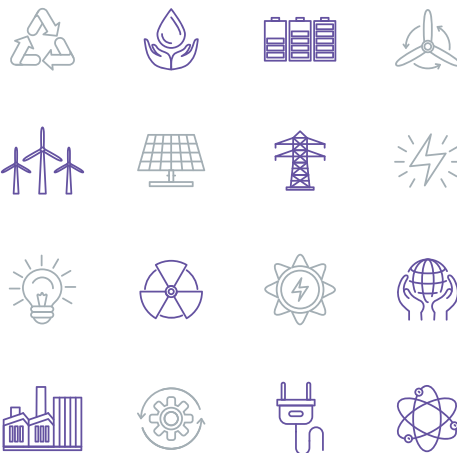


KEEI

MONTHLY

KOREA ENERGY TRENDS



COAL -6.1%
PETROLEUM 10.3%
LNG 15.5%
NUCLEAR -8.3%
NEW & RENEWABLE 5.9%
APRIL, 2021

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



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1. The Economy and the Industry

- **The mining & manufacturing production index in April posted a year-on-year increase of 12.6% as the economy started to show signs of recovery, giving a boost to production activities**
 - The semiconductor production index skyrocketed by 29.8% year-on-year as 'contact-free' environment including working from home and online classes continued to become the new normal and the demand for semiconductor got stronger in emerging sectors such as 5G, AI, IoT and self-driving automobile
 - The basic chemical production index grew by 9.9% year-on-year, driven by an increase in demand for petrochemical products
 - The steel production index increased by 5.9% year-on-year as steel product exports jumped up by 11.7% and the domestic demand began recovering
 - Although some plants stopped operation, the automobile production index soared by 20.1% due to strong sales of new and eco-friendly car models
- **In spite of the spread of COVID-19 pandemic, the service production index grew by 8.3% year-on-year with production activities picking up**
 - In the service sector, production activities became buoyant due to the base effect from the decrease in production activity a year earlier and the increased opening hours of multi-purpose facilities, although Social Distancing regulations were retained with COVID-19 pandemic showing no signs of abating

► Major economic and industrial indicators

	2020	2021p					
		M1~4	M4	M1~4	M2	M3	M4
GDP (trillion won)	1 836.9	443.7	-	452.3	-	452.3	-
	(-0.9)	(1.5)	-	(1.9)	-	(1.9)	-
Total export (\$billion, customs clearance basis)	512.5	166.5	36.3	197.7	44.7	53.7	51.2
	(-5.1)	(-8.3)	(-25.6)	(18.8)	(9.3)	(16.4)	(41.2)
Industrial production index (2015=100)	106.3	104.3	101.6	111.0	100.5	118.8	114.4
	(-0.3)	(2.0)	(-5.2)	(6.4)	(0.8)	(4.6)	(12.6)
Semi-conductors	230.6	206.7	192.1	255.8	244.8	284.2	249.4
	(22.6)	(34.8)	(16.9)	(23.8)	(19.9)	(25.5)	(29.8)
Basic chemical products	102.3	106.7	97.7	107.8	103.3	112.4	107.4
	(-6.0)	(-1.3)	(-6.4)	(1.1)	(-4.4)	(5.7)	(9.9)
Iron&Steel	92.1	95.9	93.5	95.9	89.1	99.1	99.0
	(-6.3)	(-2.9)	(-6.8)	-	(-6.5)	(-1.0)	(5.9)
Cars	84.1	81.5	81.6	92.5	79.5	101.3	98.0
	(-9.9)	(-12.8)	(-20.2)	(13.5)	(21.9)	(-0.6)	(20.1)
Service production index (2015=100)	106.2	103.0	101.1	106.8	101.5	111.5	109.5
	(-2.0)	(-2.3)	(-6.1)	(3.7)	(0.8)	(7.8)	(8.3)
Wholesale & Retail	101.9	98.5	97.8	103.1	95.3	109.3	106.9
	(-2.6)	(-4.1)	(-7.3)	(4.7)	(3.3)	(8.3)	(9.3)
Restaurant & Accommodation	79.5	76.3	72.5	70.2	65.6	76.6	78.6
	(-18.5)	(-18.6)	(-24.6)	(-8.1)	(-11.2)	(19.3)	(8.4)

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

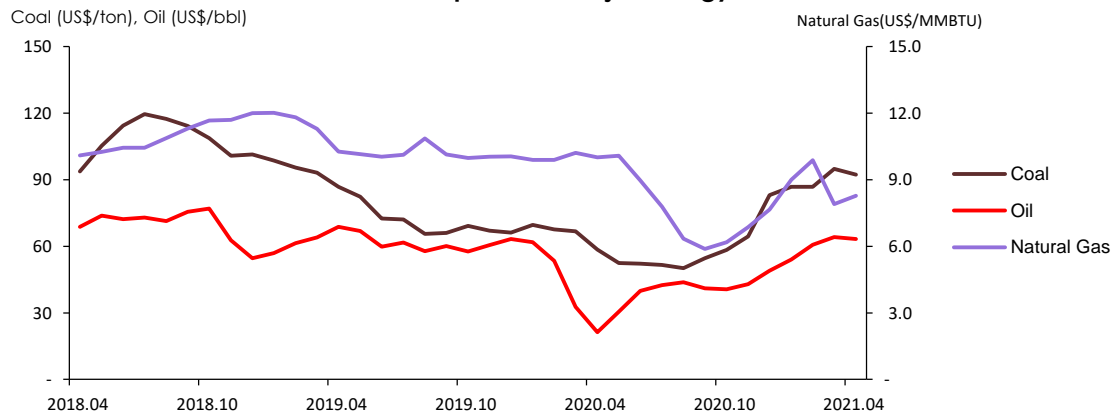
- **Global average crude oil price in April posted a month-on-month decline of 1.3% driven by the production increase by OPEC+ countries and resurgence of COVID-19 pandemic**
 - Global oil price in April witnessed a drop as OPEC+ countries decided to boost oil production and the resurgence of COVID-19 pandemic caused concerns about a possible decrease in oil demand. However, the instable situation in the Middle East put limits on the fall
 - Global coal price decreased by 2.8% month-on-month as the import volume of metallurgical coal shrank due to the second wave of COVID-19 pandemic in India

► Global energy prices

	2019	2020	2021			2021		
			M2	M3	M4	M2	M3	M4
Crude oil (US\$/bbl)	61.6	41.6	53.4	32.6	21.2	60.7	64.2	63.3
	(-10.2)	(-32.4)	(-12.9)	(-49.1)	(-69.1)	(13.7)	(96.6)	(198.1)
Natural gas (US\$/MMBTU)	10.6	8.3	9.9	10.2	10.0	9.9	7.9	8.3
	(-1.1)	(-21.3)	(-16.2)	(-9.6)	(-2.5)	(-0.2)	(-22.7)	(-17.3)
Coal (US\$/ton)	77.8	60.8	67.6	66.7	58.6	86.7	94.9	92.2
	(-27.3)	(-21.9)	(-29.1)	(-28.3)	(-32.5)	(28.2)	(42.2)	(57.5)

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 April went up by 1.4% and 1.5% month-on-month, respectively, driven by the continuous impact of the increase in global oil prices

- Despite decreased global oil price, the average price of gasoline and diesel at gas stations increased. Fluctuations in global oil price take time to be reflected in domestic prices. On a year-on-year basis, the prices grew by 15.9% and 17.7%, respectively, due to the base effect from the plunge in oil prices in April last year.
- Bunker-C oil price in April rose by 6.4% month-on-month. Similarly, they skyrocketed by 36.0% year-on-year driven by the base effect from the dramatic fall in oil prices in 2020.

□ With LPG supply price getting frozen, propane and butane prices in April stayed at March level although global prices rose a month earlier

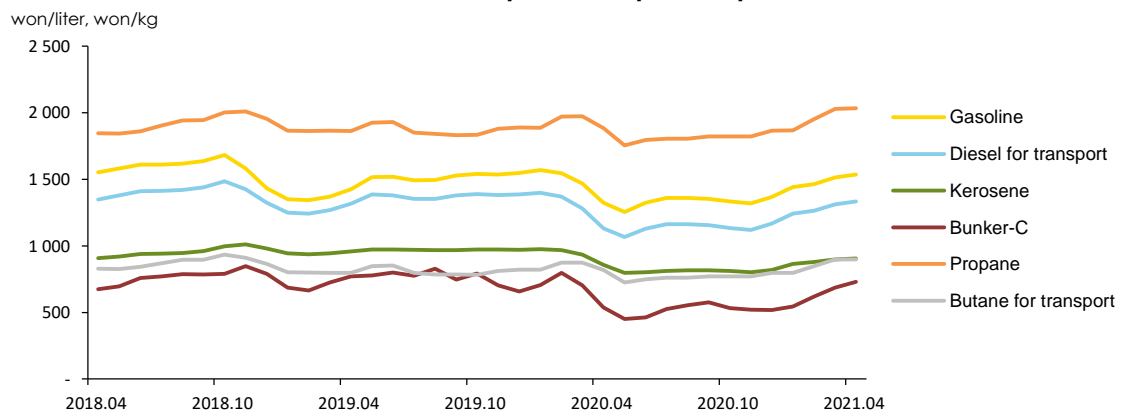
- A possible increase factor which could raise the domestic LPG supply prices by around 30KRW/kg took place as Saudi Aramco raised global propane and butane prices by 3.3% and 1.7% in March, respectively, from a month earlier. However, LPG supply prices were frozen.

► Domestic petroleum product prices

	2019	2020				2021		
			M2	M3	M4	M2	M3	M4
Gasoline (won/liter)	1 472.6 (-6.9)	1 381.2 (-6.2)	1 545.3 (15.0)	1 469.1 (7.3)	1 323.7 (-7.1)	1 463.2 (-5.3)	1 513.3 (3.0)	1 534.5 (15.9)
Diesel for transport (won/liter)	1 340.6 (-3.7)	1 189.5 (-11.3)	1 369.9 (10.2)	1 280.8 (0.9)	1 132.4 (-14.0)	1 263.4 (-7.8)	1 312.6 (2.5)	1 332.7 (17.7)
Bunker-C (won/liter)	744.5 (1.3)	572.9 (-23.0)	797.7 (19.8)	703.1 (-2.9)	536.7 (-30.4)	619.6 (-22.3)	686.0 (-2.4)	730.1 (36.0)
Propane (won/kg)	1 869.6 (-2.6)	1 850.3 (-1.0)	1 971.5 (5.8)	1 973.2 (5.8)	1 885.5 (1.2)	1 952.5 (-1.0)	2 029.2 (2.8)	2 032.9 (7.8)
Butane for transport (won/liter)	806.3 (-7.8)	790.8 (-1.9)	874.5 (9.5)	874.3 (9.6)	818.4 (2.8)	847.8 (-3.0)	898.6 (2.8)	899.2 (9.9)

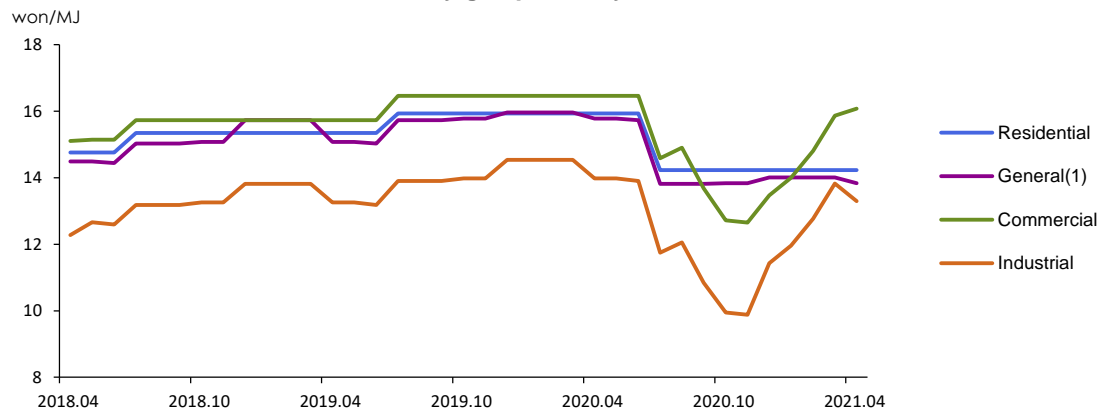
Note: Gasoline, diesel and butane is based on charging station prices, Bunker-C is based on dealership prices, propane is based on sales shop prices. () is year-on-year growth rates (%)
Source: www.opinet.co.kr

► Domestic petroleum product prices



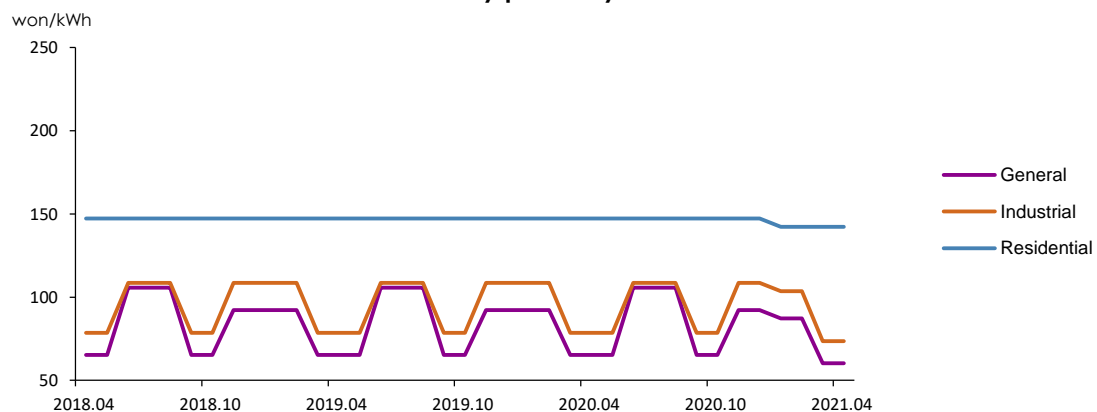
- For city gas prices in April, the price for commercial use showed a month-on-month increase of 1.4% while the prices for general use and industrial use dropped by 1.2% and 3.8%, respectively
- As the electricity prices were fixed in the second quarter, it remained at the level reflecting the drop of 2.7KRW/kWh under the implementation of Fuel Adjustment Mechanism (FAM)
 - 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
 - With Fuel Adjustment Mechanism (FAM) starting from January 1, 2021, Climate Environment Cost of 5KRW/kWh was separated from the existing electricity price to form a new price category of Climate Environmental Price of 5.3KRW/kWh. The actual electricity prices fell by 2.7KRW/kWh from the previous month as Fuel Cost Adjustment rate was reduced by 3KRW/kWh

► City gas prices by end-use sectors



Source: Seoulgas

► Electricity prices by end-use sectors



Note: The electricity prices by end-use sectors refer to the prices for residential use ([high voltage], the 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

- **Although the import volume of crude oil and petroleum products increased, the total energy import volume in April declined by 3.8% year-on-year due to a drop in coal and LNG imports**
- The volume of crude oil imports went up by 1.3% with the import of low-sulfur light crude oil increasing. The share of Middle Eastern crude oil imports dropped by 7.7%p
 - With the import volume of Bunker-C and naphtha increasing by 94.6% and 26.8%, respectively, the total volume of petroleum product imports posted a year-on-year increase although LPG decreased by 2.6%
 - The import volume of bituminous coal plunged by 23.0% year-on-year as the consumption of bituminous coal, especially steam coal continued to decrease
 - The import volume of LNG dropped by 8.3% year-on-year with LNG imports from Qatar, United States and other countries declining
 - In spite of a decrease in natural gas imports, the energy import value dramatically went up by 49.6% year-on-year due to the increased volume and unit cost of imports

► Import and domestic production of energy

	2020			2021p			
		M1~4	M4	M1~4	M2	M3	M4
Import volume							
Crude oil (Mbbbl)	980.3 (-8.6)	345.4 (-7.7)	82.3 (-14.0)	307.1 (-11.1)	75.0 (-13.1)	71.9 (-14.5)	83.4 (1.3)
Petroleum product (Mbbbl)	347.3 (-1.4)	127.6 (24.0)	24.8 (-5.2)	118.6 (-7.1)	30.0 (-5.3)	29.1 (-8.2)	30.6 (23.3)
Bituminous coal (Mton)	115.5 (-13.0)	37.2 (-11.1)	9.9 (-1.6)	33.7 (-9.4)	7.9 (-5.9)	9.4 (9.4)	7.6 (-23.0)
Anthracite (Mton)	6.3 (-8.3)	2.0 (-19.3)	0.6 (6.0)	2.1 (1.8)	0.2 (-28.0)	0.6 (34.3)	0.5 (-4.1)
LNG (Mton)	40.0 (-1.8)	15.5 (13.1)	3.1 (-7.6)	16.6 (7.2)	5.2 (9.3)	4.2 (18.4)	2.8 (-8.3)
Import volume (Mtoe)	325.4 (-6.8)	114.1 (-0.2)	26.0 (-7.0)	107.8 (-5.6)	27.2 (-5.8)	27.8 (-0.3)	25.0 (-3.8)
Import value (billion US\$, CIF)	86.4 (-31.8)	37.9 (-12.6)	6.5 (-41.7)	36.6 (-3.5)	9.5 (-10.4)	9.3 (7.3)	9.7 (49.6)
Energy share of total import value (%)	18.4	23.7	17.0	19.6	22.5	18.7	19.0
Foreign energy dependence (%)	92.9	93.1	92.0	92.9	93.3	92.6	92.0
Domestic production							
Hydropower (TWh)	7.1 (14.4)	2.1 (5.8)	0.5 (-3.5)	2.1 (-2.3)	0.5 (-9.5)	0.5 (-4.1)	0.6 (8.8)
Anthracite (Mton)	1.0 (-6.0)	0.4 (-3.7)	0.1 (-12.5)	0.3 (-13.6)	0.1 (-30.0)	0.1 (-17.2)	0.1 (-2.2)
Natural gas (Mton)	0.1 (-28.6)	0.1 (-14.7)	0.0 (-23.2)	0.0 (-65.0)	0.0 (-69.7)	0.0 (-68.8)	0.0 (-64.1)
Renewable energy (Mtoe)	18.4 (4.0)	6.2 (5.6)	1.7 (12.9)	6.6 (7.1)	1.5 (4.0)	1.8 (8.9)	1.8 (5.9)

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

4. Energy Consumption

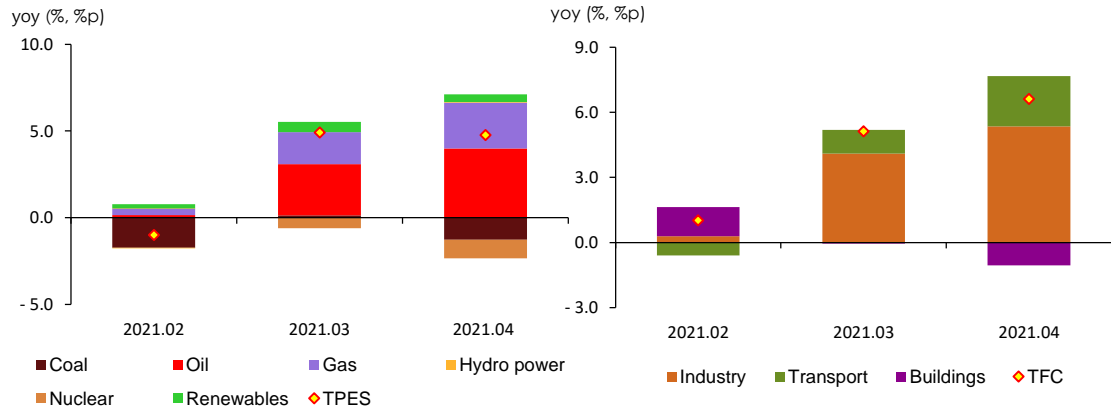
- **Total Primary Energy Supply (“TPES”) in April increased by 4.8% year-on-year with petroleum and gas consumption growing, although coal and nuclear energy use witnessed a decline**
 - Petroleum use showed a year-on-year increase of 10.3% as the industrial and transport sectors witnessed an increase in petroleum consumption. For the industrial use, NCC equipment enlargement in Yecheon NCC (2021.2) and the operation resumption of Lotte Chemical Daesan plant, which was shut down for 10 months (2020.3~12) due to an accident, led the increase while the growth in the transport sector was driven by a base effect
 - Despite the final gas consumption dropped by 3.8% with decreased gas use in the residential sector, the total gas use rose by 15.5% year-on-year with the power generation sector experiencing a dramatic growth of 45.6%, attributable to increased electricity consumption and a drop in coal and nuclear generation
 - In spite of a growth in industrial coal consumption thanks to a base effect from COVID-19 pandemic and more working days, the total coal use posted a year-on-year decline of 6.1% as several power generators voluntarily put a generation cap on their coal-fired generation output from April to November
- **As energy use in the industrial and transport sectors rose thanks to a base effect and economic recovery, total Final Consumption (“TFC”) posted a year-on-year growth of 6.6%**
 - In the industrial sector, the production in petrochemical, steel and fabricated industries kept recovering by the increased working days(2 days). As a result, the industrial energy use grew by 8.6% from a year earlier, driving the increase in final energy consumption
 - The energy use in the transport sector rose by 13.9% with energy consumption in all of the road, marine and air transport sectors recovering fast. The main drivers were the base effect from the dramatic drop (-22.1%) in the same month last year and the increased quantity of goods transported globally
 - The energy use in the building sector declined by 5.0% as the residential sector experienced a decrease with less heating degree days, dwarfing the impact of a small increase in the commercial sector

► Energy consumption

	2020			2021p			
		M1~4	M4	M1~4	M2	M3	M4
TPES (Mtoe)	290.8	99.3	22.8	102.4	24.6	25.7	23.8
	(-4.0)	(-5.0)	(-6.4)	(3.1)	(-1.0)	(4.9)	(4.8)
- Non-energy oil&coal excluded	211.3	72.4	16.5	74.2	17.9	18.2	16.7
	(-3.8)	(-6.0)	(-6.1)	(2.4)	(-1.8)	(2.2)	(1.3)
TFC (Mtoe)	222.0	77.5	17.7	80.2	19.7	19.9	18.9
	(-4.0)	(-4.8)	(-7.6)	(3.5)	(1.0)	(5.1)	(6.6)

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 April posted a year-on-year decrease of 6.1% due to a steep drop in the power generation sector, offsetting the impact of a growth in the industrial sector

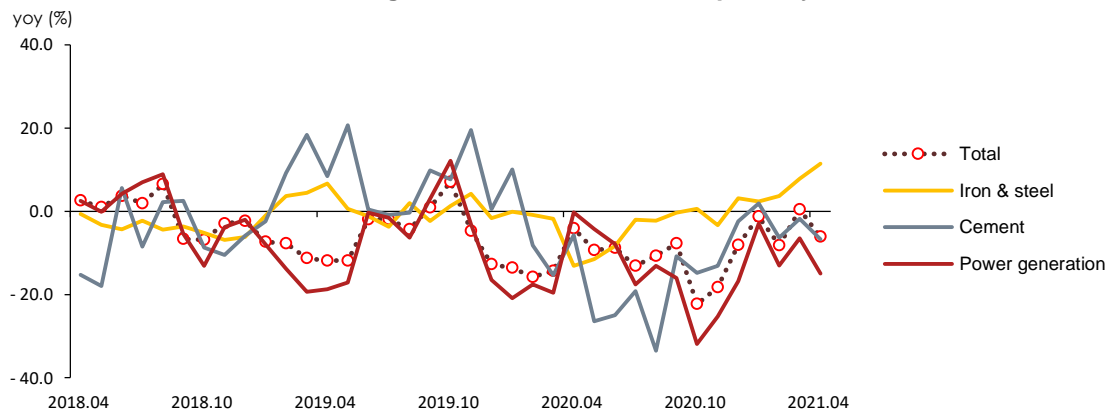
- Industrial coal use rose by 6.9% on a year-on-year basis thanks to more working days (2 days) and a growth in coal consumption in the steel sector, which was driven by increased production activities in major steel-dependent industries
- Coal use in the power generation sector dropped by 14.9% year-on-year, driven by several factors including the implementation of a voluntary cut from coal-fired generations, decreased equipment capacity with shut-down of old coal-fired power plants and an increased number of preventive maintenance projects

► Coal consumption

	2020			2021p			
		M1~4	M4	M1~4	M2	M3	M4
Coal (Mton)	116.6	37.8	8.9	36.4	8.5	8.9	8.4
	(-12.4)	(-12.3)	(-4.1)	(-3.7)	(-8.1)	(0.4)	(-6.1)
Industry	45.3	14.9	3.6	15.5	3.4	4.2	3.9
	(-4.7)	(-6.4)	(-9.2)	(4.7)	(0.3)	(9.7)	(6.9)
-Coking-coal	33.8	11.1	2.5	11.7	2.8	3.1	2.8
	(-3.3)	(-4.0)	(-13.1)	(6.2)	(3.7)	(7.8)	(11.5)
Buildings	0.5	0.2	0.0	0.1	0.0	0.0	0.0
	(-20.8)	(-22.4)	(-5.9)	(-17.6)	(-20.8)	(-26.3)	(-26.9)
Power generation	70.7	22.7	5.3	20.7	5.1	4.7	4.5
	(-16.6)	(-15.7)	(-0.3)	(-9.1)	(-13.0)	(-6.4)	(-14.9)

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

► The growth rate of coal consumption by use



6. Petroleum

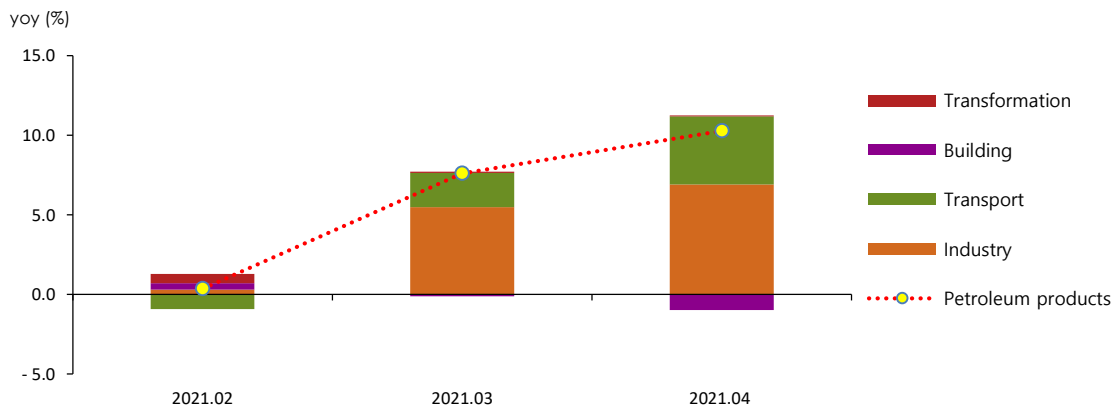
- **Petroleum use in April showed a year-on-year increase of 10.3% as the commercial and transport sectors witnessed an increase in petroleum consumption, except for the building sector**
 - Petroleum use in the industrial sector increased by 10.9% year-on-year as the naphtha consumption rose with new facilities established in the petrochemical industry
 - Petroleum use in the transport sector went up by 14.2% from a year earlier as the demand for domestic travel increased and the number of international flights recovered
 - As the warm weather in spring made the heating degree days shrank significantly (-34.3%), the energy consumption plunged in all building sectors such as residential (-21.1%), commercial (-10.2%) and public (-10.6%) sectors, leading the total energy use in the building sector to post a year-on-year decline of 15.5%

► Petroleum product consumption by end-use sectors

	2020			2021p			
		M1~4	M4	M1~4	M2	M3	M4
Petroleum (Mbbl)	873.3	292.2	68.6	299.7	72.1	76.4	75.7
	(-5.8)	(-5.9)	(-9.1)	(2.6)	(0.4)	(7.6)	(10.3)
Industry	543.0	185.1	43.4	188.2	44.9	49.6	48.1
	(-4.1)	(1.0)	(-1.7)	(1.7)	(0.5)	(8.5)	(10.9)
-Naphtha	405.3	141.4	31.8	144.9	34.6	38.5	37.2
	(-7.6)	(-2.8)	(-8.2)	(2.5)	(-2.5)	(11.5)	(17.0)
Transport	273.9	85.6	20.6	88.0	21.2	22.0	23.5
	(-9.6)	(-16.6)	(-22.3)	(2.8)	(-3.0)	(7.5)	(14.2)
Buildings	50.1	19.5	4.3	20.2	5.2	4.3	3.6
	(2.1)	(-5.7)	(4.8)	(3.5)	(5.8)	(-1.8)	(-15.5)
Power generation	6.2	2.0	0.4	3.3	0.9	0.5	0.4
	(-27.7)	(-50.7)	(-51.3)	(67.4)	(93.0)	(16.2)	(13.1)

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

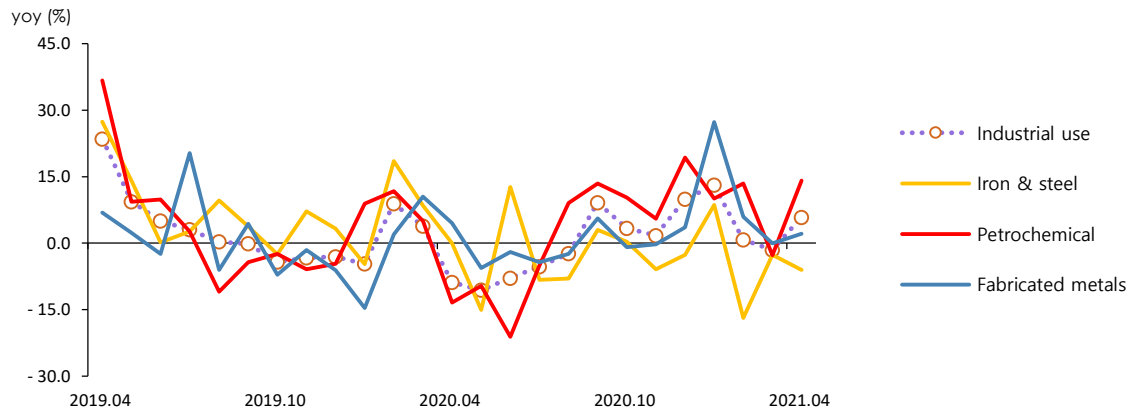
- **Natural gas use in April increased by 15.5% year-on-year as the power generation sector experienced a significant rise in gas use, offsetting the impact of a decline in final gas consumption**
 - With electricity use rising (3.5%), gas use for power generation skyrocketed by 45.6% year-on-year as the base-load (coal + nuclear) generation fell significantly (-10.5%) due to the implementation of a voluntary cut from coal-fired generations and non-planned operation stoppage of some nuclear units
 - Although the gas use in the iron & steel sector declined, the total gas consumption in the final industrial sectors jumped up by 5.8% on a year-on-year basis as the petroleum sector witnessed a significant rise (14.1%) in gas use with petrochemical facilities expanded

► Natural gas and city gas consumption

	2020			2021p			
		M1~4	M4	M1~4	M2	M3	M4
LNG (Mton)	41.4	16.2	3.0	18.0	4.5	4.3	3.4
	(1.1)	(-0.2)	(-10.5)	(10.7)	(1.5)	(8.7)	(15.5)
Power generation	18.6	6.5	1.2	7.6	1.8	2.0	1.7
	(3.6)	(5.0)	(-20.7)	(17.9)	(3.5)	(19.6)	(45.6)
City gas production	18.2	8.1	1.5	8.6	2.3	1.9	1.4
	(-3.1)	(-5.9)	(-6.2)	(6.7)	(2.0)	(1.3)	(-6.7)
Industry(Direct private importer)	2.8	0.9	0.2	0.8	0.2	0.2	0.2
	(23.8)	(27.9)	(18.1)	(-6.9)	(-17.3)	(-5.6)	(2.1)
City gas (Bm³)	26.0	11.3	2.2	11.9	3.2	2.7	2.1
	(-0.5)	(-3.3)	(-5.9)	(5.2)	(4.0)	(-0.3)	(-3.8)
Industry(including directly imported)	11.1	3.9	0.9	4.1	1.0	1.0	0.9
	(-0.2)	(-0.5)	(-8.8)	(4.6)	(0.8)	(-1.6)	(5.8)
Buildings	13.8	7.0	1.2	7.5	2.1	1.6	1.1
	(0.0)	(-4.5)	(-2.8)	(6.0)	(6.3)	(0.4)	(-11.5)
Transport	1.1	0.3	0.1	0.3	0.1	0.1	0.1
	(-8.7)	(-8.2)	(-16.1)	(-5.0)	(-14.1)	(1.4)	(2.8)

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

► The growth rate of city gas & directly imported LNG consumption by major industries



8. Electricity

- **Electricity use in April stepped up by 3.5% year-on-year as production activities in the industrial sector recovered**
 - Electricity use in the industrial sector showed a year-on-year growth of 4.9% with the recovery of production activity in some industries and increased working days
 - Electricity use in the building sector rose by 2.0% year-on-year, driven mainly by the commercial sector with the service sector showing signs of recovering

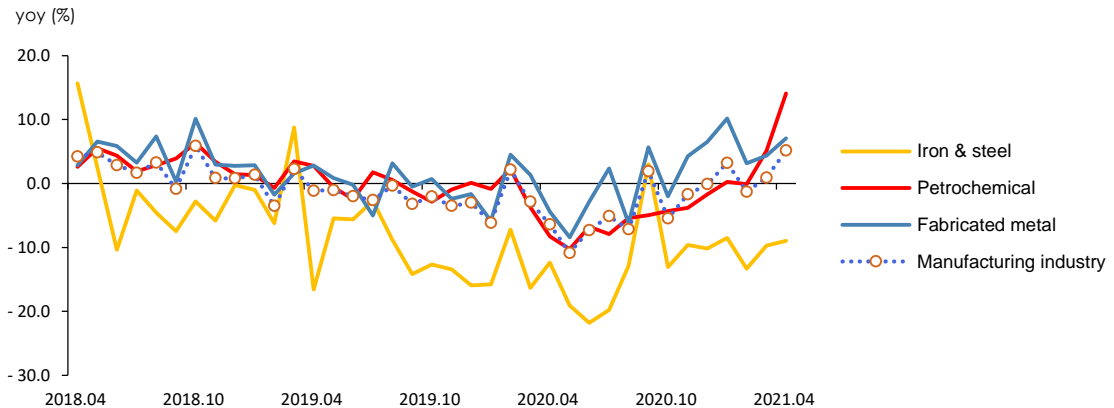
► Electricity consumption by end-use sectors

	2020			2021p			
		M1~4	M4	M1~4	M2	M3	M4
Electricity (TWh)	509.3	174.2	40.5	178.9	45.2	43.1	41.9
	(-2.2)	(-2.4)	(-4.6)	(2.7)	(1.5)	(0.5)	(3.5)
Industry	268.7	91.0	21.9	93.2	22.3	23.4	23.0
	(-4.0)	(-3.6)	(-6.2)	(2.4)	(-0.4)	(1.1)	(4.9)
Transport	2.7	0.9	0.2	0.8	0.2	0.2	0.2
	(-5.9)	(-6.2)	(-4.0)	(-7.3)	(-3.5)	(-3.8)	(-10.6)
Buildings	237.8	82.3	18.4	84.9	22.6	19.5	18.7
	(0.0)	(-1.1)	(-2.8)	(3.2)	(3.6)	(-0.2)	(2.0)
Residential	74.1	24.3	5.9	25.3	6.7	5.8	5.9
	(5.1)	(4.3)	(5.8)	(3.9)	(6.6)	(-2.0)	(-0.3)
Commercial	132.5	47.2	10.1	48.1	13.0	11.0	10.3
	(-2.0)	(-2.8)	(-5.1)	(1.9)	(1.9)	(-0.9)	(2.1)

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

Source: Monthly energy statistics

► The growth rate of electricity consumption in manufacturing industry

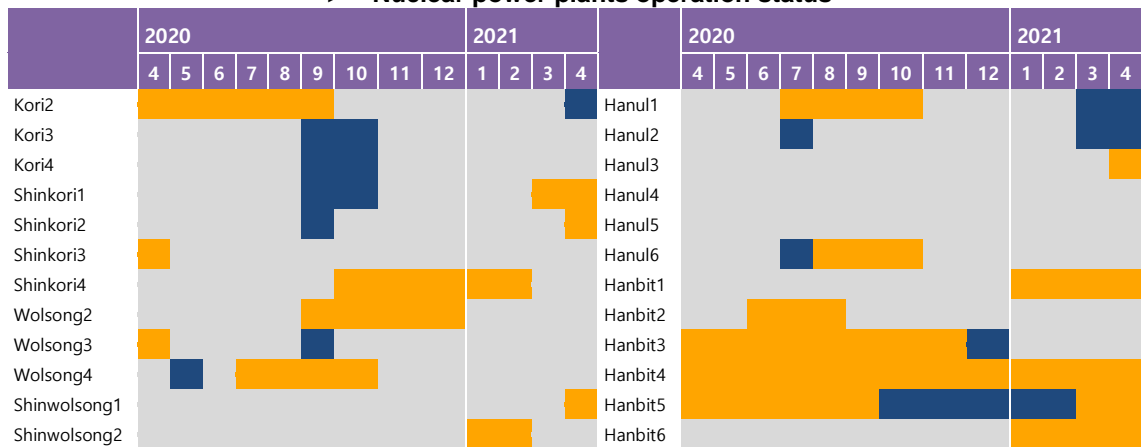


9. Nuclear

- Nuclear power generation in April posted a year-on-year decline of 8.3% as generation facility utilization rate fell with an increased number of nuclear units in maintenance mode

- Nuclear power utilization rate dropped by 6.8%p year-on-year to record 75.0% as the number of nuclear facilities both in preventive maintenance and halted for unscheduled maintenance were increased

► Nuclear power plants operation status



10. Heat and Renewable energy

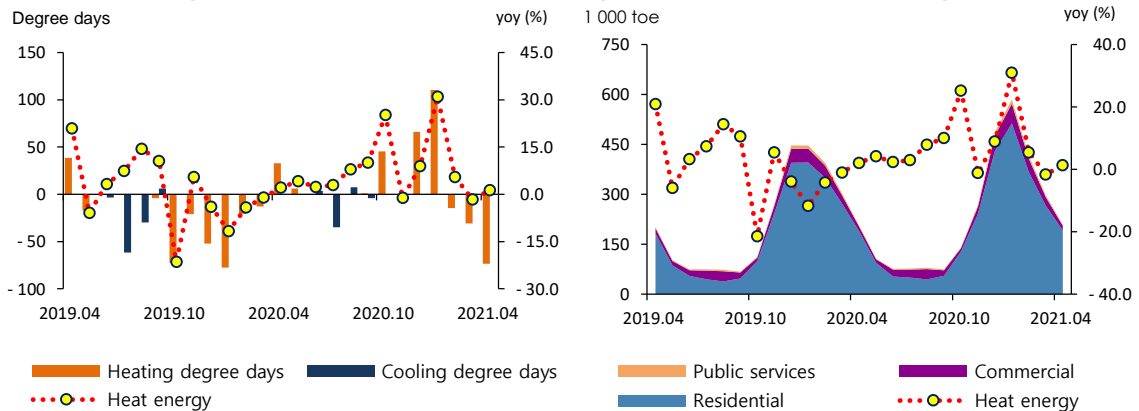
□ Despite of a drop in heating degree days, heat energy use in April showed a year-on-year increase of a mere 1.3% with the number of supply households increased

- Even though heating degree days showed a drop (-73.3 days), heat energy use inched up by 1.1% as the residential sector experienced a growth with the number of supply households increased and a base effect from the plunge in the commercial and public sectors last year came into play

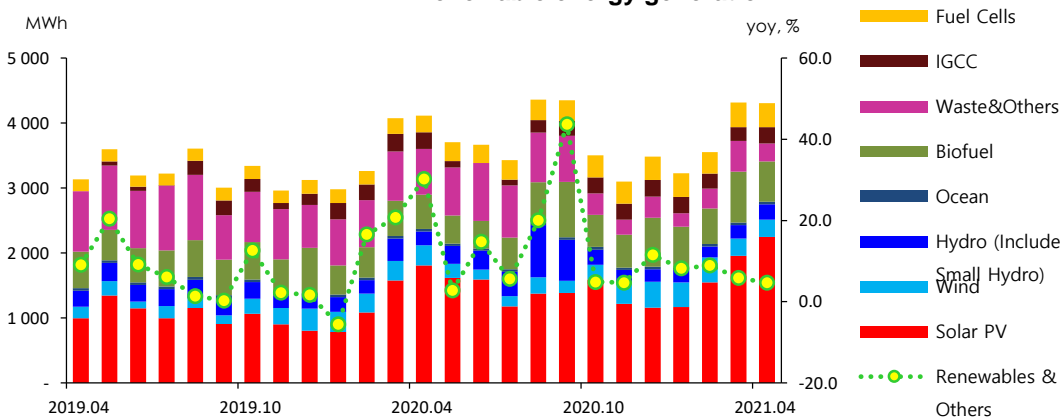
□ Renewable and other energy generation² increased by 4.7% year-on-year driven by solar PV, bio energy and fuel cell

- Despite of a dramatic fall in power generation using waste and others, renewable and other energy generation posted a year-on-year growth as the amount of mandatory supply went up (around 23%) due to the increase in RPS mandatory ratio(2%p) and the capacity of major energy sources got expanded

► 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

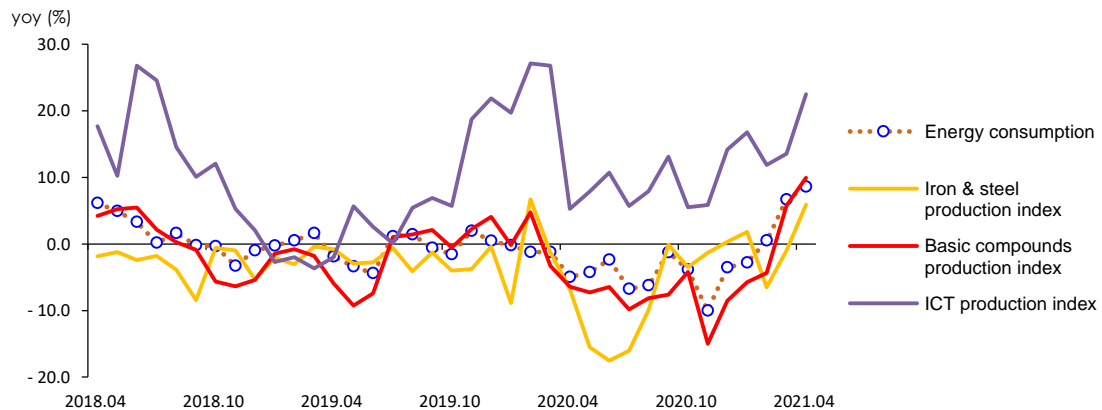
- Energy use in the industrial sector rose by 8.6% year-on-year as working days increased and production in the industrial sector recovered from COVID-19 pandemic
 - Energy use went up fast mainly in energy-intensive industries as production in the industrial sector had recovered from the impact of COVID-19 pandemic and, compared to last year, 2 days were added to the total working days for April. Last year, there were two holidays, the parliamentary election day and Buddha's Birthday in April

► Industrial energy consumption

	2020	2021p		2021p			
		M1~4	M4	M1~4	M2	M3	M4
Industry (Mtoe)	137.4	46.5	11.0	47.9	11.3	12.5	12.0
	(-3.8)	(-1.9)	(-5.0)	(3.1)	(0.5)	(6.7)	(8.6)
Petrochemical	69.1	23.7	5.5	24.4	5.9	6.3	6.2
	(-4.1)	(0.9)	(-3.5)	(2.9)	(0.5)	(8.6)	(14.1)
- Naphtha	49.7	17.3	3.9	17.8	4.2	4.7	4.6
	(-7.6)	(-2.8)	(-8.2)	(2.5)	(-2.5)	(11.5)	(17.0)
Iron & Steel	28.3	9.4	2.2	9.7	2.3	2.6	2.3
	(-4.1)	(-4.2)	(-11.9)	(3.5)	(0.1)	(5.0)	(7.5)
-Coking coal	23.6	7.7	1.8	8.2	2.0	2.2	2.0
	(-3.3)	(-4.0)	(-13.1)	(6.2)	(3.7)	(7.8)	(11.5)
Fabricated metal	11.4	3.9	0.9	4.2	1.0	1.0	1.0
	(-0.1)	(-1.2)	(-2.7)	(7.4)	(4.4)	(3.8)	(6.2)
Share of feedstock (%)	57.7	57.6	56.6	58.7	59.2	60.0	59.5

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 grew by 13.9% year-on-year due to a base effect from a sharp drop in energy consumption upon the onset of COVID-19 pandemic last year**
 - Energy use in the road transport sector soared by 10.0% year-on-year as travel demand went up with signs of recovery from COVID-19 pandemic. Also, the demand for low price purchase from oil sellers such as gas stations became stronger with high expectations for oil price increase
 - Energy use in the air transport sector skyrocketed by 210.2% year-on-year, driven by a base effect from last year's impact of the COVID-19 pandemic severely hindering air transportation

► The growth rate of petroleum consumption in the transport sector

	2020			2021p			
		M1~4	M4	M1~4	M2	M3	M4
Transport (Mtoe)	38.94	12.15	2.94	12.47	2.99	3.12	3.35
	(-9.4)	(-16.3)	(-22.1)	(2.6)	(-3.7)	(7.1)	(13.9)
Road	33.09	10.09	2.61	10.61	2.57	2.62	2.88
	(-5.6)	(-14.4)	(-15.4)	(5.2)	(3.8)	(4.0)	(10.0)
Navigation	2.97	0.99	0.23	1.00	0.22	0.26	0.26
	(12.3)	(1.6)	(4.2)	(1.3)	(-8.5)	(6.4)	(8.7)
Aviation	2.55	0.97	0.06	0.76	0.17	0.21	0.19
	(-48.2)	(-40.8)	(-85.4)	(-21.9)	(-52.2)	(76.6)	(210.2)
Rail	0.32	0.11	0.03	0.10	0.03	0.02	0.02
	(-7.6)	(-7.3)	(-3.2)	(-8.5)	(-5.8)	(-5.7)	(-11.6)

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

□ Despite of an increase in the commercial and public sectors, energy use in the building sector in April dropped by 5.0% year-on-year driven by a decline in the residential building sector

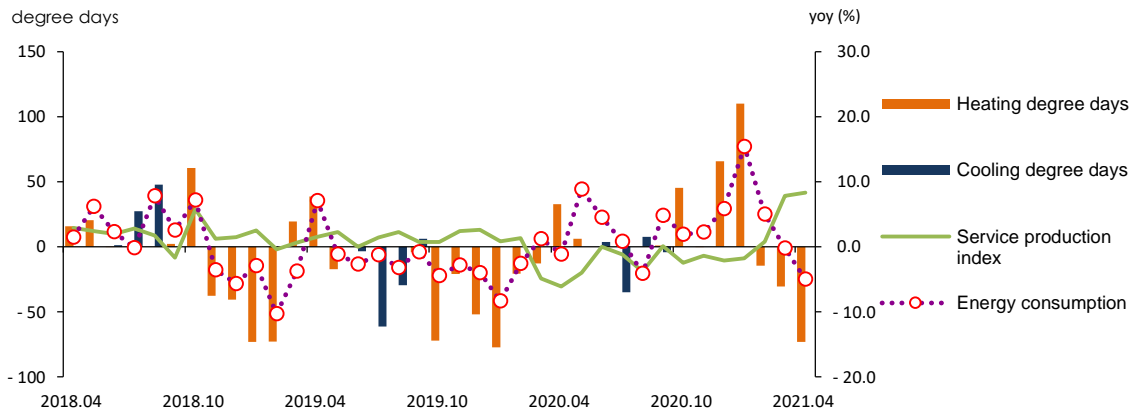
- In the building sector, city gas use declined due to less heating days and a rapid decrease took place in petroleum consumption with a base effect from a steep surge last year, while electricity use went up. As a result, the energy use in the building sector posted a year-on-year decline mainly in the residential sector
- Energy use in the residential building sector reduced by 10.3% year-on-year as the use of all energy sources except for heat energy went down
- In spite of a decline in heating degree days, energy use in the commercial and public building sectors increased by 1.3% year-on-year as the use of city gas and electricity grew due to increased production activities in the wholesale & retail and the food & accommodation as well as a base effect from a decline in the same month last year. (The production indexes in the wholesale & retail and the food & accommodation rose by 9.3% and 8.4%, respectively)

► Energy consumption in buildings

	2020			2021p			
		M1~4	M4	M1~4	M2	M3	M4
Buildings (Mtoe)	45.7	18.8	3.7	19.8	5.4	4.4	3.5
	(0.5)	(-3.3)	(-1.1)	(4.9)	(5.0)	(-0.2)	(-5.0)
Residential	23.2	10.7	2.0	11.3	3.2	2.4	1.8
	(2.7)	(-2.6)	(4.3)	(6.0)	(7.2)	(-3.0)	(-10.3)
Commercial	17.1	6.3	1.3	6.5	1.7	1.5	1.3
	(-2.2)	(-4.6)	(-7.1)	(2.9)	(1.9)	(2.0)	(0.5)
Public-others	5.4	1.9	0.4	2.0	0.5	0.5	0.4
	(-0.4)	(-2.7)	(-6.2)	(5.8)	(2.8)	(7.8)	(3.8)
Heating degree days	2 382.7	1 412.8	213.5	1 404.5	401.7	281.5	140.2
	(1.7)	(-5.3)	(18.1)	(-0.6)	(-3.5)	(-9.8)	(-34.3)
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

- **As electricity consumption jumped up in April, total generation and energy input for generation grew by 3.1% and 0.8% year-on-year, respectively**
 - With electricity use increasing by 3.5% and base-load generation (nuclear + coal) declining by 10.5%, gas generation responsible for peak load posted a year-on-year growth of 42.8%.
 - Base-load generation with low generation efficiency went down while gas generation with high efficiency grew significantly. As a result, energy input for generation just inched up by less than 1% on a year-on-year basis although total power generation soared by more than 3%

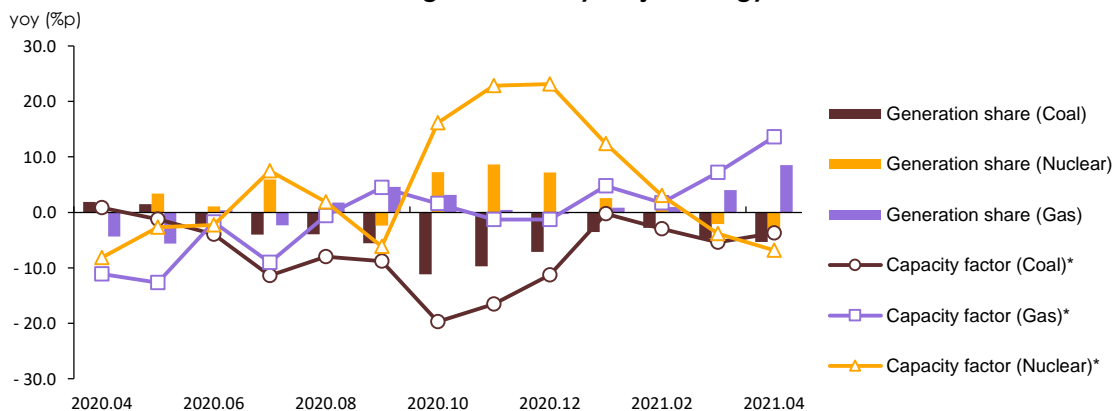
► Energy consumption in the power generation sector

	2020			2021p			
		M1~4	M4	M1~4	M2	M3	M4
Electricity Generation (TWh)	552.1	184.7	42.3	189.0	45.0	47.2	43.6
	(-1.9)	(-2.2)	(-3.7)	(2.3)	(-3.1)	(2.2)	(3.1)
Coal	196.3	63.2	14.7	57.0	14.5	11.9	12.9
	(-13.7)	(-12.2)	(1.7)	(-9.8)	(-11.0)	(-13.7)	(-12.5)
Oil	2.3	0.7	0.1	1.8	0.1	1.2	0.1
	(-31.5)	(-55.0)	(-46.0)	(172.9)	(13.8)	(915.2)	(38.3)
Gas	146.1	52.5	9.4	60.2	13.8	15.7	13.5
	(1.2)	(4.1)	(-19.5)	(14.7)	(-0.0)	(16.3)	(42.8)
Nuclear	160.2	52.7	13.7	53.1	12.7	13.8	12.6
	(9.8)	(2.5)	(-3.3)	(0.7)	(0.3)	(-4.6)	(-8.3)
Hydro/other renewables	41.9	13.0	3.8	15.2	3.5	4.0	4.3
	(6.9)	(-1.1)	(11.7)	(16.9)	(23.8)	(6.8)	(13.6)
Baseload	356.5	115.9	28.4	110.1	27.2	25.7	25.4
	(-4.5)	(-6.1)	(-0.7)	(-5.0)	(-6.0)	(-9.0)	(-10.5)

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

Source: Monthly energy statistics

► Power generation by major energy sources



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

Major Statistics & Indicators of the Economy

	2019	2020					2021			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
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	105.5	105.8	105.5	105.0	107.0	107.0	107.2	107.4
USD to KRW exchange rate (won)	1 165.4	1 180.3	1 200.8	1 193.8	1 220.1	1 225.2	1 114.9	1 111.7	1 131.0	1 119.4
Benchmark rate (%)	1.6	0.7	1.0	1.3	0.8	0.8	0.5	0.5	0.5	0.5
Coincident composite index (2015=100)	111.7	112.3	112.6	113.2	112.1	111.1	114.9	114.3	115.1	116.4
Mining & manufacturing production index (2015=100)	106.7	106.3	104.3	99.7	113.6	101.6	111.0	100.5	118.8	114.4
Manufacturing operation ratio index (2015=100)	98.4	95.6	94.1	90.2	103.3	91.2	97.7	88.5	104.4	101.2
Average temperature	13.5	13.2	6.3	3.6	7.9	10.9	6.3	3.7	8.9	13.4
- year-on-year difference	0.5	- 0.3	0.8	1.3	0.4	- 1.1	- 0.0	0.0	1.0	2.5
Heating degree days	2 342.9 (-9.8)	2 382.7 (1.7)	1 412.8 (-5.3)	416.2 (-4.8)	312.2 (-3.9)	213.5 (18.1)	1 404.5 (-0.6)	401.7 (-3.5)	281.5 (-9.8)	140.2 (-34.3)
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)	5.6 (-6.1)	1.4 (-2.2)	1.4 (-7.5)	1.3 (-9.2)	5.8 (2.5)	1.4 (0.3)	1.5 (7.5)	1.5 (10.2)
Electricity (MWh)	10.1 (-1.3)	9.8 (-2.3)	3.4 (-2.6)	0.9 (0.2)	0.8 (-0.6)	0.8 (-4.8)	3.5 (2.6)	0.9 (1.5)	0.8 (0.4)	0.8 (3.4)
City gas (1 000 m ³)	0.5 (-4.3)	0.4 (-3.6)	0.2 (-5.8)	0.1 (-2.6)	0.0 (-3.0)	0.0 (-8.6)	0.2 (6.4)	0.1 (6.0)	0.0 (0.2)	0.0 (-4.7)
Total energy (toe)	5.9 (-1.6)	5.6 (-4.2)	1.9 (-5.2)	0.5 (-1.6)	0.5 (-5.2)	0.4 (-6.5)	2.0 (3.1)	0.5 (-1.1)	0.5 (4.8)	0.5 (4.7)

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			
		M1~4	M2	M3	M4	M1~4	M2	M3	M4	
Industrial production index										
All industry	108.6 (0.9)	107.3 (-1.2)	104.4 (-0.3)	100.8 (4.8)	109.6 (0.6)	102.4 (-5.4)	108.7 (4.1)	101.2 (0.4)	116.0 (5.8)	111.3 (8.7)
Mining & manufacturing	106.7 (0.3)	106.3 (-0.3)	104.3 (2.0)	99.7 (11.0)	113.6 (7.0)	101.6 (-5.2)	111.0 (6.4)	100.5 (0.8)	118.8 (4.6)	114.4 (12.6)
Semiconductor	188.0 (11.7)	230.6 (22.6)	206.7 (34.8)	204.2 (44.5)	226.5 (42.1)	192.1 (16.9)	255.8 (23.8)	244.8 (19.9)	284.2 (25.5)	249.4 (29.8)
Iron & steel	98.3 (-2.2)	92.1 (-6.3)	95.9 (-2.9)	95.3 (6.7)	100.1 (-1.3)	93.5 (-6.8)	95.9 -	89.1 (-6.5)	99.1 (-1.0)	99.0 (5.9)
Cement	94.3 (-5.7)	86.6 (-8.2)	82.6 (-7.1)	72.2 (9.1)	93.5 (-6.3)	97.9 (-8.3)	87.3 (5.7)	71.2 (-1.4)	103.9 (11.1)	106.7 (9.0)
Basic compound	108.9 (-1.4)	102.3 (-6.0)	106.7 (-1.3)	108.0 (4.8)	106.3 (-3.3)	97.7 (-6.4)	107.8 (1.1)	103.3 (-4.4)	112.4 (5.7)	107.4 (9.9)
Transport equipment	93.4 (-0.6)	84.1 (-9.9)	81.5 (-12.8)	65.2 (-13.6)	101.9 (3.8)	81.6 (-20.2)	92.5 (13.5)	79.5 (21.9)	101.3 (-0.6)	98.0 (20.1)
Electric & electronic	109.6 (2.9)	108.7 (-0.8)	103.0 (-0.7)	97.3 (7.6)	113.5 (4.2)	102.9 (-7.0)	112.5 (9.2)	97.4 (0.1)	122.9 (8.3)	120.7 (17.3)
Service	108.4 (1.4)	106.2 (-2.0)	103.0 (-2.3)	100.7 (1.3)	103.4 (-4.9)	101.1 (-6.1)	106.8 (3.7)	101.5 (0.8)	111.5 (7.8)	109.5 (8.3)
Wholesale and retail	104.6 (-0.4)	101.9 (-2.6)	98.5 (-4.1)	92.3 (-0.2)	100.9 (-6.5)	97.8 (-7.3)	103.1 (4.7)	95.3 (3.3)	109.3 (8.3)	106.9 (9.3)
Food & Accommodation	97.5 (-1.0)	79.5 (-18.5)	76.3 (-18.6)	73.9 (-14.9)	64.2 (-32.6)	72.5 (-24.6)	70.2 (-8.1)	65.6 (-11.2)	76.6 (19.3)	78.6 (8.4)
Production output										
Iron & steel - Pig iron	47 520.7 (0.8)	45 359.6 (-4.5)	14 503.6 (-7.0)	3 575.2 (-2.4)	3 678.5 (-9.5)	3 290.0 (-14.6)	15 457.2 (6.6)	3 724.9 (4.2)	3 983.7 (8.3)	3 635.1 (10.5)
Iron & steel - Crude steel	71 411.9 (-1.5)	67 078.8 (-6.1)	22 019.7 (-7.5)	5 417.4 (2.8)	5 783.6 (-7.8)	5 078.9 (-15.4)	23 347.2 (6.0)	5 489.5 (1.3)	6 062.1 (4.8)	5 753.0 (13.3)
Petrochemical - Basic oil	31 804.1 (2.1)	30 323.6 (-4.7)	10 644.8 (2.8)	2 629.1 (3.6)	2 618.7 (0.8)	2 483.1 (3.6)	10 828.9 (1.7)	2 605.7 (-0.9)	2 828.2 (8.0)	2 797.7 (12.7)
Petrochemical - Intermediate raw material	16 014.0 (-5.7)	15 355.4 (-4.1)	5 451.7 (0.7)	1 367.9 (1.5)	1 337.7 (1.8)	1 286.6 (2.5)	5 329.1 (-2.2)	1 300.1 (-5.0)	1 409.0 (5.3)	1 281.2 (-0.4)
Petrochemical - 3 major products	21 584.6 (-1.0)	21 252.7 (-1.5)	7 339.7 (1.8)	1 811.4 (4.6)	1 860.4 (-0.2)	1 754.2 (6.4)	7 376.4 (0.5)	1 745.6 (-3.6)	1 919.5 (3.2)	1 844.5 (5.1)
The number of cars	3 950.6 (-1.9)	3 506.8 (-11.2)	1 099.4 (-17.3)	189.2 (-26.4)	369.0 (6.7)	289.5 (-22.2)	1 232.5 (12.1)	260.8 (37.8)	333.9 (-9.5)	323.6 (11.8)

Note: p means provisional

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

International Energy Prices

	2019	2020					2021			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Crude oil (USD/bbl)										
WTI	57.0 (-11.9)	39.4 (-30.9)	38.8 (-32.1)	50.5 (-8.1)	30.5 (-47.7)	16.7 (-73.9)	58.8 (51.5)	59.1 (16.9)	62.4 (104.8)	61.7 (269.5)
Dubai	63.5 (-8.5)	42.2 (-33.6)	43.2 (-34.0)	54.2 (-16.0)	33.7 (-49.6)	20.4 (-71.3)	60.8 (40.8)	60.9 (12.3)	64.4 (91.2)	62.9 (208.6)
Brent	64.2 (-10.3)	43.2 (-32.7)	44.9 (-31.8)	55.5 (-13.9)	33.7 (-49.7)	26.6 (-62.8)	62.2 (38.5)	62.3 (12.3)	65.7 (94.8)	65.3 (145.3)
Unit value of import (C&F)	65.5 (-8.2)	44.8 (-31.7)	55.1 (-15.3)	64.2 (1.7)	52.8 (-19.7)	34.1 (-51.0)	59.9 (8.8)	58.3 (-9.3)	63.8 (20.7)	64.8 (90.3)
LNG										
From Indonesia (USD/MMBTU)	10.6 (-1.0)	8.3 (-21.3)	10.0 (-11.8)	9.9 (-16.2)	10.2 (-9.6)	10.0 (-2.5)	8.8 (-12.4)	9.9 (-0.2)	7.9 (-22.7)	8.3 (-17.3)
Unit value of import (USD/ton, CIF)	505.4 (-4.0)	390.2 (-22.8)	464.5 (-17.3)	446.9 (-27.3)	462.0 (-18.0)	478.9 (-0.6)	442.3 (-4.8)	531.5 (18.9)	438.3 (-5.1)	385.4 (-19.5)
Bituminous coal (USD/ton)										
From Australia	77.9 (-27.2)	60.8 (-22.0)	65.6 (-29.8)	67.6 (-29.1)	66.7 (-28.3)	58.6 (-32.5)	90.2 (37.4)	86.7 (28.2)	94.9 (42.2)	92.2 (57.5)
Unit value of import (CIF)	100.7 (-11.3)	77.7 (-22.9)	88.0 (-19.6)	85.8 (-22.3)	89.9 (-20.4)	89.6 (-16.8)	84.2 (-4.3)	79.5 (-7.3)	89.6 (-0.4)	91.4 (2.1)
Petroleum product (USD/bbl)										
Gasoline	72.5 (-9.3)	46.7 (-35.7)	48.2 (-31.8)	64.5 (-2.7)	36.4 (-51.0)	20.5 (-74.6)	68.9 (43.0)	67.9 (5.4)	73.5 (101.6)	74.0 (260.7)
Kerosene	77.3 (-8.9)	44.7 (-42.1)	49.8 (-36.2)	63.1 (-19.0)	39.3 (-50.8)	21.3 (-74.3)	64.2 (29.0)	65.2 (3.3)	66.8 (69.9)	66.8 (214.0)
Diesel	78.2 (-7.9)	49.4 (-36.8)	54.8 (-30.5)	66.0 (-16.4)	45.5 (-43.9)	31.4 (-62.3)	66.6 (21.5)	67.9 (3.0)	69.7 (53.3)	68.9 (119.2)
Bunker-C	57.5 (-11.8)	39.2 (-31.9)	38.3 (-39.8)	46.7 (-27.0)	31.5 (-52.5)	23.3 (-65.1)	57.2 (49.2)	57.6 (23.4)	60.7 (93.0)	59.0 (153.0)
Propane	434.6 (-19.8)	397.1 (-8.6)	432.5 (-7.7)	505.0 (14.8)	430.0 (-12.2)	230.0 (-55.3)	585.0 (35.3)	605.0 (19.8)	625.0 (45.3)	560.0 (143.5)
Butane	441.7 (-18.1)	403.8 (-8.6)	463.8 (-4.6)	545.0 (16.0)	480.0 (-7.7)	240.0 (-55.1)	560.0 (20.8)	585.0 (7.3)	595.0 (24.0)	530.0 (120.8)
Naphtha	56.9 (-15.1)	40.5 (-28.9)	40.2 (-30.5)	52.3 (-7.2)	30.3 (-49.6)	17.3 (-72.6)	61.1 (51.9)	61.6 (17.8)	64.8 (114.0)	62.2 (259.2)

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			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Petroleum product										
Gasoline (won/liter)	1 471.9 (-6.9)	1 381.6 (-6.1)	1 476.6 (7.6)	1 545.3 (15.0)	1 469.1 (7.3)	1 323.7 (-7.1)	1 488.2 (0.8)	1 463.2 (-5.3)	1 513.3 (3.0)	1 534.5 (15.9)
Diesel (won/liter)	1 340.1 (-3.7)	1 189.8 (-11.2)	1 295.4 (2.0)	1 369.9 (10.2)	1 280.8 (0.9)	1 132.4 (-14.0)	1 287.8 (-0.6)	1 263.4 (-7.8)	1 312.6 (2.5)	1 332. (17.7)
Bunker-C (won/liter)	743.9 (1.2)	573.6 (-22.9)	686.0 (-3.6)	797.7 (19.8)	703.1 (-2.9)	536.7 (-30.4)	645.3 (-5.9)	619.6 (-22.3)	686.0 (-2.4)	730.1 (36.0)
Propane (won/kg)	1 869.7 (-2.6)	1 850.7 (-1.0)	1 929.4 (3.5)	1 971.5 (5.8)	1 973.2 (5.8)	1 885.5 (1.2)	1 970.7 (2.1)	1 952.5 (-1.0)	2 029.2 (2.8)	2 032.9 (7.8)
Butane (won/liter)	806.2 (-7.8)	791.1 (-1.9)	847.0 (6.1)	874.5 (9.5)	874.3 (9.6)	818.4 (2.8)	860.7 (1.6)	847.8 (-3.0)	898.6 (2.8)	899.2 (9.9)
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)	15.9 (2.3)	16.0 (1.5)	16.0 (1.5)	15.8 (4.7)	14.0 (-12.3)	14.0 (-12.3)	14.0 (-12.3)	13.8 (-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)	15.2 (-7.8)	14.8 (-10.1)	15.9 (-3.7)	16.1 (-2.4)
Industry	13.8 (6.0)	12.6 (-8.4)	14.4 (5.3)	14.5 (5.2)	14.5 (5.2)	14.0 (5.4)	13.0 (-10.0)	12.8 (-12.2)	13.8 (-4.9)	13.3 (-4.8)
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 -	78.8 -	92.3 -	65.2 -	65.2 -	73.8 (-6.3)	87.3 (-5.4)	60.2 (-7.7)	60.2 (-7.7)
Industry	96.0 -	96.0 -	93.5 -	108.5 -	78.5 -	78.5 -	88.5 (-5.3)	103.5 (-4.6)	73.5 (-6.4)	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			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Coal (Mton)	133.0 (-5.7)	116.6 (-12.4)	37.8 (-12.3)	9.3 (-15.8)	8.9 (-14.4)	8.9 (-4.1)	36.4 (-3.7)	8.5 (-8.1)	8.9 (0.4)	8.4 (-6.1)
- Coking coal excluded	98.0 (-7.9)	82.8 (-15.6)	26.7 (-15.3)	6.6 (-20.7)	6.0 (-19.3)	6.4 (0.0)	24.6 (-7.8)	5.7 (-13.0)	5.8 (-3.1)	5.5 (-13.2)
Oil (Mbbbl)	927.1 (-0.5)	873.3 (-5.8)	292.2 (-5.9)	71.9 (-2.1)	71.0 (-7.4)	68.6 (-9.1)	299.7 (2.6)	72.1 (0.4)	76.4 (7.6)	75.7 (10.3)
- Non-energy oil excluded	451.8 (1.4)	424.7 (-6.0)	138.0 (-10.3)	33.7 (-4.5)	33.3 (-12.6)	32.7 (-13.0)	139.3 (0.9)	34.1 (1.2)	33.6 (1.0)	34.3 (4.9)
LNG (Mton)	41.0 (-3.1)	41.4 (1.1)	16.2 (-0.2)	4.4 (7.5)	4.0 (3.6)	3.0 (-10.5)	18.0 (10.7)	4.5 (1.5)	4.3 (8.7)	3.4 (15.5)
Hydro (TWh)	6.2 (-14.1)	7.1 (14.4)	2.1 (5.8)	0.5 (12.1)	0.5 (18.4)	0.5 (-3.5)	2.1 (-2.3)	0.5 (-9.5)	0.5 (-4.1)	0.6 (8.8)
Nuclear (TWh)	145.9 (9.3)	160.2 (9.8)	52.7 (2.5)	12.7 (15.0)	14.5 (3.1)	13.7 (-3.3)	53.1 (0.7)	12.7 (0.3)	13.8 (-4.6)	12.6 (-8.3)
Others (Mtoe)	17.7 (3.3)	18.4 (4.0)	6.2 (5.6)	1.5 (8.3)	1.6 (6.7)	1.7 (12.9)	6.6 (7.1)	1.5 (4.0)	1.8 (8.9)	1.8 (5.9)
TPES (Mtoe)	303.1 (-1.5)	290.8 (-4.0)	99.3 (-5.0)	24.9 (-1.5)	24.5 (-5.1)	22.8 (-6.4)	102.4 (3.1)	24.6 (-1.0)	25.7 (4.9)	23.8 (4.8)
- Non-energy oil excluded	244.0 (-1.3)	234.9 (-3.7)	80.1 (-5.8)	20.1 (-1.8)	19.8 (-5.7)	18.3 (-6.8)	82.4 (2.8)	19.9 (-1.3)	20.3 (2.8)	18.7 (2.3)
- Non-energy oil&coal excluded	219.6 (-1.5)	211.3 (-3.8)	72.4 (-6.0)	18.2 (-1.9)	17.8 (-6.1)	16.5 (-6.1)	74.2 (2.4)	17.9 (-1.8)	18.2 (2.2)	16.7 (1.3)

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

Share of TPES by Sources

(unit: %)

	2019	2020p					2021p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Coal	27.1	24.9	23.6	23.3	22.7	24.3	22.2	21.8	21.7	21.9
- Coking coal excluded	19.1	16.8	15.9	15.7	14.5	16.5	14.2	13.8	13.3	13.6
Oil	38.7	37.9	37.0	36.4	36.5	38.1	37.0	37.0	37.6	40.2
- non-energy oil excluded	19.2	18.7	17.7	17.5	17.4	18.3	17.4	17.7	16.8	18.5
LNG	17.7	18.6	21.4	23.1	21.1	17.0	22.9	23.7	21.9	18.8
Hydro	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5
Nuclear	10.3	11.7	11.3	10.9	12.6	12.8	11.1	11.0	11.5	11.2
Others	5.8	6.3	6.2	5.9	6.7	7.3	6.5	6.1	6.9	7.4
TPES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: p means provisional
Source: Monthly energy statistics

Total Final Consumption (TFC)

(Unit: Mtoe)

	2019	2020p					2021p			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Industry	142.9 (-0.4)	137.4 (-3.8)	46.5 (-1.9)	11.2 (-1.2)	11.7 (-1.2)	11.0 (-5.0)	47.9 (3.1)	11.3 (0.5)	12.5 (6.7)	12.0 (8.6)
Transport	43.0 (0.0)	38.9 (-9.4)	12.2 (-16.3)	3.1 (-5.2)	2.9 (-20.4)	2.9 (-22.1)	12.5 (2.6)	3.0 (-3.7)	3.1 (7.1)	3.3 (13.9)
Residential	22.6 (-3.6)	23.2 (2.7)	10.7 (-2.6)	2.9 (-3.3)	2.5 (3.6)	2.0 (4.3)	11.3 (6.0)	3.2 (7.2)	2.4 (-3.0)	1.8 (-10.3)
commercial	17.5 (-2.3)	17.1 (-2.2)	6.3 (-4.6)	1.7 (-2.8)	1.4 (-1.7)	1.3 (-7.1)	6.5 (2.9)	1.7 (1.9)	1.5 (2.0)	1.3 (0.5)
Public	5.4 (-3.2)	5.4 (-0.4)	1.9 (-2.7)	0.5 (3.0)	0.4 (-1.7)	0.4 (-6.2)	2.0 (5.8)	0.5 (2.8)	0.5 (7.8)	0.4 (3.8)
TFC	231.4 (-0.9)	222.0 (-4.0)	77.5 (-4.8)	19.5 (-2.2)	19.0 (-4.2)	17.7 (-7.6)	80.2 (3.5)	19.7 (1.0)	19.9 (5.1)	18.9 (6.6)
Coal (Mton)	48.2 (-2.2)	45.8 (-4.9)	15.0 (-6.7)	3.5 (-12.6)	3.9 (-6.5)	3.6 (-9.2)	15.7 (4.4)	3.5 (0.0)	4.2 (9.3)	3.9 (6.6)
Oil (Mbbbl)	918.5 (-0.2)	867.1 (-5.6)	290.2 (-5.4)	71.4 (-1.7)	70.6 (-6.2)	68.3 (-8.7)	296.4 (2.1)	71.3 (-0.2)	75.9 (7.6)	75.3 (10.3)
Electricity (TWh)	520.5 (-1.1)	509.3 (-2.2)	174.2 (-2.4)	44.5 (0.3)	42.9 (-0.5)	40.5 (-4.6)	178.9 (2.7)	45.2 (1.5)	43.1 (0.5)	41.9 (3.5)
City gas (Bm ³)	23.3 (-4.1)	22.5 (-3.4)	10.2 (-5.7)	2.8 (-2.4)	2.4 (-2.8)	1.9 (-8.5)	10.9 (6.4)	3.0 (6.0)	2.4 (0.3)	1.8 (-4.7)
Heat-others (1 000 toe)	11.6 (-2.0)	11.4 (-0.9)	4.3 (-1.7)	1.1 (0.8)	1.0 (-0.0)	1.0 (-1.0)	4.6 (5.9)	1.1 (0.3)	1.1 (2.6)	1.0 (6.0)

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			
			M1~4	M2	M3	M4	M1~4	M2	M3	M4
Industry	61.8	61.9	60.0	57.6	61.7	62.4	59.8	57.3	62.5	63.6
Transport	18.6	17.5	15.7	15.9	15.4	16.6	15.6	15.2	15.6	17.8
Residential	9.8	10.5	13.8	15.1	13.0	11.4	14.1	16.1	12.0	9.6
Commercial	7.6	7.7	8.1	8.7	7.6	7.3	8.1	8.8	7.4	6.8
Public	2.3	2.4	2.5	2.6	2.4	2.3	2.5	2.6	2.4	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	12.9	12.1	13.6	13.6	13.1	12.1	14.1	13.7
Oil	50.2	49.3	47.1	46.2	46.8	48.8	46.7	45.7	48.1	50.5
Electricity	19.3	19.7	19.3	19.6	19.4	19.7	19.2	19.7	18.6	19.1
City gas	11.6	12.0	15.0	16.3	14.6	12.6	15.2	16.8	13.9	11.3
Heat-others	5.0	5.2	5.6	5.7	5.5	5.4	5.7	5.7	5.4	5.3

Note: p means provisional
Source: Monthly energy statistics

Statistics on Energy Production Facilities

	2018	2019	2020				2021		
				M2	M3	M4	M2	M3	M4
Total capacity (GW)	119.1 (1.9)	125.3 (5.2)	129.2 (3.1)	125.9 (5.5)	125.9 (5.1)	126.3 (5.4)	129.1 (2.6)	129.4 (2.8)	128.4 (1.7)
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)	34.3 (-5.8)
Gas	37.9 (-0.0)	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		
				M2	M3	M4	M2	M3	M4
The number of household demanding city gas (mil)	19.1 (3.1)	19.7 (2.8)	20.1 (2.3)	19.8 (2.4)	19.8 (2.4)	19.7 (2.4)	20.3 (2.5)	20.3 (2.5)	20.2 (2.5)
Registered cars (mil)	23.2 (3.0)	23.7 (2.0)	24.4 (2.9)	23.7 (1.9)	23.8 (2.0)	23.9 (2.2)	24.5 (3.1)	24.5 (3.1)	24.6 (2.9)
- gasoline	10.6 (2.5)	11.0 (3.1)	11.4 (4.1)	11.0 (3.1)	11.0 (3.3)	11.1 (3.5)	11.5 (4.2)	11.5 (4.1)	11.5 (4.0)
- diesel	9.9 (3.7)	10.0 (0.3)	10.0 (0.3)	10.0 (-0.1)	10.0 (-0.1)	9.9 (-0.1)	10.0 (0.5)	10.0 (0.5)	10.0 (0.2)
- LPG	2.0 (-3.3)	2.0 (-1.5)	2.0 (-1.3)	2.0 (-1.0)	2.0 (-0.7)	2.0 (-0.6)	2.0 (-1.6)	2.0 (-1.7)	2.0 (-1.8)
- hybrid	0.4 (30.9)	0.5 (26.1)	0.6 (33.1)	0.5 (24.3)	0.5 (24.2)	0.5 (24.3)	0.7 (36.2)	0.7 (37.2)	0.7 (37.7)

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