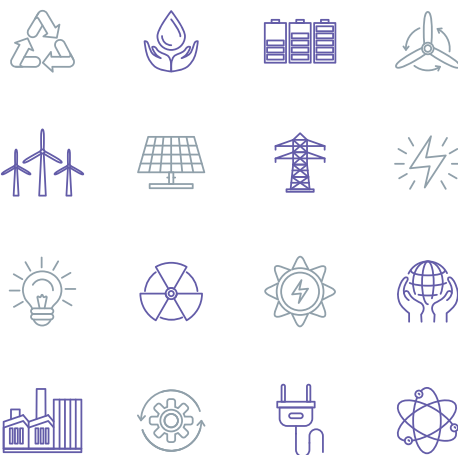


KEEI

MONTHLY

KOREA ENERGY TRENDS



COAL 0.4%
PETROLEUM 7.6%
LNG 8.6%
NUCLEAR -4.6%
NEW & RENEWABLE 8.8%
MARCH. 2021

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

- **Gross Domestic Product (GDP) in the first quarter grew by 1.9% year-on-year driven by a rise in government spending and equipment investment**
 - The increase in GDP can be attributed to a take-off in government and private sector's spending and investment driven by relaxed Social Distancing regulations and expectations of economic recovery
- **The mining & manufacturing production index showed a year-on-year increase of 4.4% thanks to increased production in the semiconductor and basic chemical material industries**
 - The semiconductor production index soared by 25.5% year-on-year on the back of a strong demand for semiconductors for PCs and servers used in 'contact-free' circumstances while the basic chemical material production index grew by 5.7% year-on-year as the production jumped up by 1.3% thanks to an increase in demand for petrochemical products such as synthetic resin for medical purposes
 - The steel production index ticked down by 0.9% due to a decrease in steel product exports (-6.6%). Similarly, the automobile production index slightly dropped by 0.6% year-on-year as the exemption rate of Selective Excise Tax reduced (-40%p) and some factories stopped operation due to disruption in parts supply channels
- **The service production index showed a year-on-year increase of 7.8% as the easing of Social Distancing regulations was retained**
 - In the service sector, production activities picked up as the base effect of COVID-19 pandemic came into play and Social Distancing regulations remained light

► Major economic and industrial indicators

	2020			2021p			
		M1~3	M3	M1~3	M1	M2	M3
GDP (trillion won)	1 836.9	443.7	443.7	452.3	-	-	452.3
	(-0.9)	(1.5)	(1.5)	(1.9)	-	-	(1.9)
Total export (\$billion, customs clearance basis)	512.5	130.2	46.2	146.5	48.0	44.7	53.7
	(-5.1)	(-1.9)	(-1.8)	(12.5)	(11.4)	(9.3)	(16.4)
Industrial production index (2015=100)	106.3	105.2	113.6	109.8	110.2	100.5	118.6
	(-0.3)	(4.6)	(7.0)	(4.4)	(7.8)	(0.8)	(4.4)
Semi-conductors	230.6	211.5	226.5	257.9	244.7	244.8	284.2
	(22.6)	(41.3)	(42.1)	(21.9)	(20.0)	(19.9)	(25.5)
Basic chemical products	102.3	109.7	106.3	107.9	108.1	103.3	112.4
	(-6.0)	(0.3)	(-3.3)	(-1.6)	(-5.8)	(-4.4)	(5.7)
Iron&Steel	92.1	96.7	100.1	94.9	96.4	89.1	99.2
	(-6.3)	(-1.5)	(-1.3)	(-1.9)	(1.8)	(-6.5)	(-0.9)
Cars	84.1	81.5	101.9	90.6	91.1	79.5	101.3
	(-9.9)	(-10.1)	(3.8)	(11.3)	(17.9)	(21.9)	(-0.6)
Service production index (2015=100)	106.2	103.6	103.4	105.9	104.8	101.5	111.5
	(-2.0)	(-1.0)	(-4.9)	(2.3)	(-1.8)	(0.8)	(7.8)
Wholesale & Retail	101.9	98.8	100.9	101.9	101.0	95.3	109.4
	(-2.6)	(-3.0)	(-6.5)	(3.2)	(-2.0)	(3.3)	(8.4)
Restaurant & Accommodation	79.5	77.6	64.2	67.4	59.9	65.6	76.6
	(-18.5)	(-16.5)	(-32.6)	(-13.2)	(-36.7)	(-11.2)	(19.3)

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

Source: Korea International Trade Association, Korea Statistical Information Service

2. Energy Prices¹

Global Energy Prices

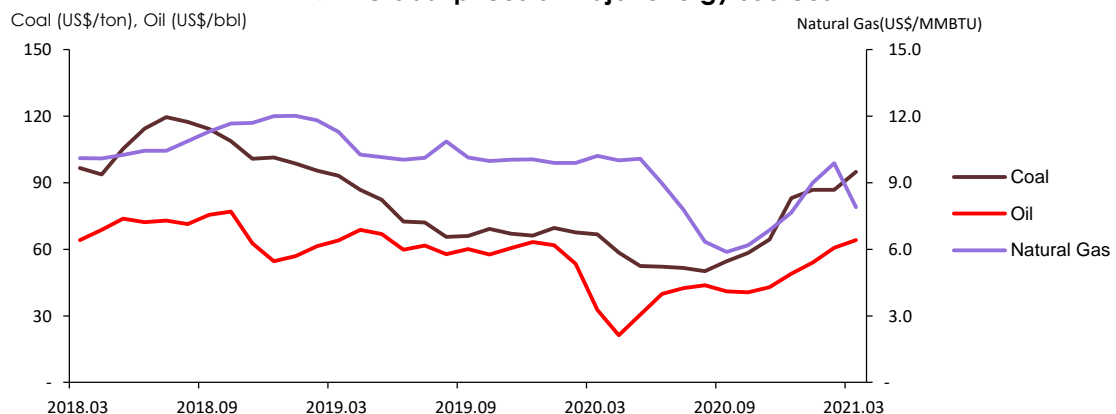
- **Global average crude oil prices in March increased by 5.6% on a month-on-month basis due to production cut by OPEC+ countries and increased geopolitical risks**
 - Global oil prices posted a month-on-month increase as OPEC+ countries agreed to keep the output reduction static and Houthis rebels from Yemen attacked the petroleum facilities in Saudi Arabia. However, the growth rate slowed down compared to last month due to the second wave of COVID-19 in some regions including Europe
 - Global natural gas prices plunged by 20.1% from a month earlier on the back of the base effect of a steep rise in the prices amidst a cold snap last month
 - Global coal prices rose by 9.4% month-on-month driven by increased global oil price and China's restriction on coal supply

► Global energy prices

	2019	2020				2021		
			M1	M2	M3	M1	M2	M3
Crude oil (US\$/bbl)	61.6	41.6	61.8	53.4	32.6	54.1	60.7	64.2
	(-10.2)	(-32.4)	(8.6)	(-12.9)	(-49.1)	(-12.5)	(13.7)	(96.6)
Natural gas (US\$/MMBTU)	10.6	8.3	9.9	9.9	10.2	9.0	9.9	7.9
	(-1.1)	(-21.3)	(-17.7)	(-16.2)	(-9.6)	(-8.9)	(-0.2)	(-22.7)
Coal (US\$/ton)	77.8	60.8	69.7	67.6	66.7	86.8	86.7	94.9
	(-27.3)	(-21.9)	(-29.3)	(-29.1)	(-28.3)	(24.6)	(28.2)	(42.2)

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

Domestic energy prices

□ Gasoline and diesel prices in March rose by 3.4% and 3.9% month-on-month, respectively, due to the continuous increase in global oil price

- The average prices of gasoline and diesel at gas stations continued to grow for four months in a row, influenced by the increase in global oil prices. The gas station prices maintained a decreasing year-on-year trend until February, then followed by year-on-year jumps of 3.0% and 2.5%, respectively, in March
- Similarly, Bunker-C oil prices increased by 10.7% month-on-month due to a recent increase in global oil prices. The continuous growth, in turn, made the year-on-year decrease in B-C oil prices significantly smaller

□ Propane and butane prices in March went up by 3.9% and 6.0% month-on-month, respectively, as LPG supply prices jumped up due to the increase in global prices in February

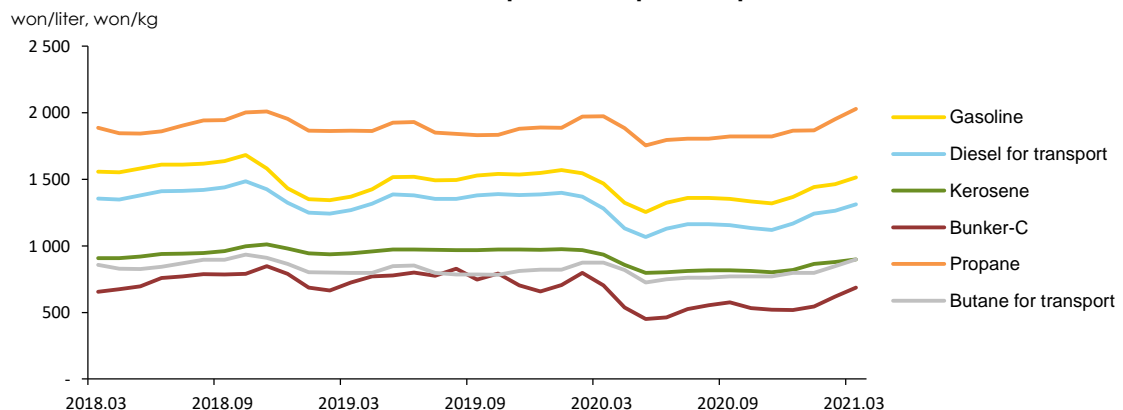
- As Saudi Aramco raised global propane and butane prices by 10.0% and 10.4%, respectively, from a month earlier, a possible factor which could increase the domestic LPG supply prices by around 140KRW/kg took place. However, LPG supply prices grew by 88-89KRW/kg, lower than the anticipated

► Domestic petroleum product prices

	2019	2020				2021		
			M1	M2	M3	M1	M2	M3
Gasoline (won/liter)	1 472.6 (-6.9)	1 381.2 (-6.2)	1 568.4 (16.1)	1 545.3 (15.0)	1 469.1 (7.3)	1 441.8 (-8.1)	1 463.2 (-5.3)	1 513.3 (3.0)
Diesel for transport (won/liter)	1 340.6 (-3.7)	1 189.5 (-11.3)	1 398.4 (11.9)	1 369.9 (10.2)	1 280.8 (0.9)	1 242.4 (-11.2)	1 263.4 (-7.8)	1 312.6 (2.5)
Bunker-C (won/liter)	744.5 (1.3)	572.9 (-23.0)	706.5 (3.0)	797.7 (19.8)	703.1 (-2.9)	545.5 (-22.8)	619.6 (-22.3)	686.0 (-2.4)
Propane (won/kg)	1 869.6 (-2.6)	1 850.3 (-1.0)	1 887.6 (1.2)	1 971.5 (5.8)	1 973.2 (5.8)	1 868.1 (-1.0)	1 952.5 (-1.0)	2 029.2 (2.8)
Butane for transport (won/liter)	806.3 (-7.8)	790.8 (-1.9)	820.8 (2.4)	874.5 (9.5)	874.3 (9.6)	797.2 (-2.9)	847.8 (-3.0)	898.6 (2.8)

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



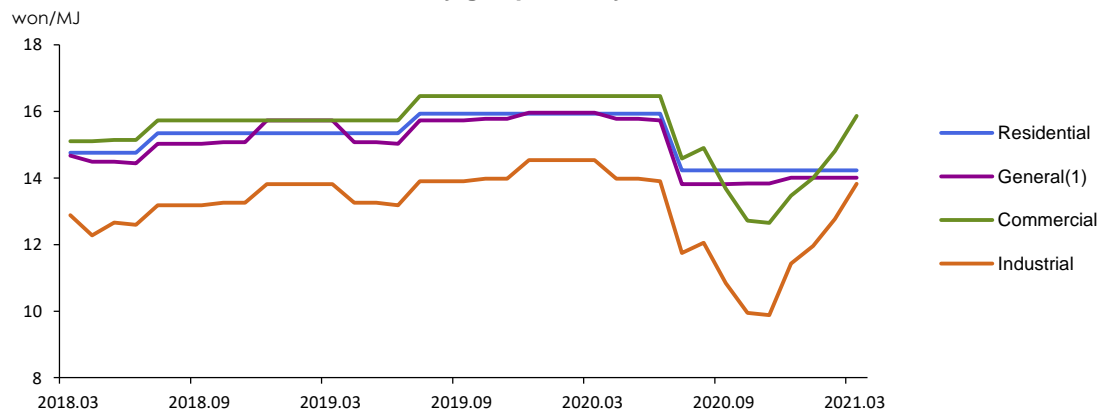
□ **City gas prices for commercial heating and industrial uses increased by 7.1% and 8.3% respectively in March, compared to the previous month**

- City gas prices for business heating and industrial uses, adjusted on a monthly basis under Fuel Adjustment Mechanism (FAM), increased for three consecutive months driven by the increase in global oil and LNG prices while the prices for households and general use were frozen at the level of the previous month

□ **Electricity prices in March remained the same as January, when Fuel Adjustment Mechanism (FAM) was implemented to drop all electricity price categories by 2.7KRW**

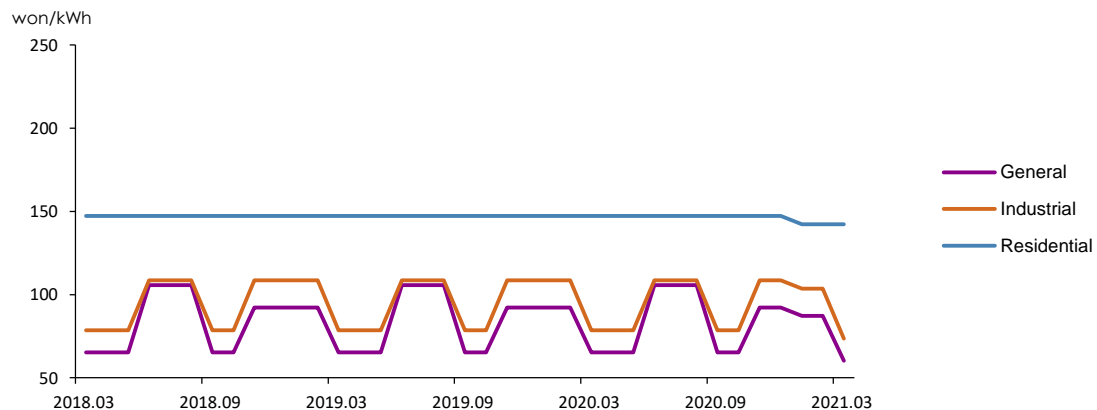
- With Fuel Adjustment Mechanism (FAM) starting from January 1, 2021, Climate Environment Cost of 5KRW/kWh was separated from the existing electricity price to form a new price category of Climate Environmental Price of 5.3KRW/kWh. The actual electricity prices fell by 2.7KRW/kWh from the previous month as Fuel Cost Adjustment rate was reduced by 3KRW/kWh
- As the electricity prices were reduced by 2.7KRW/kWh for each use, the prices for general, industrial and household uses decreased by 2.9%, 2.5% and 1.8% respectively from the previous month

► **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

□ **Despite of an increase in coal and LNG, the total energy import volume in March decreased by 0.3% year-on-year due to a drop in crude oil and petroleum product imports**

- The volume of crude oil imports dropped by 14.5% year-on-year as crude oil fed for oil refining facilities diminished. The share of crude oil import from the Middle East declined by 4.5%p year-on-year to 57.5%
- In spite of an increase in Bunker-C oil import (12.8%), the volume of petroleum product imports dropped by 8.2% year-on-year as the imports of naphtha and LPG, which both represent main raw materials in the petrochemical industry, went down by 1.5% and 29.2%, respectively
- The import volume of bituminous coal rebounded for the first time since January 2020 as bituminous coal use in the steel industry soared, although the consumption in the power generation sector showed a continuous decrease
- The import volume of LNG posted a year-on-year growth as the volume of base-load generation decreased and as a result, demand for gas power generation went up

► **Import and domestic production of energy**

	2020			2021p			
		M1~3	M3	M1~3	M1	M2	M3
Import volume							
Crude oil (Mbbbl)	980.3	263.1	84.1	223.8	76.9	75.0	71.9
	(-8.6)	(-5.6)	(-3.5)	(-15.0)	(-17.1)	(-13.1)	(-14.5)
Petroleum product (Mbbbl)	347.3	102.8	31.7	88.0	28.9	30.0	29.1
	(-1.4)	(33.9)	(32.1)	(-14.4)	(-26.7)	(-5.3)	(-8.2)
Bituminous coal (Mton)	115.5	27.3	8.6	26.0	8.8	7.9	9.4
	(-13.0)	(-14.1)	(-8.8)	(-4.5)	(-15.0)	(-5.9)	(9.4)
Anthracite (Mton)	6.3	1.4	0.5	1.5	0.6	0.2	0.6
	(-8.3)	(-26.2)	(-25.8)	(4.2)	(-2.2)	(-28.0)	(34.3)
LNG (Mton)	40.0	12.4	3.5	13.8	4.4	5.2	4.2
	(-1.8)	(19.7)	(28.0)	(11.1)	(6.9)	(9.3)	(18.5)
Import volume (Mtoe)	325.4	88.1	27.9	82.8	27.8	27.2	27.8
	(-6.8)	(2.0)	(4.0)	(-6.1)	(-11.5)	(-5.8)	(-0.3)
Import value (billion US\$, CIF)	86.4	31.4	8.7	26.9	8.1	9.5	9.3
	(-31.8)	(-2.5)	(-12.0)	(-14.4)	(-33.2)	(-10.5)	(7.3)
Energy share of total import value (%)	18.4	25.9	20.7	19.8	18.4	22.5	18.7
Foreign energy dependence (%)*	92.9	93.4	92.7	93.2	93.9	93.3	92.6
Domestic production							
Hydropower (TWh)	7.1	1.6	0.5	1.5	0.5	0.5	0.5
	(14.4)	(9.2)	(18.4)	(-5.8)	(-4.0)	(-9.5)	(-4.1)
Anthracite (Mton)	1.0	0.3	0.1	0.2	0.1	0.1	0.1
	(-6.0)	(-0.4)	(11.2)	(-17.5)	(-3.8)	(-30.0)	(-17.2)
Natural gas (Mton)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
	(-28.6)	(-11.6)	(-12.4)	(-65.3)	(-58.2)	(-69.7)	(-68.8)
Renewable energy (Mtoe)	18.4	4.5	1.6	4.9	1.6	1.5	1.8
	(4.0)	(3.2)	(6.7)	(7.5)	(9.5)	(4.1)	(8.8)

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 March rose by 4.9% year-on-year as petroleum and gas use grew fast and coal consumption rebounded to post an increase

- Petroleum use in the industrial sector increased with the base effect from the explosion accident in NCC facilities in March last year as well as increased volume of exports and domestic demand for major petrochemical products. The transport sector also witnessed an increase in petroleum use thanks to the base effect from COVID-19 pandemic. In consequence, total petroleum use grew by 7.6% on a year-on-year basis
- In terms of gas use, the final gas consumption slightly went down (-0.3%) with a decrease in industrial LNG direct imports while gas use in the power generation sector skyrocketed (19.6%) with increased electricity consumption and decreased nuclear power generation. As a result, the total gas use soared by 8.6% year-on-year
- Declined fast over the past few months, coal use rebounded to post an increase (0.4%). Industrial coal use drove the rebound, rallying with the base effect caused by a plunge in crude steel production in the same month last year, although coal use for power generation continued to decrease with shutdown of old coal-fired facilities and strengthening of coal thermal power generation-related limitations

□ As energy use in the industrial and transport sectors rose thanks to a base effect and economic recovery, Total Final Consumption (“TFC”) went up by 5.1% year-on-year

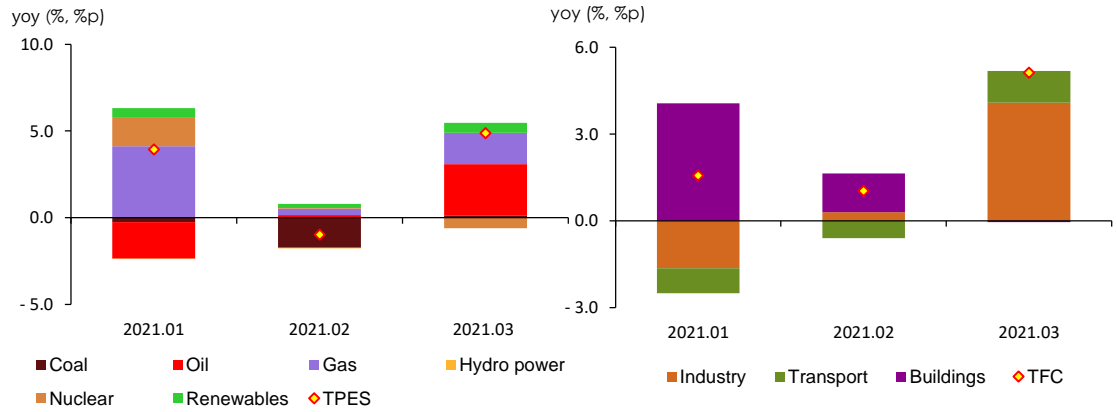
- Energy use in the industrial sector increased by 6.6% on a year-on-year basis as naphtha and coal for coke-making use rebounded with the base effect from the plunge in the same month last year and the manufacturing sector continued to pick up even in the face of COVID-19 pandemic
- Energy use in the transport sector went up by 7.1% as energy use in the road, marine and air transport sectors increased, driven by the base effect from a plunge (-20.4%) with the onset of COVID-19 pandemic in the same month last year as well as an increase in export volume amidst global economic recovery
- Despite the increase in production activities in the service sector, the energy use in the building sector ticked down (-0.2%) due to the decreased heating degree days

► Energy consumption

	2020			2021p			
		M1~3	M3	M1~3	M1	M2	M3
TPES (Mtoe)	290.8	76.5	24.5	78.6	28.3	24.6	25.7
	(-4.0)	(-4.6)	(-5.1)	(2.6)	(3.9)	(-1.0)	(4.9)
- Non-energy oil&coal excluded	211.3	55.9	17.8	57.5	21.4	17.9	18.2
	(-3.8)	(-5.9)	(-6.1)	(2.8)	(7.5)	(-1.8)	(2.1)
TFC (Mtoe)	222.0	59.8	19.0	61.3	21.7	19.7	19.9
	(-4.0)	(-3.9)	(-4.2)	(2.5)	(1.6)	(1.0)	(5.1)

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

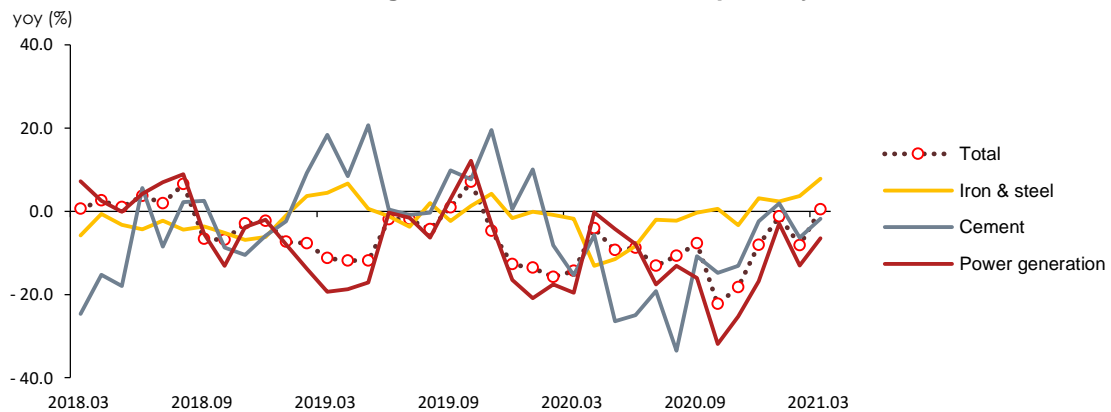
- **Coal use in March posted a year-on-year growth of 0.4% driven by an increase in the industrial sector, offsetting the effect of a decrease in the generation sector**
 - Industrial coal use soared by 9.7% year-on-year as coal use in the steel industry grew fast with an increase in crude steel production
 - Coal use in the power generation sector declined by 6.4% year-on-year as the cut-down on coal-fired generation was strengthened in an effort to reduce fine dust emissions

► Coal consumption

	2020			2021p			
		M1~3	M3	M1~3	M1	M2	M3
Coal (Mton)	116.6	28.9	8.9	28.0	10.5	8.5	8.9
	(-12.4)	(-14.5)	(-14.4)	(-3.0)	(-1.3)	(-8.1)	(0.4)
Industry	45.3	11.2	3.8	11.7	4.1	3.4	4.2
	(-4.7)	(-5.5)	(-6.6)	(4.0)	(1.6)	(0.3)	(9.7)
-Coking-coal	33.8	8.5	2.9	8.9	3.0	2.8	3.1
	(-3.3)	(-0.9)	(-1.8)	(4.6)	(2.4)	(3.7)	(7.8)
Buildings	0.5	0.1	0.0	0.1	0.1	0.0	0.0
	(-20.8)	(-24.8)	(-1.6)	(-16.0)	(-5.2)	(-20.8)	(-26.3)
Power generation	70.7	17.5	5.0	16.2	6.4	5.1	4.7
	(-16.6)	(-19.4)	(-19.6)	(-7.3)	(-3.0)	(-13.0)	(-6.4)

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 March posted a year-on-year increase of 7.6% driven by the base effects from non-planned NCC operation shutdown last year as well as COVID-19 pandemic**

- Petroleum use in the industrial sector increased by 8.5% year-on-year due to the base effect from an explosion accident and resulting shutdown of NCC plants last year
- Petroleum use in the transport sector jumped up by 7.5% year-on-year due to the base effect caused by COVID-19 pandemic getting into full swing in March last year
- In spite of increased work time from home amidst COVID-19 pandemic, heating degree days declined by 9.8% due to warm weather, making petroleum use in the residential buildings drop (-6.9%). As a result, total petroleum use in the building sector went down by 1.8% year-on-year

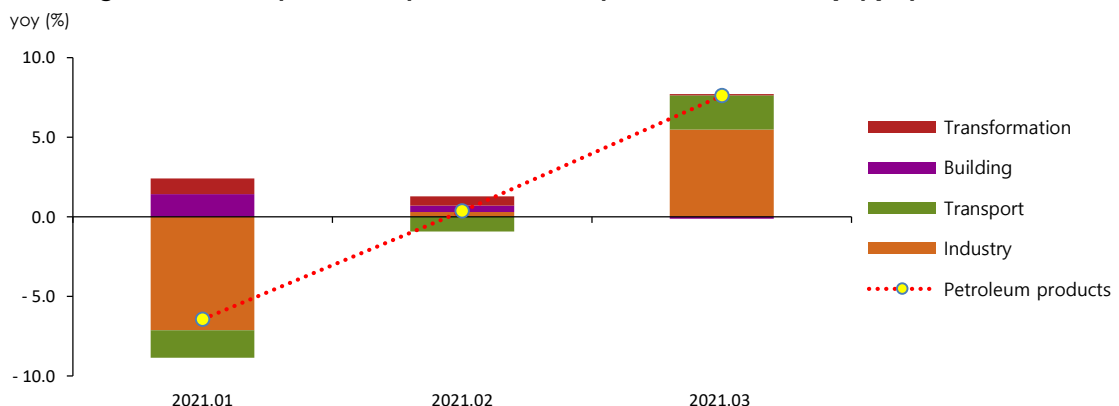
► Petroleum product consumption by end-use sectors

	2020			2021p			
		M1~3	M3	M1~3	M1	M2	M3
Petroleum (Mbbbl)	873.3	223.6	71.0	224.0	75.5	72.1	76.4
	(-5.8)	(-4.9)	(-7.4)	(0.2)	(-6.4)	(0.4)	(7.6)
Industry	543.0	141.7	45.7	140.1	45.6	44.9	49.6
	(-4.1)	(1.8)	(1.3)	(-1.2)	(-11.2)	(0.5)	(8.5)
-Naphtha	405.3	109.6	34.6	107.8	34.6	34.6	38.5
	(-7.6)	(-1.1)	(-3.0)	(-1.7)	(-12.5)	(-2.5)	(11.5)
Transport	273.9	65.0	20.4	64.5	21.3	21.2	22.0
	(-9.6)	(-14.6)	(-20.9)	(-0.8)	(-6.1)	(-3.0)	(7.5)
Buildings	50.1	15.2	4.4	16.6	7.1	5.2	4.3
	(2.1)	(-8.3)	(2.3)	(8.9)	(19.5)	(5.8)	(-1.8)
Power generation	6.2	1.6	0.4	2.9	1.6	0.9	0.5
	(-27.7)	(-50.6)	(-70.5)	(79.3)	(104.5)	(93.0)	(16.2)

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

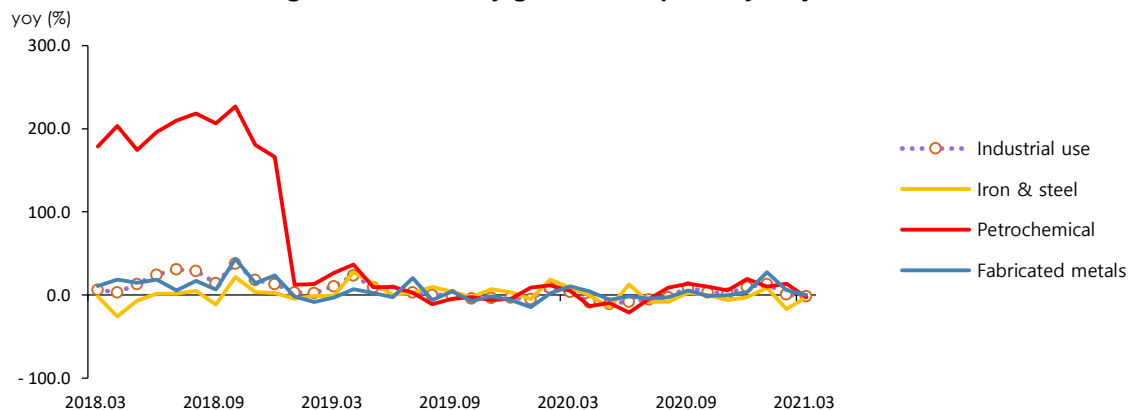
- **Natural gas use in March posted a year-on-year increase of 8.6% as natural gas use for power generation skyrocketed and gas use for city gas also soared**
 - With electricity use slightly going up (0.5%), gas use for power generation soared by 19.6% year-on-year as nuclear and coal-fired generation decreased and in turn, the share of base-load generation dropped significantly (-6.7%p)
 - City gas use in major energy-intensive sectors stayed stationary while the volume of direct import in the petrochemical and iron & steel sectors went down. In consequence, total gas use in the industrial sector inched down by 1.6% on a year-on-year basis

► Natural gas and city gas consumption

	2020			2021p			
		M1~3	M3		M1~3	M1	M2
LNG (Mton)	41.4	13.3	4.0	14.5	5.8	4.5	4.3
	(1.1)	(2.5)	(3.6)	(9.6)	(17.5)	(1.6)	(8.6)
Power generation	18.6	5.3	1.7	5.9	2.2	1.8	2.0
	(3.6)	(13.0)	(10.6)	(11.8)	(12.7)	(3.5)	(19.6)
City gas production	18.2	6.6	1.9	7.2	3.1	2.3	1.9
	(-3.1)	(-5.9)	(-5.0)	(9.6)	(22.6)	(2.0)	(1.3)
Industry(Direct private importer)	2.8	0.7	0.2	0.6	0.2	0.2	0.2
	(23.8)	(31.3)	(46.1)	(-9.7)	(-6.2)	(-17.3)	(-5.6)
City gas (Bm³)	26.0	9.1	2.7	9.8	3.9	3.2	2.7
	(-0.5)	(-2.6)	(0.6)	(7.3)	(16.4)	(4.0)	(-0.3)
Industry(including directly imported)	11.1	3.0	1.0	3.2	1.2	1.0	1.0
	(-0.2)	(2.3)	(3.9)	(4.2)	(13.1)	(0.8)	(-1.6)
Buildings	13.8	5.8	1.6	6.4	2.7	2.1	1.6
	(0.0)	(-4.8)	(-0.5)	(9.6)	(19.1)	(6.3)	(0.4)
Transport.	1.1	0.3	0.1	0.2	0.1	0.1	0.1
	(-8.7)	(-5.5)	(-12.3)	(-7.4)	(-9.2)	(-14.1)	(1.4)

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

► The growth rate of city gas consumption by major industries



8. Electricity

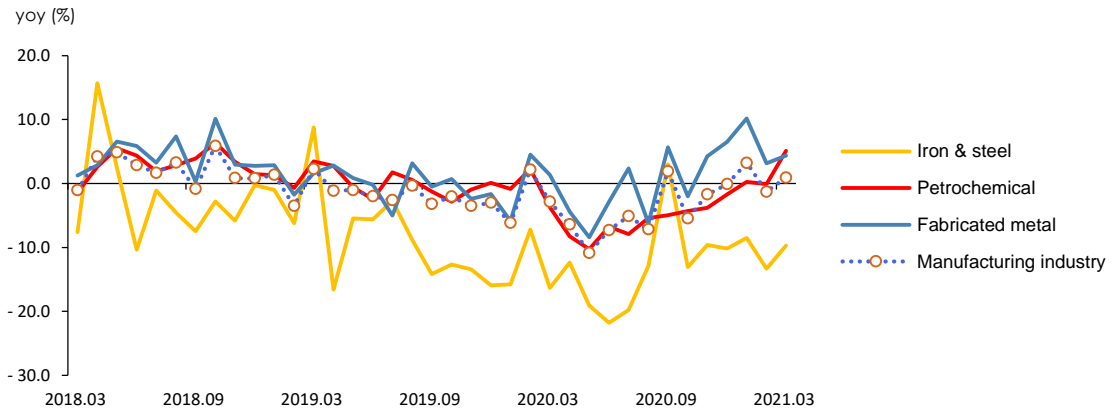
- **Despite of a slight decrease in the building sector, total electricity use in March went up by 0.5% year-on-year driven by a growth in the industrial sector**
 - Industrial electricity use showed a year-on-year increase of 1.1% thanks to increased power consumption in three major energy-intensive industries
 - With the residential and commercial sector both showing a slight decrease in electricity use due to a temperature effect, the electricity use in the building sector ticked down by 0.2% year-on-year

► Electricity consumption by end-use sectors

	2020			2021p			
		M1~3	M3		M1~3	M1	M2
Electricity (TWh)	509.3	133.7	42.9	137.0	48.8	45.2	43.1
	(-2.2)	(-1.8)	(-0.5)	(2.5)	(5.2)	(1.5)	(0.5)
Industry	268.7	69.1	23.1	70.2	24.5	22.3	23.4
	(-4.0)	(-2.7)	(-2.8)	(1.6)	(4.1)	(-0.4)	(1.1)
Transport	2.7	0.7	0.2	0.6	0.2	0.2	0.2
	(-5.9)	(-6.8)	(-4.2)	(-6.3)	(-11.2)	(-3.5)	(-3.8)
Buildings	237.8	63.9	19.5	66.1	24.0	22.6	19.5
	(0.0)	(-0.7)	(2.4)	(3.5)	(6.6)	(3.6)	(-0.2)
Residential	74.1	18.4	5.9	19.4	6.9	6.7	5.8
	(5.1)	(3.8)	(9.8)	(5.3)	(10.8)	(6.6)	(-2.0)
Commercial	132.5	37.1	11.1	37.8	13.8	13.0	11.0
	(-2.0)	(-2.1)	(0.9)	(1.9)	(4.3)	(1.9)	(-0.9)

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

► The growth rate of electricity consumption in manufacturing industry

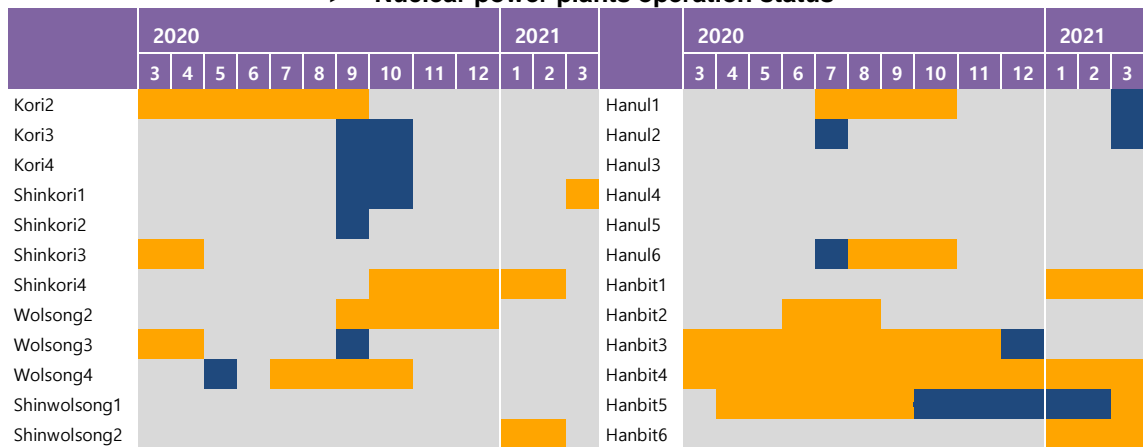


9. Nuclear

- **Nuclear power generation in March posted a year-on-year decline of 4.6% as generation facility utilization rate dropped with non-planned operation shutdown**

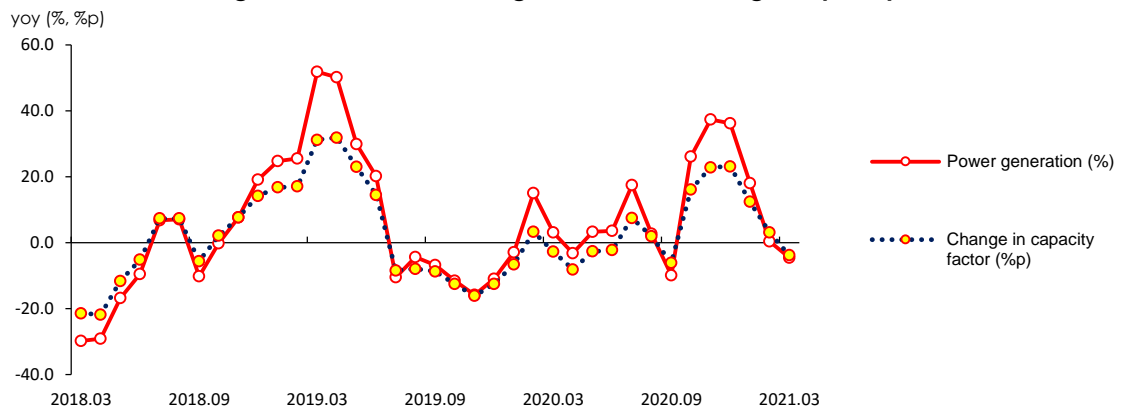
- Nuclear power equipment utilization rate recorded 79.8%, a drop of 3.8%p on a year-on-year basis as non-planned shutdown took place to stop the operation of Hanul-1 and Hanul-2 reactors

► Nuclear power plants operation status



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

► The growth rate of nuclear generation & average capacity factor



10. Heat and Renewable energy

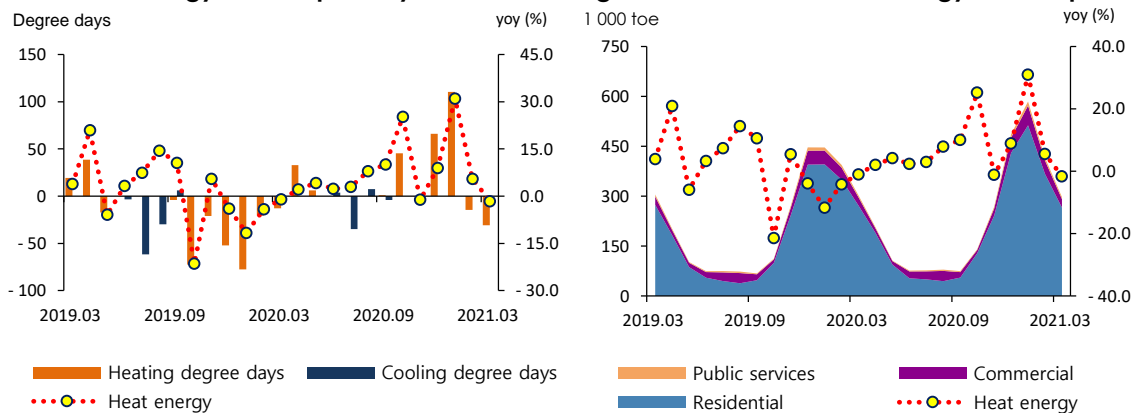
☐ Heat energy use in March declined by 1.6% year-on-year as heat consumption in the residential sector dropped with lower demand for heating

- While heat energy use in the commercial and public sectors jumped up (4.0%) with a base effect, the residential sector, which has a large share in total consumption mix, witnessed a 2.2% decline due to decreased heating degree days (-30.7days), driving the total heat energy use drop by 1.6% year-on-year

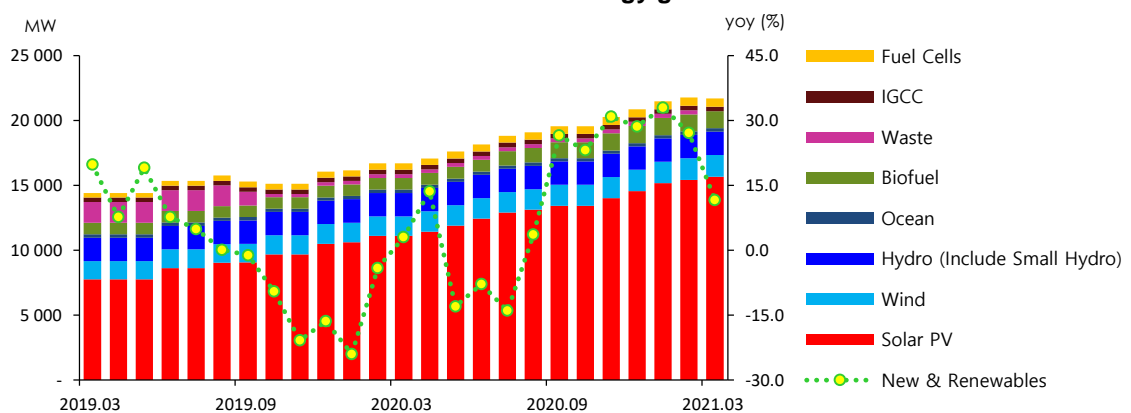
☐ Renewable energy generation² increased by 11.6% year-on-year driven by solar PV, bio energy and fuel cell

- Renewable energy generation jumped up compared to the same month last year, driven by strengthened Renewable Portfolio Standard mandatory ratio and increased facility capacity of major energy sources

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



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



² Renewable energy installed capacity and power generation data was derived from KEPCO's Monthly Electricity Statistics. In Energy Balance, renewable and 'the other' energy generation excludes hydropower and includes non-renewable waste energy

11. Industry

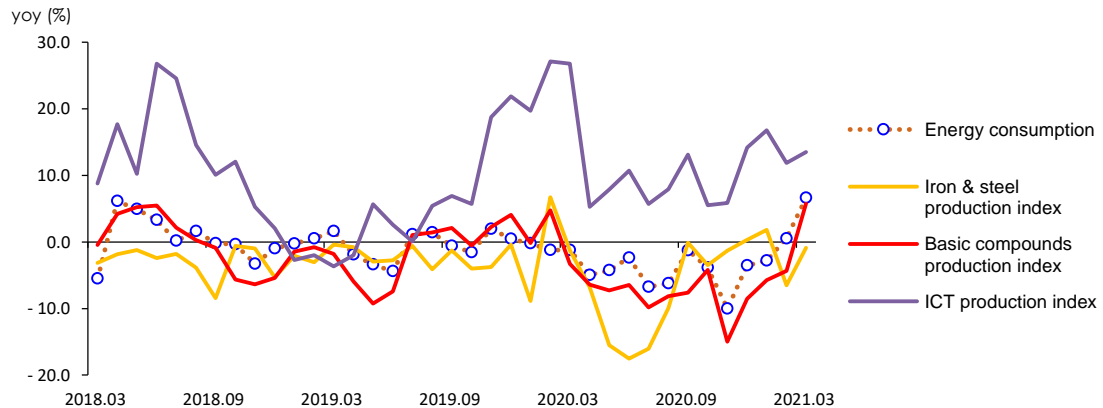
- Energy use in the industrial sector soared by 6.6% year-on-year as business in the manufacturing industry showed signs of recovery from the impact of COVID-19 pandemic
 - As production in major energy-intensive industries picked up, industrial energy consumption posted the fastest growth for this year

► Industrial energy consumption

	2020			2021p			
		M1~3	M3	M1~3	M1	M2	M3
Industry (Mtoe)	137.4	35.4	11.7	35.9	12.2	11.3	12.5
	(-3.8)	(-0.9)	(-1.2)	(1.4)	(-2.8)	(0.5)	(6.6)
Petrochemical	69.1	18.3	5.8	18.2	6.0	5.9	6.3
	(-4.1)	(2.3)	(0.8)	(-0.4)	(-9.3)	(0.5)	(8.6)
- Naphtha	49.7	13.4	4.2	13.2	4.2	4.2	4.7
	(-7.6)	(-1.1)	(-3.0)	(-1.7)	(-12.5)	(-2.5)	(11.5)
Iron & Steel	28.3	7.2	2.4	7.4	2.5	2.3	2.6
	(-4.1)	(-1.6)	(-2.5)	(2.3)	(1.7)	(0.1)	(5.0)
-Coking coal	23.6	5.9	2.0	6.2	2.1	2.0	2.2
	(-3.3)	(-0.9)	(-1.8)	(4.6)	(2.4)	(3.7)	(7.8)
Fabricated metal	11.4	3.0	1.0	3.2	1.2	1.0	1.0
	(-0.1)	(-0.7)	(3.3)	(7.8)	(15.0)	(4.4)	(3.8)
Share of feedstock (%)	57.7	57.9	57.0	58.4	56.1	59.2	60.0

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

► Industrial energy consumption & production index



12. Transport

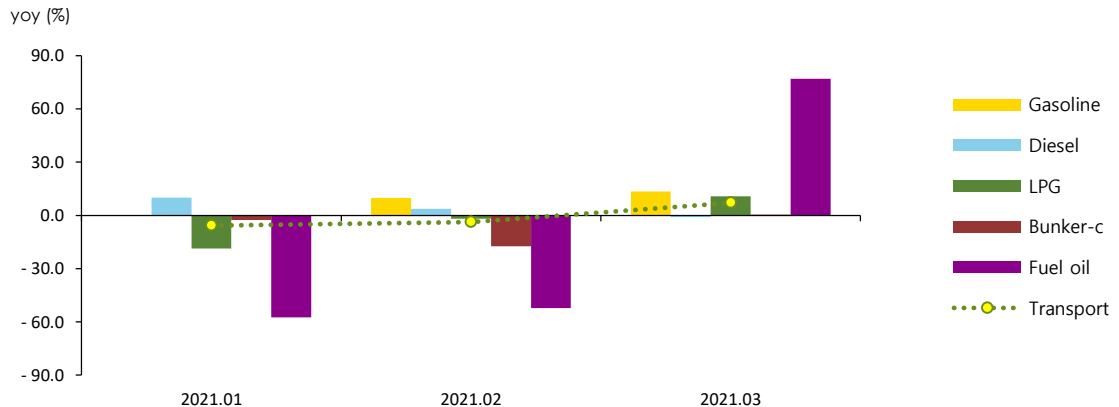
- **Energy use in the transport sector increased by 7.1% year-on-year due to the base effect, caused by the onset of COVID-19 pandemic in March last year**
 - Energy use in the road transport sector rose by 4.0% due to the base effect, caused by the impact of COVID-19 pandemic and a resulting plunge in travel demand
 - Energy use in the air transport sector skyrocketed by 76.6% year-on-year due to the base effect, caused by the impact of COVID-19 pandemic, in turn, and a significant drop in international travel
 - Energy use in the marine transport sector grew by 6.4% year-on-year thanks to an increase in export volume with global business recovery

► The growth rate of petroleum consumption in the transport sector

	2020			2021p			
		M1~3	M3	M1~3	M1	M2	M3
Transport (Mtoe)	38.9	9.2	2.9	9.1	3.0	3.0	3.1
	(-9.4)	(-14.2)	(-20.4)	(-1.0)	(-5.7)	(-3.7)	(7.1)
Road	33.1	7.5	2.5	7.7	2.5	2.6	2.6
	(-5.6)	(-14.1)	(-14.8)	(3.6)	(2.9)	(3.8)	(4.0)
Navigation	3.0	0.8	0.2	0.7	0.3	0.2	0.3
	(12.3)	(0.9)	(-0.1)	(-1.0)	(-1.0)	(-8.5)	(6.4)
Aviation	2.6	0.9	0.1	0.6	0.2	0.2	0.2
	(-48.2)	(-25.2)	(-72.0)	(-37.8)	(-57.4)	(-52.2)	(76.6)
Rail	0.3	0.1	0.0	0.1	0.0	0.0	0.0
	(-7.6)	(-8.5)	(-5.0)	(-7.5)	(-10.8)	(-5.8)	(-5.7)

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 March inched down by 0.2% year-on-year as energy consumption in the residential buildings dropped driven by a temperature effect and a base effect

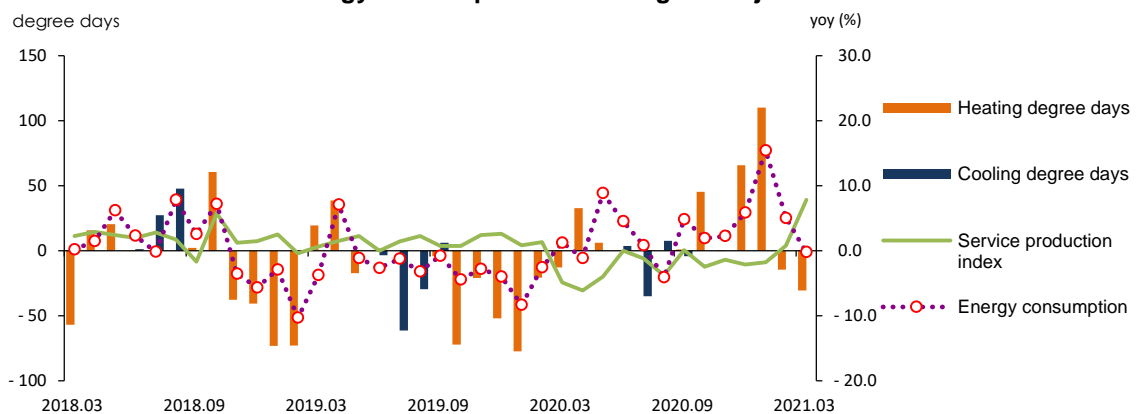
- Energy use in the building sector posted a slight decrease year-on-year as electricity and heat consumption dropped, although the LPG and city gas use went up
- Energy use in the residential building sector reduced by 3.0% on a year-on-year basis as the use of all major energy sources except for LPG declined
- Energy use in the commercial and public building sectors increased by 3.4% year-on-year as the use of all energy sources went up thanks to increased production activities in the wholesale & retail sector and the food & accommodation sector. (Their production indexes rose by 8.4% and 19.3%, respectively)

► Energy consumption in buildings

	2020			2021p			
		M1~3	M3	M1~3	M1	M2	M3
Buildings (Mtoe)	45.7	15.1	4.4	16.2	6.5	5.4	4.4
	(0.5)	(-3.8)	(1.2)	(7.4)	(15.4)	(5.0)	(-0.2)
Residential	23.2	8.6	2.5	9.5	3.9	3.2	2.4
	(2.7)	(-4.1)	(3.6)	(9.8)	(22.0)	(7.3)	(-3.0)
Commercial	17.1	5.0	1.4	5.2	2.0	1.7	1.5
	(-2.2)	(-3.9)	(-1.7)	(3.5)	(6.1)	(1.9)	(2.0)
Public-others	5.4	1.5	0.4	1.6	0.6	0.5	0.5
	(-0.4)	(-1.7)	(-1.7)	(6.4)	(8.4)	(2.8)	(7.8)
Heating degree days	2 382.7	1 199.3	312.2	1 264.3	581.1	401.7	281.5
	(1.7)	(-8.5)	(-3.9)	(5.4)	(23.4)	(-3.5)	(-9.8)
Cooling degree days	92.5	-	-	-	-	-	-
	(-23.2)	-	-	-	-	-	-

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

► Energy consumption in buildings & major indicators



14. Transformation

- Although electricity consumption slightly increased in March, total power generation and energy input for generation grew by 2.2% and 2.4% year-on-year, respectively
 - Nuclear power generation and coal-fired generation dropped by 4.6% and 13.7%, respectively, which made the volume of base-load generation decline by 9.0%. In contrast, gas-fired generation, responsible for peak load, showed a year-on-year increase of 16.3%

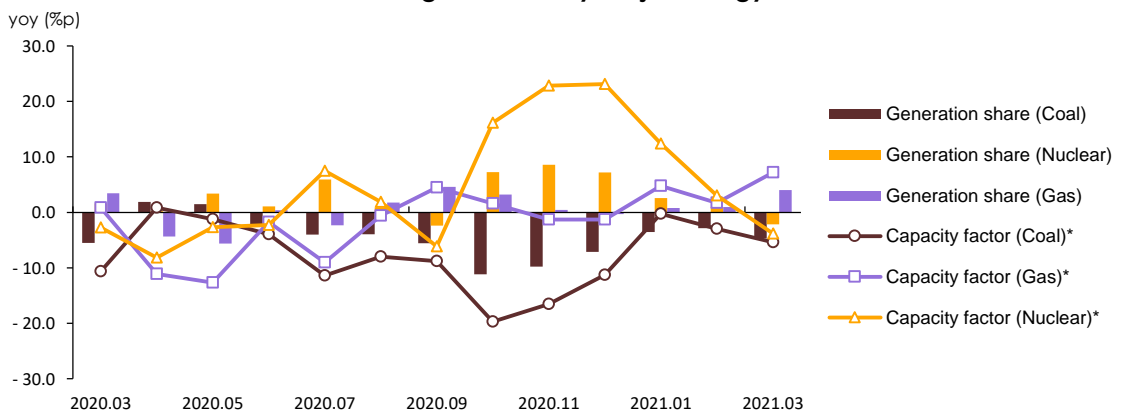
► Energy consumption in the power generation sector

	2020			2021p			
		M1~3	M3	M1~3	M1	M2	M3
Electricity Generation (TWh)	552.1	142.4	46.2	145.4	53.2	45.0	47.2
	(-1.9)	(-1.8)	(-2.1)	(2.1)	(6.8)	(-3.1)	(2.2)
Coal	196.3	48.5	13.7	44.1	17.8	14.5	11.9
	(-13.7)	(-15.7)	(-17.4)	(-9.0)	(-3.6)	(-11.0)	(-13.7)
Oil	2.3	0.6	0.1	1.7	0.3	0.1	1.2
	(-31.5)	(-56.3)	(-82.0)	(196.9)	(-4.4)	(13.8)	(915.2)
Gas	146.1	43.1	13.5	46.8	17.3	13.8	15.7
	(1.2)	(11.3)	(10.7)	(8.5)	(9.3)	(-0.0)	(16.3)
Nuclear	160.2	39.1	14.5	40.6	14.0	12.7	13.8
	(9.8)	(4.6)	(3.1)	(3.9)	(18.0)	(0.3)	(-4.6)
Hydro/other renewables	41.9	9.2	3.8	10.9	3.3	3.5	4.0
	(6.9)	(-5.5)	(7.7)	(18.3)	(28.9)	(23.8)	(6.8)
Baseload	356.5	87.5	28.2	84.7	31.8	27.2	25.7
	(-4.5)	(-7.7)	(-8.1)	(-3.2)	(4.9)	(-6.0)	(-9.0)

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

Source: Monthly energy statistics

► Power generation by major energy sources



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

Major Statistics & Indicators of the Economy

	2019	2020					2021			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
GDP (trillion won)	1 852.7 (2.2)	1 836.9 (-0.9)	443.7 (1.5)	- -	- -	443.7 (1.5)	452.3 (1.9)	- -	- -	452.3 (1.9)
Private consumption	894.1 (2.1)	849.1 (-5.0)	212.5 (-4.8)	- -	- -	212.5 (-4.8)	215.1 (1.2)	- -	- -	215.1 (1.2)
Facilities investment	155.3 (-6.6)	166.3 (7.1)	39.5 (7.4)	- -	- -	39.5 (7.4)	44.4 (12.4)	- -	- -	44.4 (12.4)
Construction investment	265.2 (-1.7)	264.1 (-0.4)	54.8 (4.4)	- -	- -	54.8 (4.4)	53.8 (-1.8)	- -	- -	53.8 (-1.8)
Consumer price index (2015=100)	104.9	105.4	105.7	105.8	105.8	105.5	106.9	106.5	107.0	107.2
USD to KRW exchange rate (won)	1 165.4	1 180.3	1 192.7	1 164.3	1 193.8	1 220.1	1 113.4	1 097.5	1 111.7	1 131.0
Benchmark rate (%)	1.6	0.7	1.1	1.3	1.3	0.8	0.5	0.5	0.5	0.5
Coincident composite index (2015=100)	111.7	112.3	113.0	113.8	113.2	112.1	114.4	113.9	114.3	115.1
Mining & manufacturing production index (2015=100)	106.7	106.3	105.2	102.2	99.7	113.6	109.8	110.2	100.5	118.6
Manufacturing operation ratio index (2015=100)	98.4	95.6	95.0	91.5	90.2	103.3	96.5	96.6	88.5	104.5
Average temperature	13.5	13.2	4.8	2.8	3.6	7.9	3.9	-0.7	3.7	8.9
- year-on-year difference	0.5	-0.3	1.4	2.5	1.3	0.4	-0.9	-3.6	0.0	1.0
Heating degree days	2 342.9 (-9.8)	2 382.7 (1.7)	1 199.3 (-8.5)	470.9 (-14.1)	416.2 (-4.8)	312.2 (-3.9)	1 264.3 (5.4)	581.1 (23.4)	401.7 (-3.5)	281.5 (-9.8)
Cooling degree days	120.4 (-42.4)	92.5 (-23.2)	- -	- -	- -	- -	- -	- -	- -	- -
Energy intensity	0.16 (-3.6)	0.16 (-3.3)	0.17 (-6.0)	- -	- -	0.17 (-6.0)	0.17 (0.7)	- -	- -	0.17 (0.7)
Per capita consumption										
oil (bbl)	17.9 (-0.7)	16.9 (-5.9)	4.3 (-5.1)	1.6 (-5.4)	1.4 (-2.2)	1.4 (-7.5)	4.3 (0.1)	1.5 (-6.5)	1.4 (0.3)	1.5 (7.5)
Electricity (MWh)	10.1 (-1.3)	9.8 (-2.3)	2.6 (-1.9)	0.9 (-4.9)	0.9 (0.2)	0.8 (-0.6)	2.6 (2.4)	0.9 (5.2)	0.9 (1.5)	0.8 (0.4)
City gas (1 000 m ³)	0.5 (-4.3)	0.4 (-3.6)	0.2 (-5.2)	0.1 (-9.0)	0.1 (-2.6)	0.0 (-3.0)	0.2 (8.9)	0.1 (18.4)	0.1 (6.0)	0.0 (0.2)
Total energy (toe)	5.9 (-1.6)	5.6 (-4.2)	1.5 (-4.7)	0.5 (-7.0)	0.5 (-1.6)	0.5 (-5.2)	1.5 (2.6)	0.5 (3.9)	0.5 (-1.0)	0.5 (4.8)

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)

	2019	2020					2021			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Industrial production index										
All industry	108.6 (0.9)	107.3 (-1.2)	105.0 (1.4)	104.6 (-0.8)	100.8 (4.8)	109.6 (0.6)	107.8 (2.6)	106.2 (1.5)	101.2 (0.4)	115.9 (5.7)
Mining & manufacturing	106.7 (0.3)	106.3 (-0.3)	105.2 (4.6)	102.2 (-3.3)	99.7 (11.0)	113.6 (7.0)	109.8 (4.4)	110.2 (7.8)	100.5 (0.8)	118.6 (4.4)
Semiconductor	188.0 (11.7)	230.6 (22.6)	211.5 (41.3)	203.9 (37.5)	204.2 (44.5)	226.5 (42.1)	257.9 (21.9)	244.7 (20.0)	244.8 (19.9)	284.2 (25.5)
Iron & steel	98.3 (-2.2)	92.1 (-6.3)	96.7 (-1.5)	94.7 (-8.9)	95.3 (6.7)	100.1 (-1.3)	94.9 (-1.9)	96.4 (1.8)	89.1 (-6.5)	99.2 (-0.9)
Cement	94.3 (-5.7)	86.6 (-8.2)	77.5 (-6.6)	66.8 (-19.4)	72.2 (9.1)	93.5 (-6.3)	79.8 (3.0)	67.5 (1.0)	71.2 (-1.4)	100.8 (7.8)
Basic compound	108.9 (-1.4)	102.3 (-6.0)	109.7 (0.3)	114.7 (-0.2)	108.0 (4.8)	106.3 (-3.3)	107.9 (-1.6)	108.1 (-5.8)	103.3 (-4.4)	112.4 (5.7)
Transport equipment	93.4 (-0.6)	84.1 (-9.9)	81.5 (-10.1)	77.3 (-21.2)	65.2 (-13.6)	101.9 (3.8)	90.6 (11.3)	91.1 (17.9)	79.5 (21.9)	101.3 (-0.6)
Electric & electronic	109.6 (2.9)	108.7 (-0.8)	103.1 (1.5)	98.4 (-6.5)	97.3 (7.6)	113.5 (4.2)	109.8 (6.5)	109.1 (10.9)	97.4 (0.1)	122.9 (8.3)
Service	108.4 (1.4)	106.2 (-2.0)	103.6 (-1.0)	106.7 (0.9)	100.7 (1.3)	103.4 (-4.9)	105.9 (2.3)	104.8 (-1.8)	101.5 (0.8)	111.5 (7.8)
Wholesale and retail	104.6 (-0.4)	101.9 (-2.6)	98.8 (-3.0)	103.1 (-2.0)	92.3 (-0.2)	100.9 (-6.5)	101.9 (3.2)	101.0 (-2.0)	95.3 (3.3)	109.4 (8.4)
Food & Accommodation	97.5 (-1.0)	79.5 (-18.5)	77.6 (-16.5)	94.7 (-2.2)	73.9 (-14.9)	64.2 (-32.6)	67.4 (-13.2)	59.9 (-36.7)	65.6 (-11.2)	76.6 (19.3)
Production output										
Iron & steel - Pig iron	47 520.7 (0.8)	45 359.6 (-4.5)	11 213.6 (-4.5)	3 959.9 (-1.3)	3 575.2 (-2.4)	3 678.5 (-9.5)	11 822.1 (5.4)	4 113.5 (3.9)	3 724.9 (4.2)	3 983.7 (8.3)
Iron & steel - Crude steel	71 411.9 (-1.5)	67 078.8 (-6.1)	16 940.9 (-4.8)	5 739.9 (-8.2)	5 417.4 (2.8)	5 783.6 (-7.8)	17 594.2 (3.9)	6 042.6 (5.3)	5 489.5 (1.3)	6 062.1 (4.8)
Petrochemical - Basic oil	31 804.1 (2.1)	30 323.6 (-4.7)	8 161.6 (2.6)	2 913.9 (3.3)	2 629.1 (3.6)	2 618.7 (0.8)	8 031.3 (-1.6)	2 597.4 (-10.9)	2 605.7 (-0.9)	2 828.2 (8.0)
Petrochemical - Intermediate raw material	16 014.0 (-5.7)	15 355.4 (-4.1)	4 165.0 (0.2)	1 459.4 (-2.3)	1 367.9 (1.5)	1 337.7 (1.8)	4 048.0 (-2.8)	1 338.8 (-8.3)	1 300.1 (-5.0)	1 409.0 (5.3)
Petrochemical - 3 major products	21 584.6 (-1.0)	21 252.7 (-1.5)	5 585.6 (0.4)	1 913.7 (-2.8)	1 811.4 (4.6)	1 860.4 (-0.2)	5 532.3 (-1.0)	1 866.9 (-2.4)	1 746.0 (-3.6)	1 919.5 (3.2)
The number of cars	3 950.6 (-1.9)	3 506.8 (-11.2)	809.8 (-15.4)	251.6 (-29.0)	189.2 (-26.4)	369.0 (6.7)	908.8 (12.2)	314.2 (24.9)	260.8 (37.8)	333.9 (-9.5)

Note: p means provisional

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

International Energy Prices

	2019	2020					2021			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Crude oil (USD/bbl)										
WTI	57.0 (-11.9)	39.4 (-30.9)	46.2 (-15.9)	57.5 (11.6)	50.5 (-8.1)	30.5 (-47.7)	57.8 (25.3)	52.1 (-9.4)	59.1 (16.9)	62.4 (104.8)
Dubai	63.5 (-8.5)	42.2 (-33.6)	50.8 (-20.1)	64.3 (8.9)	54.2 (-16.0)	33.7 (-49.6)	60.1 (18.3)	54.8 (-14.8)	60.9 (12.3)	64.4 (91.2)
Brent	64.2 (-10.3)	43.2 (-32.7)	51.0 (-20.3)	63.7 (5.7)	55.5 (-13.9)	33.7 (-49.7)	61.1 (19.9)	55.3 (-13.1)	62.3 (12.3)	65.7 (94.8)
Unit value of import (C&F)	65.5 (-8.2)	44.8 (-31.7)	62.1 (-2.3)	69.1 (12.1)	64.2 (1.7)	52.8 (-19.7)	58.3 (-6.1)	52.7 (-23.7)	58.3 (-9.3)	63.8 (20.7)
LNG										
From Indonesia (USD/MMBTU)	10.6 (-1.0)	8.3 (-21.3)	10.0 (-14.6)	9.9 (-17.7)	9.9 (-16.2)	10.2 (-9.6)	8.9 (-10.7)	9.0 (-8.9)	9.9 (-0.2)	7.9 (-22.7)
Unit value of import (USD/ton, CIF)	505.4 (-4.0)	390.2 (-22.8)	459.7 (-21.9)	470.2 (-19.9)	446.9 (-27.3)	462.0 (-18.0)	461.0 (0.3)	413.4 (-12.1)	531.3 (18.9)	438.3 (-5.1)
Bituminous coal (USD/ton)										
From Australia	77.9 (-27.2)	60.8 (-22.0)	68.0 (-28.9)	69.7 (-29.3)	67.6 (-29.1)	66.7 (-28.3)	89.5 (31.6)	86.8 (24.6)	86.7 (28.2)	94.9 (42.2)
Unit value of import (CIF)	100.7 (-11.3)	77.7 (-22.9)	87.5 (-20.5)	86.7 (-18.7)	85.8 (-22.3)	89.9 (-20.4)	81.8 (-6.5)	76.3 (-12.0)	79.5 (-7.3)	89.6 (-0.4)
Petroleum product (USD/bbl)										
Gasoline	72.5 (-9.3)	46.7 (-35.7)	57.4 (-14.6)	71.3 (16.8)	64.5 (-2.7)	36.4 (-51.0)	67.2 (17.0)	60.1 (-15.7)	67.9 (5.4)	73.5 (101.6)
Kerosene	77.3 (-8.9)	44.7 (-42.1)	59.3 (-22.6)	75.4 (5.0)	63.1 (-19.0)	39.3 (-50.8)	63.3 (6.9)	58.0 (-23.0)	65.2 (3.3)	66.8 (69.9)
Diesel	78.2 (-7.9)	49.4 (-36.8)	62.7 (-19.2)	76.5 (5.4)	66.0 (-16.4)	45.5 (-43.9)	65.9 (5.1)	60.0 (-21.6)	67.9 (3.0)	69.7 (53.3)
Bunker-C	57.5 (-11.8)	39.2 (-31.9)	43.4 (-30.8)	51.9 (-10.2)	46.7 (-27.0)	31.5 (-52.5)	56.6 (30.6)	51.5 (-0.9)	57.6 (23.4)	60.7 (93.0)
Propane	434.6 (-19.8)	397.1 (-8.6)	500.0 (10.3)	565.0 (31.4)	505.0 (14.8)	430.0 (-12.2)	593.3 (18.7)	550.0 (-2.7)	605.0 (19.8)	625.0 (45.3)
Butane	441.7 (-18.1)	403.8 (-8.6)	538.3 (14.5)	590.0 (40.5)	545.0 (16.0)	480.0 (-7.7)	570.0 (5.9)	530.0 (-10.2)	585.0 (7.3)	595.0 (24.0)
Naphtha	56.9 (-15.1)	40.5 (-28.9)	47.8 (-14.7)	60.9 (17.8)	52.3 (-7.2)	30.3 (-49.6)	60.7 (26.9)	55.6 (-8.6)	61.6 (17.8)	64.8 (114.0)

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			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Petroleum product										
Gasoline (won/liter)	1 471.9 (-6.9)	1 381.6 (-6.1)	1 527.6 (12.8)	1 568.4 (16.1)	1 545.3 (15.0)	1 469.1 (7.3)	1 472.8 (-3.6)	1 441.8 (-8.1)	1 463.2 (-5.3)	1 513.3 (3.0)
Diesel (won/liter)	1 340.1 (-3.7)	1 189.8 (-11.2)	1 349.7 (7.6)	1 398.4 (11.9)	1 369.9 (10.2)	1 280.8 (0.9)	1 272.8 (-5.7)	1 242.4 (-11.2)	1 263.4 (-7.8)	1 312.6 (2.5)
Bunker-C (won/liter)	743.9 (1.2)	573.6 (-22.9)	735.7 (6.3)	706.5 (3.0)	797.7 (19.8)	703.1 (-2.9)	617.1 (-16.1)	545.5 (-22.8)	619.6 (-22.3)	686.0 (-2.4)
Propane (won/kg)	1 869.7 (-2.6)	1 850.7 (-1.0)	1 944.1 (4.3)	1 887.6 (1.2)	1 971.5 (5.8)	1 973.2 (5.8)	1 949.9 (0.3)	1 868.1 (-1.0)	1 952.5 (-1.0)	2 029.2 (2.8)
Butane (won/liter)	806.2 (-7.8)	791.1 (-1.9)	856.5 (7.2)	820.8 (2.4)	874.5 (9.5)	874.3 (9.6)	847.9 (-1.0)	797.2 (-2.9)	847.8 (-3.0)	898.6 (2.8)
City gas(won/MJ)										
Residential	15.6 (3.9)	15.1 (-3.6)	15.9 (3.8)	15.9 (3.8)	15.9 (3.8)	15.9 (3.8)	14.2 (-10.7)	14.2 (-10.7)	14.2 (-10.7)	14.2 (-10.7)
General(1)	15.6 (4.9)	14.9 (-4.7)	16.0 (1.5)	16.0 (1.5)	16.0 (1.5)	16.0 (1.5)	14.0 (-12.3)	14.0 (-12.3)	14.0 (-12.3)	14.0 (-12.3)
Commercial	16.1 (4.4)	15.1 (-6.4)	16.5 (4.7)	16.5 (4.7)	16.5 (4.7)	16.5 (4.7)	14.9 (-9.6)	14.0 (-15.0)	14.8 (-10.1)	15.9 (-3.7)
Industry	13.8 (6.0)	12.6 (-8.4)	14.5 (5.2)	14.5 (5.2)	14.5 (5.2)	14.5 (5.2)	12.9 (-11.6)	12.0 (-17.8)	12.8 (-12.2)	13.8 (-4.9)
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 -	83.3 -	92.3 -	92.3 -	65.2 -	78.3 (-6.0)	87.3 (-5.4)	87.3 (-5.4)	60.2 (-7.7)
Industry	96.0 -	96.0 -	98.5 -	108.5 -	108.5 -	78.5 -	93.5 (-5.1)	103.5 (-4.6)	103.5 (-4.6)	73.5 (-6.4)

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

2.Electricity prices are based on Residential(High-voltage, 201~400kWh), General((A) I, Low-voltage), Industry((B), High-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			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Coal (Mton)	133.0 (-5.7)	116.6 (-12.4)	28.9 (-14.5)	10.7 (-13.6)	9.3 (-15.8)	8.9 (-14.4)	28.0 (-3.0)	10.5 (-1.3)	8.5 (-8.1)	8.9 (0.4)
- Coking coal excluded	98.0 (-7.9)	82.8 (-15.6)	20.3 (-19.2)	7.8 (-17.7)	6.6 (-20.7)	6.0 (-19.3)	19.1 (-6.1)	7.6 (-2.6)	5.7 (-13.0)	5.8 (-3.1)
Oil (Mbbbl)	927.1 (-0.5)	873.3 (-5.8)	223.6 (-4.9)	80.7 (-5.2)	71.9 (-2.1)	71.0 (-7.4)	224.0 (0.2)	75.5 (-6.4)	72.1 (0.4)	76.4 (7.6)
- Non-energy oil excluded	451.8 (1.4)	424.7 (-6.0)	105.3 (-9.5)	38.3 (-10.7)	33.7 (-4.5)	33.3 (-12.6)	105.0 (-0.3)	37.3 (-2.7)	34.1 (1.2)	33.6 (1.0)
LNG (Mton)	41.0 (-3.1)	41.4 (1.1)	13.3 (2.5)	4.9 (-2.4)	4.4 (7.5)	4.0 (3.6)	14.5 (9.6)	5.8 (17.5)	4.5 (1.6)	4.3 (8.6)
Hydro (TWh)	6.2 (-14.1)	7.1 (14.4)	1.6 (9.2)	0.5 (-1.1)	0.5 (12.1)	0.5 (18.4)	1.5 (-5.8)	0.5 (-4.0)	0.5 (-9.5)	0.5 (-4.1)
Nuclear (TWh)	145.9 (9.3)	160.2 (9.8)	39.1 (4.6)	11.9 (-2.9)	12.7 (15.0)	14.5 (3.1)	40.6 (3.9)	14.0 (18.0)	12.7 (0.3)	13.8 (-4.6)
Others (Mtoe)	17.7 (3.3)	18.4 (4.0)	4.5 (3.2)	1.4 (-5.1)	1.5 (8.3)	1.6 (6.7)	4.9 (7.5)	1.6 (9.5)	1.5 (4.1)	1.8 (8.8)
TPES (Mtoe)	303.1 (-1.5)	290.8 (-4.0)	76.5 (-4.6)	27.2 (-6.9)	24.9 (-1.5)	24.5 (-5.1)	78.6 (2.6)	28.3 (3.9)	24.6 (-1.0)	25.7 (4.9)
- Non-energy oil excluded	244.0 (-1.3)	234.9 (-3.7)	61.9 (-5.5)	22.0 (-8.5)	20.1 (-1.8)	19.8 (-5.7)	63.7 (3.0)	23.5 (7.0)	19.9 (-1.3)	20.3 (2.7)
- Non-energy oil&coal excluded	219.6 (-1.5)	211.3 (-3.8)	55.9 (-5.9)	19.9 (-9.2)	18.2 (-1.9)	17.8 (-6.1)	57.5 (2.8)	21.4 (7.5)	17.9 (-1.8)	18.2 (2.1)

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

Share of TPES by Sources

(unit: %)

	2019	2020p					2021p			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Coal	27.1	24.9	23.4	24.2	23.3	22.7	22.2	23.1	21.8	21.7
- Coking coal excluded	19.1	16.8	15.7	16.8	15.7	14.5	14.3	15.7	13.8	13.3
Oil	38.7	37.9	36.7	37.1	36.4	36.5	36.0	33.7	37.0	37.6
- non-energy oil excluded	19.2	18.7	17.6	17.8	17.5	17.4	17.1	16.8	17.7	16.8
LNG	17.7	18.6	22.6	23.6	23.1	21.1	24.2	26.7	23.7	21.9
Hydro	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4
Nuclear	10.3	11.7	10.9	9.3	10.9	12.6	11.0	10.6	11.0	11.5
Others	5.8	6.3	5.9	5.3	5.9	6.7	6.2	5.6	6.2	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			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Industry	142.9 (-0.4)	137.4 (-3.8)	35.4 (-0.9)	12.5 (-0.2)	11.2 (-1.2)	11.7 (-1.2)	35.9 (1.4)	12.2 (-2.8)	11.3 (0.5)	12.5 (6.6)
Transport	43.0 (0.0)	38.9 (-9.4)	9.2 (-14.2)	3.2 (-16.1)	3.1 (-5.2)	2.9 (-20.4)	9.1 (-1.0)	3.0 (-5.7)	3.0 (-3.7)	3.1 (7.1)
Residential	22.6 (-3.6)	23.2 (2.7)	8.6 (-4.1)	3.2 (-9.8)	2.9 (-3.3)	2.5 (3.6)	9.5 (9.8)	3.9 (22.0)	3.2 (7.3)	2.4 (-3.0)
eCommercial	17.5 (-2.3)	17.1 (-2.2)	5.0 (-3.9)	1.8 (-6.4)	1.7 (-2.8)	1.4 (-1.7)	5.2 (3.5)	2.0 (6.1)	1.7 (1.9)	1.5 (2.0)
Public	5.4 (-3.2)	5.4 (-0.4)	1.5 (-1.7)	0.5 (-5.5)	0.5 (3.0)	0.4 (-1.7)	1.6 (6.4)	0.6 (8.4)	0.5 (2.8)	0.5 (7.8)
TFC	231.4 (-0.9)	222.0 (-4.0)	59.8 (-3.9)	21.3 (-5.1)	19.5 (-2.2)	19.0 (-4.2)	61.3 (2.5)	21.7 (1.6)	19.7 (1.0)	19.9 (5.1)
Coal (Mton)	48.2 (-2.2)	45.8 (-4.9)	11.4 (-5.8)	4.0 (1.7)	3.5 (-12.6)	3.9 (-6.5)	11.8 (3.7)	4.1 (1.5)	3.5 (0.0)	4.2 (9.3)
Oil (Mbbbl)	918.5 (-0.2)	867.1 (-5.6)	221.9 (-4.3)	79.9 (-4.9)	71.4 (-1.7)	70.6 (-6.2)	221.1 (-0.4)	73.9 (-7.5)	71.3 (-0.2)	75.9 (7.6)
Electricity (TWh)	520.5 (-1.1)	509.3 (-2.2)	133.7 (-1.8)	46.3 (-4.8)	44.5 (0.3)	42.9 (-0.5)	137.0 (2.5)	48.8 (5.2)	45.2 (1.5)	43.1 (0.5)
City gas (Bm ³)	23.3 (-4.1)	22.5 (-3.4)	8.3 (-5.0)	3.1 (-8.9)	2.8 (-2.4)	2.4 (-2.8)	9.1 (9.0)	3.6 (18.5)	3.0 (6.0)	2.4 (0.3)
Heat-others (1 000 toe)	11.6 (-2.0)	11.4 (-0.9)	3.4 (-1.9)	1.2 (-5.8)	1.1 (0.8)	1.0 (-0.0)	3.6 (5.8)	1.4 (13.7)	1.1 (0.4)	1.1 (2.4)

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

Share of the Total Final Consumption by Sources

(unit: %)

	2019	2020p					2021p			
			M1~3	M1	M2	M3	M1~3	M1	M2	M3
Industry	61.8	61.9	59.3	58.7	57.6	61.7	58.6	56.1	57.3	62.5
Transport	18.6	17.5	15.4	15.0	15.9	15.4	14.9	13.9	15.2	15.6
Residential	9.8	10.5	14.5	15.2	15.1	13.0	15.5	18.2	16.1	12.0
Commercial	7.6	7.7	8.4	8.6	8.7	7.6	8.4	9.0	8.8	7.4
Public	2.3	2.4	2.5	2.6	2.6	2.4	2.6	2.7	2.6	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	13.8	12.8	12.6	12.1	13.6	12.9	12.6	12.1	14.1
Oil	50.2	49.3	46.6	46.9	46.2	46.8	45.6	43.1	45.7	48.1
Electricity	19.3	19.7	19.2	18.7	19.6	19.4	19.2	19.4	19.7	18.6
City gas	11.6	12.0	15.7	16.2	16.3	14.6	16.5	18.5	16.8	13.9
Heat-others	5.0	5.2	5.7	5.7	5.7	5.5	5.8	6.4	5.7	5.4

Note: p means provisional
Source: Monthly energy statistics

Statistics on Energy Production Facilities

	2018	2019	2020	2021			M1	M2	M3
				M1	M2	M3			
Total capacity (GW)	119.1 (1.9)	125.3 (5.2)	129.2 (3.1)	125.4 (5.0)	125.9 (5.5)	125.9 (5.1)	128.8 (2.8)	129.1 (2.6)	129.4 (2.8)
Nuclear	21.9 (-3.0)	23.3 (6.4)	23.3 -	23.3 (6.4)	23.3 (6.4)	23.3 (6.4)	23.3 -	23.3 -	23.3 -
Bituminous coal	36.4 (0.7)	36.4 (0.1)	36.5 (0.1)	36.5 (0.1)	36.5 (0.1)	36.5 (0.1)	35.5 (-2.7)	35.5 (-2.7)	35.5 (-2.7)
Gas	37.9 (17.4)	39.6 (4.5)	41.2 (4.1)	41.2 (8.5)	41.2 (8.5)	41.2 (8.5)	41.2 -	41.2 -	41.2 -
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			M1	M2	M3
				M1	M2	M3			
The number of household demanding city gas (mil)	19.1 (3.1)	19.7 (2.8)	20.1 (2.3)	19.7 (2.3)	19.8 (2.4)	19.8 (2.4)	20.2 (2.6)	20.3 (2.5)	20.3 (2.5)
Registered cars (mil)	23.2 (3.0)	23.7 (2.0)	24.4 (2.9)	23.7 (2.0)	23.7 (1.9)	23.8 (2.0)	24.4 (3.0)	24.5 (3.1)	24.5 (3.1)
- gasoline	10.6 (2.5)	11.0 (3.1)	11.4 (4.1)	11.0 (3.1)	11.0 (3.1)	11.0 (3.3)	11.4 (4.2)	11.5 (4.2)	11.5 (4.1)
- diesel	9.9 (3.7)	10.0 (0.3)	10.0 (0.3)	10.0 (0.0)	10.0 (-0.1)	10.0 (-0.1)	10.0 (0.4)	10.0 (0.5)	10.0 (0.5)
- LPG	2.0 (-3.3)	2.0 (-1.5)	2.0 (-1.3)	2.0 (-1.1)	2.0 (-1.0)	2.0 (-0.7)	2.0 (-1.5)	2.0 (-1.6)	2.0 (-1.8)
- hybrid	0.4 (30.9)	0.5 (26.1)	0.6 (33.1)	0.5 (25.1)	0.5 (24.3)	0.5 (24.2)	0.7 (34.6)	0.7 (36.1)	0.7 (37.1)

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