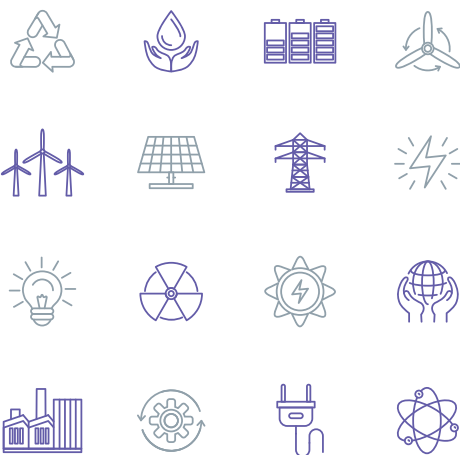


KEEI

MONTHLY

KOREA ENERGY TRENDS



COAL -1.0%
PETROLEUM 8.0%
LNG 28.1%
NUCLEAR -19.6%
NEW & RENEWABLE 10.2%
JUNE, 2021

This publication is derived from Energy Demand & Supply Statistics and Energy Price Statistics issued until June 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 a decrease in the investment in the construction sector, GDP in the second quarter grew by 6.0% year-on-year as private consumption and facility investment became buoyant**
 - The investment in the construction sector dropped by 1.2% due to disruptions in the supply chain for building raw materials. However, private consumption increased by 3.7% as consumer sentiment started recovering with the government's income support policy. Facility investment also rose by 12.8% with the investment in the IT sector increasing
- **The mining & manufacturing production index in June posted a year-on-year increase of 11.5% as industrial demand in the domestic and global markets kept recovering**
 - Semi-conductor production index rose by 25.8% as the existing and new demand for semiconductors continued to expand driven by an increase in 'contact-free' activities amidst COVID-19 pandemic. Basic chemical material production index showed a year-on-year growth of 10.1% as the downstream industries such as automobile and semiconductor witnessed an increase in exports and demand
 - Steel production index soared by 20.9% year-on-year as production boosted up thanks to business recovery in major demand industries including construction and shipbuilding. Similarly, automobile production index posted a year-on-year growth of 20.4% with new models being released and robust exports, canceling out a negative effect of a failure of supply and demand of automobile parts
- **With the demand in some industries recovering, the service production index was up by 5.0% year-on-year**

► Major economic and industrial indicators

	2020	2021p					
		M1~6	M6	M1~6	M4	M5	M6
GDP (trillion won)	1 836.9 (-0.9)	893.5 (-0.6)	449.7 (-2.6)	928.9 (4.0)	- -	- -	476.5 (6.0)
Total export (\$billion, customs clearance basis)	512.5 (-5.1)	240.5 (-11.3)	39.2 (-10.9)	303.2 (26.0)	51.2 (41.2)	50.7 (45.6)	54.8 (39.7)
Industrial production index (2015=100)	106.3 (-0.3)	103.0 (-0.8)	104.3 (-1.3)	111.8 (8.5)	114.0 (12.2)	110.8 (14.5)	116.3 (11.5)
Semi-conductors	230.6 (22.6)	214.8 (30.7)	238.4 (22.3)	267.7 (24.6)	249.2 (29.7)	283.3 (26.8)	299.8 (25.8)
Basic chemical products	102.3 (-6.0)	103.1 (-3.1)	95.4 (-6.5)	107.3 (4.1)	107.3 (9.8)	107.8 (11.6)	105.0 (10.1)
Iron&Steel	92.1 (-6.3)	91.8 (-7.5)	81.3 (-17.5)	96.7 (5.3)	99.0 (5.9)	98.2 (14.2)	98.3 (20.9)
Cars	84.1 (-9.9)	78.3 (-17.5)	79.3 (-15.4)	91.3 (16.6)	97.9 (20.0)	82.3 (28.2)	95.5 (20.4)
Service production index (2015=100)	106.2 (-2.0)	104.2 (-2.2)	108.2 -	108.4 (4.0)	109.5 (8.3)	109.5 (4.2)	113.6 (5.0)
Wholesale & Retail	101.9 (-2.6)	100.2 (-3.5)	103.8 -	104.4 (4.2)	106.9 (9.3)	106.3 (2.9)	107.7 (3.8)
Restaurant & Accommodation	79.5 (-18.5)	79.4 (-16.7)	84.7 (-12.1)	74.9 (-5.7)	78.5 (8.3)	84.8 (-2.1)	84.2 (-0.6)

Note: Figures are based on the real price of 2010, P means provisional, () is year-on-year growth rates (%)

Source: Korea International Trade Association, Korea Statistical Information Service

2. Energy Prices¹

Global Energy Prices

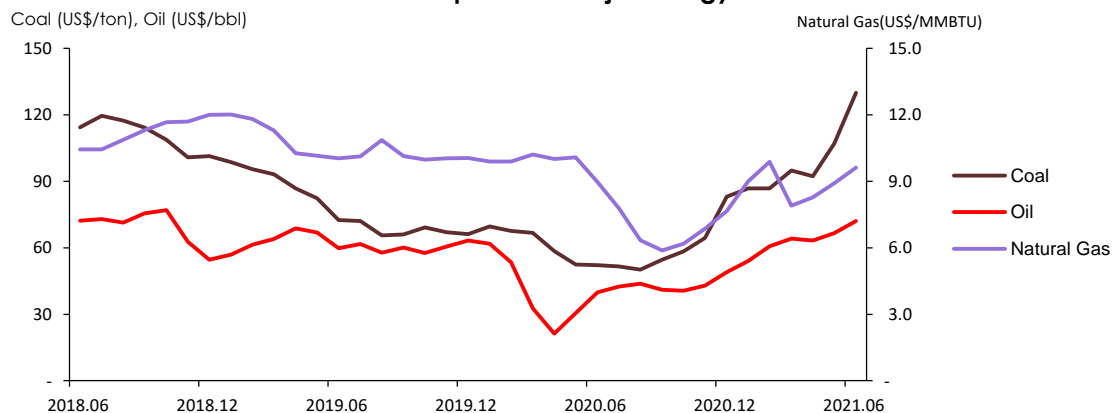
- In June, global energy prices including crude oil, coal and natural gas continued to climb up due to increased demand and supply restrictions
 - Global oil price in June showed an upward trend as OPEC+ countries decided to keep the previously-agreed cutbacks on their regular meeting in June and as a conference, an effort to revive Joint Comprehensive Plan of Action (JCPOA) between the U.S. and Iran came to a halt. A continuous decline in the U.S.' oil reserve also played a part in the increase
 - Australian coal price rose by 21.4% month-on-month to reach a record high in five years, driven by soaring power demand amidst heat waves and China's coal supply restrictions
 - Similarly, the price for natural gas rose by 7.9% 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			
			M4	M5	M6		M4	M5	M6
Crude oil (US\$/bbl)	61.6	41.6	21.2	30.5	40.0	63.3	66.6	72.1	
	(-10.2)	(-32.4)	(-69.1)	(-54.4)	(-33.2)	(198.1)	(118.6)	(80.5)	
Natural gas (US\$/MMBTU)	10.6	8.3	10.0	10.1	9.0	8.3	8.9	9.6	
	(-1.1)	(-21.3)	(-2.5)	(-0.7)	(-10.7)	(-17.3)	(-11.5)	(7.2)	
Coal (US\$/ton)	77.8	60.8	58.6	52.5	52.2	92.2	107.0	130.0	
	(-27.3)	(-21.9)	(-32.5)	(-36.2)	(-28.0)	(57.5)	(103.9)	(148.9)	

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

► Global prices of major energy sources



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

Domestic energy prices

□ Gasoline and diesel prices in June increased by 2.3% and 2.7% month-on-month driven by an increase in global oil price

- The average prices of gasoline and diesel at gas stations continued to rise for seven consecutive months since December 2020, driven by a continuous growth in global oil price. In terms of a year-on-year basis, the prices soared by 19.2% and 21.9%, respectively, based on a base effect from a plunge in oil price last year
- Bunker-C oil price stayed at last month's level, while posting a year-on-year increase of 52.6%

□ As the supply price declined due to a drop in global price in May, propane and butane prices in June were down by 1.6% and 2.3%, respectively, on a month-on-month basis

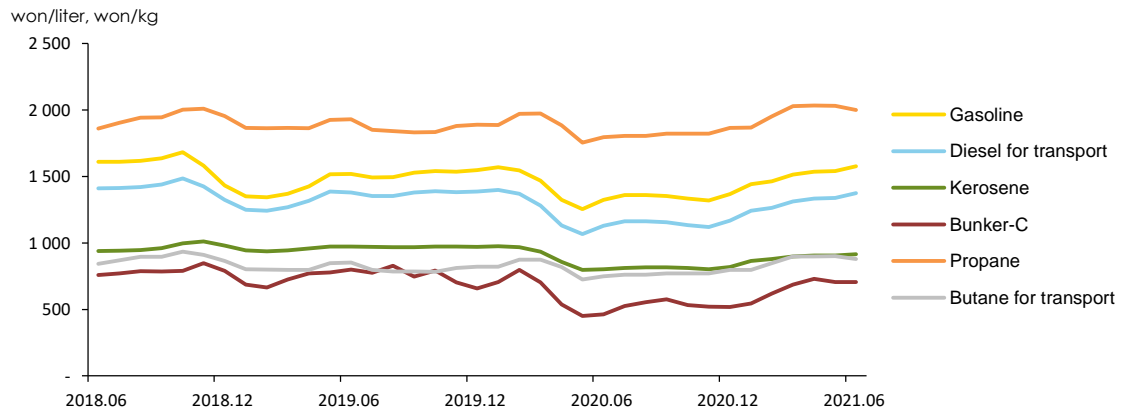
- Although Saudi Aramco decreased global propane and butane prices by 11.6% and 10.4% month-on-month in May, LPG supply price was brought down with consideration for LPG suppliers' loss and the price increase factors, which had been accumulated but were not reflected in the supply price

► Domestic petroleum product prices

	2019	2020				2021		
			M4	M5	M6	M4	M5	M6
Gasoline (won/liter)	1 472.6 (-6.9)	1 381.2 (-6.2)	1 323.7 (-7.1)	1 255.1 (-17.3)	1 322.9 (-12.8)	1 534.5 (15.9)	1 541.5 (22.8)	1 577.3 (19.2)
Diesel for transport (won/liter)	1 340.6 (-3.7)	1 189.5 (-11.3)	1 132.4 (-14.0)	1 065.8 (-23.1)	1 127.9 (-18.3)	1 332.7 (17.7)	1 338.8 (25.6)	1 374.4 (21.9)
Bunker-C (won/liter)	744.5 (1.3)	572.9 (-23.0)	536.7 (-30.4)	451.3 (-41.9)	462.8 (-42.1)	730.1 (36.0)	706.4 (56.5)	706.4 (52.6)
Propane (won/kg)	1 869.6 (-2.6)	1 850.3 (-1.0)	1 885.5 (1.2)	1 753.8 (-8.9)	1 794.5 (-7.0)	2 032.9 (7.8)	2 031.6 (15.8)	1 999.6 (11.4)
Butane for transport (won/liter)	806.3 (-7.8)	790.8 (-1.9)	818.4 (2.8)	725.0 (-14.5)	749.5 (-12.0)	899.2 (9.9)	899.4 (24.1)	878.5 (17.2)

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

► Domestic petroleum product prices



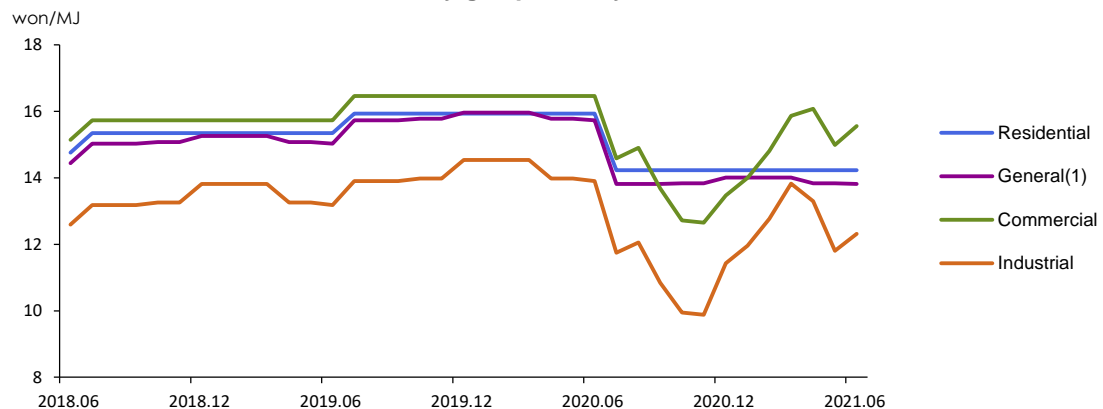
□ **In June, city gas prices for commercial use and industrial use were marked up by 3.8% and 4.3%, respectively, on a month-on-month basis**

- The prices for commercial and industrial city gas uses, adjusted every month under Fuel Adjustment Mechanism (FAM), were marked up by 3.8% and 4.8% from last month while the price for industrial city gas changed to the summer season price (June to September), a change which amounted to an actual increase of 4.3%
- The price for general use(1) also showed a small decrease while being switched to a summer season price. However, the city gas price for Residential stayed the same for the last 11 months since a markdown in July, 2020

□ **Electricity price in June stayed at the first quarter's level as the price for the second quarter was frozen**

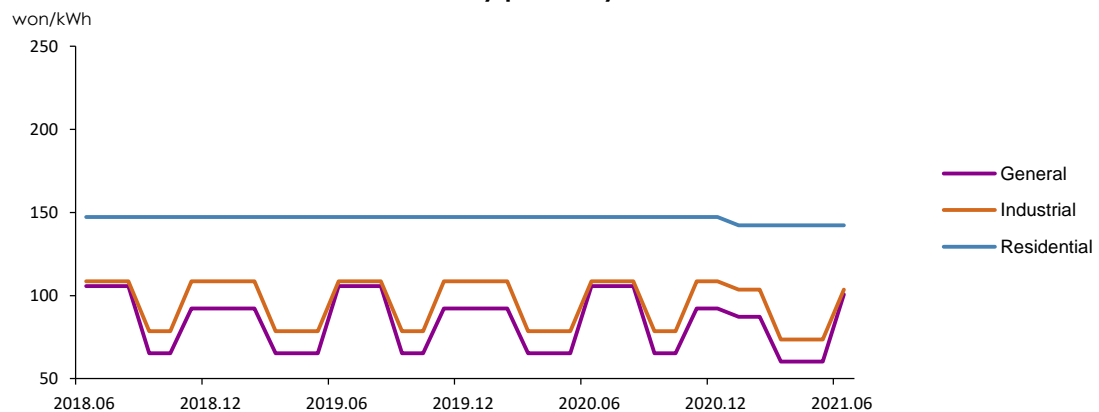
- Under FAM, the electricity price adjusts every three months. From April to June, the price was locked at the previous level to seek price stability amidst economic slump caused by COVID-19 pandemic, despite an increase factor of 2.8KRW/kWh due to increased oil prices

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



Source: Seoulgas

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



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

Source: KEPCO

3. Energy Supply

- **The energy import volume of all energy sources in June increased by 2.7% year-on-year except for coal**
- The import volume of crude oil rose by 7.4% on a year-on-year basis. The share of Middle Eastern crude oil dropped by 20.1%p year-on-year to 56.7% as IMO 2020, which put a ban on the use of high-sulfur oil, took effect in January, 2020
 - As imports of naphtha, LPG and Bunker-C oil increased thanks to a growth in demand for the industrial sector, the import volume of petroleum products grew by 10.9%
 - The import volume of bituminous coal fell by 7.8% year-on-year as the import unit price went up and the bituminous coal consumption showed a continuous decline in the power generation sector
 - The import volume of LNG rose by 21.6 year-on-year with the LNG consumption for city gas and power generation increasing

► Import and domestic production of energy

	2020			2021p			
		M1~6	M6	M1~6	M4	M5	M6
Import volume							
Crude oil (Mbbbl)	980.3	498.9	74.7	468.2	83.4	81.0	80.2
	(-8.6)	(-8.3)	(-12.9)	(-6.1)	(1.3)	(2.7)	(7.4)
Petroleum product (Mbbbl)	347.3	187.8	29.7	182.5	30.6	30.9	33.0
	(-1.4)	(17.5)	(5.0)	(-2.8)	(23.3)	(1.8)	(10.9)
Bituminous coal (Mton)	115.5	55.5	9.2	50.3	7.6	8.2	8.5
	(-13.0)	(-10.3)	(-2.7)	(-9.3)	(-23.0)	(-10.0)	(-7.8)
Anthracite (Mton)	6.3	3.0	0.5	3.0	0.5	0.6	0.4
	(-8.3)	(-20.5)	(-12.7)	(2.1)	(-4.1)	(39.7)	(-25.4)
LNG (Mton)	40.0	21.0	2.6	23.1	2.8	3.4	3.1
	(-1.8)	(5.8)	(-19.9)	(10.0)	(-8.3)	(14.6)	(21.6)
Import volume (Mtoe)	325.4	165.7	25.5	161.1	25.0	27.2	26.1
	(-6.8)	(-2.2)	(-6.3)	(-2.8)	(-3.8)	(4.1)	(2.7)
Import value (billion US\$, CIF)	86.4	47.7	4.9	56.6	9.7	9.7	10.3
	(-31.8)	(-25.8)	(-52.3)	(18.6)	(49.7)	(97.7)	(109.8)
Energy share of total import value (%)	18.4	20.5	13.7	19.9	19.0	20.2	20.5
Foreign energy dependence (%)*	92.9	92.9	92.7	92.6	92.0	91.8	92.3
Domestic production							
Hydropower (TWh)	7.1	3.2	0.5	3.4	0.6	0.6	0.7
	(14.4)	(5.7)	(6.7)	(6.2)	(8.8)	(13.2)	(33.7)
Anthracite (Mton)	1.0	0.5	0.1	0.5	0.1	0.1	0.1
	(-6.0)	(-3.3)	(8.2)	(-13.1)	(-2.2)	(-13.6)	(-10.9)
Natural gas (Mton)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
	(-28.6)	(-16.3)	(-21.4)	(-69.1)	(-64.1)	(-65.1)	(-90.5)
Renewable energy (Mtoe)	18.4	9.2	1.5	10.1	1.8	1.8	1.7
	(4.0)	(4.0)	(3.5)	(9.2)	(5.7)	(17.3)	(10.2)

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

4. Energy Consumption

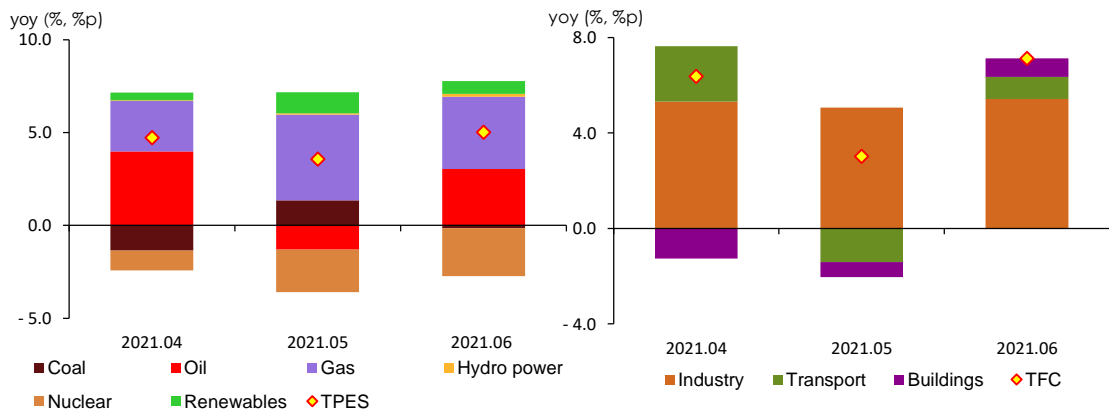
- **Total Primary Energy Supply (“TPES”) in June grew by 5.0% year-on-year with petroleum and gas consumption growing, although coal and nuclear energy use went down**
 - Petroleum use in the petrochemical sector went up thanks to several factors including the economic recovery in major countries, expansion of petrochemical facilities and less regular maintenance projects being carried out. Similarly, the transport sector witnessed a growth in petroleum use driven by the road and air transportation industries. As a result, the total petroleum consumption soared by 8.0% year-on-year
 - Gas consumption in the industrial and building sectors went up with production recovery in the industrial and service sectors. With electricity use soaring (5.7%) and nuclear power generation reduction, the gas use in the power generation sector rose significantly (39.9%). Against this backdrop, the total gas consumption showed a year-on-year growth of 28.1%
 - Coal use in the industrial sector continued to increase thanks to steel demand recovery. However, the total coal consumption posted a year-on-year decrease of 1.0% as the coal use for power generation kept declining as a few old coal-fired power plants were shut down and several power plants implemented a voluntary coal power generation cap scheme from April to November
- **Total Final Consumption (“TFC”) soared by 7.1% year-on-year as industrial energy consumption went up and the building and transport sectors witnessed a rebound in their energy consumption**
 - Due to an increase in working days (0.5 day) and a continued recovery in production from the petrochemical, iron & steel and fabricated metal industries, the industrial energy use kept posting a year-on-year growth of around 8% for three consecutive months, giving an impetus to the increase in TFC
 - Even in the face of increased oil price, the energy use in the transport sector increased by 4.7% year-on-year, mainly in the road and air transport industries. This is because of a 2.6% increase in the number of cars (in particular, gasoline cars) and a recovery in the number of domestic and international flights
 - The energy use in the building sector climbed up by 4.9% due to a decline in city gas and heat energy prices and an increase in service sector’s production

► Energy consumption

	2020			2021p			
		M1~6	M6	M1~6	M4	M5	M6
TPES (Mtoe)	290.8	145.1	22.7	150.1	23.8	23.9	23.8
	(-4.0)	(-4.0)	(-2.3)	(3.5)	(4.7)	(3.6)	(5.0)
- Non-energy oil&coal excluded	211.3	104.9	16.2	107.8	16.7	16.8	16.8
	(-3.8)	(-4.8)	(-2.9)	(2.7)	(1.2)	(2.9)	(4.0)
TFC (Mtoe)	222.0	112.5	17.0	116.8	18.8	18.5	18.2
	(-4.0)	(-3.7)	(-2.8)	(3.9)	(6.4)	(3.0)	(7.1)

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

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



5. Coal

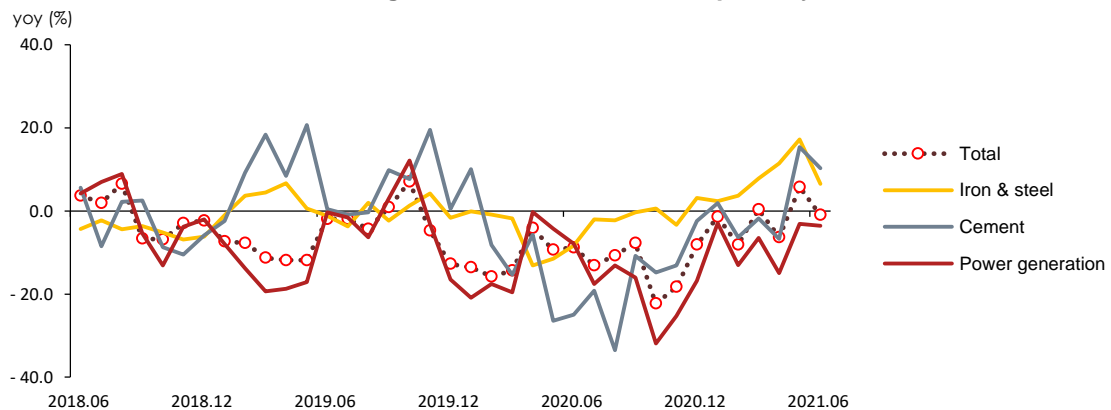
- **Despite of an increase in the industrial sector, the total coal use in June decreased by 1.0% year-on-year due to a decline in the power generation sector**
 - Industrial coal use went up by 3.5% year-on-year as the coal consumption by steel and cement makers grew due to increased production activities, although the usage of anthracite coal for industrial use declined
 - Coal use in the power generation kept decreasing with a year-on-year decline of 3.6% driven by decreased equipment capacity with shut-down of old coal-fired power plants and the voluntary coal-fired generation cap program enforced by the government

► Coal consumption

	2020			2021p			
		M1~6	M6	M1~6	M4	M5	M6
Coal (Mton)	116.6	55.9	9.6	54.9	8.3	9.1	9.5
	(-12.4)	(-11.3)	(-8.8)	(-1.8)	(-6.3)	(5.7)	(-1.0)
Industry	45.3	21.8	3.6	23.3	3.8	4.1	3.7
	(-4.7)	(-8.7)	(-10.3)	(6.6)	(6.4)	(19.4)	(3.5)
-Coking-coal	33.8	16.3	2.6	17.6	2.8	3.0	2.8
	(-3.3)	(-6.0)	(-8.3)	(8.0)	(11.5)	(17.2)	(6.5)
Buildings	0.5	0.2	0.0	0.2	0.0	0.0	0.0
	(-20.8)	(-21.9)	(-11.9)	(-18.6)	(-26.9)	(-36.4)	(-14.3)
Power generation	70.7	33.9	6.0	31.5	4.5	5.0	5.8
	(-16.6)	(-12.8)	(-7.8)	(-7.2)	(-14.9)	(-3.1)	(-3.6)

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 June rose by 8.0% year-on-year as the industrial sector experienced a huge increase and other sectors went up in their petroleum consumption**

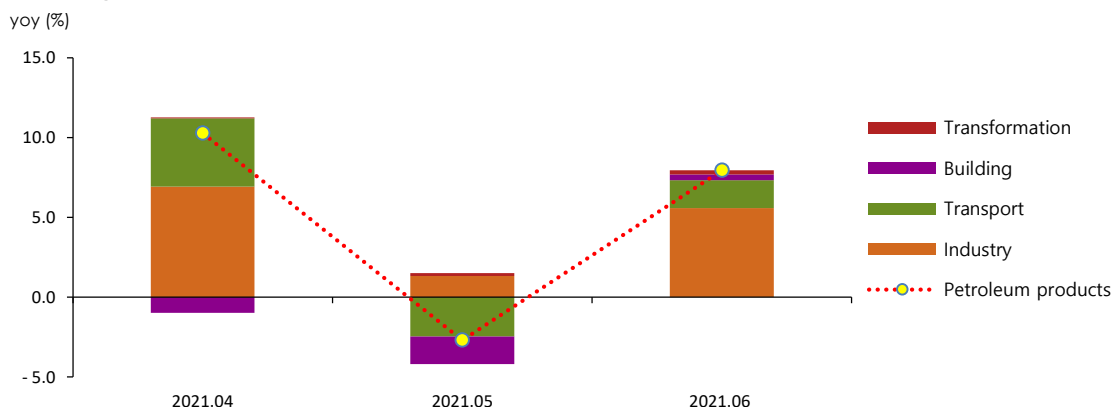
- Petroleum use in the industrial sector grew by 8.9% year-on-year as naphtha and LPG consumption grew with introduction of new petrochemical facilities and expansion of existing ones
- Petroleum use in the transport sector was up by 5.4% year-on-year with petroleum consumption increasing in both the road and air transport
- As for the building sector, the petroleum use in the public building sector declined by 10.9%. However, the residential sectors witnessed a year-on-year increase of 13.3% due to a decrease in average temperatures while petroleum use in the commercial sector rose by 16.8% year-on-year driven by increased production activities in the service industry

► Petroleum product consumption by end-use sectors

	2020			2021p			
		M1~6	M6	M1~6	M4	M5	M6
Petroleum (Mbbl)	873.3	441.5	71.1	452.5	75.7	76.1	76.8
	(-5.8)	(-2.9)	(-0.8)	(2.5)	(10.3)	(-2.7)	(8.0)
Industry	543.0	277.5	44.7	285.7	48.1	48.8	48.6
	(-4.1)	(2.0)	(4.2)	(2.9)	(11.0)	(2.2)	(8.9)
-Naphtha	405.3	210.7	33.6	215.6	37.2	35.8	34.9
	(-7.6)	(-2.2)	(0.4)	(2.3)	(17.0)	(0.2)	(3.9)
Transport	273.9	134.3	23.2	136.0	23.5	23.6	24.4
	(-9.6)	(-11.3)	(-9.7)	(1.3)	(14.2)	(-7.5)	(5.4)
Buildings	50.1	27.1	3.0	26.7	3.6	3.3	3.2
	(2.1)	(3.2)	(13.6)	(-1.6)	(-15.7)	(-29.3)	(8.7)
Power generation	6.2	2.6	0.3	4.2	0.4	0.4	0.5
	(-27.7)	(-49.2)	(-41.3)	(63.9)	(13.0)	(47.5)	(57.0)

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

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



7. Gas

□ Natural gas use in June rose by 28.1% year-on-year with gas consumption for power generation, final industrial and buildings all increasing

- While electricity consumption (5.7%) growing, gas use for power generation surged by 39.9% as the base load generation (coal + nuclear) dropped significantly (-7.9%) with an increase in the number of days for planned preventive maintenance projects on nuclear plants
- While the usage in the iron & steel sector declined, the gas consumption in the petrochemical and fabricated metal sectors rose rapidly with the business recovery of construction and automobile
- The commercial sectors experienced an increase in their city gas consumption, thanks to the service industry's production recovery and a resulting growth in gas use in the wholesale and retail industries while city gas use in the residential also went up driven by increased 'work from home' time

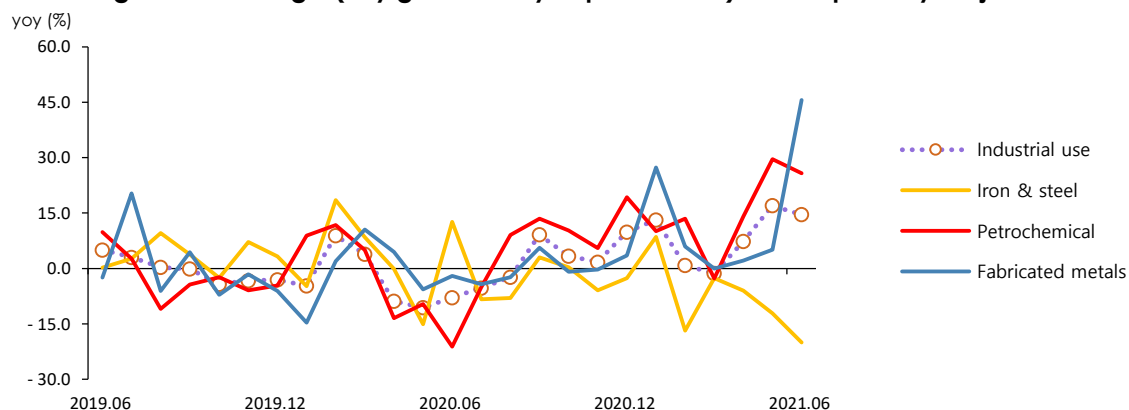
► Natural gas and city gas consumption

	2020			2021p			
		M1~6	M6	M1~6	M4	M5	M6
LNG (Mton)	41.4	20.9	2.4	24.1	3.4	3.1	3.1
	(1.1)	(-2.5)	(-1.4)	(15.5)	(15.9)	(36.2)	(28.1)
Power generation	18.6	8.7	1.2	11.0	1.7	1.6	1.7
	(3.6)	(0.4)	(5.6)	(25.9)	(45.6)	(61.0)	(39.9)
City gas production	18.2	9.9	0.9	10.7	1.4	1.1	1.0
	(-3.1)	(-7.4)	(-13.4)	(8.4)	(-6.7)	(17.2)	(14.1)
Industry(Direct private importer)	2.8	1.3	0.2	1.3	0.2	0.2	0.2
	(23.8)	(29.3)	(27.4)	(-2.1)	(7.2)	(4.4)	(3.7)
City gas (Bm³)	26.0	14.4	1.4	15.3	2.1	1.8	1.6
	(-0.5)	(-3.7)	(-5.2)	(6.3)	(-3.2)	(8.5)	(11.2)
Industry(including directly imported)	11.1	5.5	0.8	6.0	1.0	0.9	0.9
	(-0.2)	(-3.2)	(-7.9)	(8.1)	(7.3)	(17.0)	(14.6)
Buildings	13.8	8.3	0.5	8.8	1.1	0.8	0.6
	(0.0)	(-3.6)	(-0.3)	(5.7)	(-11.5)	(0.8)	(8.8)
Transport.	1.1	0.5	0.1	0.5	0.1	0.1	0.1
	(-8.7)	(-9.0)	(-7.2)	(-4.2)	(2.8)	(-1.4)	(-3.9)

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

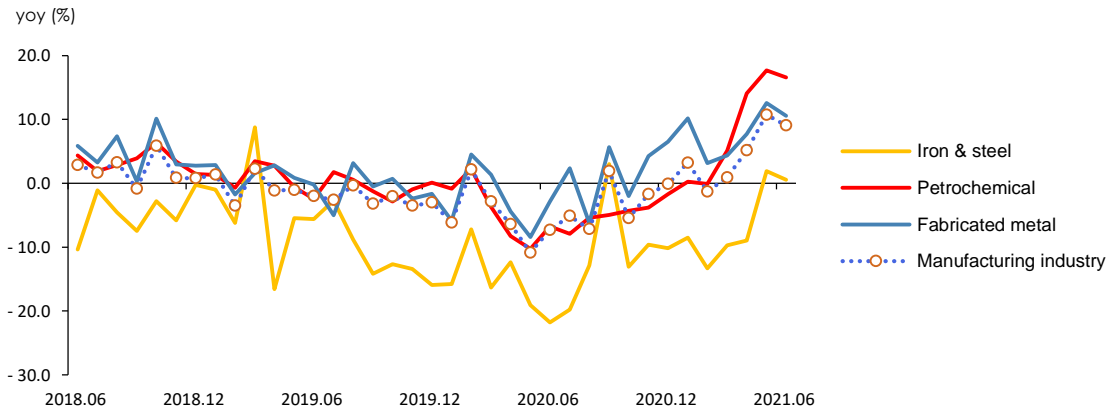
- Electricity use in June grew by 5.7% year-on-year as both the industrial and the building sectors witnessed an increase
 - Electricity use in the industrial sector increased by 8.7% year-on-year driven by the fabricated metal and petrochemical sectors
 - Electricity use in the building sector was up by 2.5% on a year-on-year basis as the commercial sector posted a growth with the service sector showing signs of recovering

► Electricity consumption by end-use sectors

	2020			2021p			
		M1~6	M6		M1~6	M4	M5
Electricity (TWh)	509.3	252.3	39.8	261.8	41.9	40.8	42.0
	(-2.2)	(-2.9)	(-2.1)	(3.8)	(3.5)	(6.6)	(5.7)
Industry	268.7	133.0	21.2	139.2	23.0	23.0	23.0
	(-4.0)	(-5.2)	(-6.7)	(4.6)	(4.9)	(10.3)	(8.7)
Transport	2.7	1.3	0.2	1.2	0.2	0.2	0.2
	(-5.9)	(-7.9)	(-7.2)	(-6.7)	(-10.6)	(-2.8)	(-7.6)
Buildings	237.8	117.9	18.4	121.4	18.7	17.7	18.8
	(0.0)	(-0.2)	(3.8)	(2.9)	(2.0)	(2.2)	(2.5)
Residential	74.1	35.7	5.8	36.7	5.9	5.6	5.8
	(5.1)	(5.3)	(8.8)	(3.0)	(-0.3)	(0.5)	(1.4)
Commercial	132.5	66.9	10.2	68.4	10.3	9.8	10.5
	(-2.0)	(-2.0)	(2.2)	(2.2)	(2.1)	(3.0)	(2.8)

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

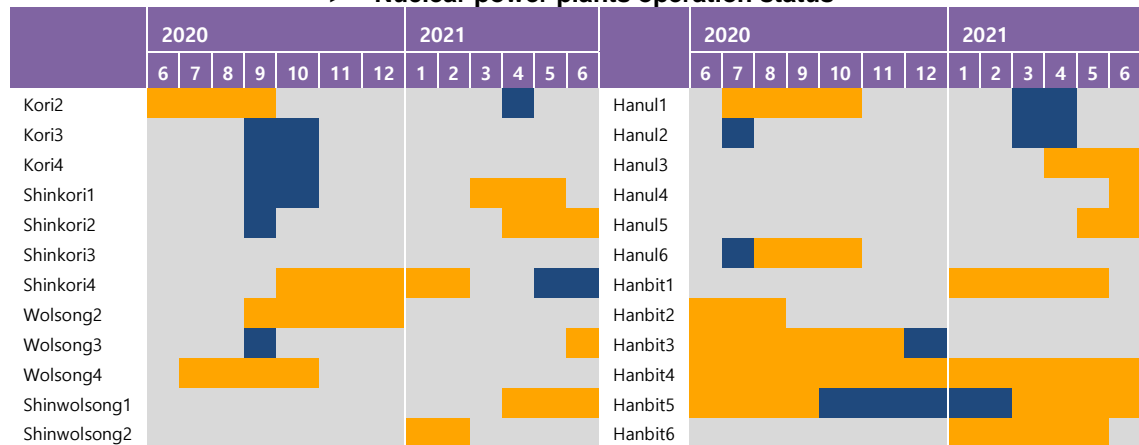
► The growth rate of electricity consumption in manufacturing industry



9. Nuclear

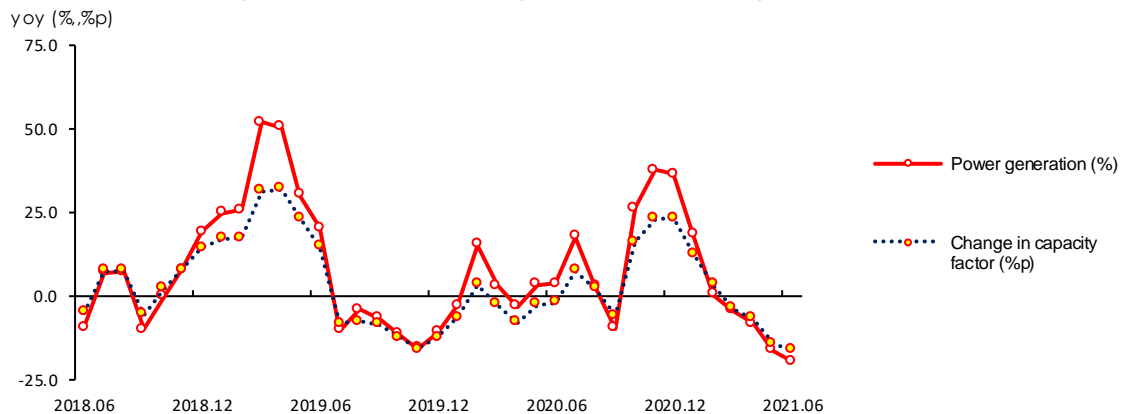
- **Nuclear power generation in June dropped by 19.6% year-on-year as generation facility utilization rate fell due to an increase in the number of nuclear units in planned preventive maintenance**
 - Nuclear power utilization rate dropped by 16.5%p year-on-year to record 67.6% as drastically more power plants with relatively large facility capacity began executing planned preventive maintenance
 - Nuclear energy's share of the total generation fell by 7.2%p to 24.9% 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

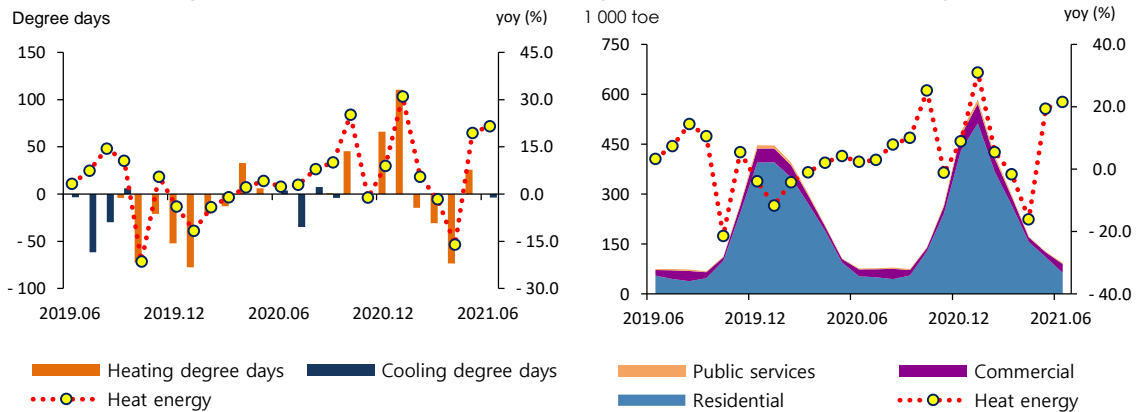
□ Heat energy use in June rose by 21.6% year-on-year with heat consumption in all sectors increasing

- Heat use in the commercial and public sectors soared by 26.6% due to an increase in production activities in the service sector (production index 5.0%), and the residential sector also experienced a growth of 19.3%. As a result, the total heat consumption was up by 21.6% year-on-year

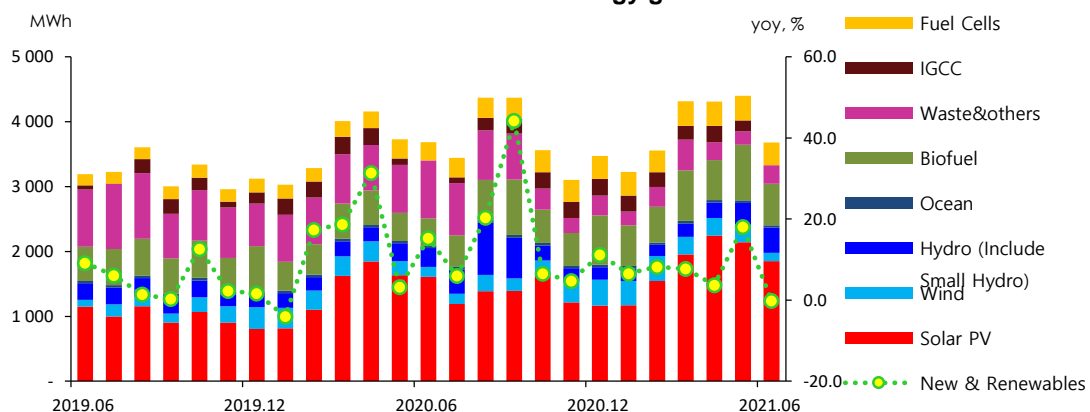
□ Renewable and other energy power generation² inched down by 0.2% year-on-year owing to a decline in wind as well as waste & other power generation

- Although power generation by solar PV and bio energy sources went up thanks to an increase in generation facility capacity, the total renewable and other energy generation slightly declined by 0.2% year-on-year as the waste & other and wind power showed a decrease

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



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



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

11. Industry

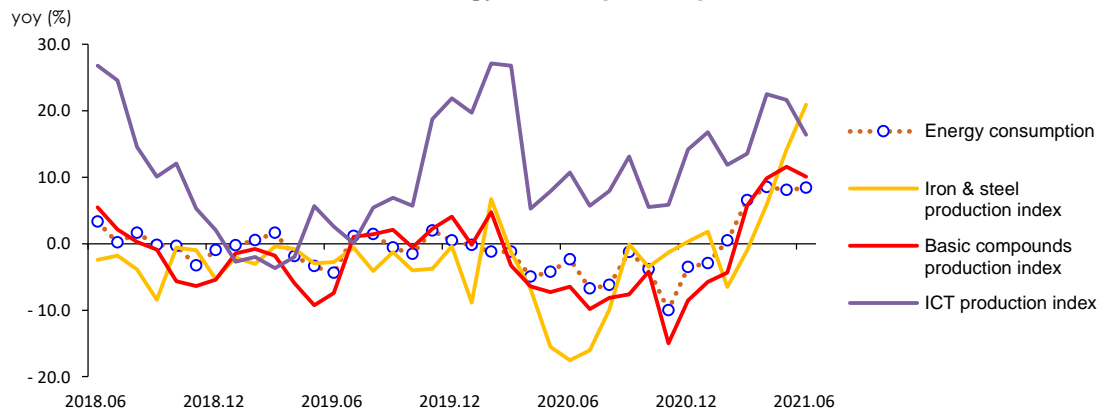
- **Energy use in the industrial sector in June grew by 8.4% year-on-year driven by increased working days and a continuing recovery in industrial production**
 - The domestic and global economies kept recovering from the impact of COVID-19 pandemic on the back of widespread vaccination and economic stimulus packages being put in place. The working days increased 0.5 day from a year earlier. Against this backdrop, the industrial energy use kept showing a rapid growth of more than 8% for three consecutive months

► Industrial energy consumption

	2020	2021p		2021p			
		M1~6	M6	M1~6	M4	M5	M6
Industry (Mtoe)	137.4	68.7	11.0	72.0	12.0	12.2	11.9
	(-3.8)	(-2.4)	(-2.4)	(4.7)	(8.5)	(8.1)	(8.4)
Petrochemical	69.1	35.1	5.5	36.8	6.2	6.2	6.1
	(-4.1)	(0.6)	(-0.6)	(4.6)	(14.1)	(5.7)	(11.0)
- Naphtha	49.7	25.8	4.1	26.4	4.6	4.4	4.3
	(-7.6)	(-2.2)	(0.4)	(2.3)	(17.0)	(0.2)	(3.9)
Iron & Steel	28.3	13.8	2.2	14.5	2.3	2.5	2.3
	(-4.1)	(-6.2)	(-7.9)	(5.1)	(7.5)	(13.4)	(3.4)
-Coking coal	23.6	11.3	1.8	12.2	2.0	2.1	2.0
	(-3.3)	(-6.0)	(-8.3)	(8.0)	(11.5)	(17.2)	(6.5)
Fabricated metal	11.4	5.6	0.9	6.1	1.0	0.9	1.0
	(-0.1)	(-2.4)	(-2.4)	(9.3)	(6.7)	(11.0)	(15.6)
Share of feedstock (%)	57.7	58.2	58.8	58.6	59.6	58.5	58.3

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, except the marine transport sector, in June increased by 4.7% year-on-year as the road and air transport sectors showed a growth in energy use**

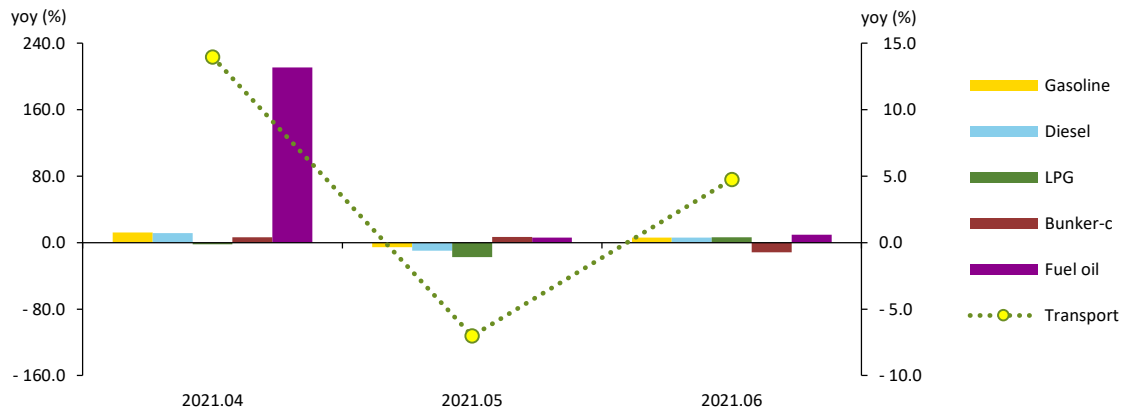
- The travel demand and traffic showed a small increase from a year earlier, and the storage demand of many gas stations was up as the global oil price rose sharply with the impact of COVID-19 pandemic weakening. Consequently, the energy use in the road transport sector grew by 6.2% year-on-year
- Energy use in the air transport sector climbed up by 9.5% year-on-year as the demand for Jeju travel was maintained and the demand for international flights started showing signs of recovery
- Despite of a continuous increase in the import and export volume, the energy use in the marine transport sector dropped by 13.2% year-on-year

► The growth rate of petroleum consumption in the transport sector

	2020			2021p			
		M1~6	M6	M1~6	M4	M5	M6
Transport (Mtoe)	38.94	19.09	3.32	19.31	3.35	3.37	3.47
	(-9.4)	(-11.1)	(-9.3)	(1.2)	(13.9)	(-7.0)	(4.7)
Road	33.09	16.05	2.84	16.46	2.88	2.83	3.01
	(-5.6)	(-7.6)	(-4.9)	(2.5)	(10.0)	(-9.4)	(6.2)
Navigation	2.97	1.50	0.26	1.51	0.26	0.29	0.23
	(12.3)	(4.7)	(16.9)	(0.6)	(8.7)	(11.9)	(-13.2)
Aviation	2.55	1.37	0.19	1.19	0.19	0.22	0.21
	(-48.2)	(-44.9)	(-54.7)	(-13.2)	(210.2)	(6.0)	(9.5)
Rail	0.32	0.16	0.03	0.15	0.02	0.02	0.02
	(-7.6)	(-7.9)	(-7.6)	(-8.6)	(-11.6)	(-12.5)	(-5.1)

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 the building sector in June increased by 4.9% year-on-year as the energy consumption of most energy sources went up in all sectors

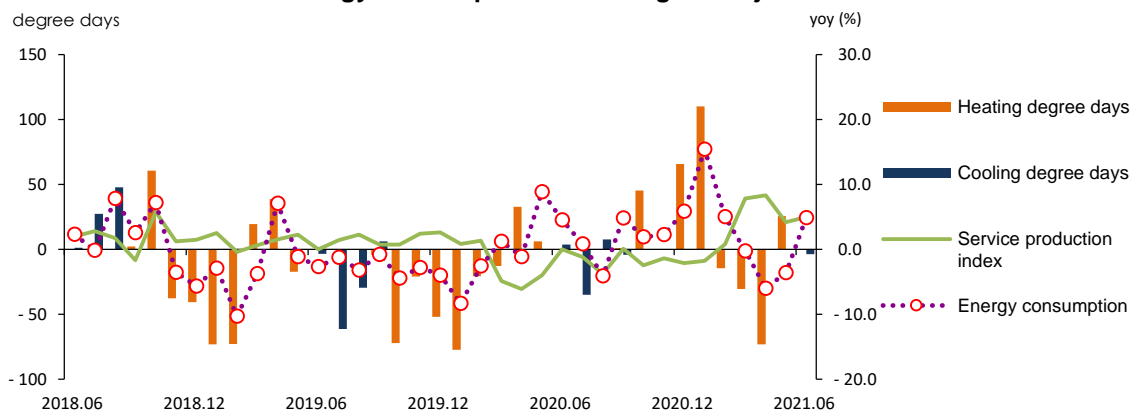
- Energy use in the building sector stepped up by 4.9% year-on-year as the energy consumption of most energy sources grew except for coal
- Energy use in the residential building sector showed a year-on-year increase of 5.7% as the usage of LPG, city gas and heat energy climbed up with a decline in average temperatures and an increase in 'work from home' time amidst COVID-19 pandemic
- Energy use in the commercial and public building sectors increased by 4.4% year-on-year with production recovery in the service sector (a 5.0% growth in production index) and a 0.5 day increase in working days

► Energy consumption in buildings

	2020			2021p			
		M1~6	M6	M1~6	M4	M5	M6
Buildings (Mtoe)	45.7	24.7	2.7	25.6	3.5	3.0	2.9
	(0.5)	(-1.1)	(4.5)	(3.7)	(-6.0)	(-3.6)	(4.9)
Residential	23.2	13.2	1.1	13.7	1.8	1.4	1.1
	(2.7)	(-0.1)	(6.0)	(4.2)	(-12.1)	(-7.3)	(5.7)
Commercial	17.1	8.7	1.3	9.0	1.3	1.2	1.3
	(-2.2)	(-2.7)	(3.8)	(2.9)	(0.5)	(0.9)	(5.3)
Public-others	5.4	2.7	0.4	2.8	0.4	0.4	0.4
	(-0.4)	(-0.5)	(3.1)	(3.7)	(3.7)	(-3.7)	(1.6)
Heating degree days	2 382.7	1 439.3	-	1 456.6	140.2	52.1	-
	(1.7)	(-4.8)	-	(1.2)	(-34.3)	(96.6)	-
Cooling degree days	92.5	3.7	3.7	-	-	-	-
	(-23.2)	-	-	-	-	-	(-100.0)

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 June, total generation and energy input for generation increased by 3.7% and 1.0% year-on-year, respectively
 - As electricity consumption grew by 5.7% year-on-year, gas-fired generation for peak load showed a year-on-year increase of 41.1% with base load generation (nuclear + coal) decreasing by 7.9%.
 - As base-load generation with low generation efficiency went down while gas generation with high efficiency grew significantly, energy input for generation posted a year-on-year increase of a mere 1.0% although the total power generation rose by 3.7%

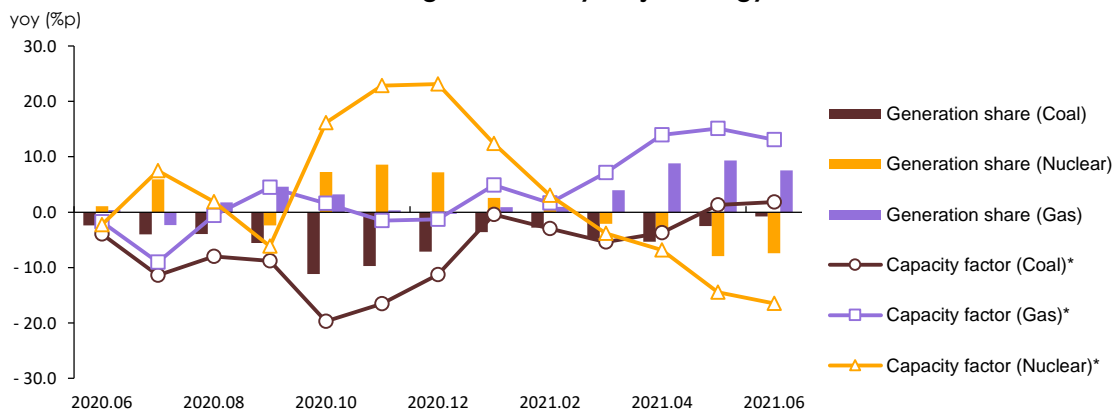
► Electricity Generation in the power generation sector

	2020			2021p			
		M1~6	M6	M1~6	M4	M5	M6
Electricity Generation (TWh)	552.2	270.1	43.8	278.8	43.6	44.3	45.5
	(-1.9)	(-2.5)	(0.1)	(3.2)	(3.3)	(6.5)	(3.7)
Coal	196.3	94.2	16.3	88.2	12.9	14.5	16.7
	(-13.7)	(-9.6)	(-5.9)	(-6.4)	(-12.5)	(-1.1)	(2.2)
Oil	2.3	0.8	0.1	2.1	0.1	0.1	0.2
	(-31.5)	(-54.6)	(-51.3)	(154.7)	(38.3)	(81.5)	(85.1)
Gas	145.9	69.4	9.4	85.7	13.5	12.2	13.3
	(1.1)	(-1.2)	(2.0)	(23.5)	(44.5)	(61.2)	(41.1)
Nuclear	160.2	82.1	14.1	77.2	12.6	12.8	11.3
	(9.8)	(2.8)	(3.6)	(-5.9)	(-8.3)	(-16.4)	(-19.6)
Hydro/other renewables	40.4	18.8	3.1	23.5	4.3	4.5	3.8
	(3.1)	(-7.8)	(-9.6)	(25.0)	(16.4)	(38.8)	(22.6)
Baseload	356.5	176.3	30.4	165.4	25.4	27.3	28.0
	(-4.5)	(-4.2)	(-1.7)	(-6.2)	(-10.5)	(-8.9)	(-7.9)

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

Source: Monthly energy statistics

► Power generation by major energy sources



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

Major Statistics & Indicators of the Economy

	2019	2020					2021			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
GDP (trillion won)	1 852.7 (2.2)	1 836.9 (-0.9)	893.5 (-0.6)	- -	- -	449.7 (-2.6)	928.9 (4.0)	- -	- -	476.5 (6.0)
Private consumption	894.1 (2.1)	849.1 (-5.0)	421.1 (-4.5)	- -	- -	208.6 (-4.2)	431.3 (2.4)	- -	- -	216.3 (3.7)
Facilities investment	155.3 (-6.6)	166.3 (7.1)	81.8 (5.9)	- -	- -	42.3 (4.5)	92.1 (12.6)	- -	- -	47.7 (12.8)
Construction investment	265.2 (-1.7)	264.1 (-0.4)	127.3 (1.6)	- -	- -	72.5 (-0.4)	125.4 (-1.5)	- -	- -	71.6 (-1.2)
Consumer price index (2015=100)	104.9	105.4	105.3	105.0	104.7	104.9	107.1	107.4	107.5	107.4
USD to KRW exchange rate (won)	1 165.4	1 180.3	1 207.0	1 225.2	1 228.7	1 210.0	1 117.4	1 119.4	1 123.3	1 121.3
Benchmark rate (%)	1.6	0.7	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5
Coincident composite index (2015=100)	111.7	112.3	111.9	111.1	110.4	110.7	115.5	116.3	116.6	116.8
Mining & manufacturing production index (2015=100)	106.7	106.3	103.0	101.6	96.8	104.3	111.8	114.0	110.8	116.3
Manufacturing operation ratio index (2015=100)	98.4	95.6	92.9	91.2	86.8	94.3	98.6	100.7	98.6	102.9
Average temperature	13.5	13.2	11.0	10.9	17.7	22.8	10.7	13.4	16.9	21.9
- year-on-year difference	0.5	-0.3	0.6	-1.1	-0.9	1.5	-0.3	2.5	-0.9	-0.9
Heating degree days	2 342.9 (-9.8)	2 382.7 (1.7)	1 439.3 (-4.8)	213.5 (18.1)	26.5 (30.5)	- -	1 456.6 (1.2)	140.2 (-34.3)	52.1 (96.6)	- -
Cooling degree days	120.4 (-42.4)	92.5 (-23.2)	3.7 -	- -	- -	3.7 -	- -	- -	- -	- (-100.0)
Energy intensity	0.16 (-3.6)	0.16 (-3.3)	0.16 (-3.6)	- -	- -	0.15 (-0.8)	0.16 (-0.3)	- -	- -	0.15 (-1.4)
Per capita consumption										
oil (bbl)	17.9 (-0.7)	16.9 (-5.9)	8.5 (-3.1)	1.3 (-9.2)	1.5 (7.6)	1.4 (-0.9)	8.7 (2.4)	1.5 (10.2)	1.5 (-2.8)	1.5 (7.9)
Electricity (MWh)	10.1 (-1.3)	9.8 (-2.3)	4.9 (-3.1)	0.8 (-4.8)	0.7 (-6.0)	0.8 (-2.3)	5.1 (3.7)	0.8 (3.4)	0.8 (6.5)	0.8 (5.6)
City gas (1 000 m ³)	0.5 (-4.3)	0.4 (-3.6)	0.2 (-6.9)	0.0 (-8.6)	0.0 (-10.6)	0.0 (-11.2)	0.3 (7.3)	0.0 (-4.7)	0.0 (9.2)	0.0 (13.1)
Total energy (toe)	5.9 (-1.6)	5.6 (-4.2)	2.8 (-4.2)	0.4 (-6.5)	0.4 (-1.5)	0.4 (-2.4)	2.9 (3.4)	0.5 (4.6)	0.5 (3.5)	0.5 (4.9)

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)

2013=100

	2019	2020					2021			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Industrial production index										
All industry	108.6 (0.9)	107.3 (-1.2)	105.1 (-1.2)	102.4 (-5.4)	102.9 (-6.1)	110.2 (0.4)	110.3 (5.0)	111.1 (8.5)	110.0 (6.9)	117.4 (6.5)
Mining & manufacturing	106.7 (0.3)	106.3 (-0.3)	103.0 (-0.8)	101.6 (-5.2)	96.8 (-10.9)	104.3 (-1.3)	111.8 (8.5)	114.0 (12.2)	110.8 (14.5)	116.3 (11.5)
Semiconductor	188.0 (11.7)	230.6 (22.6)	214.8 (30.7)	192.1 (16.9)	223.4 (25.8)	238.4 (22.3)	267.7 (24.6)	249.2 (29.7)	283.3 (26.8)	299.8 (25.8)
Iron & steel	98.3 (-2.2)	92.1 (-6.3)	91.8 (-7.5)	93.5 (-6.8)	86.0 (-15.5)	81.3 (-17.5)	96.7 (5.3)	99.0 (5.9)	98.2 (14.2)	98.3 (20.9)
Cement	94.3 (-5.7)	86.6 (-8.2)	85.0 (-9.9)	97.9 (-8.3)	87.4 (-18.6)	92.3 (-10.4)	89.8 (5.6)	103.7 (5.9)	95.2 (8.9)	97.4 (5.5)
Basic compound	108.9 (-1.4)	102.3 (-6.0)	103.1 (-3.1)	97.7 (-6.4)	96.6 (-7.3)	95.4 (-6.5)	107.3 (4.1)	107.3 (9.8)	107.8 (11.6)	105.0 (10.1)
Transport equipment	93.4 (-0.6)	84.1 (-9.9)	78.3 (-17.5)	81.6 (-20.2)	64.2 (-36.8)	79.3 (-15.4)	91.3 (16.6)	97.9 (20.0)	82.3 (28.2)	95.5 (20.4)
Electric & electronic	109.6 (2.9)	108.7 (-0.8)	102.6 (-2.9)	102.9 (-7.0)	94.8 (-14.5)	108.6 (0.7)	112.3 (9.5)	115.2 (12.0)	109.3 (15.3)	119.9 (10.4)
Service	108.4 (1.4)	106.2 (-2.0)	104.2 (-2.2)	101.1 (-6.1)	105.1 (-4.0)	108.2 -	108.4 (4.0)	109.5 (8.3)	109.5 (4.2)	113.6 (5.0)
Wholesale and retail	104.6 (-0.4)	101.9 (-2.6)	100.2 (-3.5)	97.8 (-7.3)	103.3 (-4.4)	103.8 -	104.4 (4.2)	106.9 (9.3)	106.3 (2.9)	107.7 (3.8)
Food & Accommodation	97.5 (-1.0)	79.5 (-18.5)	79.4 (-16.7)	72.5 (-24.6)	86.6 (-14.1)	84.7 (-12.1)	74.9 (-5.7)	78.5 (8.3)	84.8 (-2.1)	84.2 (-0.6)
Production output										
Iron & steel - Pig iron	47 520.7 (0.8)	45 359.6 (-4.5)	21 469.5 (-8.9)	3 290.0 (-14.6)	3 483.6 (-14.4)	3 482.2 (-10.9)	22 974.5 (7.0)	3 635.1 (10.5)	3 728.6 (7.0)	3 788.6 (8.8)
Iron & steel - Crude steel	71 411.9 (-1.5)	67 078.8 (-6.1)	32 492.8 (-9.8)	5 078.9 (-15.4)	5 383.9 (-14.2)	5 089.2 (-14.5)	35 198.0 (8.3)	5 753.0 (13.3)	5 880.0 (9.2)	5 970.9 (17.3)
Petrochemical - Basic oil	31 804.1 (2.1)	30 323.6 (-4.7)	15 705.7 (3.1)	2 483.1 (3.6)	2 570.1 (4.8)	2 490.8 (2.6)	16 292.3 (3.7)	2 797.7 (12.7)	2 814.2 (9.5)	2 649.2 (6.4)
Petrochemical - Intermediate raw material	16 014.0 (-5.7)	15 355.4 (-4.1)	7 955.6 (1.9)	1 286.6 (2.5)	1 267.9 (3.4)	1 236.0 (5.7)	7 767.0 (-2.4)	1 281.2 (-0.4)	1 316.4 (3.8)	1 121.5 (-9.3)
Petrochemical - 3 major products	21 584.6 (-1.0)	21 252.7 (-1.5)	10 762.8 (0.3)	1 754.2 (6.4)	1 757.5 (-3.4)	1 665.5 (-2.2)	11 162.6 (3.7)	1 857.7 (5.9)	1 923.8 (9.5)	1 849.0 (11.0)
The number of cars	3 950.6 (-1.9)	3 506.8 (-11.2)	1 627.5 (-19.8)	289.5 (-22.2)	231.1 (-36.9)	297.0 (-10.8)	1 814.5 (11.5)	323.6 (11.8)	256.3 (10.9)	325.8 (9.7)

Note: p means provisional

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

International Energy Prices

	2019	2020					2021			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Crude oil (USD/bbl)										
WTI	57.0 (-11.9)	39.4 (-30.9)	37.0 (-35.5)	16.7 (-73.9)	28.5 (-53.1)	38.3 (-30.0)	62.0 (67.4)	61.7 (269.5)	65.2 (128.4)	71.4 (86.2)
Dubai	63.5 (-8.5)	42.2 (-33.6)	40.7 (-37.9)	20.4 (-71.3)	30.5 (-56.1)	40.8 (-34.0)	63.5 (56.2)	62.9 (208.6)	66.3 (117.7)	71.6 (75.5)
Brent	64.2 (-10.3)	43.2 (-32.7)	42.1 (-36.3)	26.6 (-62.8)	32.4 (-53.9)	40.8 (-35.3)	65.1 (54.5)	65.3 (145.3)	68.3 (110.8)	73.4 (80.1)
Unit value of import (C&F)	65.5 (-8.2)	44.8 (-31.7)	46.0 (-30.8)	34.1 (-51.0)	26.2 (-63.2)	29.8 (-56.0)	62.8 (36.4)	64.8 (90.3)	67.2 (156.9)	69.9 (134.1)
LNG										
From Indonesia (USD/MMBTU)	10.6 (-1.0)	8.3 (-21.3)	9.8 (-9.9)	10.0 (-2.5)	10.1 (-0.7)	9.0 (-10.7)	8.9 (-9.3)	8.3 (-17.3)	8.9 (-11.5)	9.6 (7.2)
Unit value of import (USD/ton, CIF)	505.4 (-4.0)	390.2 (-22.8)	461.8 (-13.4)	478.9 (-0.6)	469.0 (-2.6)	443.7 (-5.7)	439.6 (-4.8)	385.4 (-19.5)	408.1 (-13.0)	460.7 (3.8)
Bituminous coal (USD/ton)										
From Australia	77.9 (-27.2)	60.8 (-22.0)	61.2 (-30.5)	58.6 (-32.5)	52.5 (-36.2)	52.2 (-28.0)	99.6 (62.7)	92.2 (57.5)	107.0 (103.9)	130.0 (148.9)
Unit value of import (CIF)	100.7 (-11.3)	77.7 (-22.9)	85.1 (-22.5)	89.6 (-16.8)	83.4 (-25.4)	75.4 (-31.1)	88.2 (3.6)	91.4 (2.1)	94.4 (13.1)	97.9 (29.8)
Petroleum product (USD/bbl)										
Gasoline	72.5 (-9.3)	46.7 (-35.7)	45.3 (-36.3)	20.5 (-74.6)	33.5 (-56.2)	45.3 (-32.9)	72.0 (59.1)	74.0 (260.7)	76.2 (127.7)	80.4 (77.3)
Kerosene	77.3 (-8.9)	44.7 (-42.1)	44.9 (-42.5)	21.3 (-74.3)	28.9 (-64.6)	41.2 (-44.8)	67.4 (50.3)	66.8 (214.0)	71.7 (148.3)	75.9 (84.3)
Diesel	78.2 (-7.9)	49.4 (-36.8)	50.3 (-36.2)	31.4 (-62.3)	36.1 (-56.4)	46.6 (-38.0)	69.9 (38.8)	68.9 (119.2)	73.9 (104.9)	78.8 (69.1)
Bunker-C	57.5 (-11.8)	39.2 (-31.9)	36.1 (-42.7)	23.3 (-65.1)	26.7 (-58.6)	36.9 (-38.0)	58.9 (62.9)	59.0 (153.0)	59.7 (124.0)	64.7 (75.6)
Propane	434.6 (-19.8)	397.1 (-8.6)	403.3 (-14.5)	230.0 (-55.3)	340.0 (-35.2)	350.0 (-18.6)	560.8 (39.1)	560.0 (143.5)	495.0 (45.6)	530.0 (51.4)
Butane	441.7 (-18.1)	403.8 (-8.6)	420.8 (-12.6)	240.0 (-55.1)	340.0 (-35.8)	330.0 (-20.5)	540.0 (28.3)	530.0 (120.8)	475.0 (39.7)	525.0 (59.1)
Naphtha	56.9 (-15.1)	40.5 (-28.9)	37.7 (-34.1)	17.3 (-72.6)	26.3 (-56.1)	39.0 (-24.6)	63.4 (68.3)	62.2 (259.2)	65.7 (149.6)	70.5 (80.9)

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

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

Domestic Energy Prices

	2019	2020					2021			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Petroleum product										
Gasoline (won/liter)	1 471.9 (-6.9)	1 381.6 (-6.1)	1 414.1 (-0.5)	1 323.7 (-7.1)	1 255.1 (-17.3)	1 322.9 (-12.8)	1 511.9 (6.9)	1 534.5 (15.9)	1 541.5 (22.8)	1 577.3 (19.2)
Diesel (won/liter)	1 340.1 (-3.7)	1 189.8 (-11.2)	1 229.2 (-6.0)	1 132.4 (-14.0)	1 065.8 (-23.1)	1 127.9 (-18.3)	1 310.7 (6.6)	1 332.7 (17.7)	1 338.8 (25.6)	1 374.4 (21.9)
Bunker-C (won/liter)	743.9 (1.2)	573.6 (-22.9)	609.7 (-17.3)	536.7 (-30.4)	451.3 (-41.9)	462.8 (-42.1)	665.7 (9.2)	730.1 (36.0)	706.4 (56.5)	706.4 (52.6)
Propane (won/kg)	1 869.7 (-2.6)	1 850.7 (-1.0)	1 877.7 (-0.4)	1 885.5 (1.2)	1 753.8 (-8.9)	1 794.5 (-7.0)	1 985.7 (5.8)	2 032.9 (7.8)	2 031.6 (15.8)	1 999.6 (11.4)
Butane (won/liter)	806.2 (-7.8)	791.1 (-1.9)	810.4 (-0.6)	818.4 (2.8)	725.0 (-14.5)	749.5 (-12.0)	870.1 (7.4)	899.2 (9.9)	899.4 (24.1)	878.5 (17.2)
City gas(won/MJ)										
Residential	15.6 (3.9)	15.1 (-3.6)	15.9 (3.8)	15.9 (3.8)	15.9 (3.8)	15.9 (3.8)	14.2 (-10.7)	14.2 (-10.7)	14.2 (-10.7)	14.2 (-10.7)
General(1)	15.5 (4.4)	14.9 (-4.0)	15.9 (4.6)	15.8 (4.7)	15.8 (4.7)	15.7 (4.7)	13.9 (-12.3)	13.8 (-12.3)	13.8 (-12.3)	13.8 (-12.2)
Commercial	16.1 (4.4)	15.1 (-6.4)	16.5 (4.7)	16.5 (4.7)	16.5 (4.7)	16.5 (4.7)	15.2 (-7.6)	16.1 (-2.4)	15.0 (-8.9)	15.6 (-5.5)
Industry	13.8 (6.0)	12.6 (-8.4)	14.2 (5.3)	14.0 (5.4)	14.0 (5.4)	13.9 (5.5)	12.7 (-11.1)	13.3 (-4.8)	11.8 (-15.5)	12.3 (-11.4)
Heat(won/Mcal)										
Residential	65.7 (1.8)	66.2 (0.7)	67.1 (3.8)	67.1 (3.8)	67.1 (3.8)	67.1 (3.8)	65.2 (-2.8)	65.2 (-2.8)	65.2 (-2.8)	65.2 (-2.8)
Commercial	85.3 (1.8)	85.9 (0.7)	87.2 (3.8)	87.2 (3.8)	87.2 (3.8)	87.2 (3.8)	84.7 (-2.8)	84.7 (-2.8)	84.7 (-2.8)	84.7 (-2.8)
Public	74.5 (1.9)	75.1 (0.7)	76.1 (3.8)	76.1 (3.8)	76.1 (3.8)	76.1 (3.8)	74.0 (-2.9)	74.0 (-2.9)	74.0 (-2.9)	74.0 (-2.9)
Electricity(won/kWh)										
Residential	147.3 -	147.3 -	147.3 -	147.3 -	147.3 -	147.3 -	142.3 (-3.4)	142.3 (-3.4)	142.3 (-3.4)	142.3 (-3.4)
General	84.4 -	84.4 -	81.0 -	65.2 -	65.2 -	105.7 -	76.0 (-6.2)	60.2 (-7.7)	60.2 (-7.7)	100.7 (-4.7)
Industry	96.0 -	96.0 -	93.5 -	78.5 -	78.5 -	108.5 -	88.5 (-5.3)	73.5 (-6.4)	73.5 (-6.4)	103.5 (-4.6)

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

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

Total Primary Energy Supply (TPES)

	2019	2020p					2021p			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Coal (Mton)	133.0 (-5.7)	116.6 (-12.4)	55.9 (-11.3)	8.9 (-4.1)	8.6 (-9.3)	9.6 (-8.8)	54.9 (-1.8)	8.3 (-6.3)	9.1 (5.7)	9.5 (-1.0)
- Coking coal excluded	98.0 (-7.9)	82.8 (-15.6)	39.7 (-13.3)	6.4 (0.0)	6.0 (-8.4)	6.9 (-9.0)	37.3 (-5.9)	5.5 (-13.4)	6.1 (0.8)	6.7 (-3.8)
Oil (Mbbbl)	927.1 (-0.5)	873.3 (-5.8)	441.5 (-2.9)	68.6 (-9.1)	78.2 (7.8)	71.1 (-0.8)	452.5 (2.5)	75.7 (10.3)	76.1 (-2.7)	76.8 (8.0)
- Non-energy oil excluded	451.8 (1.4)	424.7 (-6.0)	210.1 (-5.4)	32.7 (-13.0)	38.2 (15.9)	33.8 (-4.0)	212.0 (0.9)	34.3 (4.9)	35.8 (-6.3)	36.9 (9.0)
LNG (Mton)	41.0 (-3.1)	41.4 (1.1)	20.9 (-2.5)	3.0 (-10.5)	2.3 (-17.2)	2.4 (-1.4)	24.1 (15.5)	3.4 (15.9)	3.1 (36.2)	3.1 (28.1)
Hydro (TWh)	6.2 (-14.1)	7.1 (14.4)	3.2 (5.7)	0.5 (-3.5)	0.6 (4.2)	0.5 (6.7)	3.4 (6.2)	0.6 (8.8)	0.6 (13.2)	0.7 (33.7)
Nuclear (TWh)	145.9 (9.3)	160.2 (9.8)	82.1 (2.8)	13.7 (-3.3)	15.3 (3.3)	14.1 (3.6)	77.2 (-5.9)	12.6 (-8.3)	12.8 (-16.4)	11.3 (-19.6)
Others (Mtoe)	17.7 (3.3)	18.4 (4.0)	9.2 (4.0)	1.7 (12.9)	1.5 (-1.7)	1.5 (3.5)	10.1 (9.2)	1.8 (5.7)	1.8 (17.3)	1.7 (10.2)
TPES (Mtoe)	303.1 (-1.5)	290.8 (-4.0)	145.1 (-4.0)	22.8 (-6.4)	23.1 (-1.4)	22.7 (-2.3)	150.1 (3.5)	23.8 (4.7)	23.9 (3.6)	23.8 (5.0)
- Non-energy oil excluded	244.0 (-1.3)	234.9 (-3.7)	116.3 (-4.9)	18.3 (-6.8)	18.1 (-2.2)	18.0 (-3.5)	120.0 (3.2)	18.7 (2.2)	18.9 (4.3)	18.8 (4.3)
- Non-energy oil&coal excluded	219.6 (-1.5)	211.3 (-3.8)	104.9 (-4.8)	16.5 (-6.1)	16.3 (-1.1)	16.2 (-2.9)	107.8 (2.7)	16.7 (1.2)	16.8 (2.9)	16.8 (4.0)

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

Share of TPES by Sources

(unit: %)

	2019	2020p					2021p			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Coal	27.1	24.9	23.9	24.3	23.2	26.1	22.8	21.9	23.7	24.7
- Coking coal excluded	19.1	16.8	16.1	16.5	15.4	18.0	14.6	13.6	14.9	16.5
Oil	38.7	37.9	38.4	38.1	42.9	39.8	38.1	40.2	40.1	40.8
- non-energy oil excluded	19.2	18.7	18.5	18.3	21.3	19.2	18.0	18.5	19.1	19.7
LNG	17.7	18.6	18.8	17.0	12.7	13.8	21.0	18.9	16.8	16.9
Hydro	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6
Nuclear	10.3	11.7	12.0	12.8	14.1	13.2	11.0	11.2	11.4	10.1
Others	5.8	6.3	6.3	7.3	6.6	6.6	6.7	7.4	7.5	6.9
TPES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: p means provisional
Source: Monthly energy statistics

Total Final Consumption (TFC)

(Unit: Mtoe)

	2019	2020p					2021p			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Industry	142.9 (-0.4)	137.4 (-3.8)	68.7 (-2.4)	11.0 (-5.0)	11.3 (-4.3)	11.0 (-2.4)	72.0 (4.7)	12.0 (8.5)	12.2 (8.1)	11.9 (8.4)
Transport	43.0 (0.0)	38.9 (-9.4)	19.1 (-11.1)	2.9 (-22.1)	3.6 (9.6)	3.3 (-9.3)	19.3 (1.2)	3.3 (13.9)	3.4 (-7.0)	3.5 (4.7)
Residential	22.6 (-3.6)	23.2 (2.7)	13.2 (-0.1)	2.0 (4.3)	1.5 (17.4)	1.1 (6.0)	13.7 (4.2)	1.8 (-12.1)	1.4 (-7.3)	1.1 (5.7)
commercial	17.5 (-2.3)	17.1 (-2.2)	8.7 (-2.7)	1.3 (-7.1)	1.2 (0.7)	1.3 (3.8)	9.0 (2.9)	1.3 (0.5)	1.2 (0.9)	1.3 (5.3)
Public	5.4 (-3.2)	5.4 (-0.4)	2.7 (-0.5)	0.4 (-6.2)	0.4 (6.5)	0.4 (3.1)	2.8 (3.7)	0.4 (3.7)	0.4 (-3.7)	0.4 (1.6)
TFC	231.4 (-0.9)	222.0 (-4.0)	112.5 (-3.7)	17.7 (-7.6)	18.0 (0.4)	17.0 (-2.8)	116.8 (3.9)	18.8 (6.4)	18.5 (3.0)	18.2 (7.1)
Coal (Mton)	48.2 (-2.2)	45.8 (-4.9)	22.0 (-8.9)	3.6 (-9.2)	3.4 (-16.1)	3.6 (-10.3)	23.4 (6.4)	3.9 (6.2)	4.1 (19.2)	3.7 (3.4)
Oil (Mbbbl)	918.5 (-0.2)	867.1 (-5.6)	438.9 (-2.4)	68.3 (-8.7)	77.9 (8.2)	70.8 (-0.5)	448.4 (2.2)	75.3 (10.3)	75.7 (-2.9)	76.3 (7.7)
Electricity (TWh)	520.5 (-1.1)	509.3 (-2.2)	252.3 (-2.9)	40.5 (-4.6)	38.3 (-5.8)	39.8 (-2.1)	261.8 (3.8)	41.9 (3.5)	40.8 (6.6)	42.0 (5.7)
City gas (Bm ³)	23.3 (-4.1)	22.5 (-3.4)	12.7 (-6.7)	1.9 (-8.5)	1.4 (-10.5)	1.1 (-11.1)	13.6 (7.3)	1.8 (-4.7)	1.5 (9.3)	1.3 (13.2)
Heat-others (1 000 toe)	11.6 (-2.0)	11.4 (-0.9)	5.9 (-1.8)	1.0 (-1.0)	0.8 (-1.3)	0.8 (-2.6)	6.4 (6.8)	1.0 (1.9)	0.9 (11.2)	0.9 (12.5)

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			
			M1~6	M4	M5	M6	M1~6	M4	M5	M6
Industry	61.8	61.9	61.1	62.4	62.6	64.6	61.6	63.7	65.7	65.3
Transport	18.6	17.5	17.0	16.6	20.1	19.5	16.5	17.8	18.2	19.0
Residential	9.8	10.5	11.7	11.4	8.2	6.2	11.8	9.4	7.4	6.1
Commercial	7.6	7.7	7.8	7.3	6.7	7.4	7.7	6.9	6.6	7.3
Public	2.3	2.4	2.4	2.3	2.3	2.4	2.4	2.3	2.2	2.3
Final energy	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Coal	13.9	13.8	13.1	13.6	12.8	14.0	13.4	13.6	14.6	13.6
Oil	50.2	49.3	49.2	48.8	54.9	52.7	48.5	50.7	51.6	52.9
Electricity	19.3	19.7	19.3	19.7	18.3	20.1	19.3	19.2	19.0	19.8
City gas	11.6	12.0	13.1	12.6	9.4	8.6	13.4	11.4	9.9	8.9
Heat-others	5.0	5.2	5.3	5.4	4.6	4.6	5.4	5.2	5.0	4.8

Note: p means provisional
Source: Monthly energy statistics

Statistics on Energy Production Facilities

	2018	2019	2020	2021			2021		
				M4	M5	M6	M4	M5	M6
Total capacity (GW)	119.1 (1.9)	125.3 (5.2)	129.2 (3.1)	126.3 (5.4)	126.8 (5.8)	127.3 (5.1)	128.4 (1.7)	129.6 (2.2)	131.1 (2.9)
Nuclear	21.9 (-3.0)	23.3 (6.4)	23.3 -	23.3 (6.4)	23.3 (6.4)	23.3 (6.4)	23.3 -	23.3 -	23.3 -
Bituminous coal	36.4 (0.7)	36.4 (0.1)	36.5 (0.1)	36.5 (0.1)	36.5 (0.1)	36.5 (0.1)	34.3 (-5.8)	35.4 (-2.9)	36.4 (-0.2)
Gas	37.9 (-0.0)	39.6 (4.5)	41.2 (4.1)	41.2 (8.5)	41.2 (8.5)	41.2 (7.5)	41.2 -	41.2 (-0.0)	41.2 -
Refinery capacity (mil BPSD)	3.2 (3.2)	3.2 -	3.2 -	3.2 -	3.2 -	3.2 -	3.2 -	3.2 -	3.2 -

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

Source: The monthly report on major electric power statistics

Statistics on Energy Consumption

	2018	2019	2020	2021			2021		
				M4	M5	M6	M4	M5	M6
The number of household demanding city gas (mil)	19.1 (3.1)	19.7 (2.8)	20.1 (2.3)	19.7 (2.4)	19.7 (2.4)	19.8 (2.5)	20.2 (2.5)	20.2 (2.4)	20.1 (1.8)
Registered cars (mil)	23.2 (3.0)	23.7 (2.0)	24.4 (2.9)	23.9 (2.2)	23.9 (2.3)	24.0 (2.5)	24.6 (2.9)	24.6 (2.8)	24.6 (2.6)
- gasoline	10.6 (2.5)	11.0 (3.1)	11.4 (4.1)	11.1 (3.5)	11.2 (3.7)	11.2 (4.1)	11.5 (4.0)	11.6 (3.8)	11.6 (3.5)
- diesel	9.9 (3.7)	10.0 (0.3)	10.0 (0.3)	9.9 (-0.1)	9.9 (-0.1)	10.0 (-0.2)	10.0 (0.2)	9.9 (-0.1)	9.9 (-0.3)
- LPG	2.0 (-3.3)	2.0 (-1.5)	2.0 (-1.3)	2.0 (-0.6)	2.0 (-0.6)	2.0 (-0.5)	2.0 (-1.8)	2.0 (-1.9)	2.0 (-2.0)
- hybrid	0.4 (30.9)	0.5 (26.1)	0.6 (33.1)	0.5 (24.3)	0.5 (24.9)	0.6 (25.9)	0.7 (37.7)	0.7 (37.3)	0.8 (36.9)

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

Source: Monthly energy statistics