-29.5) | (62.7) | (-28.6) |
| LNG (Mton) | 45.9 | 13.8 | 4.2 | 13.4 | 5.0 | 3.5 | 5.0 |
| | (14.9) | (11.0) | (18.4) | (-2.5) | (13.0) | (-32.7) | (18.1) |
| Import volume (Mtoe) | 335.6 | 82.8 | 27.8 | 88.3 | 31.9 | 26.6 | 29.9 |
| | (3.1) | (-6.0) | (-0.3) | (6.7) | (14.7) | (-2.2) | (7.5) |
| Import value (billion US\$, CIF) | 137.2 | 27.1 | 9.3 | 51.7 | 18.2 | 14.9 | 18.7 |
| | (58.5) | (-13.7) | (7.6) | (90.9) | (121.3) | (55.6) | (100.2) |
| Energy share of total import value (%) | 22.1 | 19.9 | 18.7 | 29.2 | 30.2 | 28.0 | 29.4 |
| Foreign energy dependence (%)* | 92.8 | 93.2 | 92.8 | 92.7 | 93.3 | 92.5 | 92.1 |
| Domestic production | | | | | | | |
| Hydropower (TWh) | 6.74 | 1.51 | 0.51 | 1.57 | 0.52 | 0.49 | 0.55 |
| | (-5.7) | (-5.8) | (-4.1) | (3.9) | (0.7) | (2.8) | (8.1) |
| Anthracite (Mton) | 0.90 | 0.22 | 0.08 | 0.21 | 0.07 | 0.06 | 0.08 |
| | (-11.9) | (-17.6) | (-17.2) | (-6.3) | (-6.5) | (-4.8) | (-7.3) |
| Natural gas (Mton) | 0.04 | 0.02 | 0.01 | - | - | - | - |
| | (-70.3) | (-65.3) | (-68.8) | (-100.0) | (-100.0) | (-100.0) | (-100.0) |
| Renewable energy (Mtoe) | 20.04 | 4.85 | 1.71 | 5.60 | 1.86 | 1.82 | 1.92 |
| | (5.6) | (6.1) | (2.1) | (15.4) | (16.5) | (17.6) | (12.3) |

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

4. Energy Consumption

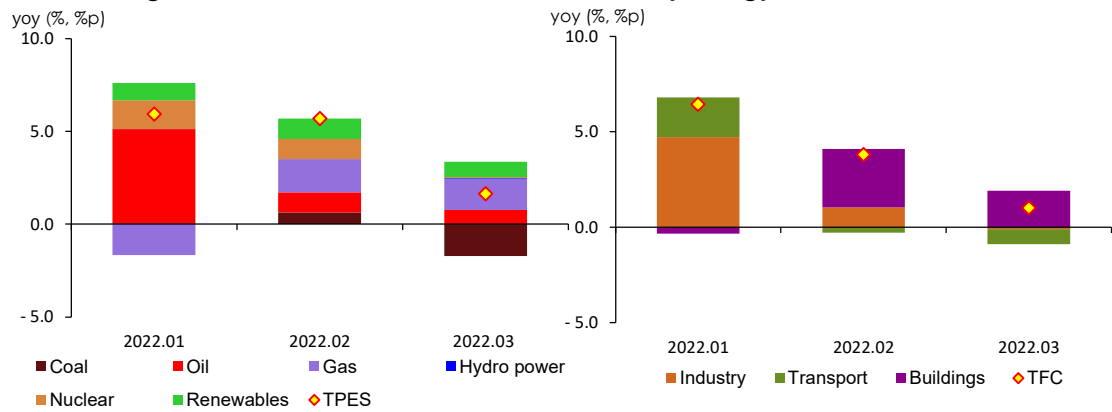
- **The Total Primary Energy Supply(“TPES”) grew by mere 1.6% year-on-year in March, as coal use started a downward slide, and the use of nuclear energy grew at slower pace.**
 - Coal use dropped by 7.7% year-on-year, as its industrial use plunged due to sluggish demand in the primary metals (iron & steel) and cement sectors, and as coal use for power generation also fell for the first time in six months despite increased use of bituminous coal (1.1%), because anthracite use plunged (-99.8%).
 - Petroleum use went up by 3.0% year-on-year, with the industrial sector leading the growth, affected by growing demand for petroleum to replace gas and the construction of additional petrochemical facilities, even though it declined in the transport sector due to a surge in petroleum products prices.
 - Gas use rose by 7.7% year-on-year, as it rebounded in the power generation sector in four months ending the downward trend owing to a drop in natural gas price, and it grew fast in buildings due to temperature effect, even though industrial gas use declined partly because of the rate increase.
- **The Total Final Consumption rose by 1.0% year-on-year (in March), led by the buildings sector, although it declined in the industrial and transport sectors.**
 - Industrial energy use fell by 0.2% year-on-year, despite a surge in the petrochemical sector, as the number of work days decreased (1 day), and it fell more sharply in the primary metals sector, while it grew more slowly in the fabricated metals sector.
 - Transport energy use dropped by 5.0% year-on-year, because it plunged in the road transport sector, with gasoline and diesel prices surging by 28.1% and 39.2% year-on-year, even though energy use continued to recover in the aviation and navigation sectors.
 - Energy use in buildings posted a year-on-year growth of 8.8%, as the number of heating degree days increased (11.0%) amid extremely cold weather in March, and the service production index increased (3.7%) after social distancing rules were eased.

► Energy consumption

| | 2021p | | | 2022p | | | |
|---------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| TPES (Mtoe) | 305.2 | 78.5 | 25.6 | 82.0 | 30.0 | 26.0 | 26.0 |
| | (4.5) | (2.3) | (4.1) | (4.5) | (5.9) | (5.7) | (1.6) |
| - Feedstock exclude | 217.7 | 57.5 | 18.1 | 60.7 | 22.3 | 19.5 | 18.8 |
| | (2.4) | (2.3) | (1.1) | (5.6) | (4.1) | (9.0) | (4.0) |
| TFC (Mtoe) | 234.7 | 61.4 | 20.0 | 63.7 | 23.1 | 20.5 | 20.2 |
| | (5.4) | (2.4) | (5.3) | (3.8) | (6.4) | (3.8) | (1.0) |

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

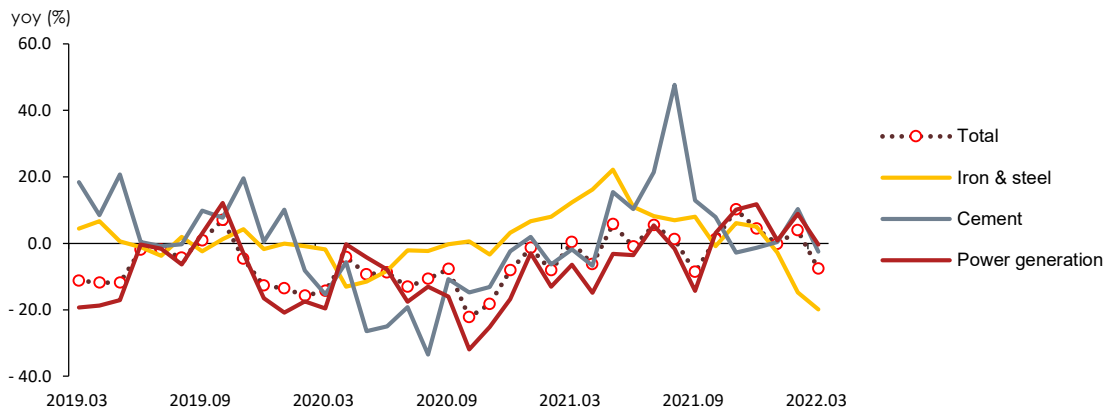
- **Coal use fell by 7.7% year-on-year in March, as it fell more sharply in the industrial sector and started to decline in the power generation sector.**
 - Industrial coal use dropped by almost 16%, because it kept plunging in the steelmaking sector and started a downward trend in the cement sector.
 - Coal use fell slightly in the power generation sector, even though coal-fired generation grew by 6% year-on-year owing to the increased installed capacity and growing coal demand to replace gas-fired generation, because the anthracite coal power generation was, in fact, halted.

► Coal consumption

| | 2021p | | | 2022p | | | |
|--------------------|--------------|-------------|------------|-------------|-------------|------------|------------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| Coal (Mton) | 116.8 | 28.0 | 8.9 | 27.6 | 10.5 | 8.9 | 8.2 |
| | (0.2) | (-3.0) | (0.4) | (-1.3) | (-0.2) | (3.9) | (-7.7) |
| Industry | 47.4 | 11.7 | 4.2 | 10.8 | 4.0 | 3.3 | 3.5 |
| | (4.6) | (3.8) | (9.5) | (-7.3) | (-1.8) | (-3.3) | (-15.9) |
| -Coking-coal | 35.3 | 8.9 | 3.1 | 8.1 | 3.0 | 2.5 | 2.6 |
| | (4.5) | (4.6) | (7.8) | (-8.9) | (1.2) | (-11.3) | (-16.5) |
| Buildings | 0.5 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| | (-11.6) | (-16.0) | (-26.3) | (-5.0) | (-7.3) | (-7.9) | (3.6) |
| Power generation | 68.9 | 16.2 | 4.7 | 16.7 | 6.5 | 5.5 | 4.7 |
| | (-2.5) | (-7.3) | (-6.4) | (3.0) | (0.9) | (8.9) | (-0.4) |

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

► The growth rate of coal consumption by use



6. Petroleum

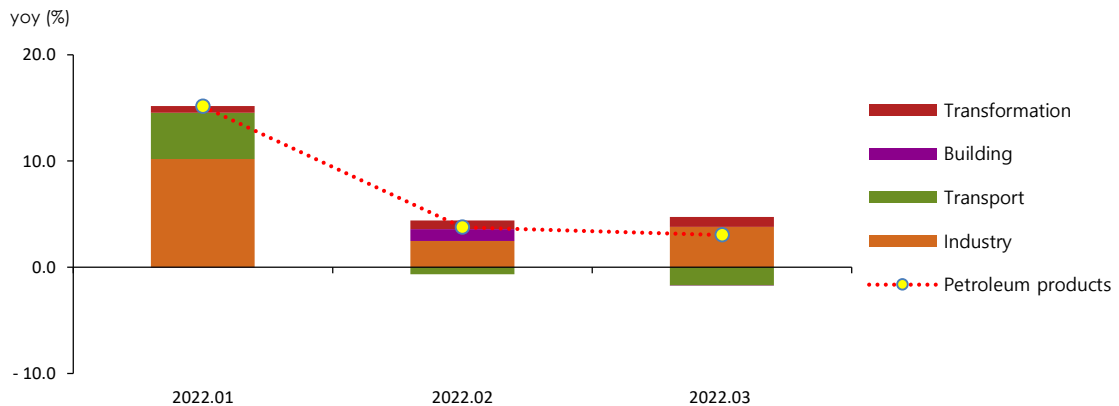
- **Petroleum use increased by 3.0% year-on-year in March, with the industrial sector taking the lead, although it declined in the transport and buildings sectors.**
 - Industrial petroleum use went up by 5.8% year-on-year, despite a drop in naphtha demand, due to increasing demand for LPG.
 - Petroleum use dropped by 5.8% in the transport sector, as it fell by over 8% in the road transport sector due to the oil price hike.
 - Petroleum use remained flat year-on-year in the building sector, as it increased in the commercial sector while decreased in the residential and public sectors.

► Petroleum product consumption by end-use sectors

| | 2021p | | | 2022p | | | |
|--------------------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| Petroleum (Mbbbl) | 932.4 | 224.3 | 76.6 | 240.7 | 86.9 | 74.9 | 78.9 |
| | (6.9) | (0.3) | (8.0) | (7.3) | (15.1) | (3.8) | (3.0) |
| Industry | 597.2 | 140.9 | 49.8 | 153.3 | 53.6 | 46.9 | 52.8 |
| | (9.8) | (-1.1) | (8.5) | (8.8) | (16.8) | (4.0) | (5.8) |
| -Naphtha | 450.9 | 107.8 | 38.5 | 113.9 | 40.3 | 34.4 | 39.2 |
| | (11.3) | (-1.7) | (11.5) | (5.7) | (16.5) | (-0.7) | (1.8) |
| Transport | 281.7 | 65.4 | 22.2 | 66.9 | 25.0 | 21.0 | 20.9 |
| | (1.6) | (-0.6) | (7.5) | (2.3) | (15.2) | (-2.2) | (-5.8) |
| Buildings | 44.7 | 15.0 | 4.0 | 15.8 | 6.3 | 5.5 | 4.0 |
| | (-0.1) | (10.4) | (3.1) | (5.2) | (-0.3) | (17.3) | (-0.0) |
| Power generation | 8.8 | 2.9 | 0.5 | 4.7 | 2.0 | 1.5 | 1.2 |
| | (34.0) | (72.3) | (12.0) | (61.1) | (30.3) | (68.1) | (146.6) |

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 increased by 7.7% year-on-year in March, led by the power generation and building sectors, although it declined in the industrial sector.**
 - Gas use for power generation rebounded in four months, as electricity use grew decently (6.4%), global natural gas price that has been soaring grew at slower pace, and the unit fuel cost of LNG power generation fell from the previous month.
 - Industrial gas use plunged year-on-year in March, as it fell drastically in the primary metals sector due to a sharp drop in directly imported gas (-51.0%) and also declined in the fabricated metals sector due to sluggish production, although it increased in the petrochemical sector following the construction of new and additional facilities.
 - Gas use went up by 11.9% year-on-year in the commercial sector, owing to the growing service production, which was affected by the eased social distancing rules, and gas use rose by 15.1% year-on-year in the residential sector due to cold weather (heating degree days 11.0% ↑).

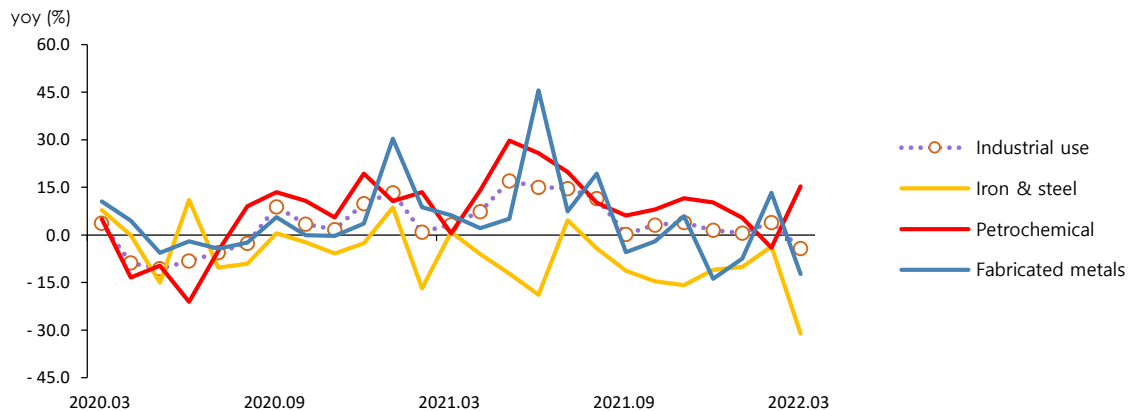
► Natural gas and city gas consumption

| | 2021p | 2022p | | | | | |
|--|-------------|-------------|------------|-------------|------------|------------|------------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| LNG (Mton) | 45.8 | 14.5 | 4.3 | 14.8 | 5.4 | 4.8 | 4.6 |
| | (8.7) | (8.1) | (6.6) | (2.1) | (-6.2) | (7.5) | (7.7) |
| Power generation | 21.5 | 5.9 | 2.0 | 5.6 | 1.8 | 1.7 | 2.1 |
| | (15.7) | (11.5) | (18.7) | (-6.2) | (-15.8) | (-6.3) | (4.5) |
| City gas production | 19.3 | 7.2 | 1.9 | 7.6 | 3.0 | 2.6 | 2.1 |
| | (5.9) | (9.6) | (1.3) | (5.6) | (-2.9) | (14.0) | (9.0) |
| Industry (Direct private importer) | 2.7 | 0.6 | 0.2 | 0.7 | 0.3 | 0.2 | 0.2 |
| | (-3.4) | (-8.9) | (-4.9) | (17.2) | (25.1) | (27.8) | (0.1) |
| City gas (Bm³) | 27.0 | 9.8 | 2.7 | 10.3 | 3.9 | 3.5 | 2.9 |
| | (4.0) | (7.2) | (1.0) | (4.8) | (-1.0) | (10.4) | (6.6) |
| Industry (including directly imported) | 11.9 | 3.2 | 1.0 | 3.2 | 1.2 | 1.0 | 1.0 |
| | (7.2) | (5.9) | (3.2) | (0.1) | (0.6) | (4.0) | (-4.3) |
| Buildings | 14.1 | 6.4 | 1.6 | 6.8 | 2.6 | 2.4 | 1.8 |
| | (2.0) | (8.6) | (-0.5) | (7.5) | (-1.7) | (13.8) | (14.4) |
| Transport. | 1.0 | 0.2 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 |
| | (-3.5) | (-7.5) | (1.5) | (-2.9) | (-1.1) | (-0.4) | (-6.9) |

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 rose by 6.4% year-on-year in March as a result of the increased production activities and heating demand.**

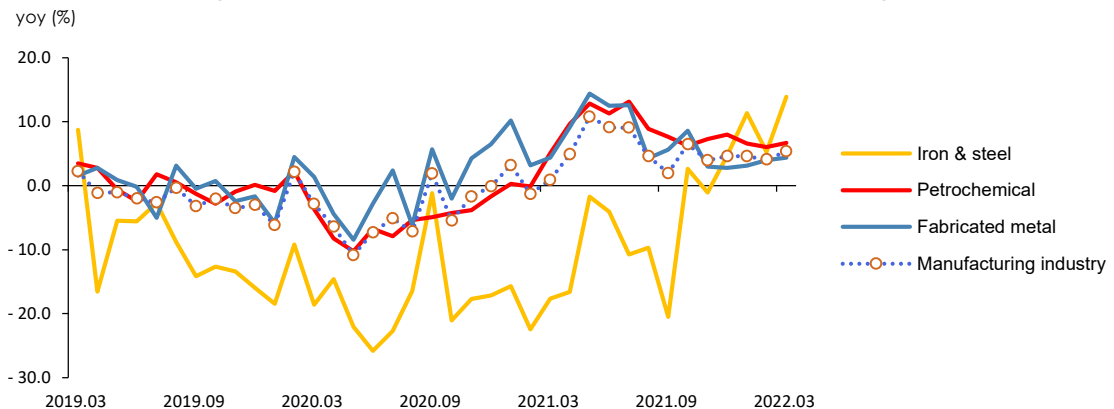
- Industrial electricity use went up by 5.8% year-on-year, as it surged in the three largest power consuming businesses.
- Electricity use grew by 4.4% in the fabricated metals sector due to the increased production of semiconductors and video & audio devices. It also increased by 6.7% in the petrochemical sector, which was driven by the increased production of petrochemical products (7.4% in three major products).
- Electricity use in buildings posted a year-on-year growth of 7.2%, which was attributed to the growth in the number of heating degree days and service production as well.

► Electricity consumption by end-use sectors

| | 2021p | | | 2022p | | | |
|--------------------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| Electricity (TWh) | 533.4 | 137.0 | 43.1 | 143.2 | 49.8 | 47.5 | 45.8 |
| | (4.7) | (2.5) | (0.5) | (4.5) | (2.1) | (5.2) | (6.4) |
| Industry | 282.4 | 70.2 | 23.4 | 73.7 | 25.6 | 23.4 | 24.7 |
| | (5.1) | (1.6) | (1.1) | (4.9) | (4.5) | (4.5) | (5.8) |
| Transport | 3.1 | 0.8 | 0.2 | 0.8 | 0.3 | 0.3 | 0.3 |
| | (-1.3) | (-2.2) | (-0.6) | (6.3) | (12.5) | (3.8) | (2.4) |
| Buildings | 247.9 | 66.0 | 19.5 | 68.7 | 23.9 | 23.9 | 20.9 |
| | (4.4) | (3.5) | (-0.2) | (4.0) | (-0.3) | (5.9) | (7.2) |
| Residential | 77.6 | 19.4 | 5.8 | 19.7 | 6.9 | 6.8 | 6.0 |
| | (4.7) | (5.3) | (-2.0) | (1.8) | (-1.2) | (2.2) | (4.8) |
| Commercial | 136.9 | 37.7 | 11.0 | 40.4 | 14.4 | 14.1 | 12.0 |
| | (3.6) | (1.8) | (-0.9) | (7.3) | (4.7) | (8.7) | (9.0) |

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

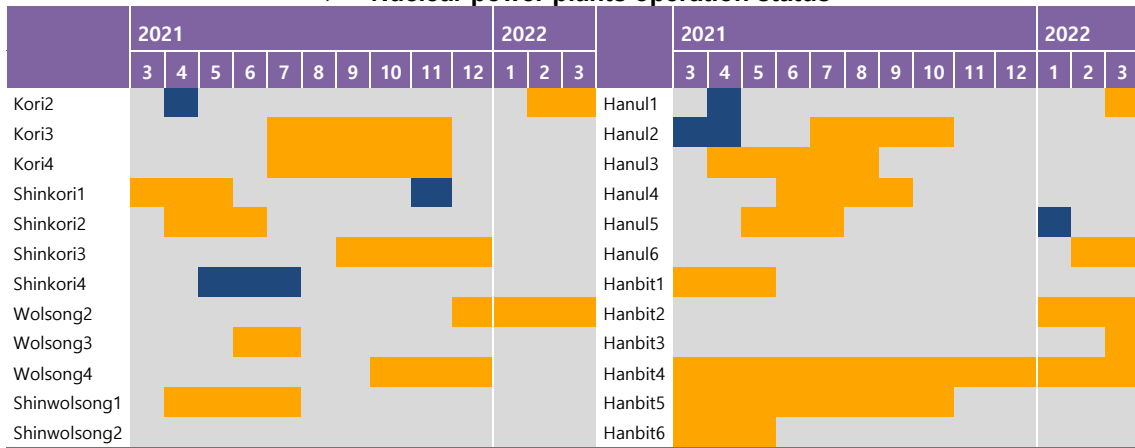
► The growth rate of electricity consumption in manufacturing industry



9. Nuclear

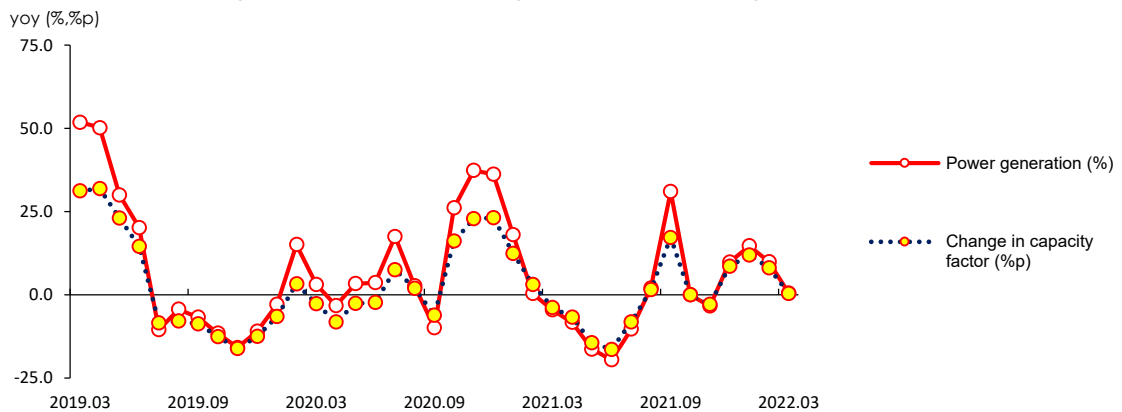
- The total nuclear generation remained flat in March on a year-on-year basis, as the number of reactors that were shutdown was the same as in March last year.
 - The number of reactors that were under planned preventive maintenance grew by two units, while the unscheduled shutdown cases dropped by two units as well, and consequently, the average capacity factor at nuclear power plants was flat on a year-on-year basis.
 - Nuclear's share of the total power generation fell to the low 20% range in July 2021 but grew rapidly to over 30% by December, and it was around 30% in March 2022.

► 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

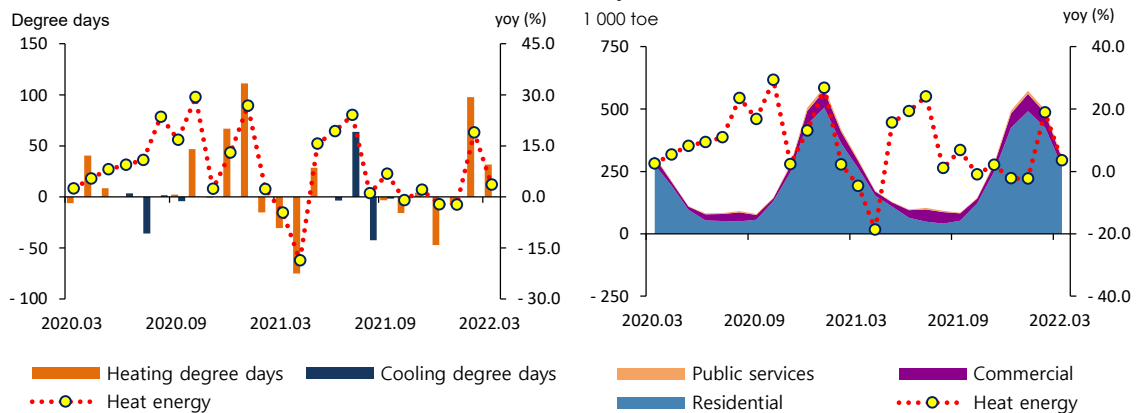
□ Heat energy use went up by 3.6% year-on-year in March, as it increased in all end-use sectors.

- Heat energy use grew by 3.3% year-on-year in the residential sector, which accounts for a large share of the total heat energy use, as the number of heating degree days increased (11.0%) amid cold weather.
- Heat energy use rose by 5.9% year-on-year in the commercial sector, affected by the increased service production (3.7%, based on the production index), which was attributed to longer business hours and larger social gatherings.

□ Renewable & other energy generation² went up by 3.1% year-on-year in March, led mostly by Solar PV and fuel cell.

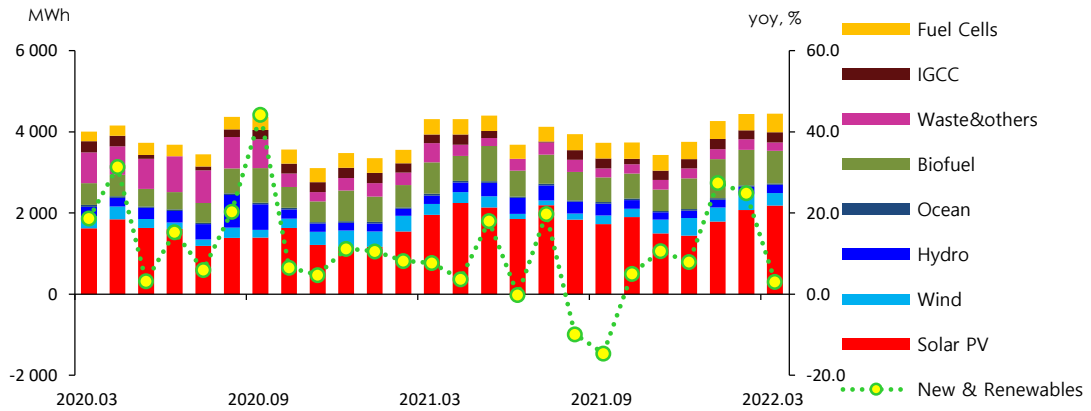
- Renewable & other energy generation increased by almost 3% in March from the same month last year, and solar PV and fuel cell generation led the growth.

► 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 slid by 0.2% year-on-year in March, despite the growth in the petrochemical sector's energy use, as it declined in the primary metals sector.**

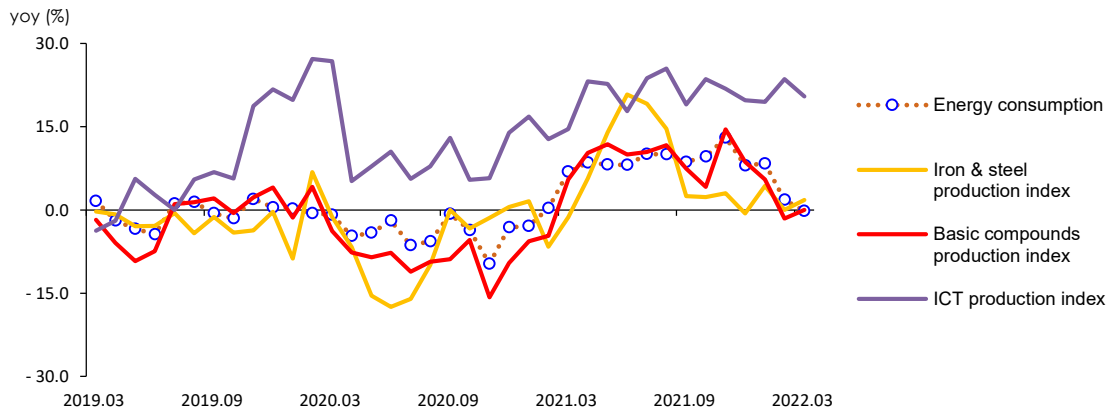
- Energy use fell sharply in the primary metals sector, especially coking coal, as the number of work days fell by one day due to the presidential election, while it increased in the petrochemical and fabricated metals sectors, and consequently, the total industrial energy use was almost flat.
- The petrochemical sector's energy use increased, because LPG use surged (50.6%), owing to the construction of additional facilities and a drop in the relative price of LPG, which boosted its demand, although naphtha use grew by just around 1%, following an explosion at Yecheon NCC (Feb 11).

► Industrial energy consumption

| | 2021p | | | 2022p | | | |
|------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | M1~3 | M3 | | M1~3 | M1 | M2 |
| Industry (Mtoe) | 148.0 | 36.1 | 12.5 | 37.3 | 13.2 | 11.5 | 12.5 |
| | (7.3) | (1.4) | (6.9) | (3.3) | (8.4) | (1.8) | (-0.2) |
| Petrochemical | 76.7 | 18.2 | 6.4 | 19.6 | 6.9 | 6.0 | 6.8 |
| | (10.9) | (-0.4) | (8.8) | (7.7) | (14.7) | (2.4) | (6.0) |
| - Naphtha | 55.3 | 13.2 | 4.7 | 14.0 | 4.9 | 4.2 | 4.8 |
| | (11.3) | (-1.7) | (11.5) | (5.7) | (16.5) | (-0.7) | (1.8) |
| Iron & Steel | 29.7 | 7.6 | 2.6 | 6.7 | 2.5 | 2.1 | 2.2 |
| | (5.5) | (5.1) | (8.2) | (-10.8) | (-1.9) | (-12.3) | (-18.1) |
| -Coking coal | 24.6 | 6.2 | 2.2 | 5.7 | 2.1 | 1.7 | 1.8 |
| | (4.5) | (4.6) | (7.8) | (-8.9) | (1.2) | (-11.3) | (-16.5) |
| Fabricated metal | 12.2 | 3.2 | 1.0 | 3.3 | 1.2 | 1.1 | 1.1 |
| | (7.2) | (7.9) | (4.5) | (2.5) | (0.6) | (6.0) | (1.1) |
| Share of feedstock (%) | 59.0 | 58.3 | 59.7 | 57.0 | 57.6 | 56.1 | 57.4 |

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 5.0% year-on-year in March, driven by a sharp drop in the road transport sector amid rising oil prices.**
 - Energy use in the road transport sector fell by 8.1% year-on-year, as domestic retail oil price increased in line with the global oil price hike
 - Energy use in the aviation sector was up 1.3% year-on-year despite the spread of Covid-19, as demand for air travel slowly recovers.
 - Energy use in the navigation sector jumped 20.5% year-on-year along with the steady growth in coastal cargo volume

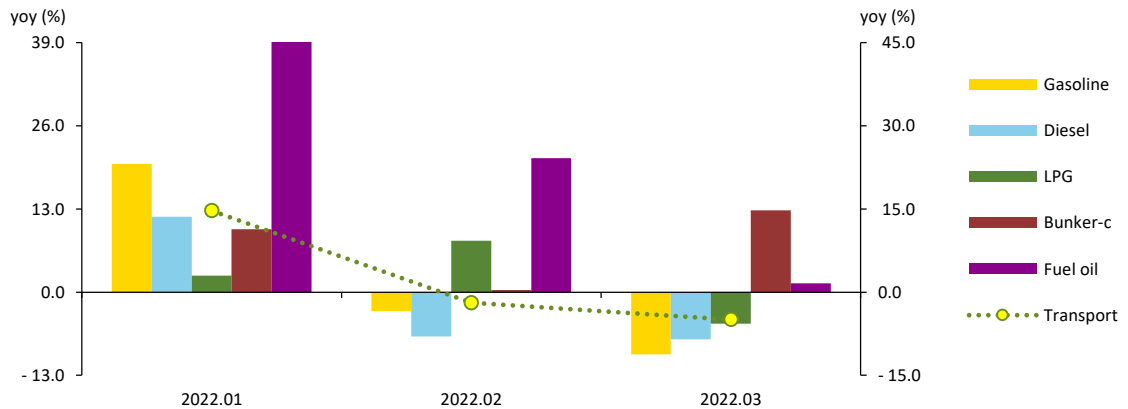
► The growth rate of petroleum consumption in the transport sector

| | 2021p | | | 2022p | | | |
|-------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| Transport (Mtoe) | 40.01 | 9.27 | 3.16 | 9.50 | 3.52 | 2.97 | 3.00 |
| | (1.5) | (-0.7) | (7.1) | (2.5) | (14.7) | (-1.9) | (-5.0) |
| Road | 34.07 | 7.84 | 2.65 | 7.83 | 2.91 | 2.49 | 2.44 |
| | (1.8) | (3.8) | (4.3) | (-0.1) | (12.5) | (-4.5) | (-8.1) |
| Navigation | 3.18 | 0.78 | 0.27 | 0.90 | 0.32 | 0.25 | 0.33 |
| | (2.3) | (-0.9) | (4.5) | (15.7) | (15.8) | (10.0) | (20.5) |
| Aviation | 2.46 | 0.57 | 0.21 | 0.69 | 0.27 | 0.21 | 0.21 |
| | (-3.9) | (-37.8) | (76.6) | (21.4) | (44.8) | (20.9) | (1.3) |
| Rail | 0.31 | 0.08 | 0.02 | 0.08 | 0.03 | 0.03 | 0.02 |
| | (-4.5) | (-7.5) | (-5.7) | (0.4) | (5.5) | (-1.3) | (-3.1) |

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 soared year-on-year in March due to temperature effect and stronger performance of the service sector.

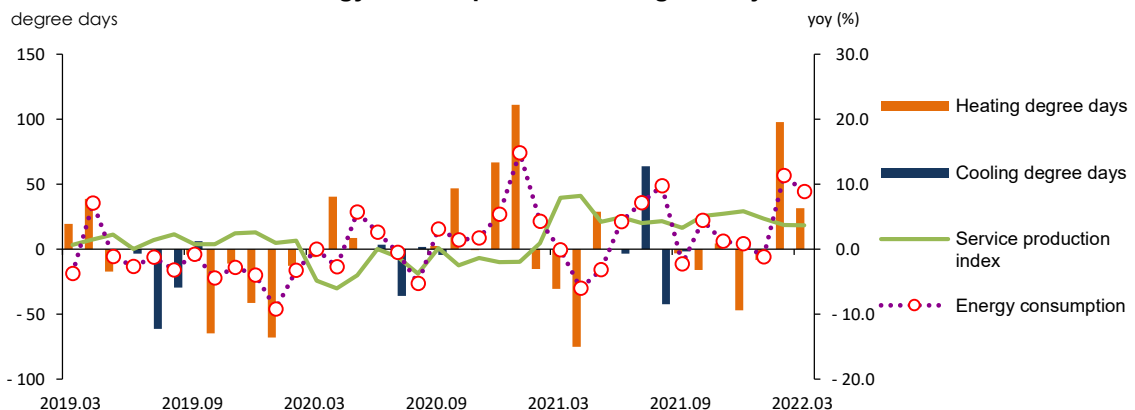
- Buildings' total energy use grew by 8.8% year-on-year, owing to the increased use of major energy sources except petroleum, as heating demand increased along with the rise in the number of heating degree days, and the service production also increased (↑ 3.7% in production index).
- Energy use went up by 9.7% year-on-year in the residential sector, which was driven by a surge in city gas use (15.1%) amid cold weather.
- Energy use dramatically increased in the commercial sector compared to the same month last year, led by the growth in electricity use.

► Energy consumption in buildings

| | 2021p | | | 2022p | | | |
|-------------------------------------|-------------|-------------|------------|-------------|------------|------------|------------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| Buildings (Mtoe) | 46.6 | 16.0 | 4.3 | 16.9 | 6.3 | 5.9 | 4.7 |
| | (3.3) | (7.0) | (-0.1) | (5.7) | (-1.2) | (11.3) | (8.8) |
| Residential | 23.8 | 9.4 | 2.4 | 9.9 | 3.8 | 3.5 | 2.6 |
| | (2.4) | (9.3) | (-3.2) | (5.4) | (-2.1) | (11.4) | (9.7) |
| Commercial | 17.3 | 5.1 | 1.4 | 5.5 | 2.0 | 1.9 | 1.6 |
| | (3.6) | (2.8) | (1.3) | (8.4) | (4.0) | (12.2) | (9.5) |
| Public/others | 5.6 | 1.5 | 0.5 | 1.5 | 0.5 | 0.5 | 0.5 |
| | (6.0) | (7.2) | (13.1) | (-1.2) | (-12.2) | (7.6) | (2.7) |
| Heating degree days | 2 404.7 | 1 288.5 | 288.1 | 1 409.5 | 583.1 | 506.7 | 319.7 |
| | (-1.8) | (5.3) | (-9.6) | (9.4) | (-1.4) | (23.9) | (11.0) |
| Cooling degree days | 101.3 | - | - | - | - | - | - |
| | (18.9) | - | - | - | - | - | - |
| Service production index (2015=100) | 110.9 | 106.0 | 111.6 | 110.2 | 109.6 | 105.4 | 115.7 |
| | (4.3) | (2.3) | - | (4.0) | - | - | - |

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

► Energy consumption in buildings & major indicators



14. Transformation

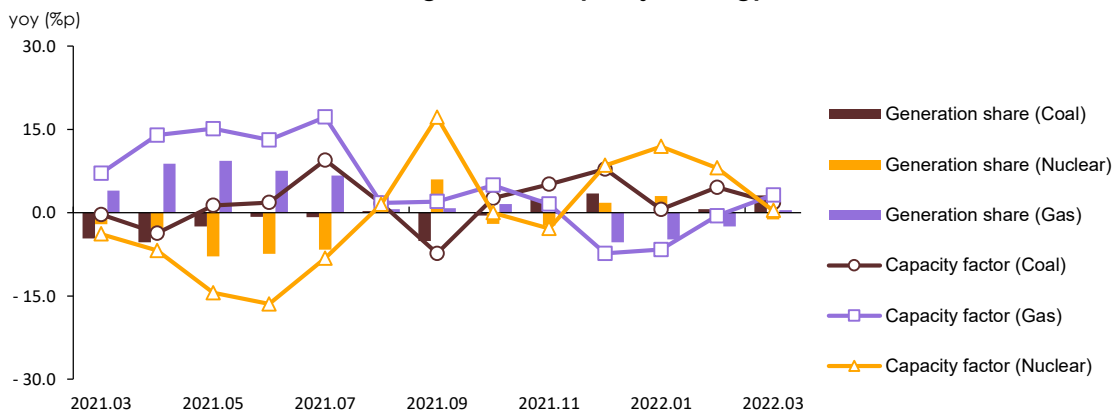
- The total power generation and energy input went up by 4.8% and 3.1% respectively in March, as electricity use grew decently.
 - The total power generation continued to rise rapidly mainly due to the growing use of electricity. Coal and gas-fired generation increased by around 6%, while nuclear generation remained flat on a year-on-year basis.
 - Gas-fired generation rebounded in four months, as global natural gas price that has been around \$30-40/MMBtu since last October fell to \$25.8(JKM futures price) in February 2022.

► Electricity Generation in the power generation sector

| | 2021p | | | 2022p | | | |
|-------------------------------------|--------------|--------------|-------------|--------------|-------------|----------------|-------------|
| | | M1~3 | M3 | M1~3 | M1 | M2 | M3 |
| Electricity Generation (TWh) | 576.7 | 145.3 | 47.2 | 152.8 | 54.8 | \$ 48.5 | 49.5 |
| | (4.5) | (2.0) | (2.3) | (5.2) | (3.2) | (7.8) | (4.8) |
| Coal | 198.0 | 45.5 | 13.2 | 48.3 | 18.4 | 15.9 | 14.0 |
| | (0.8) | (-6.2) | (-3.9) | (6.2) | (3.2) | (10.1) | (5.9) |
| Oil | 2.4 | 0.6 | 0.1 | 0.8 | 0.5 | 0.2 | 0.2 |
| | (4.4) | (1.3) | (2.8) | (47.5) | (58.8) | (34.1) | (36.3) |
| Gas | 168.3 | 46.7 | 15.7 | 45.5 | 15.3 | 13.6 | 16.7 |
| | (15.4) | (8.5) | (16.1) | (-2.6) | (-11.7) | (-1.1) | (6.3) |
| Nuclear | 158.0 | 40.6 | 13.8 | 44.0 | 16.1 | 14.0 | 13.9 |
| | (-1.4) | (3.9) | (-4.6) | (8.3) | (14.7) | (9.9) | (0.5) |
| Hydro/other renewables | 50.1 | 11.9 | 4.4 | 14.1 | 4.6 | 4.8 | 4.8 |
| | (5.5) | (5.9) | (1.8) | (18.7) | (25.1) | (23.3) | (9.4) |
| Baseload | 356.0 | 86.0 | 27.0 | 92.2 | 34.5 | 29.9 | 27.9 |
| | (-0.2) | (-1.7) | (-4.3) | (7.2) | (8.2) | (10.0) | (3.1) |

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

► Power generation by major energy sources



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

Major Statistics & Indicators of the Economy

| | 2020 | 2021 | | | | | 2022 | | | |
|---|-------------------|-------------------|------------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|
| | | | M1~3 | M1 | M2 | M3 | M1~3 | M1 | M2 | M3 |
| GDP (trillion won) | 1 839.5 (-0.7) | 1 915.8 (4.1) | 453.8 (2.2) | - | - | 453.8 (2.2) | 467.4 (3.0) | - | - | 467.4 (3.0) |
| Private consumption | 851.0 (-4.8) | 882.5 (3.7) | 215.7 (1.4) | - | - | 215.7 - | 225.0 (4.3) | - | - | 225.0 (4.3) |
| Facilities investment | 166.6 (7.2) | 181.6 (9.0) | 45.0 (14.5) | - | - | 45.0 - | 42.2 (-6.2) | - | - | 42.2 (-6.2) |
| Construction investment | 269.3 (1.5) | 265.0 (-1.6) | 54.5 (-2.3) | - | - | 54.5 (-2.3) | 51.4 (-5.5) | - | - | 51.4 (-5.5) |
| Consumer price index (2015=100) | 105.4 | 102.5 | 101.5 | 101.0 | 101.6 | 101.8 | 105.4 | 104.7 | 105.3 | 106.1 |
| USD to KRW exchange rate (won) | 1 180.3 | 1 144.0 | 1 113.4 | 1 097.5 | 1 111.7 | 1 131.0 | 1 204.5 | 1 194.0 | 1 198.3 | 1 221.0 |
| Benchmark rate (%) | 0.7 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 1.3 | 1.3 | 1.3 | 1.3 |
| Coincident composite index (2015=100) | 112.5 | 116.9 | 114.7 | 114.3 | 114.6 | 115.3 | 120.7 | 120.4 | 120.8 | 120.8 |
| Mining & manufacturing production index (2015=100) | 106.4 | 114.3 | 110.0 | 110.4 | 100.7 | 118.9 | 115.2 | 115.1 | 107.1 | 123.3 |
| Manufacturing operation ratio index (2015=100) | 95.3 | 99.8 | 95.9 | 96.2 | 87.8 | 103.7 | 100.2 | 100.2 | 92.9 | 107.6 |
| Average temperature | 13.0 | 13.3 | 3.7 | - 1.1 | 3.4 | 8.7 | 2.3 | - 0.8 | - 0.1 | 7.7 |
| - year-on-year difference | - 0.4 | 0.3 | - 0.9 | - 3.6 | 0.0 | 1.0 | - 1.4 | 0.3 | - 3.5 | - 1.0 |
| Heating degree days | 2 448.0 (3.3) | 2 404.7 (-1.8) | 1 288.5 (5.3) | 591.5 (23.2) | 408.9 (-3.6) | 288.1 (-9.6) | 1 409.5 (9.4) | 583.1 (-1.4) | 506.7 (23.9) | 319.7 (11.0) |
| Cooling degree days | 85.2 (- 29.2) | 101.3 (18.9) | - | - | - | - | - | - | - | - |
| Energy intensity | 0.16 (-3.1) | 0.16 (0.4) | 0.17 (0.0) | - | - | 0.17 (0.0) | 0.18 (1.4) | - | - | 0.18 (1.4) |
| Per capita consumption | | | | | | | | | | |
| oil (bbl) | 16.8 (-6.0) | 18.0 (7.1) | 4.3 (0.5) | 1.5 (-6.3) | 1.4 (0.6) | 1.5 (8.1) | 4.7 (7.6) | 1.7 (15.4) | 1.5 (4.0) | 1.5 (3.3) |
| Electricity (MWh) | 9.8 (-2.3) | 10.3 (4.9) | 2.6 (2.7) | 0.9 (5.4) | 0.9 (1.7) | 0.8 (0.7) | 2.8 (4.7) | 1.0 (2.4) | 0.9 (5.4) | 0.9 (6.7) |
| City gas (1 000 m ³) | 0.4 (-3.7) | 0.5 (5.3) | 0.2 (9.0) | 0.1 (18.2) | 0.1 (5.3) | 0.0 (1.8) | 0.2 (4.0) | 0.1 (-2.6) | 0.1 (9.3) | 0.1 (7.6) |
| Total energy (toe) | 5.6 (-3.8) | 5.9 (4.7) | 1.5 (2.5) | 0.5 (4.0) | 0.5 (-1.1) | 0.5 (4.3) | 1.6 (4.7) | 0.6 (6.2) | 0.5 (5.9) | 0.5 (1.9) |

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 Ratio & Output by Sectors

(2015=100)

</

Note: p means provisional

Source: Monthly Energy Statistics, Korea Petrochemical Industry Association

International Energy Prices

| | 2020 | 2021 | | | | | 2022 | | | |
|-------------------------------------|------------------|------------------|-----------------|------------------|-----------------|-----------------|------------------|--------------------|------------------|--------------------|
| | | | M1~3 | M1 | M2 | M3 | M1~3 | M1 | M2 | M3 |
| Crude oil (USD/bbl) | | | | | | | | | | |
| WTI | 39.4 (-30.9) | 67.9 (72.4) | 57.8 (25.3) | 52.1 (-9.4) | 59.1 (16.9) | 62.4 (104.8) | 94.3 (63.0) | 83.0 (59.3) | 91.6 (55.1) | 108.3 (73.6) |
| Dubai | 42.2 (-33.6) | 69.3 (64.1) | 60.1 (18.3) | 54.8 (-14.8) | 60.9 (12.3) | 64.4 (91.2) | 95.6 (59.2) | 83.5 (52.3) | 92.4 (51.7) | 110.9 (72.1) |
| Brent | 43.2 (-32.7) | 70.8 (63.8) | 61.1 (19.9) | 55.3 (-13.1) | 62.3 (12.3) | 65.7 (94.8) | 97.4 (59.4) | 85.6 (54.7) | 94.1 (51.1) | 112.5 (71.2) |
| Unit value of import (C&F) | 44.8 (-31.7) | 70.2 (56.9) | 59.0 (-4.9) | 53.7 (-22.3) | 59.2 (-7.8) | 64.1 (21.4) | 90.9 (54.0) | 81.7 (52.0) | 90.1 (52.3) | 100.9 (57.4) |
| LNG | | | | | | | | | | |
| TTF (USD/MMBTU) | 3.2 (-32.5) | 16.1 (396.9) | 6.5 (111.1) | 7.3 (100.0) | 6.2 (111.8) | 6.1 (125.1) | 32.6 (400.4) | 28.2 (288.8) | 27.2 (342.0) | 42.3 (591.5) |
| JKM (USD/MMBTU) | 4.2 (-25.4) | 17.8 (324.9) | 9.5 (154.0) | 14.5 (206.6) | 7.6 (126.7) | 6.3 (103.4) | 30.9 (226.0) | 29.8 (104.9) | 25.8 (240.0) | 37.2 (486.7) |
| Import price(Japan) (USD/MMBTU) | 8.3 (-21.3) | 10.8 (29.5) | 8.9 (-10.7) | 9.0 (-8.9) | 9.9 (-0.2) | 7.9 (-22.7) | 14.9 (67.1) | 14.7 (63.1) | 14.9 (51.2) | 15.1 (91.4) |
| Unit value of import (USD/ton, CIF) | 390.2 (-22.8) | 550.7 (41.2) | 461.2 (0.3) | 413.7 (-12.0) | 531.5 (18.9) | 438.5 (-5.1) | 999.5 (116.7) | 1 138.0 (175.1) | 843.9 (58.8) | 1 016.7 (131.9) |
| Bituminous coal (USD/ton) | | | | | | | | | | |
| From Australia | 60.3 (-22.8) | 136.0 (125.8) | 87.3 (28.6) | 84.9 (23.0) | 86.1 (25.8) | 90.9 (37.3) | 263.7 (202.1) | 209.6 (146.9) | 236.2 (174.5) | 345.3 (279.8) |
| Unit value of import (CIF) | 77.7 (-22.9) | 115.1 (48.1) | 82.4 (-5.8) | 77.1 (-11.1) | 80.4 (-6.2) | 89.6 (-0.4) | 198.5 (140.9) | 183.0 (137.4) | 196.9 (144.7) | 215.5 (140.4) |
| Petroleum product (USD/bbl) | | | | | | | | | | |
| Gasoline | 46.7 (-35.7) | 80.3 (72.2) | 67.2 (17.0) | 60.1 (-15.7) | 67.9 (5.4) | 73.5 (101.6) | 113.3 (68.8) | 98.1 (63.2) | 110.8 (63.2) | 131.2 (78.5) |
| Kerosene | 44.7 (-42.1) | 75.1 (67.9) | 63.3 (6.9) | 58.0 (-23.0) | 65.2 (3.3) | 66.8 (69.9) | 111.8 (76.5) | 95.7 (64.9) | 106.2 (63.0) | 133.5 (99.8) |
| Diesel | 49.4 (-36.8) | 77.6 (57.2) | 65.9 (5.1) | 60.0 (-21.6) | 67.9 (3.0) | 69.7 (53.3) | 117.2 (77.9) | 99.2 (65.3) | 110.8 (63.0) | 141.8 (103.3) |
| Bunker-C | 39.2 (-31.9) | 64.4 (64.3) | 56.6 (30.6) | 51.5 (-0.9) | 57.6 (23.4) | 60.7 (93.0) | 87.3 (54.2) | 76.1 (47.8) | 82.6 (43.4) | 103.1 (69.7) |
| Propane | 397.1 (-8.6) | 647.9 (63.2) | 593.3 (18.7) | 550.0 (-2.7) | 605.0 (19.8) | 625.0 (45.3) | 803.3 (35.4) | 740.0 (34.5) | 775.0 (28.1) | 895.0 (43.2) |
| Butane | 403.8 (-8.6) | 629.6 (55.9) | 570.0 (5.9) | 530.0 (-10.2) | 585.0 (7.3) | 595.0 (24.0) | 801.7 (40.6) | 710.0 (34.0) | 775.0 (32.5) | 920.0 (54.6) |
| Naphtha | 40.5 (-28.9) | 70.6 (74.6) | 60.7 (26.9) | 55.6 (-8.6) | 61.6 (17.8) | 64.8 (114.0) | 96.8 (59.6) | 84.4 (51.8) | 95.5 (54.9) | 110.6 (70.7) |

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

| | 2020 | 2021 | | | | | 2022 | | | |
|----------------------|--------------------|-------------------|-------------------|--------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| | | | M1~3 | M1 | M2 | M3 | M1~3 | M1 | M2 | M3 |
| Petroleum product | | | | | | | | | | |
| Gasoline (won/liter) | 1 381.6 (-6.1) | 1 590.5 (15.1) | 1 472.8 (-3.6) | 1 441.8 (-8.1) | 1 463.2 (-5.3) | 1 513.3 (3.0) | 1 762.8 (19.7) | 1 635.2 (13.4) | 1 714.6 (17.2) | 1 938.5 (28.1) |
| Diesel (won/liter) | 1 189.8 (-11.2) | 1 391.3 (16.9) | 1 272.8 (-5.7) | 1 242.4 (-11.2) | 1 263.4 (-7.8) | 1 312.6 (2.5) | 1 605.7 (26.2) | 1 453.5 (17.0) | 1 536.6 (21.6) | 1 826.9 (39.2) |
| Bunker-C (won/liter) | 573.6 (-22.9) | 731.7 (27.6) | 617.1 (-16.1) | 545.5 (-22.8) | 619.6 (-22.3) | 686.0 (-2.4) | 917.3 (48.7) | 840.4 (54.1) | 937.4 (51.3) | 974.0 (42.0) |
| Propane (won/kg) | 1 850.7 (-1.0) | 2 092.6 (13.1) | 1 949.9 (0.3) | 1 868.1 (-1.0) | 1 952.5 (-1.0) | 2 029.2 (2.8) | 2 395.3 (22.8) | 2 395.0 (28.2) | 2 379.0 (21.8) | 2 412.1 (18.9) |
| Butane (won/liter) | 791.1 (-1.9) | 931.9 (17.8) | 847.9 (-1.0) | 797.2 (-2.9) | 847.8 (-3.0) | 898.6 (2.8) | 1 068.5 (26.0) | 1 071.8 (34.5) | 1 050.7 (23.9) | 1 083.0 (20.5) |
| City gas(won/MJ) | | | | | | | | | | |
| Residential | 15.1 (-3.6) | 14.2 (-5.7) | 14.2 (-10.7) | 14.2 (-10.7) | 14.2 (-10.7) | 14.2 (-10.7) | 14.2 - | 14.2 - | 14.2 - | 14.2 - |
| General(1) | 14.9 (-4.7) | 13.9 (-6.5) | 14.0 (-12.3) | 14.0 (-12.3) | 14.0 (-12.3) | 14.0 (-12.3) | 14.1 (0.6) | 14.1 (0.6) | 14.1 (0.6) | 14.1 (0.6) |
| Commercial | 15.1 (-6.4) | 17.2 (14.2) | 14.9 (-9.6) | 14.0 (-15.0) | 14.8 (-10.1) | 15.9 (-3.7) | 25.1 (68.3) | 25.4 (81.4) | 24.9 (68.1) | 24.9 (56.9) |
| Industry | 12.6 (-8.4) | 14.4 (14.2) | 12.9 (-11.6) | 12.0 (-17.8) | 12.8 (-12.2) | 13.8 (-4.9) | 22.8 (77.4) | 23.1 (93.4) | 22.6 (77.2) | 22.6 (63.7) |
| Heat(won/Mcal) | | | | | | | | | | |
| Residential | 66.2 (0.7) | 65.2 (-1.4) | 65.2 (-2.8) | 65.2 (-2.8) | 65.2 (-2.8) | 65.2 (-2.8) | 65.2 - | 65.2 - | 65.2 - | 65.2 - |
| Commercial | 85.9 (0.7) | 84.7 (-1.4) | 84.7 (-2.8) | 84.7 (-2.8) | 84.7 (-2.8) | 84.7 (-2.8) | 84.7 - | 84.7 - | 84.7 - | 84.7 - |
| Public | 75.1 (0.7) | 74.0 (-1.4) | 74.0 (-2.9) | 74.0 (-2.9) | 74.0 (-2.9) | 74.0 (-2.9) | 74.0 - | 74.0 - | 74.0 - | 74.0 - |
| Electricity(won/kWh) | | | | | | | | | | |
| Residential | 147.3 - | 142.3 (-3.4) | 142.3 (-3.4) | 142.3 (-3.4) | 142.3 (-3.4) | 142.3 (-3.4) | 142.3 - | 142.3 - | 142.3 - | 142.3 - |
| General | 84.4 - | 79.4 (-5.9) | 78.3 (-6.0) | 87.3 (-5.4) | 87.3 (-5.4) | 60.2 (-7.7) | 78.3 - | 87.3 - | 87.3 - | 60.2 - |
| Industry | 96.0 - | 91.0 (-5.2) | 93.5 (-5.1) | 103.5 (-4.6) | 103.5 (-4.6) | 73.5 (-6.4) | 93.5 - | 103.5 - | 103.5 - | 73.5 - |

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)

| | 2020 | 2021p | | | | | 2022p | | | |
|--------------------------------|------------------------|-----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | | M1~3 | M1 | M2 | M3 | M1~3 | M1 | M2 | M3 |
| Coal (Mton) | 116.6 (-12.4) | 116.8 (0.2) | 28.0 (-3.0) | 10.5 (-1.4) | 8.5 (-8.1) | 8.9 (0.4) | 27.6 (-1.3) | 10.5 (-0.2) | 8.9 (3.9) | 8.2 (-7.7) |
| - Coking coal excluded | 82.8 (-15.6) | 81.5 (-1.6) | 19.1 (-6.2) | 7.6 (-2.8) | 5.7 (-13.0) | 5.8 (-3.2) | 19.5 (2.2) | 7.5 (-0.8) | 6.4 (11.4) | 5.6 (-2.9) |
| Oil (Mbbbl) | 872.4 (-5.9) | 932.4 (6.9) | 224.3 (0.3) | 75.5 (-6.4) | 72.2 (0.4) | 76.6 (8.0) | 240.7 (7.3) | 86.9 (15.1) | 74.9 (3.8) | 78.9 (3.0) |
| - Non-energy oil excluded | 423.6 (-6.2) | 429.6 (1.4) | 105.2 (-0.0) | 37.3 (-2.7) | 34.1 (1.3) | 33.8 (1.7) | 114.9 (9.2) | 42.5 (14.1) | 36.8 (7.8) | 35.6 (5.4) |
| LNG (Mton) | 42.1 (2.7) | 45.8 (8.7) | 14.5 (8.1) | 5.8 (16.4) | 4.5 (0.2) | 4.3 (6.6) | 14.8 (2.1) | 5.4 (-6.2) | 4.8 (7.5) | 4.6 (7.7) |
| Hydro (TWh) | 7.1 (14.4) | 6.7 (-5.7) | 1.5 (-5.8) | 0.5 (-4.0) | 0.5 (-9.5) | 0.5 (-4.1) | 1.6 (3.9) | 0.5 (0.7) | 0.5 (2.8) | 0.6 (8.1) |
| Nuclear (TWh) | 160.2 (9.8) | 158.0 (-1.4) | 40.6 (3.9) | 14.0 (18.0) | 12.7 (0.3) | 13.8 (-4.6) | 44.0 (8.3) | 16.1 (14.7) | 14.0 (9.9) | 13.9 (0.5) |
| Others (Mtoe) | 19.0 (7.3) | 20.0 (5.6) | 4.8 (6.1) | 1.6 (12.2) | 1.5 (4.9) | 1.7 (2.1) | 5.6 (15.4) | 1.9 (16.5) | 1.8 (17.6) | 1.9 (12.3) |
| TPES (Mtoe) | 292.1 (-3.6) | 305.2 (4.5) | 78.5 (2.3) | 28.3 (3.8) | 24.6 (-1.2) | 25.6 (4.1) | 82.0 (4.5) | 30.0 (5.9) | 26.0 (5.7) | 26.0 (1.6) |
| - Non-energy oil excluded | 236.1 (-3.2) | 242.3 (2.6) | 63.7 (2.5) | 23.5 (6.9) | 19.9 (-1.6) | 20.2 (1.8) | 66.3 (4.2) | 24.4 (3.9) | 21.3 (7.0) | 20.6 (1.8) |
| - Non-energy oil&coal excluded | 212.5 (-3.2) | 217.7 (2.4) | 57.5 (2.3) | 21.4 (7.3) | 17.9 (-2.2) | 18.1 (1.1) | 60.7 (5.6) | 22.3 (4.1) | 19.5 (9.0) | 18.8 (4.0) |

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

Share of TPES by Sources

(unit: %)

| | 2020 | 2021p | | | | | 2022p | | | |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | M1~3 | M1 | M2 | M3 | M1~3 | M1 | M2 | M3 |
| Coal | 24.7 | 23.8 | 22.2 | 23.0 | 21.7 | 21.7 | 20.9 | 21.7 | 21.2 | 19.7 |
| - Coking coal excluded | 16.7 | 15.7 | 14.3 | 15.7 | 13.8 | 13.3 | 14.0 | 14.7 | 14.5 | 12.7 |
| Oil | 37.7 | 38.6 | 36.1 | 33.7 | 37.0 | 37.8 | 36.8 | 36.6 | 36.0 | 38.0 |
| - non-energy oil excluded | 18.6 | 18.0 | 17.1 | 16.8 | 17.7 | 16.9 | 17.7 | 18.1 | 17.7 | 17.2 |
| LNG | 18.8 | 19.6 | 24.2 | 26.7 | 23.6 | 21.8 | 23.6 | 23.6 | 24.0 | 23.2 |
| Hydro | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 |
| Nuclear | 11.7 | 11.0 | 11.0 | 10.6 | 11.0 | 11.5 | 11.4 | 11.4 | 11.4 | 11.4 |
| Others | 6.5 | 6.6 | 6.2 | 5.6 | 6.3 | 6.7 | 6.8 | 6.2 | 7.0 | 7.4 |
| 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