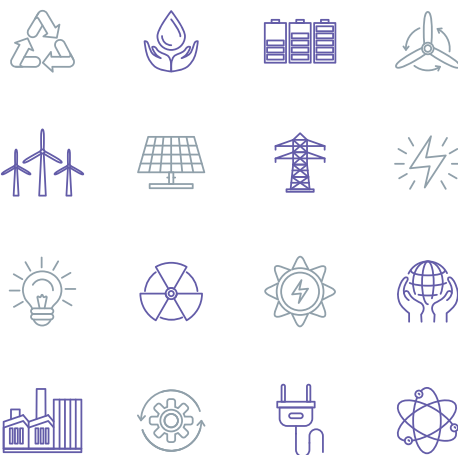


## KEEI

MONTHLY

KOREA ENERGY  
TRENDS

COAL 5.4%  
 PETROLEUM 9.1%  
 LNG 29.1%  
 NUCLEAR -10.3%  
 NEW & RENEWABLE 16.6%  
 JULY. 2021





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



# Table of Contents

|      |   |    |
|------|---|----|
| 1.   | The Economy and the Industry.....                               | 4  |
| 2.   | Energy Prices .....   | 6  |
| 3.   | Energy Supply .....   | 9  |
| 4.   | Energy Consumption .....  | 10 |
| 5.   | Coal .....  | 12 |
| 6.   | Petroleum .....   | 13 |
| 7.   | Gas .....   | 14 |
| 8.   | Electricity .....   | 15 |
| 9.   | Nuclear .....   | 16 |
| 10.  | Heat and Renewable energy .....                                 | 17 |
| 11.  | Industry .....  | 18 |
| 12.  | Transport .....   | 19 |
| 13.  | Building.....   | 20 |
| 14.  | Transformation .....  | 21 |
| App. | Major Indicators & Statistics of Energy Supply and Demand ..... | 22 |



## 1. The Economy and the Industry

### □ Despite of weak production in the automobile sector, the mining & manufacturing production index in July rose by 7.7% year-on-year as most of the industries showed an upward trend

- Semiconductor production index soared by 34.5% year-on-year as the demand for 'contact-free' activities, with Social Distancing measures being extended, continued to go up and the demand for semiconductors jumped up significantly with new CPU and smartphone models hitting the market
- Basic chemical material production index went up by 10.0% year-on-year as the demand for petrochemical products such as synthetic resins used for construction materials and synthetic rubber for medical latex increased, thanks to the recent economic recovery
- While the domestic demand in the automobile sector dropped because of the lack of automotive semiconductor, the overall domestic consumption in the construction and shipbuilding sectors was up thanks to the business recovery. As a result, the steel production index climbed up by 19.3%
- Automobile production index declined by 3.4% year-on-year due to a decline of production activities

### □ Despite of weak production in the food & accommodation sector, the service production index was up by 4.0% year-on-year with the production in the wholesale & retail sector rising

- With the fourth wave of COVID-19 pandemic (due to the spread of Delta variant), the production index showed a massive year-on-year drop of 8.0% in the food & accommodation sector
- The financial & insurance sector enjoyed a year-on-year increase of 7.5% with the volume of financial instruments growing, the wholesale and retail sectors also witnessed a year-on-year growth of 5.8%

#### ► Major economic and industrial indicators

|   | 2020    |         |         | 2021p  |        |        |        |
|---|---------|---------|---------|--------|--------|--------|--------|
|   |         | M1~7    | M7      | M1~7   | M5     | M6     | M7     |
| GDP (trillion won)                                | 1 836.9 | 893.5   | -       | 928.9  | -      | 476.5  | -      |
|   | (-0.9)  | (-0.6)  | -       | (4.0)  | -      | (6.0)  | -      |
| Total export (\$billion, customs clearance basis) | 512.5   | 283.3   | 42.8    | 358.7  | 50.7   | 54.8   | 55.5   |
|   | (-5.1)  | (-10.0) | (-2.2)  | (26.6) | (45.6) | (39.7) | (29.7) |
| Industrial production index (2015=100)            | 106.3   | 103.7   | 107.4   | 112.3  | 110.8  | 116.3  | 115.7  |
|   | (-0.3)  | (-1.1)  | (-2.9)  | (8.4)  | (14.5) | (11.5) | (7.7)  |
| Semi-conductors                                   | 230.6   | 216.6   | 227.9   | 273.2  | 283.3  | 299.8  | 306.6  |
|   | (22.6)  | (28.4)  | (16.8)  | (26.1) | (26.8) | (25.8) | (34.5) |
| Basic chemical products                           | 102.3   | 103.2   | 103.8   | 108.3  | 107.8  | 105.0  | 114.2  |
|   | (-6.0)  | (-4.1)  | (-9.8)  | (4.9)  | (11.6) | (10.1) | (10.0) |
| Iron&Steel  | 92.1    | 91.0    | 86.0    | 97.5   | 98.2   | 98.3   | 102.6  |
|   | (-6.3)  | (-8.7)  | (-16.0) | (7.2)  | (14.2) | (20.9) | (19.3) |
| Cars  | 84.1    | 80.4    | 93.2    | 91.1   | 82.3   | 95.5   | 90.0   |
|   | (-9.9)  | (-16.1) | (-8.1)  | (13.3) | (28.2) | (20.4) | (-3.4) |
| Service production index (2015=100)               | 106.2   | 104.6   | 106.7   | 108.8  | 109.5  | 113.5  | 111.0  |
|   | (-2.0)  | (-2.1)  | (-1.2)  | (4.0)  | (4.2)  | (4.9)  | (4.0)  |
| Wholesale & Retail                                | 101.9   | 100.3   | 100.6   | 104.7  | 106.3  | 107.4  | 106.4  |
|   | (-2.6)  | (-3.3)  | (-2.0)  | (4.4)  | (2.9)  | (3.5)  | (5.8)  |
| Restaurant & Accommodation                        | 79.5    | 81.0    | 90.4    | 76.1   | 84.8   | 84.2   | 83.2   |
|   | (-18.5) | (-15.6) | (-9.1)  | (-6.0) | (-2.1) | (-0.6) | (-8.0) |

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

Source: Korea International Trade Association, Korea Statistical Information Service

## 2. Energy Prices<sup>1</sup>

### Global Energy Prices

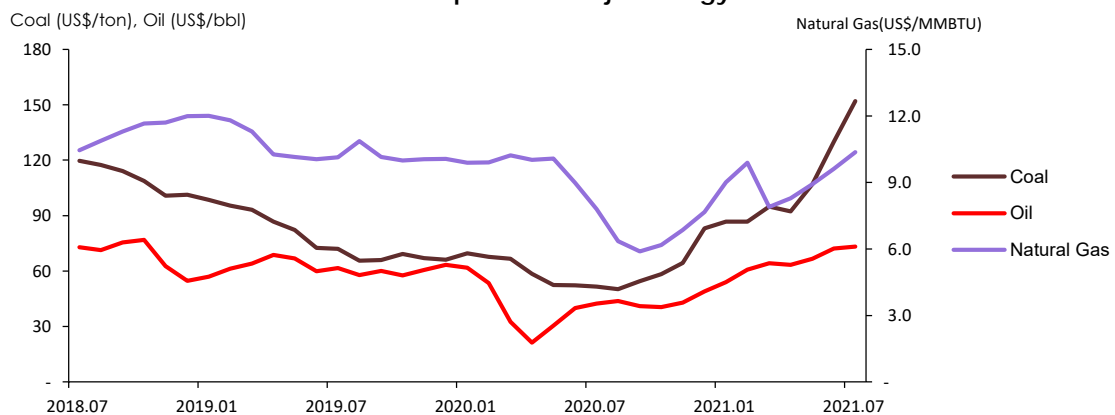
- In July, the global average crude oil price showed a month-on-month growth of 1.5% due to a delay of the OPEC+ agreement on unwinding production curbs and a decline in the U.S. crude oil reserve
  - Global oil price in July went up due to several factors such as a delay of the OPEC+ pact on easing production curbs, the group's decision to extend the supply cut, a decline in the U.S. crude oil reserve, etc. However, the growth in oil price was limited by the agreement on production curbs reached on July 18 and the spread of COVID-19 delta variant
  - Australian coal price soared by 16.9% month-on-month, maintaining a steep upward trend as the demand for electricity rapidly rose driven by sweltering heat and economic recovery, and the supply and demand of coal failed to hit the right balance due to China's decision not to import coal from Australia
  - Similarly, the price for natural gas rose by 7.7% month-on-month due to a dramatic rise in the electricity demand amidst heat waves, continuing to show an upward trend since March

#### ► Global energy prices

|                          | 2019    | 2020    |         |         |         | 2021    |         |         |  |
|--------------------------|---------|---------|---------|---------|---------|---------|---------|---------|--|
|                          |         |         | M5      | M6      | M7      | M5      | M6      | M7      |  |
| Crude oil (US\$/bbl)     | 61.6    | 41.6    | 30.5    | 40.0    | 42.4    | 66.6    | 72.1    | 73.2    |  |
|                          | (-10.2) | (-32.4) | (-54.4) | (-33.2) | (-31.2) | (118.6) | (80.5)  | (72.6)  |  |
| Natural gas (US\$/MMBTU) | 10.6    | 8.3     | 10.1    | 9.0     | 7.8     | 8.9     | 9.6     | 10.4    |  |
|                          | (-1.1)  | (-21.3) | (-0.7)  | (-10.7) | (-23.1) | (-11.5) | (7.2)   | (33.0)  |  |
| Coal (US\$/ton)          | 77.8    | 60.8    | 52.5    | 52.2    | 51.6    | 107.0   | 130.0   | 152.0   |  |
|                          | (-27.3) | (-21.9) | (-36.2) | (-28.0) | (-28.5) | (103.9) | (148.9) | (194.7) |  |

Note: Global oil price is the average of the three benchmarks; Brent, Dubai, WTI, Natural gas and coal prices are based on Japan's LNG importing price from Indonesia (CIF) and the price of Australian coal. ( ) is year-on-year growth rates (%)  
 Source: www.petronet.co.kr, World Bank(Commodity Markets)

#### ► Global prices of major energy sources



<sup>1</sup> 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

### □ The prices for gasoline and diesel increased by 3.3% and 3.7% month-on-month, driven by a growth in global oil price

- The average prices of gasoline and diesel at gas stations continued to rise for eight consecutive months since December 2020, as the global oil price continued to grow until early July. When it comes to a year-on-year basis, the prices jumped up by 19.8% and 22.6%, respectively, due to the base effect from a plunge in oil price a year earlier
- In the aftermath of an increase in global oil price, the bunker-C price climbed up by 3.1% month-on-month. The price showed a year-on-year growth of 38.8%, smaller than last month

### □ Propane and butane prices in July went up by 1.8% and 3.2% month-on-month, as the supply price was marked up to reflect an increase in the global price in June

- As Saudi Aramco marked the global propane and butane prices up by 7.1% and 10.5% month-on-month in June, LPG providers increased the LPG supply price by 50 KRW/kg from a month earlier

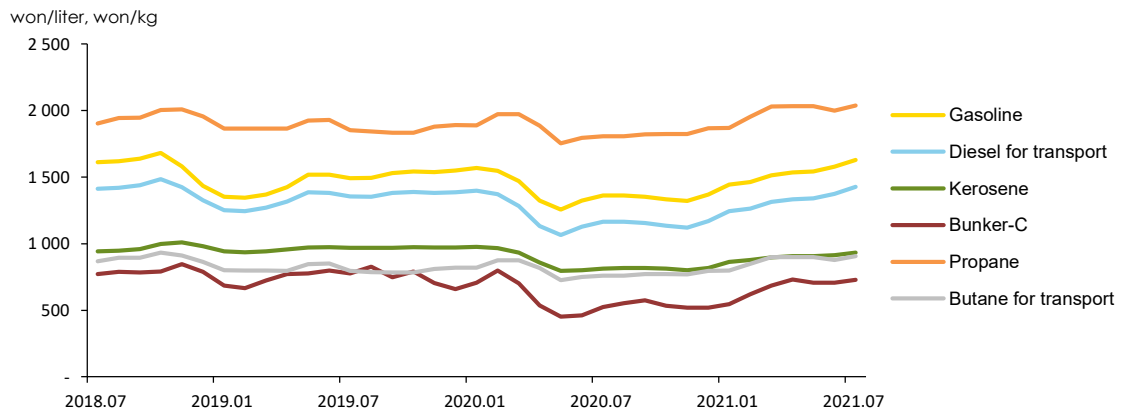
#### ► Domestic petroleum product prices

|                                  | 2019    | 2020    |         |         |         | 2021    |         |         |    |
|----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|----|
|                                  |         |         | M5      | M6      | M7      |         | M5      | M6      | M7 |
| Gasoline (won/liter)             | 1 472.6 | 1 381.2 | 1 255.1 | 1 322.9 | 1 360.3 | 1 541.5 | 1 577.3 | 1 629.3 |    |
|                                  | (-6.9)  | (-6.2)  | (-17.3) | (-12.8) | (-8.8)  | (22.8)  | (19.2)  | (19.8)  |    |
| Diesel for transport (won/liter) | 1 340.6 | 1 189.5 | 1 065.8 | 1 127.9 | 1 162.9 | 1 338.8 | 1 374.4 | 1 425.5 |    |
|                                  | (-3.7)  | (-11.3) | (-23.1) | (-18.3) | (-14.0) | (25.6)  | (21.9)  | (22.6)  |    |
| Bunker-C (won/liter)             | 744.5   | 572.9   | 451.3   | 462.8   | 524.7   | 706.4   | 706.4   | 728.4   |    |
|                                  | (1.3)   | (-23.0) | (-41.9) | (-42.1) | (-32.4) | (56.5)  | (52.6)  | (38.8)  |    |
| Propane (won/kg)                 | 1 869.6 | 1 850.3 | 1 753.8 | 1 794.5 | 1 806.0 | 2 031.6 | 1 999.6 | 2 036.4 |    |
|                                  | (-2.6)  | (-1.0)  | (-8.9)  | (-7.0)  | (-2.5)  | (15.8)  | (11.4)  | (12.8)  |    |
| Butane for transport (won/liter) | 806.3   | 790.8   | 725.0   | 749.5   | 759.9   | 899.4   | 878.5   | 906.3   |    |
|                                  | (-7.8)  | (-1.9)  | (-14.5) | (-12.0) | (-4.6)  | (24.1)  | (17.2)  | (19.3)  |    |

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

Source: www.opinet.co.kr

#### ► Domestic petroleum product prices



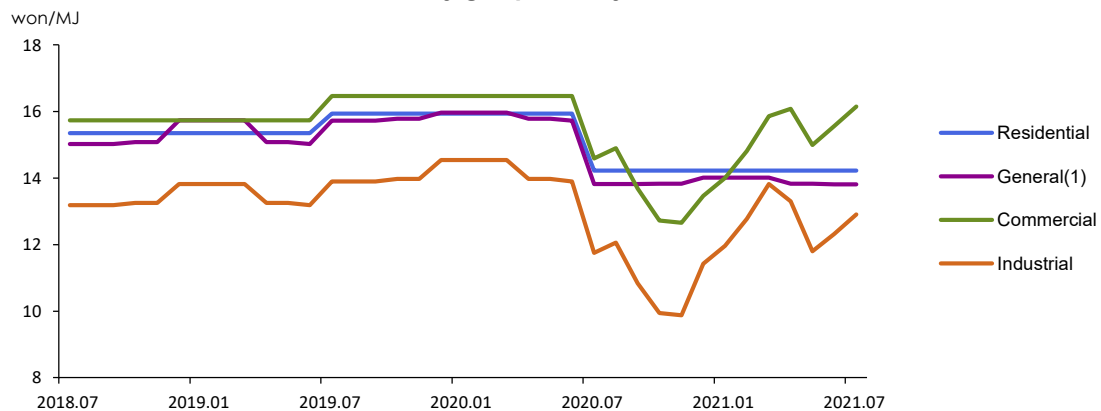
- In July, city gas prices for commercial use and industrial use were marked up by 3.8% and 4.8%, respectively, on a month-on-month basis

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

- Electricity price in July stayed at the first quarter's level as the price for the second quarter was frozen

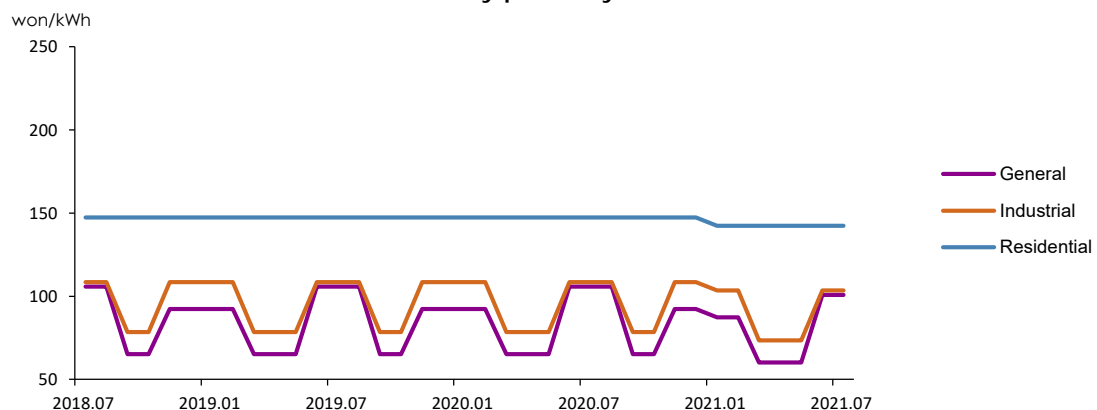
- While being adjusted every three months, the electricity price from July to September was frozen for stabilizing the life of the people in the face of a rise in prices, notwithstanding the fact that the increase in energy prices could be a factor to cause an electricity price to rise
- With Fuel Adjustment Mechanism (FAM) starting from January 1, 2021, Climate Environment Cost of 5KRW/kWh was separated from the existing electricity price to form a new price category of Climate Environmental Price of 5.3KRW/kWh. The actual electricity prices fell by 2.7KRW/kWh from the previous month as Fuel Cost Adjustment rate was reduced by 3KRW/kWh

#### ► City gas prices by end-use sectors



Source: Seoulgas

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



Note: The electricity prices by end-use sectors refer to the prices for residential use ([high voltage], the 2<sup>nd</sup> 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

- **Although the import volume of crude oil declined, the total energy import volume in July increased by 12.6% year-on-year due to a rise in the imports of petroleum products coal ,and LNG**
- The import volume of crude oil dropped by 9.7% year-on-year as the volume of crude oil fed into refineries for producing petroleum products declined by 1.5%. The end-of-month reserve of crude oil also went down by 8.9% on a year-on-year basis
  - The import volume of bunker-C oil declined by 1.5% year-on-year. However, the imports of naphtha and LPG increased by 22.7% and 2.5%, respectively, as the raw material consumption of naphtha and LPG for producing petroleum products grew. As a result, the total import volume of petroleum products soared by 15.9% year-on-year
  - The import volume of bituminous coal rose by 6.0% year-on-year as the power generation sector witnessed a growth in its bituminous coal consumption
  - Driven by a massive increase in the demand for LNG, the LNG import volume skyrocketed by 70.6% year-on-year

#### ► Import and domestic production of energy

|  | 2020    |         |         | 2021p   |         |         |         |
|--|---------|---------|---------|---------|---------|---------|---------|
|  |         | M1~7    | M7      | M1~7    | M5      | M6      | M7      |
| <b>Import volume</b>                   |         |         |         |         |         |         |         |
| Crude oil (Mbbbl)                      | 980.3   | 585.3   | 86.4    | 546.3   | 81.0    | 80.2    | 78.0    |
|  | (-8.6)  | (-7.2)  | (0.1)   | (-6.7)  | (2.7)   | (7.4)   | (-9.7)  |
| Petroleum product (Mbbbl)              | 347.4   | 219.6   | 31.8    | 219.4   | 30.9    | 33.0    | 36.9    |
|  | (-1.4)  | (14.5)  | (-0.9)  | (-0.1)  | (1.8)   | (10.9)  | (15.9)  |
| Bituminous coal (Mton)                 | 115.5   | 66.2    | 10.7    | 61.7    | 8.2     | 8.5     | 11.4    |
|  | (-13.0) | (-10.4) | (-10.8) | (-6.8)  | (-10.0) | (-7.8)  | (6.0)   |
| Anthracite (Mton)                      | 6.3     | 3.5     | 0.5     | 3.6     | 0.6     | 0.4     | 0.6     |
|  | (-8.3)  | (-19.4) | (-12.7) | (2.6)   | (39.7)  | (-25.4) | (5.3)   |
| LNG (Mton)                             | 40.0    | 23.4    | 2.4     | 27.2    | 3.4     | 3.1     | 4.0     |
|  | (-1.9)  | (2.1)   | (-21.8) | (16.1)  | (14.5)  | (21.4)  | (70.6)  |
| Import volume (Mtoe)                   | 325.4   | 192.8   | 27.1    | 191.7   | 27.2    | 26.1    | 30.5    |
|  | (-6.8)  | (-3.3)  | (-9.3)  | (-0.6)  | (4.1)   | (2.7)   | (12.6)  |
| Import value (billion US\$, CIF)       | 86.4    | 54.1    | 6.4     | 68.7    | 9.7     | 10.3    | 12.1    |
|  | (-31.8) | (-27.5) | (-37.8) | (27.0)  | (97.7)  | (109.7) | (90.0)  |
| Energy share of total import value (%) | 18.4    | 19.9    | 16.5    | 20.3    | 20.2    | 20.5    | 22.6    |
| Foreign energy dependence (%)*         | 92.9    | 92.9    | 93.0    | 92.6    | 91.8    | 92.3    | 92.6    |
| <b>Domestic production</b>             |         |         |         |         |         |         |         |
| Hydropower (TWh)                       | 7.1     | 3.8     | 0.6     | 4.1     | 0.6     | 0.7     | 0.7     |
|  | (14.4)  | (6.0)   | (8.0)   | (7.9)   | (13.3)  | (33.9)  | (16.3)  |
| Anthracite (Mton)                      | 1.0     | 0.6     | 0.1     | 0.5     | 0.1     | 0.1     | 0.1     |
|  | (-6.0)  | (-2.8)  | -       | (-12.4) | (-13.6) | (-10.9) | (-8.1)  |
| Natural gas (Mton)                     | 0.1     | 0.1     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
|  | (-28.6) | (-19.0) | (-35.0) | (-70.7) | (-65.1) | (-90.5) | (-83.6) |
| Renewable energy (Mtoe)                | 18.4    | 10.7    | 1.5     | 11.8    | 1.8     | 1.7     | 1.7     |
|  | (4.3)   | (3.8)   | (-0.8)  | (9.9)   | (17.0)  | (10.0)  | (16.6)  |

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”) in July posted a year-on-year increase of 9.2% as all energy sources except nuclear experienced an increase in consumption

- Petroleum consumption in the petrochemical sector showed an upward trend thanks to the economic recovery in major countries, expansion of petrochemical facilities and a decline in planned maintenance projects while the transport sector also witnessed an increase in petroleum use mainly driven by the road transportation. Consequently, the overall petroleum use rose by 9.1% year-on-year
- Gas use in the building sector posted a decline mainly for the residentials, while the industrial sector experienced an increase of more than 14% and the gas consumption in the power generation sector also significantly rose by 50.0% with electricity use rising (9.5%) and a reduction in nuclear power generation. Against this backdrop, the total gas consumption showed a year-on-year growth of 29.1%
- Coal consumption in industrial continued to step up as the steel demand industries including construction, home appliance and shipbuilding enjoyed business recovery. Similarly, despite of the voluntary coal power generation cap program, the power generation sector rebounded in its coal use with a test run of Goseong Hai Unit #2. Consequently, the total coal consumption increased by 5.4% year-on-year

### □ Mainly driven by the industrial sector, Total Final Consumption (“TFC”) posted a year-on-year increase of 8.2% with energy consumption in all sectors growing

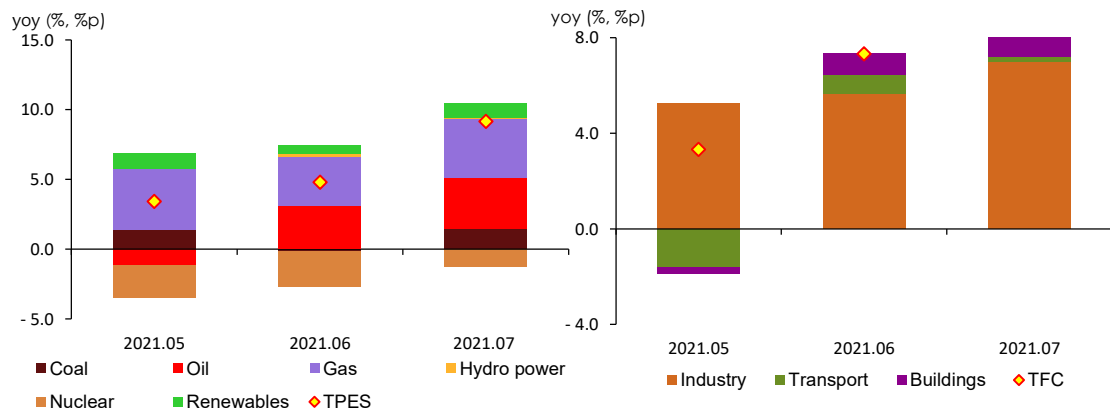
- Despite of a decline in working days (-0.5 day), the energy consumption in the industrial sector rose by 10.7% year-on-year as the domestic and global economies showed a rapid recovery from the impact of COVID-19 pandemic, becoming a driving force for the increase in TFC
- Even in the face of a drop in the travel demand due to another wave of COVID-19 pandemic, the road transport sector witnessed an increase in energy use as the demand for storing energy jumped up in response to a rise in global oil price. However, as energy use in the air transport sector went down, the total energy consumption in the transport sector ended up showing a year-on-year increase of 1.2%
- In spite of a drop in city gas use, the energy use in the building sector jumped up by 6.8% year-on-year, mainly driven by electricity consumption

#### ► Energy consumption

|                                | 2020         |              |             | 2021p        |             |             |             |
|--------------------------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|
|                                |              | M1~7         | M7          | M1~7         | M5          | M6          | M7          |
| <b>TPES (Mtoe)</b>             | <b>291.5</b> | <b>169.1</b> | <b>23.7</b> | <b>176.0</b> | <b>23.9</b> | <b>23.8</b> | <b>25.9</b> |
|                                | (-3.8)       | (-4.2)       | (-6.4)      | (4.0)        | (3.4)       | (4.8)       | (9.2)       |
| - Non-energy oil&coal excluded | 212.0        | 122.2        | 17.0        | 126.2        | 16.8        | 16.8        | 18.4        |
|                                | (-3.5)       | (-4.6)       | (-5.7)      | (3.2)        | (2.7)       | (3.7)       | (8.7)       |
| <b>TFC (Mtoe)</b>              | <b>221.7</b> | <b>129.9</b> | <b>17.5</b> | <b>135.8</b> | <b>18.5</b> | <b>18.2</b> | <b>18.9</b> |
|                                | (-4.2)       | (-4.0)       | (-5.5)      | (4.5)        | (3.3)       | (7.3)       | (8.2)       |

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

► The growth rates of TPES & TFC and contribution by energy sources and end-use sectors



## 5. Coal

### □ Coal use in July posted a year-on-year growth of 5.4% with the coal consumption in the industrial and power generation sectors increasing

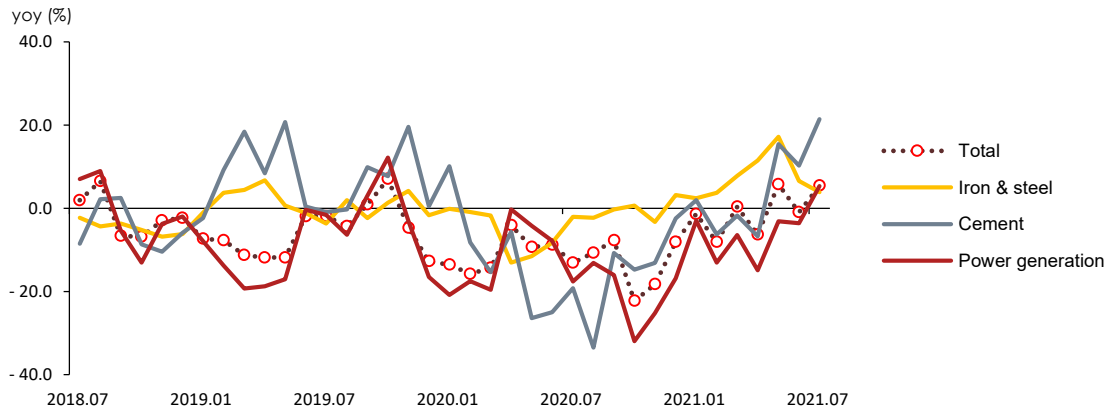
- Industrial coal use went up by 5.5% year-on-year as the coal consumption by steel and cement makers grew due to increased production activities
- Coal use in the power generation sector showed an increase of 5.4% year-on-year with several favorable factors including a test run of Goseong Hai Unit #2, a base effect from a massive plunge (-17.6%) from a year earlier and a rise in electricity use due to heat waves

#### ► Coal consumption

|                    | 2020         |             |             | 2021p       |            |            |             |
|--------------------|--------------|-------------|-------------|-------------|------------|------------|-------------|
|                    |              | M1~7        | M7          | M1~7        | M5         | M6         | M7          |
| <b>Coal (Mton)</b> | <b>116.6</b> | <b>66.6</b> | <b>10.7</b> | <b>66.2</b> | <b>9.1</b> | <b>9.5</b> | <b>11.3</b> |
|                    | (-12.4)      | (-11.6)     | (-13.1)     | (-0.7)      | (5.7)      | (-1.0)     | (5.4)       |
| Industry           | 45.3         | 25.6        | 3.8         | 27.3        | 4.1        | 3.7        | 4.0         |
|                    | (-4.7)       | (-8.0)      | (-3.8)      | (6.5)       | (19.4)     | (3.5)      | (5.5)       |
| -Coking-coal       | 33.8         | 19.2        | 2.9         | 20.6        | 3.0        | 2.8        | 3.0         |
|                    | (-3.3)       | (-5.4)      | (-2.1)      | (7.4)       | (17.2)     | (6.5)      | (3.9)       |
| Buildings          | 0.5          | 0.2         | 0.0         | 0.2         | 0.0        | 0.0        | 0.0         |
|                    | (-20.8)      | (-22.2)     | (-32.9)     | (-17.6)     | (-36.4)    | (-14.3)    | (20.0)      |
| Power generation   | 70.7         | 40.8        | 6.9         | 38.7        | 5.0        | 5.8        | 7.3         |
|                    | (-16.6)      | (-13.6)     | (-17.6)     | (-5.1)      | (-3.1)     | (-3.6)     | (5.4)       |

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 in July posted a year-on-year increase of 9.1% as the petroleum use in all sectors including the industrial sector stepped up for two months in a row

- Petroleum use in the industrial sector soared by 11.8% year-on-year as facilities were newly built and expanded to give a boost to related consumption
- Despite of a drop in the air transport sector, the total petroleum consumption in the transport sector posted a year-on-year increase of 1.9% driven by the road transport sector
- Petroleum use in the commercial sector soared by 24.7% year-on-year as diesel consumption showed an upward trend due to a base effect from COVID-19 pandemic starting last year. In addition, the residential sector also experienced an increase in its LPG use. As a result, the total petroleum consumption in the building sector climbed up by 4.8% year-on-year

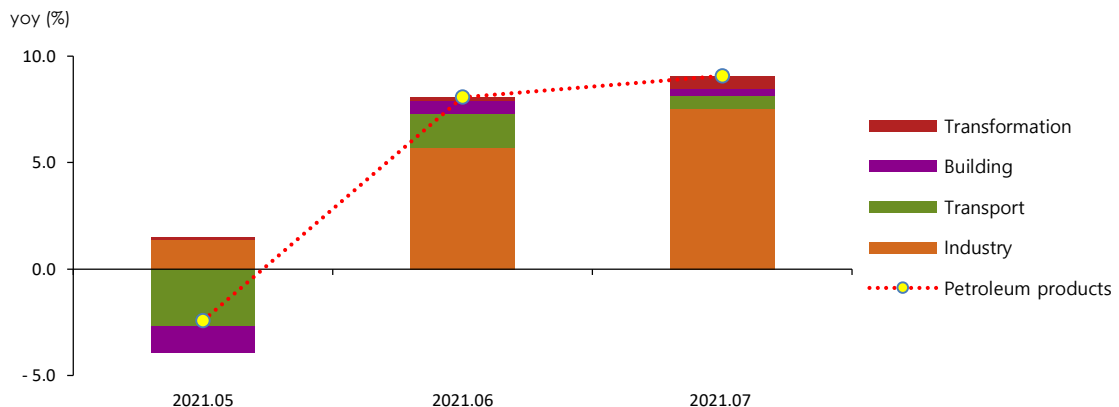
#### ► Petroleum product consumption by end-use sectors

|                          | 2020         |              |             | 2021p        |             |             |             |
|--------------------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|
|                          |              | M1~7         | M7          | M1~7         | M5          | M6          | M7          |
| <b>Petroleum (Mbbbl)</b> | <b>872.3</b> | <b>513.4</b> | <b>72.4</b> | <b>531.5</b> | <b>76.1</b> | <b>76.8</b> | <b>78.9</b> |
|                          | (-5.9)       | (-3.7)       | (-7.7)      | (3.5)        | (-2.4)      | (8.1)       | (9.1)       |
| Industry                 | 543.9        | 324.7        | 46.2        | 338.4        | 48.9        | 48.7        | 51.6        |
|                          | (-4.0)       | (0.7)        | (-8.3)      | (4.2)        | (2.3)       | (9.0)       | (11.8)      |
| -Naphtha                 | 405.3        | 245.8        | 35.1        | 254.1        | 35.8        | 34.9        | 38.5        |
|                          | (-7.6)       | (-3.3)       | (-9.8)      | (3.4)        | (0.2)       | (3.9)       | (9.6)       |
| Transport                | 277.2        | 159.5        | 23.6        | 161.1        | 23.8        | 24.6        | 24.0        |
|                          | (-8.6)       | (-9.4)       | (-4.5)      | (1.0)        | (-8.1)      | (4.9)       | (1.9)       |
| Buildings                | 44.7         | 26.1         | 2.3         | 27.0         | 3.0         | 3.0         | 2.5         |
|                          | (-8.9)       | (-9.9)       | (-15.4)     | (3.5)        | (-24.4)     | (17.0)      | (10.6)      |
| Power generation         | 6.6          | 3.1          | 0.3         | 4.9          | 0.4         | 0.5         | 0.7         |
|                          | (-23.2)      | (-44.7)      | (-47.8)     | (58.3)       | (23.2)      | (30.0)      | (132.8)     |

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

Source: Monthly Energy Statistics

#### ► The growth rates of petroleum product consumption & contribution(%p) by end-use sectors



## 7. Gas

### □ Despite of a decline in the use of building sector, the natural gas use in July significantly grew by 29.1% year-on-year as gas consumption in the power generation and industrial sectors went up

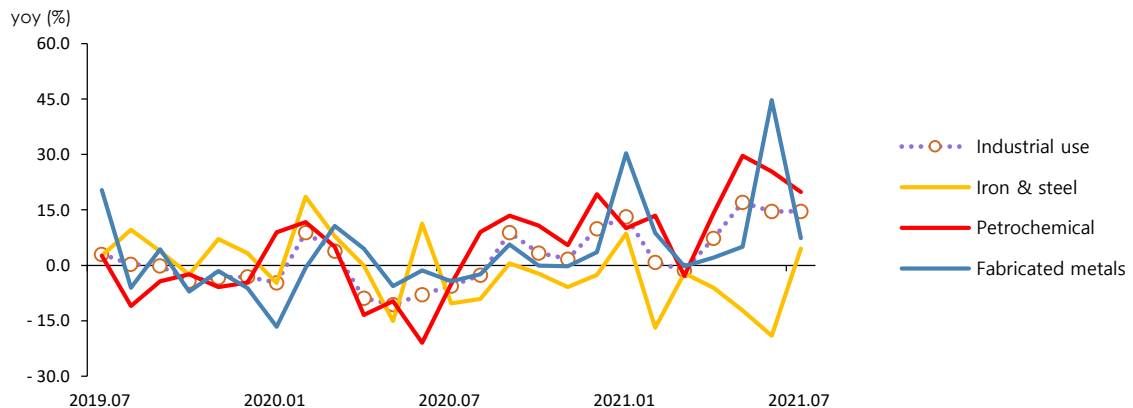
- Gas consumption for power generation skyrocketed by 50.0% year-on-year due to increased electricity consumption (9.5%) and decreased nuclear power generation
- The growth in gas use by the fabricated metal sector slowed down on a month-on-month basis with the decline of car production. However, some energy-intensive industries showed an upward trend in their gas use due to a continuous recovery in industrial production. As a result, the industrial gas rose
- While the city gas use for commercial and public increased, the city gas use of the buildings declined as the demand for residential heating showed a massive drop due to the hotter than the last year

#### ► Natural gas and city gas consumption

|                                       | 2020        |             |            | 2021p       |            |            |            |
|---------------------------------------|-------------|-------------|------------|-------------|------------|------------|------------|
|                                       |             | M1~7        | M7         | M1~7        | M5         | M6         | M7         |
| <b>LNG (Mton)</b>                     | <b>42.1</b> | <b>23.8</b> | <b>2.6</b> | <b>27.5</b> | <b>3.1</b> | <b>3.1</b> | <b>3.4</b> |
|                                       | (2.7)       | (-1.7)      | (-7.0)     | (15.4)      | (33.2)     | (25.6)     | (29.1)     |
| Power generation                      | 18.6        | 10.1        | 1.4        | 13.0        | 1.6        | 1.7        | 2.0        |
|                                       | (3.7)       | (-1.5)      | (-12.3)    | (29.1)      | (60.7)     | (40.0)     | (50.0)     |
| City gas production                   | 18.2        | 10.8        | 0.9        | 11.7        | 1.1        | 1.0        | 1.0        |
|                                       | (-3.1)      | (-7.4)      | (-7.5)     | (8.3)       | (17.2)     | (14.1)     | (7.7)      |
| Industry(Direct private importer)     | 2.8         | 1.5         | 0.2        | 1.5         | 0.2        | 0.2        | 0.3        |
|                                       | (23.8)      | (27.0)      | (16.2)     | (-0.4)      | (4.5)      | (3.7)      | (8.9)      |
| <b>City gas (Bm³)</b>                 | <b>26.0</b> | <b>15.8</b> | <b>1.4</b> | <b>16.8</b> | <b>1.8</b> | <b>1.6</b> | <b>1.5</b> |
|                                       | (-0.5)      | (-3.7)      | (-4.4)     | (6.3)       | (8.7)      | (11.2)     | (7.5)      |
| Industry(including directly imported) | 11.1        | 6.3         | 0.8        | 6.9         | 0.9        | 0.9        | 1.0        |
|                                       | (-0.3)      | (-3.5)      | (-5.5)     | (9.0)       | (17.0)     | (14.6)     | (14.6)     |
| Buildings                             | 13.8        | 8.8         | 0.5        | 9.3         | 0.8        | 0.6        | 0.5        |
|                                       | (0.0)       | (-3.5)      | (-1.7)     | (5.2)       | (1.2)      | (8.8)      | (-2.8)     |
| Transport.                            | 1.1         | 0.6         | 0.1        | 0.6         | 0.1        | 0.1        | 0.1        |
|                                       | (-9.6)      | (-8.7)      | (-7.8)     | (-4.2)      | (-1.5)     | (-3.9)     | (-3.4)     |

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

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



## 8. Electricity

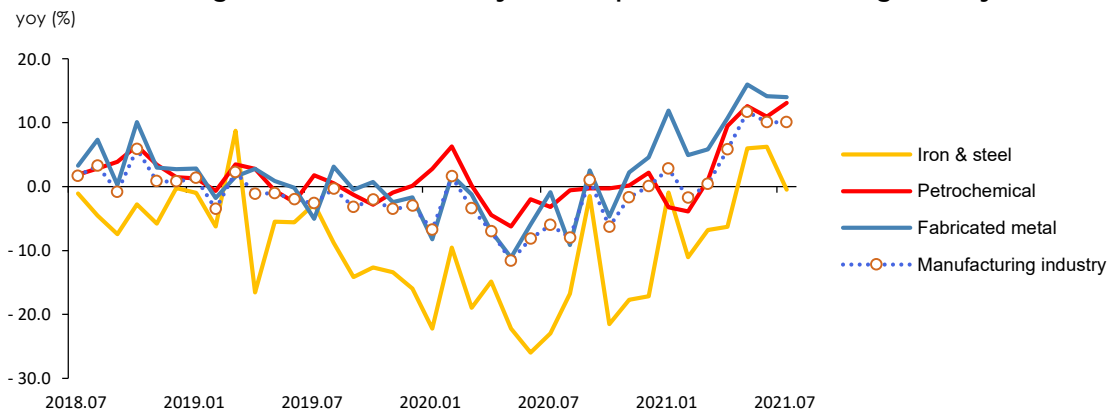
- **Electricity use in July stepped up by 9.5% year-on-year as both the industrial and building sectors posted a significant growth due to an increase in production activity and cooling demand**
  - Although the working day decreased by 0.5 day, the electricity use in the industrial sector rose by 10.3% year-on-year as the electricity consumption in the petrochemical and fabricated metal sectors went up thanks to business recovery
  - The electricity use in the building sector climbed up by 8.7% year-on-year as the demand for cooling went up and the production activities in the service sector become stimulated

### ► Electricity consumption by end-use sectors

|                          | 2020         |              |             | 2021p        |             |             |             |
|--------------------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|
|                          |              | M1~7         | M7          | M1~7         | M5          | M6          | M7          |
| <b>Electricity (TWh)</b> | <b>509.3</b> | <b>294.3</b> | <b>42.1</b> | <b>307.4</b> | <b>40.9</b> | <b>42.1</b> | <b>46.0</b> |
|                          | (-2.2)       | (-2.8)       | (-2.1)      | (4.4)        | (6.7)       | (5.9)       | (9.5)       |
| Industry                 | 267.1        | 154.3        | 22.2        | 162.9        | 23.0        | 23.0        | 24.4        |
|                          | (-4.5)       | (-5.8)       | (-5.8)      | (5.6)        | (11.1)      | (9.7)       | (10.3)      |
| Transport                | 2.7          | 1.6          | 0.2         | 1.5          | 0.2         | 0.2         | 0.2         |
|                          | (-5.9)       | (-8.3)       | (-10.3)     | (-5.8)       | (-2.2)      | (-7.0)      | (-2.3)      |
| Buildings                | 239.4        | 138.5        | 19.7        | 143.0        | 17.7        | 18.9        | 21.4        |
|                          | (0.7)        | (0.8)        | (2.5)       | (3.3)        | (1.6)       | (1.8)       | (8.7)       |
| Residential              | 74.1         | 41.6         | 6.0         | 43.5         | 5.6         | 5.8         | 6.8         |
|                          | (5.1)        | (5.5)        | (6.7)       | (4.4)        | (0.5)       | (1.4)       | (13.0)      |
| Commercial               | 136.3        | 80.1         | 11.3        | 80.5         | 9.9         | 10.6        | 11.8        |
|                          | (0.8)        | (1.2)        | (3.3)       | (0.4)        | (0.1)       | (0.1)       | (5.1)       |

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

### ► The growth rate of electricity consumption in manufacturing industry

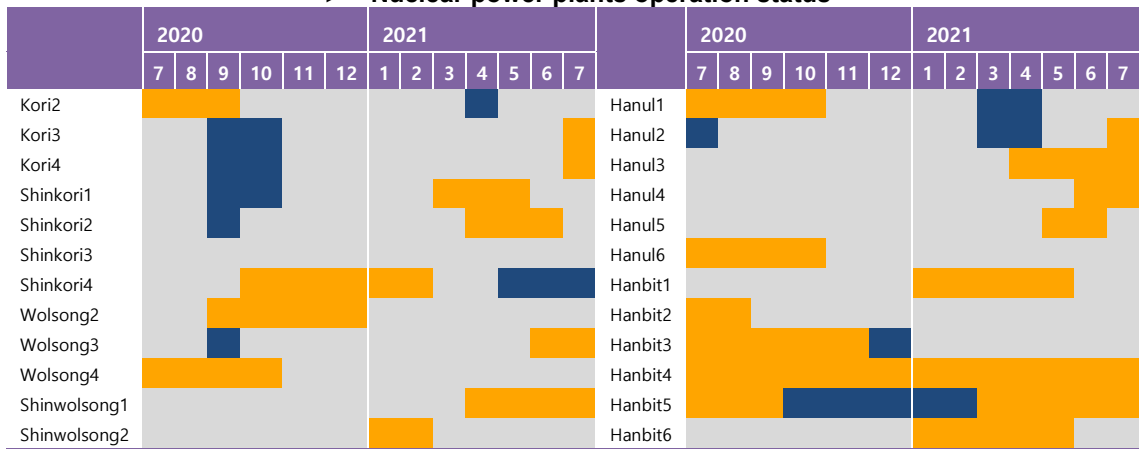


## 9. Nuclear

### □ Nuclear power generation in July dropped by 10.3% year-on-year as generation facility utilization rate fell due to an increase in the number of nuclear units in planned preventive maintenance

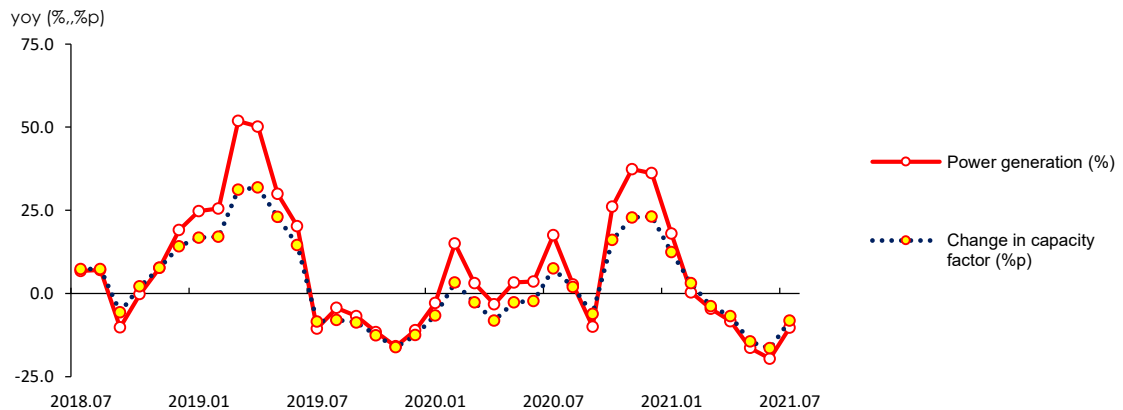
- The number of generator units in planned maintenance mode increased by 1 on a year-on-year basis, while the planned preventive maintenance and non-planned stoppage were focused upon large-scale facilities. Against this backdrop, the operation rate dropped by 8.2%p year-on-year
- Nuclear energy's share of the total generation fell by 6.7%p to 22.7% on a year-on-year basis

#### ► Nuclear power plants operation status



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

#### ► The growth rate of nuclear generation & average capacity factor



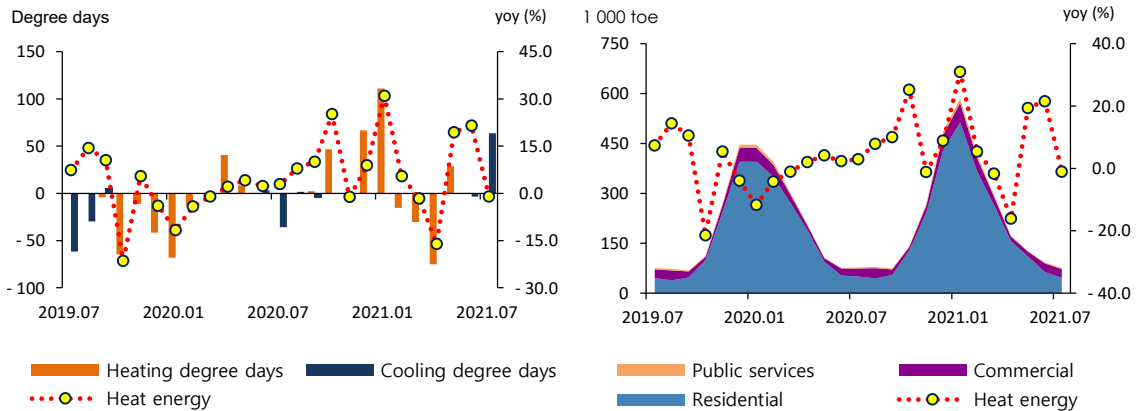
Note: Capacity factor = Ratio of actual power generated to possible power generation when utilizing 100% of available facility. Facility capacity values are based on end-of-the-month data



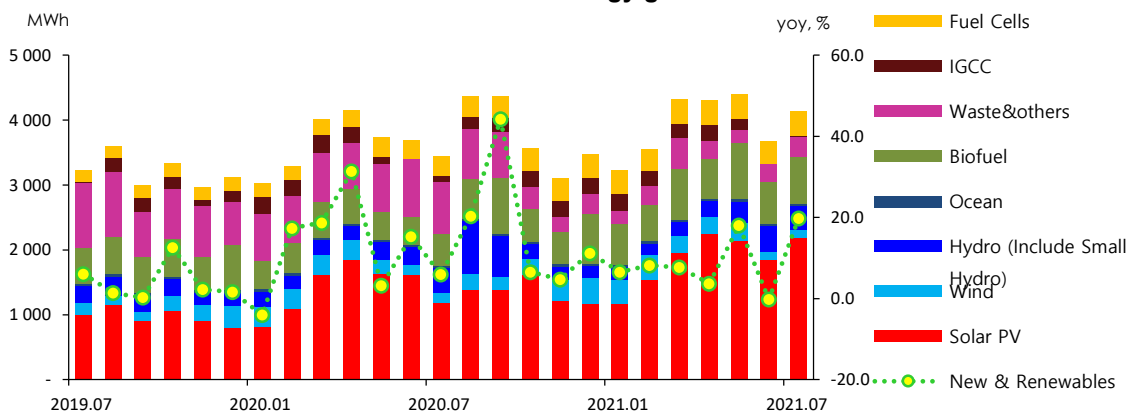
## 10. Heat and Renewable energy

- Heat energy use in July decreased by 1.0% year-on-year as the residential sector, which has the largest share in the consumption mix, witnessed a decline in its heat use
- Renewable and other energy power generation<sup>2</sup> rose by 19.8% year-on-year as solar PV generation increased massively
  - Although the power produced from waste & other sources, wind and ICGG reduced, the volume of renewable and other energy power generation soared by 19.8% year-on-year with the facility capacity expanding in solar PV and bio energy (28.9% and 18.9%, respectively)

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



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



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

## 11. Industry

□ Energy use in the industrial sector rose by 10.7% year-on-year as the upward trend of production indexes in major industries

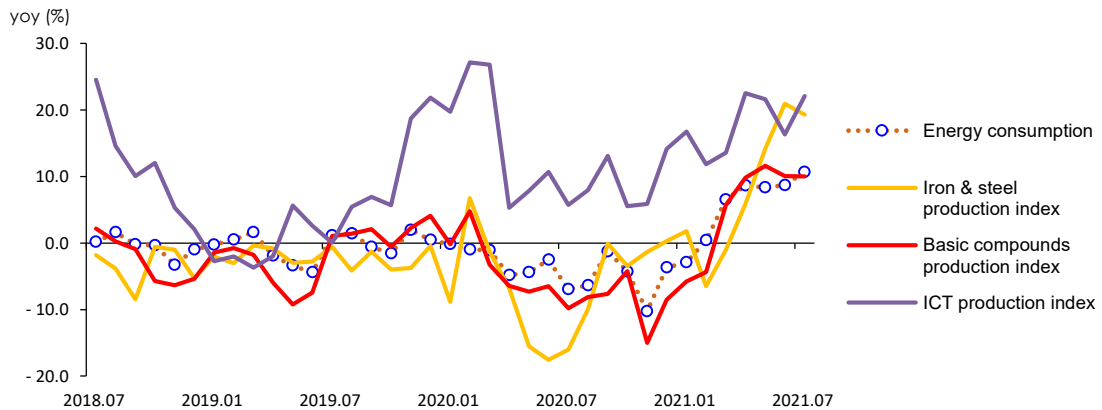
- Although the working day reduced by 0.5 day, the domestic and global economies were recovering from the impact of COVID-19 pandemic faster than expected thanks to widespread vaccination. As a result, energy consumption increased fast by more than 10%

### ► Industrial energy consumption

|                        | 2020         |             |             | 2021p       |             |             |             |
|------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                        |              | M1~7        | M7          | M1~7        | M5          | M6          | M7          |
| <b>Industry (Mtoe)</b> | <b>137.3</b> | <b>80.2</b> | <b>11.4</b> | <b>84.7</b> | <b>12.2</b> | <b>11.9</b> | <b>12.7</b> |
|                        | (-3.9)       | (-3.0)      | (-6.9)      | (5.6)       | (8.3)       | (8.7)       | (10.7)      |
| Petrochemical          | 69.4         | 41.2        | 5.9         | 43.4        | 6.2         | 6.1         | 6.7         |
|                        | (-3.6)       | (-0.1)      | (-7.6)      | (5.3)       | (5.0)       | (10.3)      | (13.0)      |
| - Naphtha              | 49.7         | 30.1        | 4.3         | 31.1        | 4.4         | 4.3         | 4.7         |
|                        | (-7.6)       | (-3.3)      | (-9.8)      | (3.4)       | (0.2)       | (3.9)       | (9.6)       |
| Iron & Steel           | 28.2         | 16.1        | 2.4         | 17.0        | 2.5         | 2.3         | 2.5         |
|                        | (-4.5)       | (-6.4)      | (-4.8)      | (5.3)       | (13.9)      | (4.0)       | (3.6)       |
| -Coking coal           | 23.6         | 13.4        | 2.0         | 14.3        | 2.1         | 2.0         | 2.1         |
|                        | (-3.3)       | (-5.4)      | (-2.1)      | (7.4)       | (17.2)      | (6.5)       | (3.9)       |
| Fabricated metal       | 11.1         | 6.4         | 0.9         | 7.2         | 0.9         | 1.0         | 1.0         |
|                        | (-2.7)       | (-4.2)      | (-1.4)      | (11.9)      | (14.2)      | (18.8)      | (13.2)      |
| Share of feedstock (%) | 57.8         | 58.4        | 58.9        | 58.6        | 58.4        | 58.3        | 58.7        |

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

### ► Industrial energy consumption & production index



## 12. Transport

□ Energy use in the transport sector in July increased by 1.2% year-on-year as the road and marine transport sectors experienced an increase, canceling out the impact of a decline in the air transport sector

- The travel demand dropped as COVID-19 confirmed cases grew quickly and the distancing regulations were tightened up. However, the storage demand of many gas stations went up in expectation of a continuous increase in global oil price. As a result, the energy use in the road transport sector stepped up by 2.3% year-on-year
- Although the number of domestic and international flights was up, the energy use in the air transport sector declined by 11.1% year-on-year with the reserve being exhausted
- Energy use in the marine transport sector inched up by 0.6% on a year-on-year basis as the import and export volume increased with global business recovery

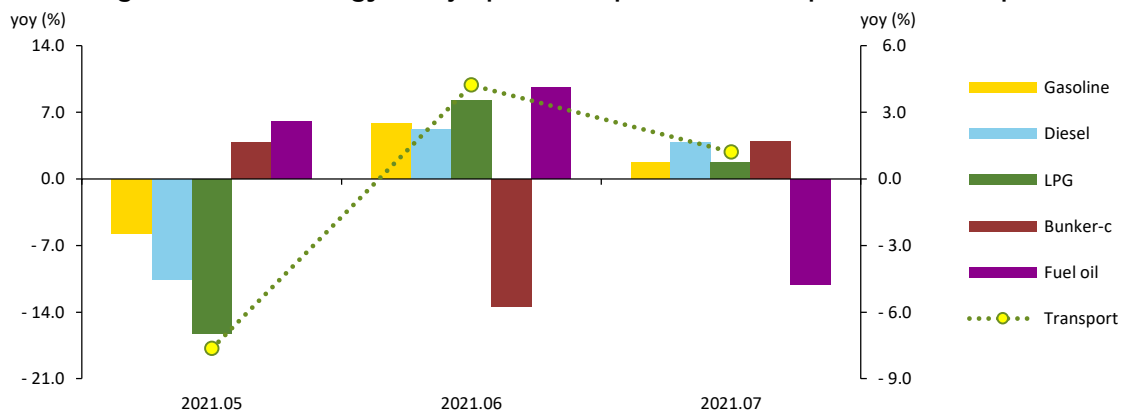
### ► The growth rate of petroleum consumption in the transport sector

|                         | 2020         |              |             | 2021p        |             |             |             |
|-------------------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|
|                         |              | M1~7         | M7          | M1~7         | M5          | M6          | M7          |
| <b>Transport (Mtoe)</b> | <b>39.40</b> | <b>22.71</b> | <b>3.37</b> | <b>22.87</b> | <b>3.39</b> | <b>3.50</b> | <b>3.41</b> |
|                         | (-8.3)       | (-9.2)       | (-4.4)      | (0.7)        | (-7.6)      | (4.2)       | (1.2)       |
| Road                    | 33.41        | 19.08        | 2.85        | 19.51        | 2.86        | 3.04        | 2.91        |
|                         | (-4.7)       | (-5.8)       | (-1.2)      | (2.3)        | (-9.8)      | (5.9)       | (2.3)       |
| Navigation              | 3.11         | 1.84         | 0.26        | 1.79         | 0.29        | 0.23        | 0.26        |
|                         | (17.5)       | (10.5)       | (16.6)      | (-2.7)       | (7.5)       | (-16.1)     | (0.6)       |
| Aviation                | 2.56         | 1.61         | 0.24        | 1.40         | 0.22        | 0.21        | 0.21        |
|                         | (-48.1)      | (-44.2)      | (-39.7)     | (-12.9)      | (5.9)       | (9.6)       | (-11.1)     |
| Rail                    | 0.32         | 0.19         | 0.03        | 0.17         | 0.02        | 0.02        | 0.03        |
|                         | (-7.5)       | (-8.6)       | (-12.9)     | (-7.8)       | (-12.1)     | (-4.7)      | (-3.9)      |

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 the building sector rose by 6.8% year-on-year as all sectors experienced an increase due to a growth in the cooling demand and production activities

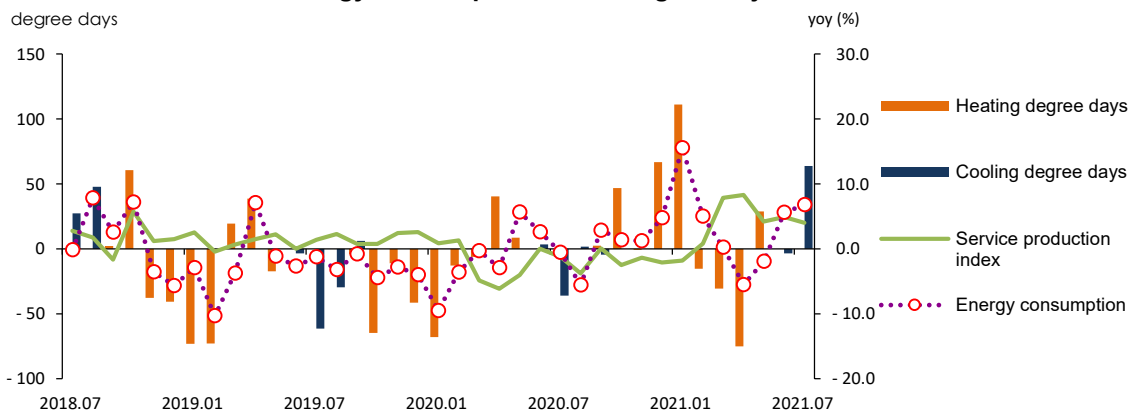
- Energy use in the building sector went up by 6.8% from a year earlier with a year-on-year growth of 8.7% in electricity consumption
- Despite of a drop in city gas and heat energy consumption, the energy use in the residential sector increased by 4.8% as electricity use soared by 13.0% year-on-year due to heat waves and a resulting rise in the cooling demand
- Even in the face of the fourth wave of COVID-19 pandemic, the production in the service sector showed an upward trend (a 4.0% increase in production index) thanks to widespread vaccination. Driven by the service sector and a base effect, the energy use in the commercial and public sectors rose by 7.9% year-on-year

#### ► Energy consumption in buildings

|                         | 2020        |             |            | 2021p       |            |            |            |
|-------------------------|-------------|-------------|------------|-------------|------------|------------|------------|
|                         |             | M1~7        | M7         |             | M1~7       | M5         | M6         |
| <b>Buildings (Mtoe)</b> | <b>45.0</b> | <b>27.0</b> | <b>2.7</b> | <b>28.2</b> | <b>3.0</b> | <b>2.8</b> | <b>2.9</b> |
|                         | (-1.0)      | (-2.5)      | (-0.5)     | (4.5)       | (-2.0)     | (5.6)      | (6.8)      |
| Residential             | 23.0        | 14.0        | 1.0        | 14.6        | 1.3        | 1.1        | 1.0        |
|                         | (1.8)       | (-0.8)      | (3.3)      | (4.0)       | (-7.5)     | (5.4)      | (4.8)      |
| Commercial              | 17.0        | 10.0        | 1.3        | 10.4        | 1.2        | 1.3        | 1.4        |
|                         | (-2.8)      | (-3.1)      | (-1.5)     | (3.8)       | (2.1)      | (5.9)      | (7.0)      |
| Public-others           | 5.0         | 2.9         | 0.4        | 3.2         | 0.4        | 0.4        | 0.4        |
|                         | (-6.6)      | (-7.9)      | (-5.9)     | (8.8)       | (7.0)      | (5.1)      | (10.8)     |
| Heating degree days     | 2 448.0     | 1 473.4     | -          | 1 492.3     | 57.6       | -          | -          |
|                         | (3.3)       | (-2.5)      | -          | (1.3)       | (99.3)     | -          | -          |
| Cooling degree days     | 85.2        | 7.0         | 3.5        | 67.3        | -          | -          | 67.3       |
|                         | (-29.2)     | (-82.3)     | (-91.1)    | (861.4)     | -          | (-100.0)   | (1 822.9)  |

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

#### ► Energy consumption in buildings & major indicators



## 14. Transformation

□ As electricity consumption stepped up massively in July, total generation and energy input for generation increased by 16.0%% and 11.1% year-on-year, respectively

- As electricity consumption increased by nearly 10%, the base load climbed up by 3.5% driven by a massive rise in coal power generation, canceling out the impact of a drop in nuclear power. On the other side, the gas power generation for peak load skyrocketed by 50.9%

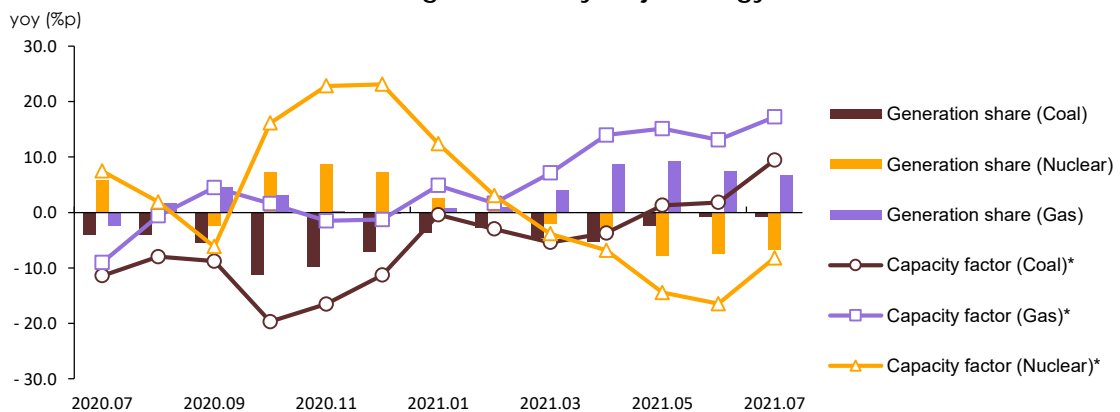
### ► Electricity Generation in the power generation sector

|                                     | 2020         | 2021p        |             |              |             |             |             |
|-------------------------------------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|
|                                     |              | M1~7         | M7          | M1~7         | M5          | M6          | M7          |
| <b>Electricity Generation (TWh)</b> | <b>552.2</b> | <b>316.8</b> | <b>46.7</b> | <b>332.9</b> | <b>44.3</b> | <b>45.5</b> | <b>54.1</b> |
|                                     | (-1.9)       | (-3.1)       | (-6.1)      | (5.1)        | (6.5)       | (3.7)       | (16.0)      |
| Coal                                | 196.3        | 113.0        | 18.8        | 109.6        | 14.5        | 16.7        | 21.4        |
|                                     | (-13.7)      | (-10.5)      | (-14.6)     | (-3.1)       | (-1.1)      | (2.2)       | (13.6)      |
| Oil                                 | 2.3          | 0.9          | 0.1         | 2.5          | 0.1         | 0.2         | 0.3         |
|                                     | (-31.5)      | (-55.9)      | (-65.3)     | (167.6)      | (81.5)      | (85.1)      | (293.5)     |
| Gas                                 | 145.9        | 79.8         | 10.4        | 101.4        | 12.2        | 13.3        | 15.6        |
|                                     | (1.1)        | (-3.2)       | (-15.1)     | (27.1)       | (61.2)      | (41.1)      | (50.9)      |
| Nuclear                             | 160.2        | 95.8         | 13.7        | 89.5         | 12.8        | 11.3        | 12.3        |
|                                     | (9.8)        | (4.7)        | (17.5)      | (-6.6)       | (-16.4)     | (-19.6)     | (-10.3)     |
| Hydro/other renewables              | 40.4         | 21.8         | 3.0         | 27.7         | 4.5         | 3.8         | 4.2         |
|                                     | (3.1)        | (-8.6)       | (-13.3)     | (27.0)       | (38.8)      | (22.6)      | (39.0)      |
| Baseload                            | 356.5        | 208.8        | 32.5        | 199.1        | 27.3        | 28.0        | 33.7        |
|                                     | (-4.5)       | (-4.1)       | (-3.5)      | (-4.7)       | (-8.9)      | (-7.9)      | (3.5)       |

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

Source: Monthly energy statistics

### ► Power generation by major energy sources



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

### Major Statistics & Indicators of the Economy

|   | 2019              | 2020              |                   |                |                 |                 | 2021             |                |                |                   |
|---|-------------------|-------------------|-------------------|----------------|-----------------|-----------------|------------------|----------------|----------------|-------------------|
|   |                   |                   | M1 7              | M5             | M6              | M7              | M1 7             | M5             | M6             | M7                |
| GDP (trillion won)                                    | 1 852.7<br>(2.2)  | 1 836.9<br>(-0.9) | 893.5<br>(-0.6)   | -<br>-         | 449.7<br>(-2.6) | -<br>-          | 928.9<br>(4.0)   | -<br>-         | 476.5<br>(6.0) | -<br>-            |
| Private consumption                                   | 894.1<br>(2.1)    | 849.1<br>(-5.0)   | 421.1<br>(-4.5)   | -<br>-         | 208.6<br>(-4.2) | -<br>-          | 431.3<br>(2.4)   | -<br>-         | 216.3<br>(3.7) | -<br>-            |
| Facilities investment                                 | 155.3<br>(-6.6)   | 166.3<br>(7.1)    | 81.8<br>(5.9)     | -<br>-         | 42.3<br>(4.5)   | -<br>-          | 92.1<br>(12.6)   | -<br>-         | 47.7<br>(12.8) | -<br>-            |
| Construction investment                               | 265.2<br>(-1.7)   | 264.1<br>(-0.4)   | 127.3<br>(1.6)    | -<br>-         | 72.5<br>(-0.4)  | -<br>-          | 125.4<br>(-1.5)  | -<br>-         | 71.6<br>(-1.2) | -<br>-            |
| Consumer price index<br>(2015=100)                    | 104.9             | 105.4             | 105.2             | 104.7          | 104.9           | 104.9           | 107.2            | 107.5          | 107.4          | 107.6             |
| USD to KRW exchange rate<br>(won)                     | 1 165.4           | 1 180.3           | 1 205.9           | 1 228.7        | 1 210.0         | 1 198.9         | 1 121.2          | 1 123.3        | 1 121.3        | 1 144.0           |
| Benchmark rate (%)                                    | 1.6               | 0.7               | 0.8               | 0.5            | 0.5             | 0.5             | 0.5              | 0.5            | 0.5            | 0.5               |
| Coincident composite index<br>(2015=100)              | 112.0             | 112.3             | 111.8             | 110.4          | 110.7           | 111.0           | 115.7            | 116.6          | 116.8          | 117.0             |
| Mining & manufacturing<br>production index (2015=100) | 106.7             | 106.3             | 103.7             | 96.8           | 104.3           | 107.4           | 112.3            | 110.8          | 116.3          | 115.7             |
| Manufacturing operation ratio<br>index (2015=100)     | 98.4              | 95.6              | 93.5              | 86.8           | 94.3            | 97.3            | 99.2             | 98.6           | 103.0          | 102.3             |
| Average temperature                                   | 13.4              | 13.0              | 12.4              | 17.6           | 22.7            | 22.5            | 12.6             | 16.6           | 21.7           | 26.0              |
| - year-on-year difference                             | 0.4               | - 0.4             | - 0.0             | - 1.1          | 1.4             | - 2.3           | 0.2              | - 0.9          | - 1.0          | 3.5               |
| Heating degree days                                   | 2 370.9<br>(-8.7) | 2 448.0<br>(3.3)  | 1 473.4<br>(-2.5) | 28.9<br>(42.4) | -<br>-          | -<br>-          | 1 492.3<br>(1.3) | 57.6<br>(99.3) | -<br>-         | -<br>-            |
| Cooling degree days                                   | 120.4<br>(- 42.4) | 85.2<br>(- 29.2)  | 7.0<br>(- 82.3)   | -<br>-         | 3.5<br>-        | 3.5<br>(- 91.1) | 67.3<br>(861.4)  | -<br>-         | -<br>(- 100.0) | 67.3<br>(1 822.9) |
| Energy intensity                                      | 0.16<br>(-3.6)    | 0.16<br>(-3.1)    | 0.16<br>(-3.4)    | -<br>-         | 0.15<br>(-0.6)  | -<br>-          | 0.16<br>(-0.6)   | -<br>-         | 0.15<br>(-1.6) | -<br>-            |
| Per capita consumption                                |                   |                   |                   |                |                 |                 |                  |                |                |                   |
| oil (bbl)   | 17.9<br>(-0.7)    | 16.8<br>(-6.0)    | 9.9<br>(-3.8)     | 1.5<br>(7.3)   | 1.4<br>(-1.0)   | 1.4<br>(-7.8)   | 10.3<br>(3.4)    | 1.5<br>(-2.5)  | 1.5<br>(8.0)   | 1.5<br>(9.0)      |
| Electricity (MWh)                                     | 10.1<br>(-1.3)    | 9.8<br>(-2.3)     | 5.7<br>(-2.9)     | 0.7<br>(-6.0)  | 0.8<br>(-2.3)   | 0.8<br>(-2.2)   | 5.9<br>(4.3)     | 0.8<br>(6.6)   | 0.8<br>(5.8)   | 0.9<br>(9.4)      |
| City gas (1 000 m <sup>3</sup> )                      | 0.5<br>(-4.3)     | 0.4<br>(-3.6)     | 0.3<br>(-7.0)     | 0.0<br>(-10.8) | 0.0<br>(-11.2)  | 0.0<br>(-9.1)   | 0.3<br>(7.2)     | 0.0<br>(9.4)   | 0.0<br>(13.1)  | 0.0<br>(7.0)      |
| Total energy (toe)                                    | 5.9<br>(-1.6)     | 5.6<br>(-3.9)     | 3.3<br>(-4.3)     | 0.4<br>(-1.4)  | 0.4<br>(-2.2)   | 0.5<br>(-6.5)   | 3.4<br>(4.0)     | 0.5<br>(3.3)   | 0.5<br>(4.7)   | 0.5<br>(9.1)      |

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)

2015=100

|   | 2019               | 2020               |                    |                    |                    |                    | 2021              |                  |                   |                   |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|------------------|-------------------|-------------------|
|   |                    |                    | M1 7               | M5                 | M6                 | M7                 | M1 7              | M5               | M6                | M7                |
| Industrial production index               |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |
| All industry                              | 108.6<br>(1.0)     | 107.3<br>(-1.2)    | 105.3<br>(-1.3)    | 102.9<br>(-6.1)    | 110.2<br>(0.4)     | 106.8<br>(-1.8)    | 110.5<br>(4.9)    | 110.0<br>(6.9)   | 117.3<br>(6.4)    | 111.6<br>(4.5)    |
| Mining & manufacturing                    | 106.7<br>(0.3)     | 106.3<br>(-0.3)    | 103.7<br>(-1.1)    | 96.8<br>(-10.9)    | 104.3<br>(-1.3)    | 107.4<br>(-2.9)    | 112.3<br>(8.4)    | 110.8<br>(14.5)  | 116.3<br>(11.5)   | 115.7<br>(7.7)    |
| Semiconductor                             | 188.0<br>(11.7)    | 230.6<br>(22.6)    | 216.6<br>(28.4)    | 223.4<br>(25.8)    | 238.4<br>(22.3)    | 227.9<br>(16.8)    | 273.2<br>(26.1)   | 283.3<br>(26.8)  | 299.8<br>(25.8)   | 306.6<br>(34.5)   |
| Iron & steel                              | 98.3<br>(-2.2)     | 92.1<br>(-6.3)     | 91.0<br>(-8.7)     | 86.0<br>(-15.5)    | 81.3<br>(-17.5)    | 86.0<br>(-16.0)    | 97.5<br>(7.2)     | 98.2<br>(14.2)   | 98.3<br>(20.9)    | 102.6<br>(19.3)   |
| Cement                                    | 94.3<br>(-5.7)     | 86.6<br>(-8.2)     | 84.5<br>(-10.7)    | 87.4<br>(-18.6)    | 92.3<br>(-10.4)    | 81.1<br>(-15.7)    | 90.3<br>(6.9)     | 95.2<br>(8.9)    | 97.3<br>(5.4)     | 93.3<br>(15.0)    |
| Basic compound                            | 108.9<br>(-1.4)    | 102.3<br>(-6.0)    | 103.2<br>(-4.1)    | 96.6<br>(-7.3)     | 95.4<br>(-6.5)     | 103.8<br>(-9.8)    | 108.3<br>(4.9)    | 107.8<br>(11.6)  | 105.0<br>(10.1)   | 114.2<br>(10.0)   |
| Transport equipment                       | 93.4<br>(-0.6)     | 84.1<br>(-9.9)     | 80.4<br>(-16.1)    | 64.2<br>(-36.8)    | 79.3<br>(-15.4)    | 93.2<br>(-8.1)     | 91.1<br>(13.3)    | 82.3<br>(28.2)   | 95.5<br>(20.4)    | 90.0<br>(-3.4)    |
| Electric & electronic                     | 109.6<br>(2.9)     | 108.7<br>(-0.8)    | 103.9<br>(-2.8)    | 94.8<br>(-14.5)    | 108.6<br>(0.7)     | 111.6<br>(-2.5)    | 113.3<br>(9.1)    | 109.3<br>(15.3)  | 120.1<br>(10.6)   | 119.1<br>(6.7)    |
| Service                                   | 108.4<br>(1.4)     | 106.2<br>(-2.0)    | 104.6<br>(-2.1)    | 105.1<br>(-4.0)    | 108.2<br>-         | 106.7<br>(-1.2)    | 108.8<br>(4.0)    | 109.5<br>(4.2)   | 113.5<br>(4.9)    | 111.0<br>(4.0)    |
| Wholesale and retail                      | 104.6<br>(-0.4)    | 101.9<br>(-2.6)    | 100.3<br>(-3.3)    | 103.3<br>(-4.4)    | 103.8<br>-         | 100.6<br>(-2.0)    | 104.7<br>(4.4)    | 106.3<br>(2.9)   | 107.4<br>(3.5)    | 106.4<br>(5.8)    |
| Food & Accommodation                      | 97.5<br>(-1.0)     | 79.5<br>(-18.5)    | 81.0<br>(-15.6)    | 86.6<br>(-14.1)    | 84.7<br>(-12.1)    | 90.4<br>(-9.1)     | 76.1<br>(-6.0)    | 84.8<br>(-2.1)   | 84.2<br>(-0.6)    | 83.2<br>(-8.0)    |
| Production output                         |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |
| Iron & steel - Pig iron                   | 47 520.7<br>(0.8)  | 45 359.6<br>(-4.5) | 25 375.1<br>(-8.0) | 3 483.6<br>(-14.4) | 3 482.2<br>(-10.9) | 3 905.6<br>(-2.5)  | 26 989.8<br>(6.4) | 3 728.6<br>(7.0) | 3 788.6<br>(8.8)  | 4 015.3<br>(2.8)  |
| Iron & steel - Crude steel                | 71 411.9<br>(-1.5) | 67 078.8<br>(-6.1) | 38 022.6<br>(-9.6) | 5 383.9<br>(-14.2) | 5 089.2<br>(-14.5) | 5 529.8<br>(-8.2)  | 41 322.3<br>(8.7) | 5 880.0<br>(9.2) | 5 970.9<br>(17.3) | 6 124.3<br>(10.8) |
| Petrochemical - Basic oil                 | 31 804.1<br>(2.1)  | 30 323.6<br>(-4.7) | 18 265.0<br>(0.9)  | 2 570.1<br>(4.8)   | 2 490.8<br>(2.6)   | 2 559.3<br>(-11.1) | 19 242.5<br>(5.4) | 2 814.2<br>(9.5) | 2 649.2<br>(6.4)  | 2 950.2<br>(15.3) |
| Petrochemical - Intermediate raw material | 16 014.0<br>(-5.7) | 15 355.4<br>(-4.1) | 9 243.1<br>(0.8)   | 1 267.9<br>(3.4)   | 1 236.0<br>(5.7)   | 1 287.5<br>(-5.4)  | 9 104.5<br>(-1.5) | 1 316.4<br>(3.8) | 1 121.5<br>(-9.3) | 1 337.5<br>(3.9)  |
| Petrochemical - 3 major products          | 21 584.6<br>(-1.0) | 21 252.7<br>(-1.5) | 12 508.0<br>(-1.2) | 1 757.5<br>(-3.4)  | 1 665.5<br>(-2.2)  | 1 745.2<br>(-9.5)  | 13 427.9<br>(7.4) | 1 923.8<br>(9.5) | 1 849.0<br>(11.0) | 2 061.4<br>(18.1) |
| The number of cars                        | 3 948.1<br>(-2.1)  | 3 506.8<br>(-11.2) | 1 973.3<br>(-17.3) | 231.1<br>(-36.9)   | 297.0<br>(-10.8)   | 345.7<br>(-3.9)    | 2 112.3<br>(7.0)  | 256.3<br>(10.9)  | 325.8<br>(9.7)    | 297.6<br>(-13.9)  |

Note: p means provisional

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

## International Energy Prices

|  | 2019             | 2020             |                  |                  |                  |                  | 2021            |                  |                  |                  |
|--|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|------------------|------------------|
|  |                  |                  | M1 7             | M5               | M6               | M7               | M1 7            | M5               | M6               | M7               |
| Crude oil (USD/bbl)                    |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |
| WTI                                    | 57.0<br>(-11.9)  | 39.4<br>(-30.9)  | 37.5<br>(-34.6)  | 28.5<br>(-53.1)  | 38.3<br>(-30.0)  | 40.8<br>(-29.2)  | 63.5<br>(69.0)  | 65.2<br>(128.4)  | 71.4<br>(86.2)   | 72.4<br>(77.7)   |
| Dubai                                  | 63.5<br>(-8.5)   | 42.2<br>(-33.6)  | 41.0<br>(-37.0)  | 30.5<br>(-56.1)  | 40.8<br>(-34.0)  | 43.3<br>(-31.6)  | 64.8<br>(58.0)  | 66.3<br>(117.7)  | 71.6<br>(75.5)   | 72.9<br>(68.4)   |
| Brent                                  | 64.2<br>(-10.3)  | 43.2<br>(-32.7)  | 42.3<br>(-35.8)  | 32.4<br>(-53.9)  | 40.8<br>(-35.3)  | 43.2<br>(-32.7)  | 66.4<br>(57.0)  | 68.3<br>(110.8)  | 73.4<br>(80.1)   | 74.3<br>(71.9)   |
| Unit value of import (C&F)             | 65.5<br>(-8.2)   | 44.8<br>(-31.7)  | 45.1<br>(-32.1)  | 26.2<br>(-63.2)  | 29.8<br>(-56.0)  | 39.2<br>(-40.1)  | 64.3<br>(42.7)  | 67.2<br>(156.9)  | 69.9<br>(134.2)  | 73.4<br>(87.1)   |
| LNG                                    |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |
| From Indonesia<br>(USD/MMBTU)          | 10.6<br>(-1.0)   | 8.3<br>(-21.3)   | 9.5<br>(-11.7)   | 10.1<br>(-0.7)   | 9.0<br>(-10.7)   | 7.8<br>(-23.1)   | 9.1<br>(-4.3)   | 8.9<br>(-11.5)   | 9.6<br>(7.2)     | 10.4<br>(33.0)   |
| Unit value of import<br>(USD/ton, CIF) | 505.4<br>(-4.0)  | 390.2<br>(-22.8) | 450.7<br>(-14.4) | 469.0<br>(-2.6)  | 443.7<br>(-5.7)  | 384.0<br>(-21.4) | 447.9<br>(-0.6) | 408.1<br>(-13.0) | 460.9<br>(3.9)   | 497.5<br>(29.5)  |
| Bituminous coal (USD/ton)              |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |
| From Australia                         | 77.9<br>(-27.2)  | 60.8<br>(-22.0)  | 59.8<br>(-30.3)  | 52.5<br>(-36.2)  | 52.2<br>(-28.0)  | 51.6<br>(-28.5)  | 107.1<br>(79.0) | 107.0<br>(103.9) | 130.0<br>(148.9) | 152.0<br>(194.7) |
| Unit value of import (CIF)             | 100.7<br>(-11.3) | 77.7<br>(-22.9)  | 82.8<br>(-23.3)  | 83.4<br>(-25.4)  | 75.4<br>(-31.1)  | 68.8<br>(-28.8)  | 90.3<br>(9.0)   | 94.4<br>(13.1)   | 97.9<br>(29.8)   | 102.8<br>(49.4)  |
| Petroleum product (USD/bbl)            |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |
| Gasoline                               | 72.5<br>(-9.3)   | 46.7<br>(-35.7)  | 45.4<br>(-36.4)  | 33.5<br>(-56.2)  | 45.3<br>(-32.9)  | 46.6<br>(-36.7)  | 73.9<br>(62.6)  | 76.2<br>(127.7)  | 80.4<br>(77.3)   | 85.4<br>(83.0)   |
| Kerosene                               | 77.3<br>(-8.9)   | 44.7<br>(-42.1)  | 44.7<br>(-42.7)  | 28.9<br>(-64.6)  | 41.2<br>(-44.8)  | 43.9<br>(-44.0)  | 68.8<br>(53.9)  | 71.7<br>(148.3)  | 75.9<br>(84.3)   | 77.3<br>(75.9)   |
| Diesel                                 | 78.2<br>(-7.9)   | 49.4<br>(-36.8)  | 50.3<br>(-36.2)  | 36.1<br>(-56.4)  | 46.6<br>(-38.0)  | 50.2<br>(-36.4)  | 71.3<br>(41.7)  | 73.9<br>(104.9)  | 78.8<br>(69.1)   | 79.9<br>(59.3)   |
| Bunker-C                               | 57.5<br>(-11.8)  | 39.2<br>(-31.9)  | 36.6<br>(-42.4)  | 26.7<br>(-58.6)  | 36.9<br>(-38.0)  | 39.4<br>(-40.5)  | 59.9<br>(63.7)  | 59.7<br>(124.0)  | 64.7<br>(75.6)   | 66.2<br>(68.3)   |
| Propane                                | 434.6<br>(-19.8) | 397.1<br>(-8.6)  | 397.1<br>(-13.3) | 340.0<br>(-35.2) | 350.0<br>(-18.6) | 360.0<br>(-4.0)  | 569.3<br>(43.3) | 495.0<br>(45.6)  | 530.0<br>(51.4)  | 620.0<br>(72.2)  |
| Butane                                 | 441.7<br>(-18.1) | 403.8<br>(-8.6)  | 409.3<br>(-11.7) | 340.0<br>(-35.8) | 330.0<br>(-20.5) | 340.0<br>(-4.2)  | 551.4<br>(34.7) | 475.0<br>(39.7)  | 525.0<br>(59.1)  | 620.0<br>(82.4)  |
| Naphtha                                | 56.9<br>(-15.1)  | 40.5<br>(-28.9)  | 38.5<br>(-32.4)  | 26.3<br>(-56.1)  | 39.0<br>(-24.6)  | 43.5<br>(-21.8)  | 65.1<br>(69.1)  | 65.7<br>(149.6)  | 70.5<br>(80.9)   | 75.5<br>(73.6)   |

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

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



## Domestic Energy Prices

|                      | 2019              | 2020               |                   |                    |                    |                    | 2021             |                   |                   |                   |
|----------------------|-------------------|--------------------|-------------------|--------------------|--------------------|--------------------|------------------|-------------------|-------------------|-------------------|
|                      |                   |                    | M1 7              | M5                 | M6                 | M7                 | M1 7             | M5                | M6                | M7                |
| Petroleum product    |                   |                    |                   |                    |                    |                    |                  |                   |                   |                   |
| Gasoline (won/liter) | 1 471.9<br>(-6.9) | 1 381.6<br>(-6.1)  | 1 406.4<br>(-1.7) | 1 255.1<br>(-17.3) | 1 322.9<br>(-12.8) | 1 360.3<br>(-8.8)  | 1 528.7<br>(8.7) | 1 541.5<br>(22.8) | 1 577.3<br>(19.2) | 1 629.3<br>(19.8) |
| Diesel (won/liter)   | 1 340.1<br>(-3.7) | 1 189.8<br>(-11.2) | 1 219.7<br>(-7.2) | 1 065.8<br>(-23.1) | 1 127.9<br>(-18.3) | 1 162.9<br>(-14.0) | 1 327.1<br>(8.8) | 1 338.8<br>(25.6) | 1 374.4<br>(21.9) | 1 425.5<br>(22.6) |
| Bunker-C (won/liter) | 743.9<br>(1.2)    | 573.6<br>(-22.9)   | 597.5<br>(-19.6)  | 451.3<br>(-41.9)   | 462.8<br>(-42.1)   | 524.7<br>(-32.4)   | 674.6<br>(12.9)  | 706.4<br>(56.5)   | 706.4<br>(52.6)   | 728.4<br>(38.8)   |
| Propane (won/kg)     | 1 869.7<br>(-2.6) | 1 850.7<br>(-1.0)  | 1 867.4<br>(-0.7) | 1 753.8<br>(-8.9)  | 1 794.5<br>(-7.0)  | 1 806.0<br>(-2.5)  | 1 992.9<br>(6.7) | 2 031.6<br>(15.8) | 1 999.6<br>(11.4) | 2 036.4<br>(12.8) |
| Butane (won/liter)   | 806.2<br>(-7.8)   | 791.1<br>(-1.9)    | 803.2<br>(-1.2)   | 725.0<br>(-14.5)   | 749.5<br>(-12.0)   | 759.9<br>(-4.6)    | 875.3<br>(9.0)   | 899.4<br>(24.1)   | 878.5<br>(17.2)   | 906.3<br>(19.3)   |
|                      |                   |                    |                   |                    |                    |                    |                  |                   |                   |                   |
| City gas(won/MJ)     |                   |                    |                   |                    |                    |                    |                  |                   |                   |                   |
| Residential          | 15.6<br>(3.9)     | 15.1<br>(-3.6)     | 15.7<br>(1.7)     | 15.9<br>(3.8)      | 15.9<br>(3.8)      | 14.2<br>(-10.7)    | 14.2<br>(-9.3)   | 14.2<br>(-10.7)   | 14.2<br>(-10.7)   | 14.2<br>-         |
| General(1)           | 15.6<br>(4.9)     | 14.9<br>(-4.7)     | 15.6<br>(0.8)     | 15.8<br>(4.7)      | 15.7<br>(4.7)      | 13.8<br>(-12.2)    | 13.9<br>(-10.7)  | 13.8<br>(-12.3)   | 13.8<br>(-12.2)   | 13.8<br>(-0.0)    |
| Commercial           | 16.1<br>(4.4)     | 15.1<br>(-6.4)     | 16.2<br>(2.3)     | 16.5<br>(4.7)      | 16.5<br>(4.7)      | 14.6<br>(-11.4)    | 15.4<br>(-5.2)   | 15.0<br>(-8.9)    | 15.6<br>(-5.5)    | 16.2<br>(10.7)    |
| Industry             | 13.8<br>(6.0)     | 12.6<br>(-8.4)     | 13.9<br>(2.3)     | 14.0<br>(5.4)      | 13.9<br>(5.5)      | 11.7<br>(-15.5)    | 12.7<br>(-8.6)   | 11.8<br>(-15.5)   | 12.3<br>(-11.4)   | 12.9<br>(9.9)     |
|                      |                   |                    |                   |                    |                    |                    |                  |                   |                   |                   |
| Heat(won/Mcal)       |                   |                    |                   |                    |                    |                    |                  |                   |                   |                   |
| Residential          | 65.7<br>(1.8)     | 66.2<br>(0.7)      | 66.9<br>(3.4)     | 67.1<br>(3.8)      | 67.1<br>(3.8)      | 65.2<br>(0.8)      | 65.2<br>(-2.4)   | 65.2<br>(-2.8)    | 65.2<br>(-2.8)    | 65.2<br>-         |
| Commercial           | 85.3<br>(1.8)     | 85.9<br>(0.7)      | 86.8<br>(3.4)     | 87.2<br>(3.8)      | 87.2<br>(3.8)      | 84.7<br>(0.8)      | 84.7<br>(-2.4)   | 84.7<br>(-2.8)    | 84.7<br>(-2.8)    | 84.7<br>-         |
| Public               | 74.5<br>(1.9)     | 75.1<br>(0.7)      | 75.8<br>(3.4)     | 76.1<br>(3.8)      | 76.1<br>(3.8)      | 74.0<br>(0.8)      | 74.0<br>(-2.5)   | 74.0<br>(-2.9)    | 74.0<br>(-2.9)    | 74.0<br>-         |
|                      |                   |                    |                   |                    |                    |                    |                  |                   |                   |                   |
| Electricity(won/kWh) |                   |                    |                   |                    |                    |                    |                  |                   |                   |                   |
| Residential          | 147.3<br>-        | 147.3<br>-         | 147.3<br>-        | 147.3<br>-         | 147.3<br>-         | 147.3<br>-         | 142.3<br>(-3.4)  | 142.3<br>(-3.4)   | 142.3<br>(-3.4)   | 142.3<br>(-3.4)   |
| General              | 84.4<br>-         | 84.4<br>-          | 84.5<br>-         | 65.2<br>-          | 105.7<br>-         | 105.7<br>-         | 79.5<br>(-5.9)   | 60.2<br>(-7.7)    | 100.7<br>(-4.7)   | 100.7<br>(-4.7)   |
| Industry             | 96.0<br>-         | 96.0<br>-          | 95.6<br>-         | 78.5<br>-          | 108.5<br>-         | 108.5<br>-         | 90.6<br>(-5.2)   | 73.5<br>(-6.4)    | 103.5<br>(-4.6)   | 103.5<br>(-4.6)   |

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

2. Electricity prices are based on Residential(High-voltage, 201~400kWh), General((A) 1, Low-voltage), Industry((B), High-voltageB, option II mid-load)

Source: www.petronet.co.kr, www.seoulgas.co.kr, cyber.kepco.co.kr

## Total Primary Energy Supply (TPES)

|                                | 2019                   | 2020p                  |                        |                       |                       |                       | 2021p                 |                      |                      |                      |
|--------------------------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|
|                                |                        |                        | M1 7                   | M5                    | M6                    | M7                    | M1 7                  | M5                   | M6                   | M7                   |
| Coal (Mton)                    | 133.0<br>(-5.7)        | 116.6<br>(-12.4)       | 66.6<br>(-11.6)        | 8.6<br>(-9.3)         | 9.6<br>(-8.8)         | 10.7<br>(-13.1)       | 66.2<br>(-0.7)        | 9.1<br>(5.7)         | 9.5<br>(-1.0)        | 11.3<br>(5.4)        |
| - Coking coal excluded         | 98.0<br>(-7.9)         | 82.8<br>(-15.6)        | 47.5<br>(-13.8)        | 6.0<br>(-8.4)         | 6.9<br>(-9.0)         | 7.8<br>(-16.6)        | 45.6<br>(-3.9)        | 6.1<br>(0.8)         | 6.7<br>(-3.8)        | 8.3<br>(6.0)         |
| Oil (Mbbbl)                    | 927.1<br>(-0.5)        | 872.3<br>(-5.9)        | 513.4<br>(-3.7)        | 78.0<br>(7.5)         | 71.1<br>(-0.9)        | 72.4<br>(-7.7)        | 531.5<br>(3.5)        | 76.1<br>(-2.4)       | 76.8<br>(8.1)        | 78.9<br>(9.1)        |
| - Non-energy oil excluded      | 451.8<br>(1.4)         | 423.6<br>(-6.2)        | 243.9<br>(-5.6)        | 38.0<br>(15.2)        | 33.7<br>(-4.3)        | 34.3<br>(-5.3)        | 248.2<br>(1.8)        | 35.8<br>(-5.8)       | 36.9<br>(9.3)        | 36.1<br>(5.5)        |
| LNG (Mton)                     | 41.0<br>(-3.1)         | 42.1<br>(2.7)          | 23.8<br>(-1.7)         | 2.3<br>(-15.3)        | 2.4<br>(0.5)          | 2.6<br>(-7.0)         | 27.5<br>(15.4)        | 3.1<br>(33.2)        | 3.1<br>(25.6)        | 3.4<br>(29.1)        |
| Hydro (TWh)                    | 6.2<br>(-14.1)         | 7.1<br>(14.4)          | 3.8<br>(6.0)           | 0.6<br>(4.2)          | 0.5<br>(6.7)          | 0.6<br>(8.0)          | 4.1<br>(7.9)          | 0.6<br>(13.3)        | 0.7<br>(33.9)        | 0.7<br>(16.3)        |
| Nuclear (TWh)                  | 145.9<br>(9.3)         | 160.2<br>(9.8)         | 95.8<br>(4.7)          | 15.3<br>(3.3)         | 14.1<br>(3.6)         | 13.7<br>(17.5)        | 89.5<br>(-6.6)        | 12.8<br>(-16.4)      | 11.3<br>(-19.6)      | 12.3<br>(-10.3)      |
| Others (Mtoe)                  | 17.7<br>(3.3)          | 18.4<br>(4.3)          | 10.7<br>(3.8)          | 1.5<br>(-1.4)         | 1.5<br>(3.7)          | 1.5<br>(-0.8)         | 11.8<br>(9.9)         | 1.8<br>(17.0)        | 1.7<br>(10.0)        | 1.7<br>(16.6)        |
| <b>TPES (Mtoe)</b>             | <b>303.1</b><br>(-1.5) | <b>291.5</b><br>(-3.8) | <b>169.1</b><br>(-4.2) | <b>23.2</b><br>(-1.2) | <b>22.7</b><br>(-2.1) | <b>23.7</b><br>(-6.4) | <b>176.0</b><br>(4.0) | <b>23.9</b><br>(3.4) | <b>23.8</b><br>(4.8) | <b>25.9</b><br>(9.2) |
| - Non-energy oil excluded      | 244.0<br>(-1.3)        | 235.5<br>(-3.4)        | 135.6<br>(-4.7)        | 18.2<br>(-2.0)        | 18.1<br>(-3.2)        | 19.0<br>(-5.3)        | 140.5<br>(3.6)        | 18.9<br>(4.1)        | 18.8<br>(4.0)        | 20.5<br>(8.2)        |
| - Non-energy oil&coal excluded | 219.6<br>(-1.5)        | 212.0<br>(-3.5)        | 122.2<br>(-4.6)        | 16.4<br>(-0.9)        | 16.2<br>(-2.6)        | 17.0<br>(-5.7)        | 126.2<br>(3.2)        | 16.8<br>(2.7)        | 16.8<br>(3.7)        | 18.4<br>(8.7)        |

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

## Share of TPES by Sources

(unit: %)

|                           | 2019         | 2020p        |              |              |              |              | 2021p        |              |              |              |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                           |              |              | M1 7         | M5           | M6           | M7           | M1 7         | M5           | M6           | M7           |
| Coal                      | 27.1         | 24.8         | 24.4         | 23.1         | 26.0         | 28.0         | 23.4         | 23.7         | 24.7         | 27.0         |
| - Coking coal excluded    | 19.1         | 16.7         | 16.5         | 15.4         | 17.9         | 19.5         | 15.3         | 14.9         | 16.5         | 18.9         |
| Oil                       | 38.7         | 37.8         | 38.3         | 42.7         | 39.7         | 38.3         | 38.1         | 40.1         | 40.8         | 38.4         |
| - non-energy oil excluded | 19.2         | 18.6         | 18.4         | 21.1         | 19.2         | 18.4         | 18.0         | 19.1         | 19.7         | 17.7         |
| LNG                       | 17.7         | 18.9         | 18.4         | 13.0         | 14.1         | 14.5         | 20.4         | 16.7         | 16.9         | 17.2         |
| Hydro                     | 0.4          | 0.5          | 0.5          | 0.5          | 0.5          | 0.6          | 0.5          | 0.6          | 0.6          | 0.6          |
| Nuclear                   | 10.3         | 11.7         | 12.1         | 14.0         | 13.2         | 12.3         | 10.8         | 11.4         | 10.1         | 10.1         |
| Others                    | 5.8          | 6.3          | 6.4          | 6.6          | 6.6          | 6.3          | 6.7          | 7.5          | 6.9          | 6.7          |
| <b>TPES</b>               | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

Note: p means provisional  
Source: Monthly energy statistics

## Total Final Consumption (TFC)

(Unit: Mtoe)

|                             | 2019                   | 2020p                  |                        |                      |                       |                       | 2021p                 |                      |                      |                      |
|-----------------------------|------------------------|------------------------|------------------------|----------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|
|                             |                        |                        | M1~7                   | M5                   | M6                    | M7                    | M1~7                  | M5                   | M6                   | M7                   |
| Industry                    | 142.9<br>(-0.4)        | 137.3<br>(-3.9)        | 80.2<br>(-3.0)         | 11.3<br>(-4.4)       | 11.0<br>(-2.5)        | 11.4<br>(-6.9)        | 84.7<br>(5.6)         | 12.2<br>(8.3)        | 11.9<br>(8.7)        | 12.7<br>(10.7)       |
| Transport                   | 43.0<br>(0.0)          | 39.4<br>(-8.3)         | 22.7<br>(-9.2)         | 3.7<br>(11.3)        | 3.4<br>(-8.2)         | 3.4<br>(-4.4)         | 22.9<br>(0.7)         | 3.4<br>(-7.6)        | 3.5<br>(4.2)         | 3.4<br>(1.2)         |
| Residential                 | 22.6<br>(-3.6)         | 23.0<br>(1.8)          | 14.0<br>(-0.8)         | 1.5<br>(15.9)        | 1.0<br>(4.2)          | 1.0<br>(3.3)          | 14.6<br>(4.0)         | 1.3<br>(-7.5)        | 1.1<br>(5.4)         | 1.0<br>(4.8)         |
| commercial                  | 17.5<br>(-2.3)         | 17.0<br>(-2.8)         | 10.0<br>(-3.1)         | 1.2<br>(-0.9)        | 1.2<br>(3.1)          | 1.3<br>(-1.5)         | 10.4<br>(3.8)         | 1.2<br>(2.1)         | 1.3<br>(5.9)         | 1.4<br>(7.0)         |
| Public                      | 5.4<br>(-3.2)          | 5.0<br>(-6.6)          | 2.9<br>(-7.9)          | 0.4<br>(-7.3)        | 0.4<br>(-2.6)         | 0.4<br>(-5.9)         | 3.2<br>(8.8)          | 0.4<br>(7.0)         | 0.4<br>(5.1)         | 0.4<br>(10.8)        |
| <b>TFC</b>                  | <b>231.4</b><br>(-0.9) | <b>221.7</b><br>(-4.2) | <b>129.9</b><br>(-4.0) | <b>17.9</b><br>(0.1) | <b>17.0</b><br>(-3.0) | <b>17.5</b><br>(-5.5) | <b>135.8</b><br>(4.5) | <b>18.5</b><br>(3.3) | <b>18.2</b><br>(7.3) | <b>18.9</b><br>(8.2) |
| Coal (Mton)                 | 48.2<br>(-2.2)         | 45.8<br>(-4.9)         | 25.8<br>(-8.1)         | 3.4<br>(-16.1)       | 3.6<br>(-10.3)        | 3.8<br>(-3.8)         | 27.4<br>(6.3)         | 4.1<br>(19.2)        | 3.7<br>(3.4)         | 4.0<br>(5.5)         |
| Oil (Mbbbl)                 | 918.5<br>(-0.2)        | 865.7<br>(-5.7)        | 510.3<br>(-3.3)        | 77.6<br>(7.8)        | 70.7<br>(-0.7)        | 72.0<br>(-7.4)        | 526.5<br>(3.2)        | 75.6<br>(-2.5)       | 76.3<br>(7.9)        | 78.2<br>(8.5)        |
| Electricity (TWh)           | 520.5<br>(-1.1)        | 509.3<br>(-2.2)        | 294.3<br>(-2.8)        | 38.3<br>(-5.8)       | 39.8<br>(-2.1)        | 42.1<br>(-2.1)        | 307.4<br>(4.4)        | 40.9<br>(6.7)        | 42.1<br>(5.9)        | 46.0<br>(9.5)        |
| City gas (Bm <sup>3</sup> ) | 23.3<br>(-4.1)         | 22.5<br>(-3.5)         | 13.8<br>(-6.9)         | 1.4<br>(-10.7)       | 1.1<br>(-11.1)        | 1.1<br>(-9.0)         | 14.8<br>(7.3)         | 1.5<br>(9.5)         | 1.3<br>(13.2)        | 1.2<br>(7.1)         |
| Heat-others (1 000 toe)     | 11.6<br>(-2.0)         | 11.4<br>(-0.9)         | 6.8<br>(-1.6)          | 0.8<br>(-1.1)        | 0.8<br>(-2.7)         | 0.8<br>(-1.6)         | 7.3<br>(7.0)          | 0.9<br>(11.3)        | 0.9<br>(12.6)        | 0.9<br>(8.6)         |

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

## Share of the Total Final Consumption by Sources

(unit: %)

|              | 2019  | 2020p |       |       |       |       | 2021p |       |       |       |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|              |       |       | M1 7  | M5    | M6    | M7    | M1 7  | M5    | M6    | M7    |
| Industry     | 61.8  | 61.9  | 61.8  | 62.7  | 64.5  | 65.4  | 62.4  | 65.8  | 65.4  | 66.8  |
| Transport    | 18.6  | 17.8  | 17.5  | 20.5  | 19.8  | 19.3  | 16.9  | 18.3  | 19.2  | 18.0  |
| Residential  | 9.8   | 10.4  | 10.8  | 8.1   | 6.1   | 5.5   | 10.7  | 7.3   | 6.0   | 5.3   |
| Commercial   | 7.6   | 7.7   | 7.7   | 6.7   | 7.3   | 7.6   | 7.7   | 6.6   | 7.2   | 7.5   |
| Public       | 2.3   | 2.3   | 2.2   | 2.0   | 2.3   | 2.3   | 2.3   | 2.1   | 2.2   | 2.4   |
| Final energy | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Coal         | 13.9  | 13.7  | 13.2  | 12.7  | 14.0  | 14.6  | 13.5  | 14.6  | 13.6  | 14.2  |
| Oil          | 50.2  | 49.3  | 49.5  | 54.9  | 52.7  | 51.7  | 49.0  | 51.6  | 52.8  | 51.9  |
| Electricity  | 19.3  | 19.8  | 19.5  | 18.4  | 20.1  | 20.7  | 19.5  | 19.0  | 19.8  | 20.9  |
| City gas     | 11.6  | 12.0  | 12.5  | 9.4   | 8.6   | 8.3   | 12.7  | 9.9   | 8.9   | 8.2   |
| Heat-others  | 5.0   | 5.2   | 5.2   | 4.6   | 4.6   | 4.7   | 5.4   | 5.0   | 4.8   | 4.7   |

Note: p means provisional  
Source: Monthly energy statistics

## Statistics on Energy Production Facilities

|                              | 2018           | 2019           | 2020           |                |                |                | 2021           |                |                |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                              |                |                |                | M5             | M6             | M7             | M5             | M6             | M7             |
| Total capacity (GW)          | 119.1<br>(1.9) | 125.3<br>(5.2) | 129.2<br>(3.1) | 126.8<br>(5.8) | 127.3<br>(5.1) | 127.8<br>(5.5) | 129.6<br>(2.2) | 131.1<br>(2.9) | 131.3<br>(2.7) |
| Nuclear                      | 21.9<br>(-3.0) | 23.3<br>(6.4)  | 23.3<br>-      | 23.3<br>(6.4)  | 23.3<br>(6.4)  | 23.3<br>(6.4)  | 23.3<br>-      | 23.3<br>-      | 23.3<br>-      |
| Bituminous coal              | 36.4<br>(0.7)  | 36.4<br>(0.1)  | 36.5<br>(0.1)  | 36.5<br>(0.1)  | 36.5<br>(0.1)  | 36.5<br>(0.1)  | 35.4<br>(-2.9) | 36.4<br>(-0.2) | 36.4<br>(-0.2) |
| Gas                          | 37.9<br>(-0.0) | 39.6<br>(4.5)  | 41.2<br>(4.1)  | 41.2<br>(8.5)  | 41.2<br>(7.5)  | 41.2<br>(7.5)  | 41.2<br>(-0.0) | 41.2<br>-      | 41.2<br>-      |
| Refinery capacity (mil BPSD) | 3.2<br>(3.2)   | 3.2<br>-       | 3.2<br>-       | 3.2<br>-       | 3.2<br>-       | 3.2<br>-       | 3.2<br>-       | 3.2<br>-       | 3.2<br>-       |

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

Source: The monthly report on major electric power statistics

## Statistics on Energy Consumption

|  | 2018          | 2019          | 2020          |               |                |                | 2021          |               |               |
|--|---------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|---------------|
|  |               |               |               | M5            | M6             | M7             | M5            | M6            | M7            |
| The number of household demanding city gas (mil) | 19.1<br>(3.1) | 19.7<br>(2.8) | 20.1<br>(2.3) | 19.7<br>(2.4) | 19.8<br>(2.5)  | 19.8<br>(2.6)  | 20.2<br>(2.4) | 20.1<br>(1.8) | 20.2<br>(1.9) |
| Registered cars (mil)                            | 23.2<br>(3.0) | 23.7<br>(2.0) | 24.4<br>(2.9) | 23.9<br>(2.3) | 24.0<br>(2.5)  | 24.1<br>(2.5)  | 24.6<br>(2.8) | 24.6<br>(2.6) | 24.7<br>(2.5) |
| - gasoline                                       | 10.6<br>(2.5) | 11.0<br>(3.1) | 11.4<br>(4.1) | 11.2<br>(3.7) | 11.2<br>(4.1)  | 11.3<br>(4.3)  | 11.6<br>(3.8) | 11.6<br>(3.5) | 11.6<br>(3.4) |
| - diesel   | 9.9<br>(3.7)  | 10.0<br>(0.3) | 10.0<br>(0.3) | 9.9<br>(-0.1) | 10.0<br>(-0.2) | 10.0<br>(-0.3) | 9.9<br>(-0.1) | 9.9<br>(-0.3) | 9.9<br>(-0.4) |
| - LPG  | 2.0<br>(-3.3) | 2.0<br>(-1.5) | 2.0<br>(-1.3) | 2.0<br>(-0.6) | 2.0<br>(-0.5)  | 2.0<br>(-0.6)  | 2.0<br>(-1.9) | 2.0<br>(-2.0) | 2.0<br>(-2.0) |
| - hybrid   | 0.4<br>(30.9) | 0.5<br>(26.1) | 0.6<br>(33.1) | 0.5<br>(24.9) | 0.6<br>(25.9)  | 0.6<br>(26.6)  | 0.7<br>(37.3) | 0.8<br>(36.9) | 0.8<br>(37.0) |

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

Source: Monthly energy statistics