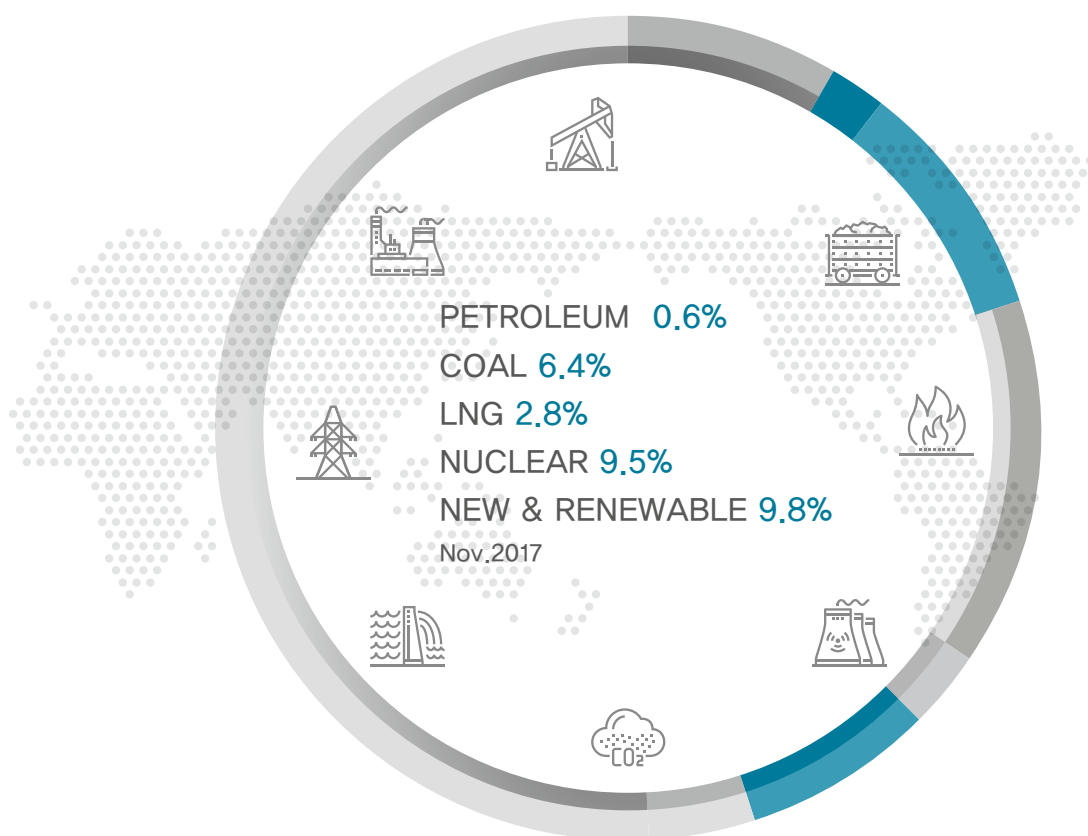


# KEEI

## MONTHLY KOREA ENERGY TRENDS





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# 1. The Economy and the Industry

## □ The total export value posted a year-on-year growth of 9.7% in November, led by the semi-conductor and petroleum & petrochemical product industries, although it plunged in the shipbuilding industry.

- The export value of semi-conductors rose by 65.2%, recording eight consecutive months of over 50% growth, backed by stable price on tight supply and growing demand on semi-conductor memory from data centers and clouding service. China, Hong Kong and Vietnam were the biggest source of demand.
- The export value of petrochemical products rose by 18.3% due to oil price increase and expanded export volume following the commissioning of new facilities. The export value of petroleum products rose more sharply by 43.8%, suggesting faster growth in export, as the unit price increased on higher oil prices, and the global economic recovery led to bigger export demand.
- The export value of iron & steel products went up by 4.7% despite smaller export volume, as the elimination of low-end steel products in China resulted in higher unit price, and the export of high value-added products increased.

## □ The production index of mining and manufacturing industries fell by 1.7% year-on-year in November due to lackluster outcomes in the cement and automobile industries, while the service industry production index rose by 4.1%.

- The production index of mining and manufacturing industries has declined for two consecutive months due to less outputs in the cement (-6.0%), iron & steel (-0.7%) and automobile (-5.9%) sectors, although the index increased in the basic chemical materials (1.7%) and ICT sectors.
- The service industry production index increased for the first time in two months, helped by a recovery in the wholesale & retail business (4.0%) and real estate & leasing service (1.5%) in addition to the slower pace of decline in the restaurant & accommodations business (-0.4%).

### ► Trend in major economic and industrial indicators

|  | 2015             | 2016             | 2017            |                 |                | 2017           |                 |                 |
|--|------------------|------------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|
|  |                  |                  | M9              | M10             | M11            | M9             | M10             | M11             |
| GDP (trillion won)                                   | 1 466.8<br>(2.8) | 1 508.3<br>(2.8) | 378.2<br>(2.6)  | -               | -              | 392.0<br>(3.6) | -               | -               |
| Total export (\$billion, customs clearance basis)    | 526.8<br>(-8.0)  | 495.4<br>(-5.9)  | 40.8<br>(-6.0)  | 42.0<br>(-3.2)  | 45.3<br>(2.3)  | 55.1<br>(34.9) | 44.8<br>(6.7)   | 49.7<br>(9.7)   |
| Semi-conductors                                      | 62.9<br>(0.4)    | 62.2<br>(-1.1)   | 5.6<br>(2.5)    | 5.7<br>(-2.6)   | 5.6<br>(1.7)   | 8.8<br>(56.7)  | 9.7<br>(69.9)   | 9.5<br>(69.6)   |
| Petrochemicals                                       | 37.8<br>(-21.6)  | 36.2<br>(-4.3)   | 3.2<br>(4.2)    | 3.1<br>(-0.3)   | 3.0<br>(0.1)   | 3.7<br>(17.8)  | 4.3<br>(41.6)   | 3.1<br>(6.2)    |
| Iron & steel   | 30.2<br>(-15.0)  | 28.5<br>(-5.5)   | 2.3<br>(-4.4)   | 2.2<br>(-1.0)   | 2.5<br>(10.7)  | 4.7<br>(106.7) | 2.3<br>(4.4)    | 2.6<br>(4.2)    |
| Mining and manufacturing production index (2010=100) | 108.1<br>(-0.3)  | 109.2<br>(1.0)   | 104.8<br>(-2.0) | 111.5<br>(-1.2) | 114.9<br>(5.4) | 113.9<br>(8.7) | 104.5<br>(-6.3) | 113.0<br>(-1.7) |
| ICT production index                                 | 113.1<br>(1.4)   | 118.7<br>(4.9)   | 124.9<br>(-1.2) | 129.0<br>(-0.9) | 128.1<br>(6.8) | 133.2<br>(6.6) | 135.6<br>(5.1)  | 129.2<br>(0.9)  |
| Service industry performance index (2010=100)        | 112.1<br>(2.9)   | 115.5<br>(3.0)   | 115.7<br>(2.9)  | 116.3<br>(2.0)  | 116.0<br>(2.6) | 121.8<br>(5.3) | 115.9<br>(-0.3) | 120.8<br>(4.1)  |

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 Prices

### Global energy prices

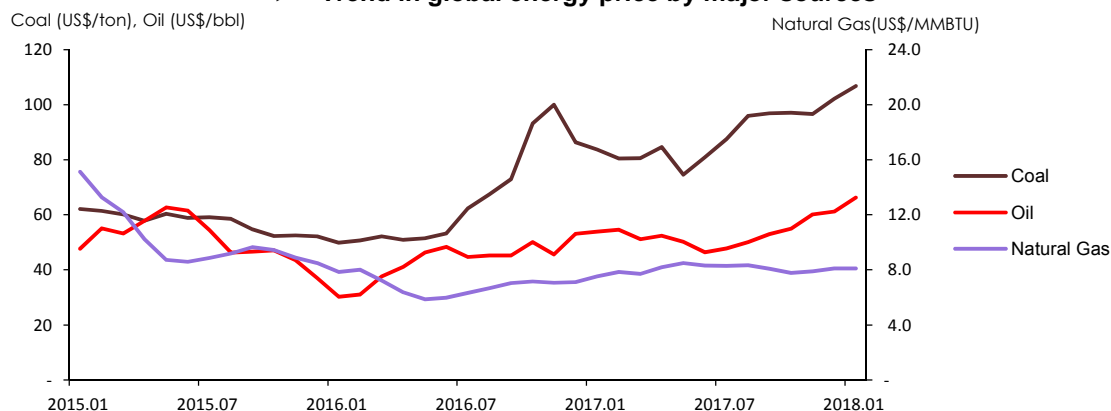
- **Global oil price increased by 8.3% in January compared to the previous month, affected by the political instability in Iran, a possible extension of oil output reduction and reduced crude inventory in the U.S.**
  - There are some concerns over any disruption on Iranian oil supply amid escalating political instability; anti-government protests took place in Iran, the third largest oil producer in OPEC, where at least 15 people were killed and over 450 arrested.
  - Saudi Arabia's Energy Minister, Khalid al-Falih, mentioned on January 21 that the oil output reduction in OPEC and non-OPEC nations could possibly be further extended beyond 2018 deadline, depending on the market conditions.
  - According to EIA data, the U.S. crude oil inventory declined from 4.245mbbl on Dec. 29 to 4.184Mbbbl on Jan. 26, attributing to the oil price increase.

#### ► Trend in global energy prices

|                          | 2016            |                 |                | 2017           |                |                | 2018            |                 |
|--------------------------|-----------------|-----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|
|                          |                 | M11             | M12            | M1             |                | M11            | M12             | M1              |
| Crude oil (US\$/bbl)     | 43.3<br>(-15.2) | 45.6<br>(4.8)   | 53.1<br>(43.2) | 53.9<br>(78.6) | 53.0<br>(22.4) | 60.1<br>(31.9) | 61.2<br>(15.4)  | 66.3<br>(23.0)  |
| Natural gas (US\$/MMBTU) | 6.9<br>(-32.6)  | 7.1<br>(-20.5)  | 7.1<br>(-16.5) | 7.5<br>(-4.2)  | 8.0<br>(16.9)  | 7.9<br>(11.7)  | 8.1<br>(14.1)   | 8.1<br>(7.7)    |
| Coal (US\$/ton)          | 65.9<br>(14.7)  | 100.0<br>(90.2) | 86.3<br>(65.6) | 83.7<br>(68.1) | 88.4<br>(34.1) | 96.6<br>(-3.4) | 102.1<br>(18.3) | 106.8<br>(27.5) |

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)

#### ► Trend in global energy price by major sources



## Domestic energy prices

- **Gasoline and diesel prices maintained the upward trend in January in line with the continuously rising global oil price.**
  - Domestic prices of gasoline and diesel have been constantly increasing since last August as the global oil price has been up for seven months from last July, and the prices reached the highest level since July, 2015 (KRW 1,576/liter, KRW1,355/liter).
- **Domestic prices of propane and butane were unchanged in January from a month earlier, as the global prices were flat compared to the previous month.**
  - Global prices of propane and butane (Saudi Aramco's supply price) were \$590/ton and \$570/ton respectively in December, the same as the previous month, and based on those prices, the domestic prices were set in January.

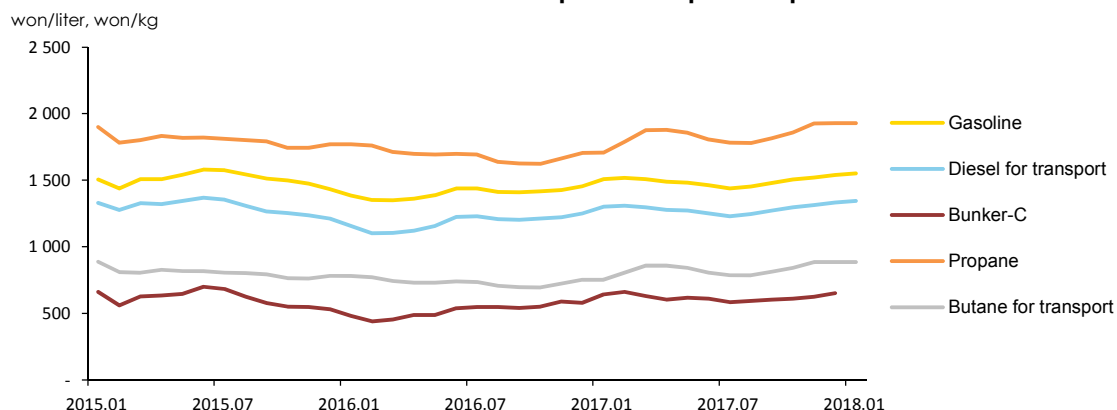
### ► Trend in domestic energy prices

|                                  | 2016              |                   |                   | 2017              |                  |                   | 2018              |                   |
|----------------------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|
|                                  |                   | M11               | M12               | M1                |                  | M11               | M12               | M1                |
| Gasoline (won/liter)             | 1 402.9<br>(-7.1) | 1 427.0<br>(-3.2) | 1 454.6<br>(1.5)  | 1 507.9<br>(8.9)  | 1 491.4<br>(6.3) | 1 521.1<br>(6.6)  | 1 540.3<br>(5.9)  | 1 551.8<br>(2.9)  |
| Diesel for transport (won/liter) | 1 182.9<br>(-9.0) | 1 222.7<br>(-1.0) | 1 249.7<br>(3.2)  | 1 300.2<br>(12.3) | 1 282.6<br>(8.4) | 1 313.0<br>(7.4)  | 1 332.4<br>(6.6)  | 1 344.9<br>(3.4)  |
| Bunker-C (won/liter)             | 521.1<br>(-14.9)  | 589.2<br>(7.6)    | 579.8<br>(9.1)    | 643.1<br>(33.7)   | 619.4<br>(18.9)  | 624.3<br>(5.9)    | 652.3<br>(12.5)   | -<br>-            |
| Propane (won/kg)                 | 1 689.7<br>(-6.2) | 1 664.4<br>(-4.5) | 1 705.0<br>(-3.7) | 1 707.8<br>(-3.5) | 1 833.7<br>(8.5) | 1 926.7<br>(15.8) | 1 929.8<br>(13.2) | 1 929.2<br>(13.0) |
| Butane for transport (won/liter) | 733.9<br>(-9.0)   | 724.9<br>(-4.9)   | 751.6<br>(-3.9)   | 752.1<br>(-3.8)   | 826.4<br>(12.6)  | 884.6<br>(22.0)   | 885.1<br>(17.8)   | 885.3<br>(17.7)   |

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

Source: [www.opinet.co.kr](http://www.opinet.co.kr)

### ► Trend in domestic petroleum product prices



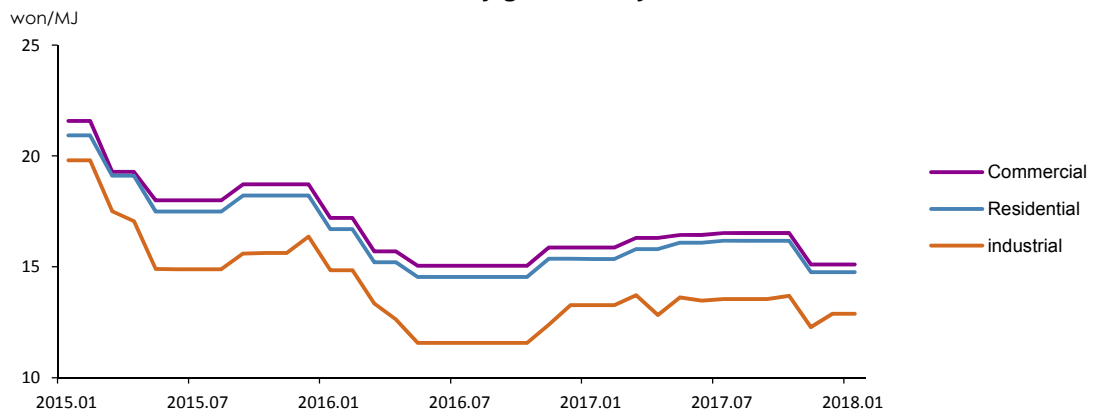
☐ **City gas price was the same as the previous month in January, as global city gas price has been staying at around \$8/MMBTU.**

- Under the raw material cost pass-through scheme, city gas price is adjusted bimonthly in every odd month in order to reflect over 3% changes in natural gas import price, which is affected by global oil price and exchange rates.
- The accounts receivable was accumulated after KOGAS suspended the raw material cost pass-through scheme (2008.3~2013.2) at a time of high oil price, and after KOGAS completed the collection of all accounts receivable through rate increase that started from September 2010 until November 2017, the rates declined again.

☐ **Heat energy price was also the same as the previous month in January in line with the stagnant price of city gas.**

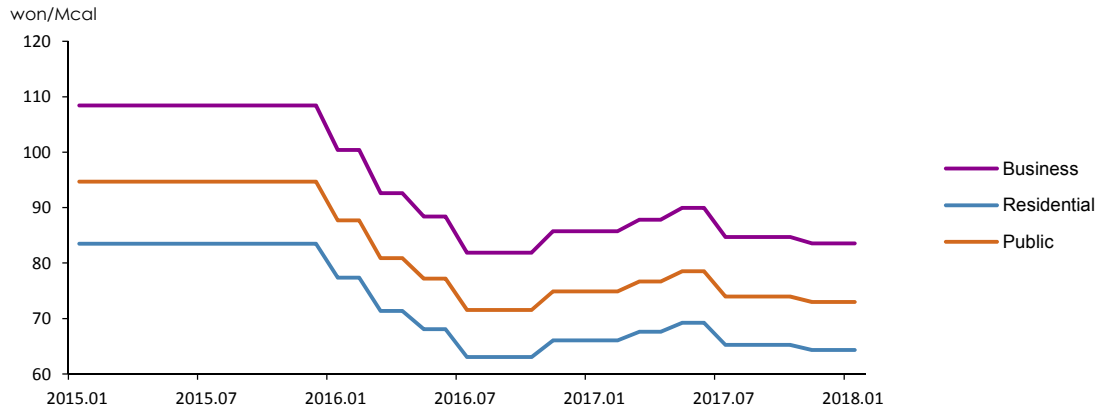
- Korea District Heating Corporation's heat energy price is linked to city gas price based on the fuel cost pass-through scheme, and the actual fuel cost is reflected in the heat energy price once a year (LNG for over 100MW, city gas for under 100MW).

► **Trend in city gas rates by end use sectors**



Note: Instead of volume(M<sup>3</sup>), calorie(MJ) has been used as the unit of measurement in the city gas price system since July 2012. Figures before that are converted based on standard calorie(additional tax, base charge excluded)

### ► Trend in heat energy rates by end-use sectors



Note: The rates are based on flat rate for heating (additional tax, base charge excluded)

Source: Korea District Heating Corporation.

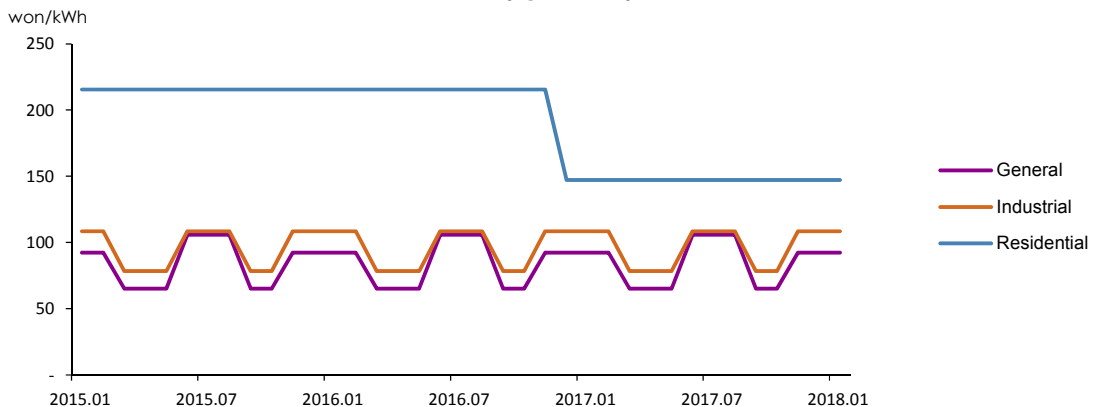
#### ☐ Electricity prices for industrial and general users have been unchanged since the seasonal price adjustment from Autumn to Winter in November.

- Electricity prices for industrial and general consumers rose by 38.2% and 41.6% respectively in November from a month earlier, after the prices were adjusted for winter (Nov-Feb) from spring/autumn (Mar-May, Sep-Oct).

#### ☐ The unit price of electricity for general and residential consumers increased by 1.5% and 4.6% respectively in December than the previous month, while the price for industrial consumers decreased by 0.7%.

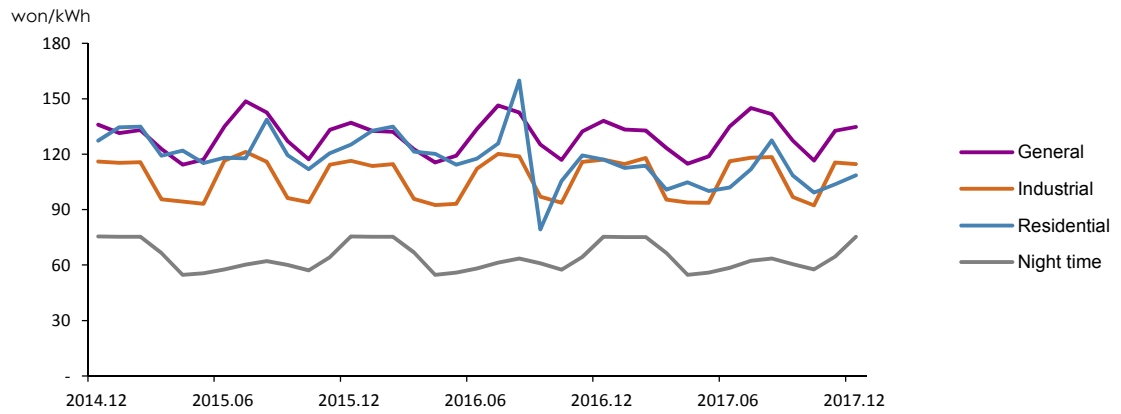
- The unit price of electricity for residential use, to which the progressive pricing system is applied, rose by almost 5% on much expanded demand mainly for heating due to extremely cold weather since last December. In the case of general and industrial use, the unit prices were not significantly changed from the previous month.

### ► Trend in electricity prices by end-use sectors





### ► Trend in unit price of electricity



### 3. Energy Supply

- **The energy import value went up by 15.3% year-on-year in November due to the higher unit price, even though the import volume declined.**
  - The energy import volume declined for the first time since last August, which is attributable to decreased import of petroleum products and LNG.
  - Crude oil import has increased for two months in a row, as crude input to refineries rose by 7.5% with higher utilization rate, although its unit price was up 12.1% partly due to the extension of OPEC's oil production cutback.
  - Foreign energy dependency <sup>1</sup>declined by 0.8%p to 85.1%, thanks to the increased generation from hydropower and other renewable sources.

#### ► Trend in energy trade and domestic production

|                                  | 2015              | 2016p            |                 | 2017p            |                |                |                 |
|----------------------------------|-------------------|------------------|-----------------|------------------|----------------|----------------|-----------------|
|                                  |                   |                  | M1~11           | M1~11            | M9             | M10            | M11             |
| Import volume                    |                   |                  |                 |                  |                |                |                 |
| Crude oil (Mbbl)                 | 1 026.2<br>(10.6) | 1 078.1<br>(5.1) | 978.3<br>(5.4)  | 1 018.3<br>(4.1) | 93.1<br>(-1.1) | 92.8<br>(9.7)  | 94.7<br>(3.3)   |
| Petroleum product (Mbbl)         | 307.9<br>(-5.7)   | 334.6<br>(8.7)   | 307.1<br>(10.2) | 287.8<br>(-6.3)  | 27.4<br>(-5.4) | 26.6<br>(-3.2) | 24.2<br>(-16.8) |
| Bituminous coal (Mton)           | 119.4<br>(1.3)    | 118.5<br>(-0.8)  | 105.7<br>(-2.6) | 120.5<br>(14.0)  | 13.2<br>(19.2) | 9.8<br>(6.1)   | 10.0<br>(1.1)   |
| Anthracite (Mton)                | 8.9<br>(7.8)      | 9.4<br>(5.4)     | 8.8<br>(9.2)    | 6.4<br>(-27.3)   | 0.5<br>(-44.7) | 0.3<br>(-67.9) | 0.6<br>(-37.4)  |
| LNG (Mton)                       | 33.4<br>(-10.1)   | 33.5<br>(0.3)    | 29.4<br>(-1.3)  | 33.4<br>(13.4)   | 2.4<br>(5.8)   | 2.8<br>(-15.3) | 3.3<br>(-2.9)   |
|                                  |                   |                  |                 |                  |                |                |                 |
| Import volume (Mtoe)             | 314.8<br>(1.7)    | 323.1<br>(2.7)   | 292.0<br>(2.3)  | 308.2<br>(5.5)   | 28.2<br>(6.6)  | 27.9<br>(3.7)  | 27.9<br>(-0.2)  |
| Import value (billion US\$, CIF) | 102.7<br>(-41.0)  | 80.9<br>(-21.2)  | 71.9<br>(-23.9) | 98.4<br>(36.9)   | 9.0<br>(30.4)  | 8.9<br>(24.0)  | 9.6<br>(15.3)   |
|                                  |                   |                  |                 |                  |                |                |                 |
| Domestic production              |                   |                  |                 |                  |                |                |                 |
| Hydropower (TWh)                 | 5.8<br>(-25.9)    | 6.6<br>(14.5)    | 6.2<br>(13.4)   | 6.5<br>(5.9)     | 0.7<br>(7.2)   | 0.6<br>(19.7)  | 0.4<br>(2.5)    |
| Anthracite (Mton)                | 1.8<br>(0.9)      | 1.7<br>(-2.2)    | 1.6<br>(-1.9)   | 1.4<br>(-13.4)   | 0.1<br>(-11.7) | 0.1<br>(-36.3) | 0.1<br>(-22.6)  |
| Natural gas (Mton)               | 0.1<br>(-41.5)    | 0.1<br>(-18.0)   | 0.1<br>(-30.3)  | 0.2<br>(156.0)   | 0.0<br>n.a     | 0.0<br>(-4.6)  | 0.0<br>(-2.7)   |
| Renewable energy (Mtoe)          | 12.8<br>(17.2)    | 13.6<br>(5.7)    | 12.4<br>(5.5)   | 13.7<br>(10.5)   | 1.3<br>(14.1)  | 1.2<br>(8.8)   | 1.2<br>(9.8)    |

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

<sup>1</sup> This foreign energy dependency (the share of imported energy in TPES) excludes nuclear energy, and when it's included, the foreign energy dependency fell less sharply by 0.3%p year-on-year to 94.3% due to bigger import of nuclear energy (%).

## 4. Energy Consumption

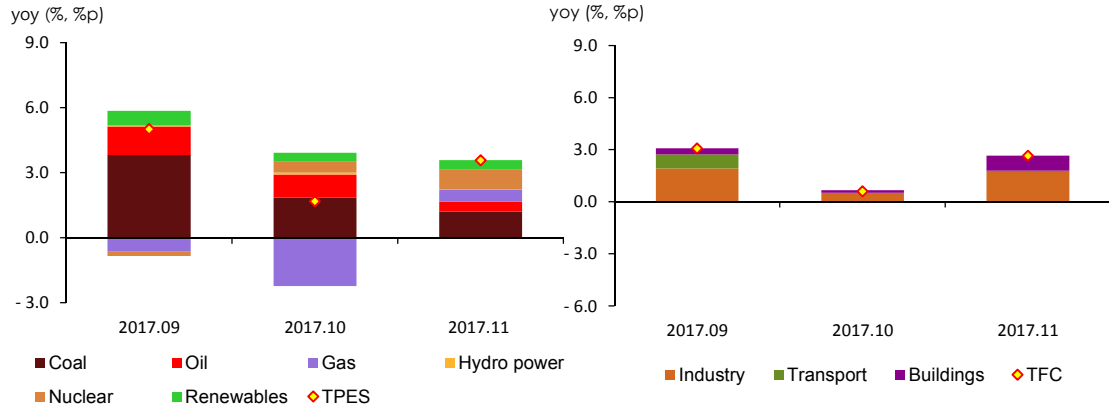
- **Total Primary Energy Supply(“TPES”) posted a year-on-year growth of 3.6% in November, backed by increased use of major energy sources.**
  - Coal consumption rose by 6.4%, despite a sharp decline in the use of anthracite and coal for cement production, because the consumption increased by near 10% in the steelmaking sector and by 11.6% in the power generation sector with increased generation capacity (5.8GW, 18.8%).
  - Petroleum consumption rose slightly by 0.6% due to the consumption growth in the industrial and buildings sectors. The consumption growth rate, however, fell by 5.5%p from the previous month, as naphtha consumption grew more slowly with no more facility extension effect, and as LPG consumption declined more sharply.
  - Gas consumption rebounded by 2.8%, despite a drop in the power generation sector (5.7%), because more gas was consumed for city gas production (10.1%).
  - Nuclear generation increased by 9.5%, marking two consecutive months of growth, as capacity factor and installed capacity both increased following the commissioning of Shinkori unit3 and the restart of a nuclear power plant that was temporarily shut down due to the 2016 earthquake in Gyeongju.
- **Total Final Consumption (“TFC”) rose by 2.7% in November on a year-on-year basis and the growth rate of TFC also increased, led by the industrial and buildings sectors.**
  - Industrial energy consumption recorded faster growth of 2.8%, as the consumption rebounded in the primary metals and fabricated metals industries with more use of coking coal and electricity, though the energy consumption grew more slowly in the petrochemical industry with no more effect from facility extension.
  - Transport energy consumption was flat in November on a year-on-year basis, as the consumption growth in the domestic navigation and aviation sectors was offset by a drop in the road transport sector.
  - Energy consumption in buildings went up by 4.4%, mainly driven by heating demand and affected by higher heating degree days and lower city gas and heat energy prices.
  - Electricity consumption rebounded by 2.6%, as the consumption grew faster in the buildings sector amid lower average temperatures and was recovered in the industrial sector due to the bigger production of electric furnace steel, semi-conductor and petrochemical products.

### ► Energy consumption trend

|                            | 2015         | 2016p        | 2017p        |              |             |             |             |
|----------------------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
|                            |              |              | M1~11        | M1~11        | M9          | M10         | M11         |
| <b>Total energy (Mtoe)</b> | <b>287.7</b> | <b>294.6</b> | <b>266.9</b> | <b>272.2</b> | <b>24.1</b> | <b>24.0</b> | <b>26.0</b> |
|                            | (1.6)        | (2.4)        | (2.4)        | (2.0)        | (5.0)       | (1.7)       | (3.6)       |
| <b>Final energy (Mtoe)</b> | <b>218.4</b> | <b>225.5</b> | <b>204.3</b> | <b>210.4</b> | <b>18.4</b> | <b>18.4</b> | <b>20.0</b> |
|                            | (2.1)        | (3.3)        | (3.2)        | (3.0)        | (3.1)       | (0.6)       | (2.7)       |

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

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



## 5. Coal

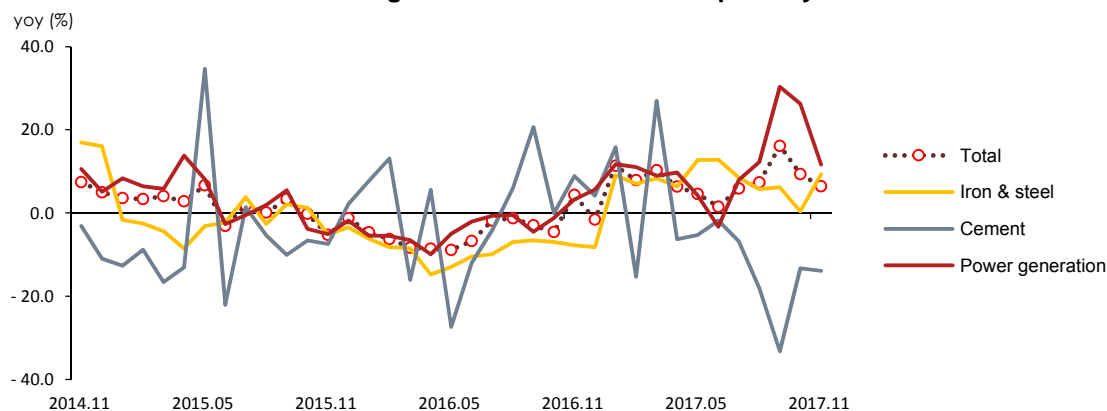
□ Coal consumption recorded a year-on-year growth of 6.4% in November, led by the power generation sector, although the industrial coal consumption fell slightly.

- Coal use for power generation has been rising since July, 2017, despite increased preventive maintenance on daily average (1.4GW, 33.1%), owing to the increased installed capacity (5.8GW, 18.8%).
- Industrial coal consumption fell slightly in November, marking four consecutive months of decline, affected by a sharp reduction in the use of anthracite and coal for cement production, though the consumption increased in the steelmaking sector that makes up the largest part of the industrial coal consumption.
- Anthracite consumption in buildings declined, but just slightly, due to the slower replacement of the fuel with other energy sources

|                    | 2015         | 2016p        | 2017p        |              |             |             |             |
|--------------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
|                    |              |              | M1~11        | M1~11        | M9          | M10         | M11         |
| <b>Coal (Mton)</b> | <b>135.2</b> | <b>129.4</b> | <b>117.5</b> | <b>126.8</b> | <b>12.2</b> | <b>11.5</b> | <b>11.8</b> |
|                    | (1.2)        | (-4.3)       | (-4.5)       | (7.9)        | (16.1)      | (9.3)       | (6.4)       |
| Industry           | 51.3         | 47.9         | 43.9         | 44.8         | 4.0         | 3.7         | 4.2         |
|                    | (-0.8)       | (-6.6)       | (-6.0)       | (2.1)        | (-5.0)      | (-13.4)     | (-1.1)      |
| Buildings          | 1.5          | 1.3          | 1.1          | 0.9          | 0.1         | 0.2         | 0.2         |
|                    | (-9.6)       | (-14.8)      | (-13.0)      | (-12.4)      | (12.9)      | (-14.4)     | (-2.4)      |
| Power generation   | 82.5         | 80.3         | 72.5         | 81.0         | 8.1         | 7.6         | 7.3         |
|                    | (2.8)        | (-2.7)       | (-3.5)       | (11.7)       | (30.4)      | (26.2)      | (11.6)      |

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

► The growth rate of coal consumption by use



## 6. Petroleum

□ **Petroleum consumption was up 0.6% year-on-year in November, though the growth rate declined due to the slower growth of industrial consumption.**

- Industrial petroleum consumption has increased for three months in a row, but its growth rate declined by 5.5%p from the previous month, as the use of naphtha grew more slowly in the petrochemical sector, and LPG consumption fell more sharply.
- Petroleum consumption in the transport sector decreased for two consecutive months due to a drop in the road transport sector, although the aviation and domestic navigation sectors consumed more.
- Petroleum consumption in the buildings sector bounced back despite higher prices of petroleum products, partly affected by higher heating degree days (34.4degree days).

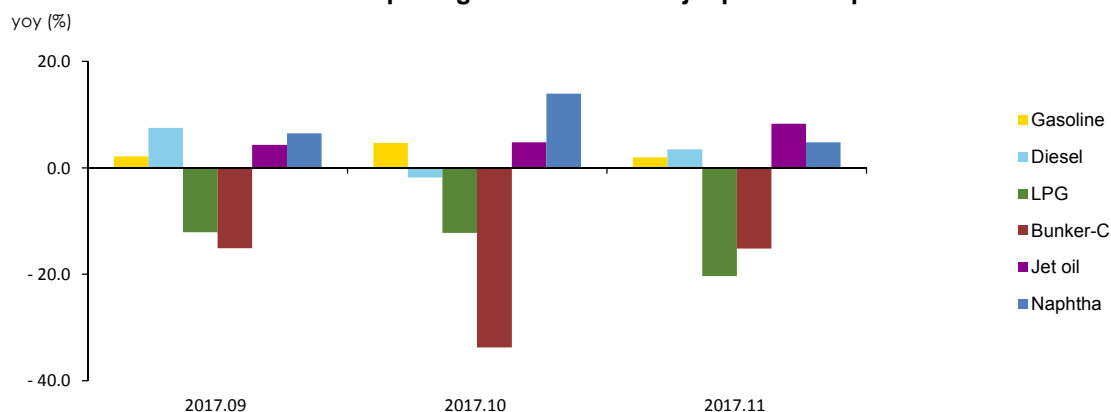
### ► Trend in petroleum product consumption by end-use sectors

|                          | 2015         | 2016p        |              | 2017p        |             |             |             |
|--------------------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
|                          |              |              | M1~11        | M1~11        | M9          | M10         | M11         |
| <b>Petroleum (Mbbbl)</b> | <b>856.2</b> | <b>924.2</b> | <b>838.1</b> | <b>853.0</b> | <b>77.1</b> | <b>80.1</b> | <b>80.2</b> |
|                          | (4.2)        | (7.9)        | (7.9)        | (1.8)        | (2.7)       | (2.9)       | (0.6)       |
| Industry                 | 501.0        | 542.6        | 492.6        | 516.6        | 46.6        | 50.1        | 48.5        |
|                          | (1.9)        | (8.3)        | (8.2)        | (4.9)        | (3.2)       | (7.6)       | (2.1)       |
| Transport                | 287.1        | 303.6        | 276.8        | 278.7        | 26.2        | 25.1        | 25.1        |
|                          | (6.8)        | (5.7)        | (5.5)        | (0.7)        | (3.4)       | (-0.4)      | (-0.4)      |
| Buildings                | 53.5         | 56.3         | 49.1         | 49.2         | 3.9         | 4.4         | 6.0         |
|                          | (11.7)       | (5.2)        | (4.8)        | (0.2)        | (6.3)       | (-0.6)      | (5.4)       |
| Power generation         | 14.6         | 21.8         | 19.6         | 8.5          | 0.4         | 0.4         | 0.6         |
|                          | (13.0)       | (48.7)       | (61.3)       | (-56.8)      | (-53.4)     | (-74.8)     | (-52.7)     |

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

Source: Monthly Energy Statistics

### ► The consumption growth rates of major petroleum products



## 7. Gas

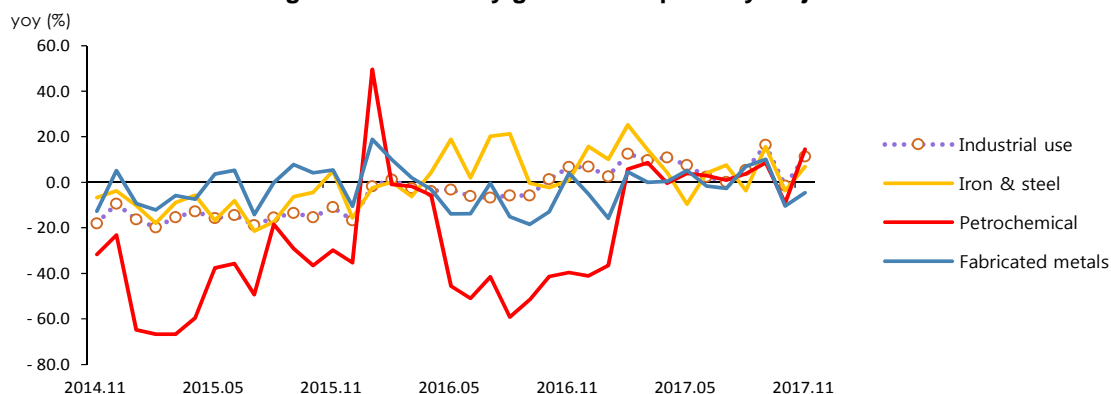
- **Gas consumption went up by 2.8% in November on a year-on-year basis, owing to a dramatic increase in gas demand for city gas production, although the consumption declined in the power generation sector.**
  - Gas consumption declined in the power generation sector, despite bigger power demand (2.6%), as the baseload generation (coal + nuclear) took up more share of the total generation (1.4%p) due to a sharp increase in nuclear generation (9.5%).
- **City gas consumption was up 7.8% year-on-year in November, because the consumption soared in the industrial sector and also increased in the buildings sector.**
  - Industrial city gas consumption rose by over 10%, led by the primary metals and petrochemical industries, though the fabricated metals industry consumed less.
  - City gas consumption in commercial buildings increased by 2.6% with rising cooking and heating demand, affected by more vigorous production in the service industry, and the consumption also increased by 7.7% in residential buildings, as the higher heating degree days led to growing heating demand. Consequently, city gas consumption in the buildings sector increased overall.

► **Trend in natural gas and city gas consumption**

|                                  | 2015        | 2016p       | 2017p       |             |            |            |            |
|----------------------------------|-------------|-------------|-------------|-------------|------------|------------|------------|
|                                  |             |             | M1~11       | M1~11       | M9         | M10        | M11        |
| <b>LNG (Mton)</b>                | <b>33.4</b> | <b>34.9</b> | <b>30.9</b> | <b>31.1</b> | <b>2.0</b> | <b>2.2</b> | <b>3.6</b> |
|                                  | (-8.7)      | (4.4)       | (3.7)       | (0.8)       | (-5.3)     | (-15.8)    | (2.8)      |
| Power generation                 | 14.6        | 15.5        | 14.0        | 13.7        | 1.0        | 0.9        | 1.5        |
|                                  | (-10.6)     | (6.4)       | (5.2)       | (-2.6)      | (-16.8)    | (-30.9)    | (-5.7)     |
| City gas production              | 16.9        | 17.4        | 15.1        | 15.6        | 0.9        | 1.1        | 1.9        |
|                                  | (-6.9)      | (2.7)       | (2.3)       | (3.5)       | (11.9)     | (-1.1)     | (10.1)     |
| <b>City gas (bm<sup>3</sup>)</b> | <b>20.8</b> | <b>21.3</b> | <b>18.6</b> | <b>19.5</b> | <b>1.1</b> | <b>1.3</b> | <b>2.1</b> |
|                                  | (-5.9)      | (2.3)       | (1.6)       | (4.5)       | (11.6)     | (0.7)      | (7.8)      |
| Industry                         | 7.3         | 7.2         | 6.5         | 7.0         | 0.6        | 0.6        | 0.7        |
|                                  | (-15.5)     | (-1.4)      | (-2.3)      | (7.1)       | (16.4)     | (-1.5)     | (11.3)     |
| Buildings                        | 12.2        | 12.8        | 11.0        | 11.4        | 0.4        | 0.6        | 1.2        |
|                                  | (0.5)       | (5.0)       | (4.4)       | (3.5)       | (7.9)      | (4.1)      | (6.3)      |

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

- Electricity consumption went up by 2.6% in November on a year-on-year basis, led by the buildings and industrial sectors.

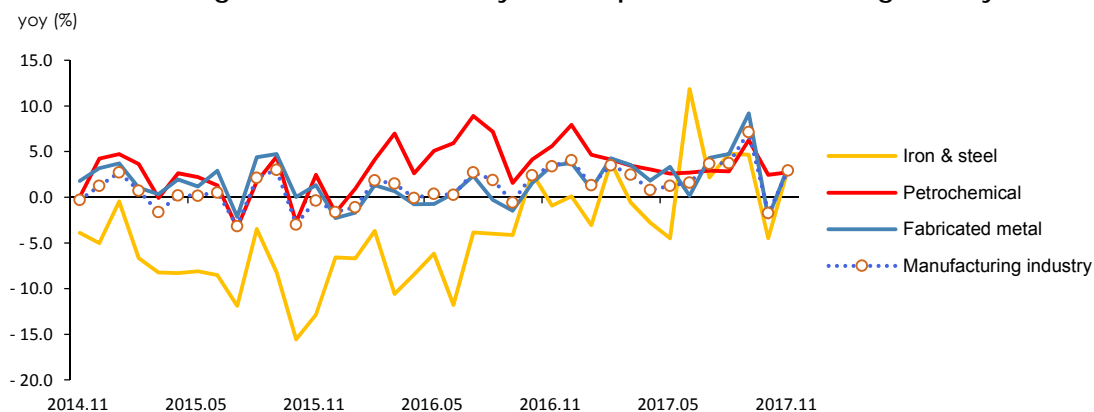
- Industrial electricity consumption rose by 3.1%, as the consumption grew faster in the petrochemical and fabricated metals sectors and rebounded in the primary metals sector.
- More electricity was consumed in all of the residential, commercial and public buildings, affected by increased heating demand due to lower average temperature (-1.1°C in Seoul).

► Trend in electricity consumption by end-use sectors

|                   | 2015           | 2016p          | 2017p          |                |                |                |               |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|
|                   |                |                | M1~11          | M1~11          | M9             | M10            | M11           |
| Electricity (TWh) | 483.7<br>(1.3) | 497.0<br>(2.8) | 453.5<br>(2.6) | 462.0<br>(1.9) | 42.3<br>(2.7)  | 38.4<br>(-0.5) | 41.3<br>(2.6) |
| Industry          | 265.6<br>(0.4) | 270.0<br>(1.6) | 246.4<br>(1.4) | 252.4<br>(2.5) | 23.3<br>(6.2)  | 21.8<br>(-1.7) | 23.4<br>(3.1) |
| Transport         | 2.2<br>(10.7)  | 2.7<br>(21.3)  | 2.5<br>(22.3)  | 2.6<br>(4.0)   | 0.2<br>(4.7)   | 0.2<br>(5.6)   | 0.2<br>(10.6) |
| Buildings         | 215.8<br>(2.3) | 224.4<br>(4.0) | 204.6<br>(4.0) | 207.0<br>(1.1) | 18.7<br>(-1.2) | 16.4<br>(1.1)  | 17.7<br>(1.8) |

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

► The growth rate of electricity consumption in manufacturing industry

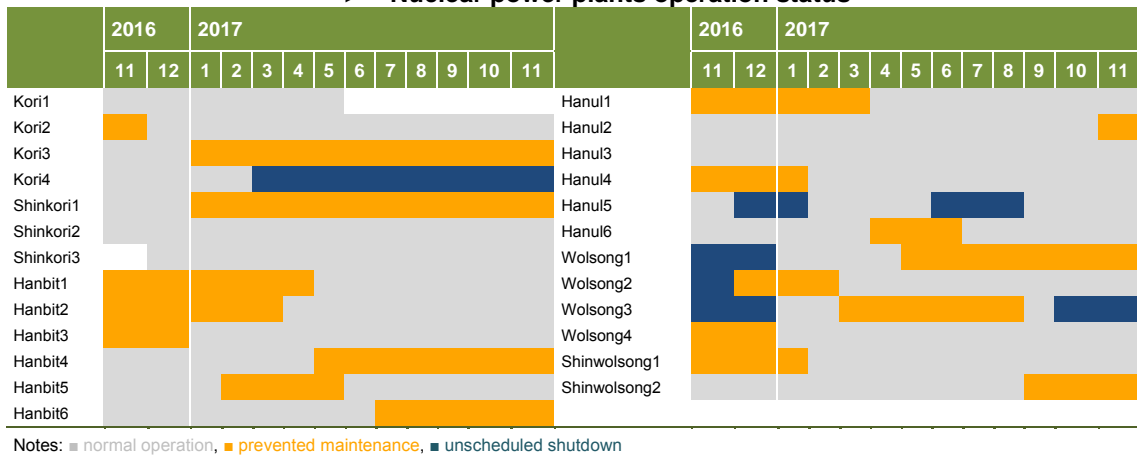




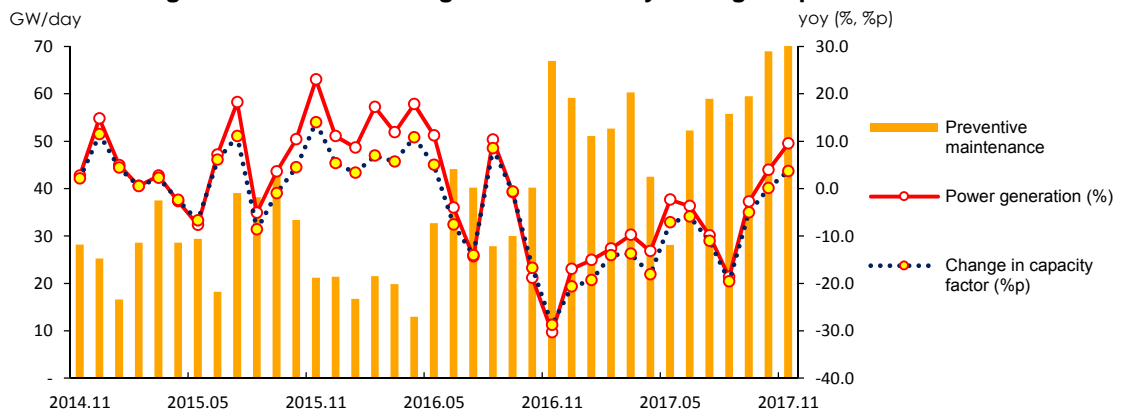
## 9. Nuclear

- Nuclear generation went up by 9.5% year-on-year in November partly because of increased installed capacity and a base effect.
- Nuclear generation increased for two months in a row, after the restart of the power plant that was shut down for an inspection following the 2016 earthquake in Gyeongju, and also backed by the commissioning of Shinkori unit3 (2016.12, 1.4GW).
- The average capacity factors at nuclear power plants rose by 3.7%p to 69.6% due to the base effect of the safety inspection in the same month last year. Nuclear's share of the total generation also increased by 1.3%p year-on-year to 24.5%.

► Nuclear power plants operation status



► The growth rate of nuclear generation & daily average of preventive maintenance



## 10. Heat and Renewable energy

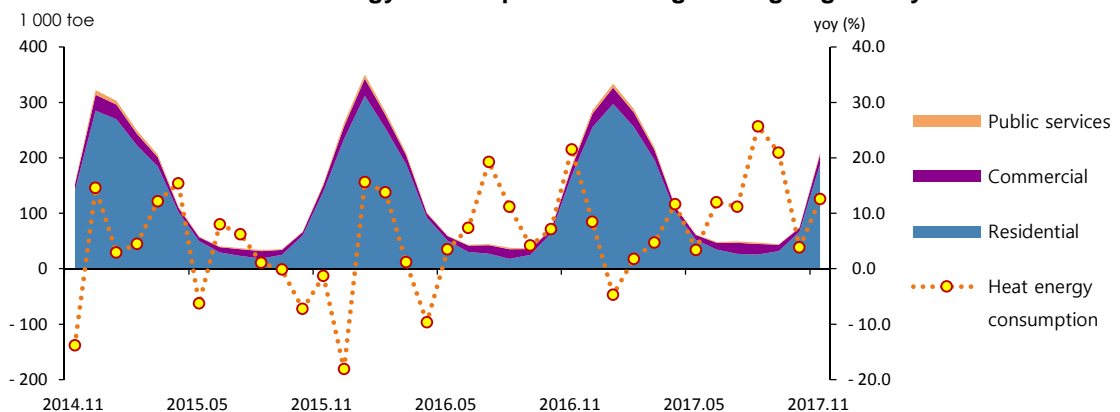
□ **Heat energy consumption posted a year-on-year growth of 12.6% in November due to lower price and higher heating degree days.**

- Heat energy consumption surged, especially in the residential and commercial sectors (11.9%, 20.5%), boosted by the price reduction in November (-2.6%, yoy) and a sudden increase in heating degree days (34.4degree days, 10.2%).

□ **Renewable & other energy consumption was up 9.4% in November on a year-on-year basis, as more power was generated from renewable sources, and its share of TFC also increased.**

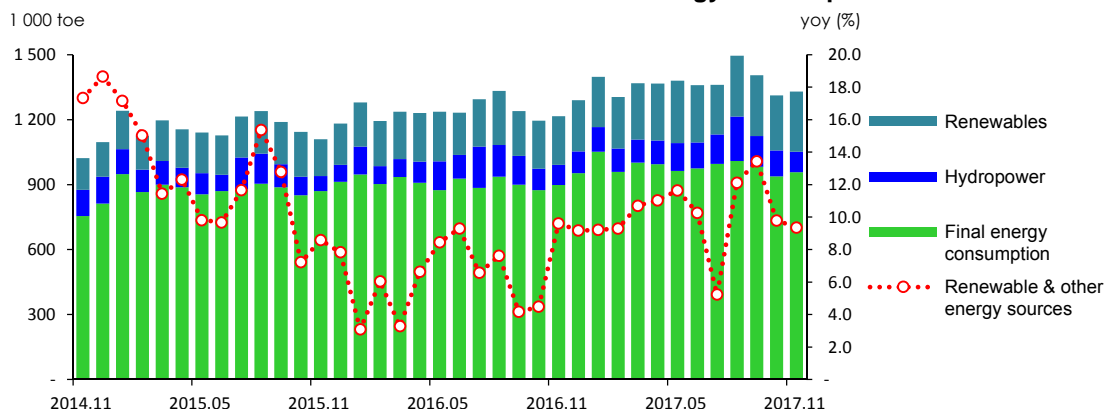
- Renewable generation (except hydropower) went up by 23.1% due to the restart of IGCC and a continuous surge in solar PV, wind and bioenergy generation, and renewable's share of TFC increased by 6.5%.
- Hydropower generation rose by 2.5% (449.7GWh) despite a drop in the amount of precipitation (12.7mm) due to dry weather.

### ► Heat energy consumption & heating/cooling degree days-



Note: The heat energy consumption is based on the supply of KDHC, GS Power, SH Corp. In accordance with the heating/cooling degree days of the meteorological agency, base temperature of heating degree days is set at 18°C and that of cooling degree days was revised from 18°C to 24°C.

### ► Trend in renewable and other energy consumption



## 11. The Industrial Sector

- **Industrial energy consumption rose by 2.8% in November on a year-on-year basis, backed by dramatically increased coking coal use in the primary metals industry.**
  - The petrochemical industry's energy use increased by mere 1.3%, as the growth rate of naphtha consumption fell to a single digit, after it surged in the previous month.
  - The primary metals industry consumed 8.1% more energy, along with the increased use of coking coal (9.3%) and electricity for electric furnace steel (3.1%).
  - The fabricated metals industry posted 2.1% growth in energy consumption, backed by a 3.3% increase in power use due to the continuously growing semi-conductor export.

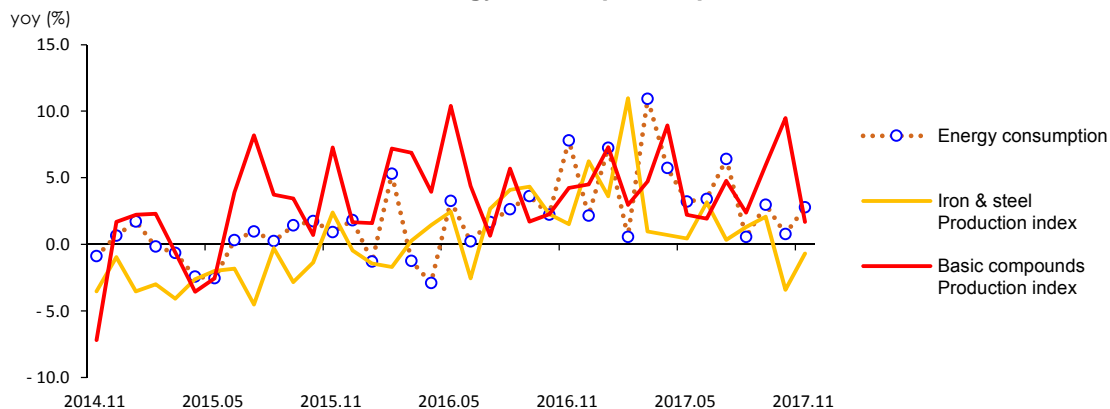
### ► Trend in the industrial energy consumption

|                        | 2015         | 2016p        | 2017p        |              |             |             |             |
|------------------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
|                        |              |              | M1~11        | M1~11        | M9          | M10         | M11         |
| <b>Industry (Mtoe)</b> | <b>135.7</b> | <b>138.3</b> | <b>125.9</b> | <b>131.0</b> | <b>11.8</b> | <b>11.9</b> | <b>12.4</b> |
|                        | (0.3)        | (1.9)        | (1.9)        | (4.0)        | (3.0)       | (0.8)       | (2.8)       |
| Petrochemical          | 61.7         | 65.9         | 60.0         | 62.5         | 5.6         | 6.1         | 5.7         |
|                        | (-0.6)       | (6.8)        | (6.8)        | (4.2)        | (2.8)       | (8.7)       | (1.3)       |
| - Naptha               | 50.4         | 52.7         | 48.0         | 51.2         | 4.6         | 5.0         | 4.8         |
|                        | (3.7)        | (4.7)        | (4.7)        | (6.7)        | (6.5)       | (14.0)      | (4.8)       |
| Iron & Steel           | 30.6         | 28.1         | 25.7         | 27.4         | 2.5         | 2.4         | 2.5         |
|                        | (-3.2)       | (-8.0)       | (-8.1)       | (6.5)        | (5.9)       | (-0.2)      | (8.1)       |
| Fabricated metal       | 10.6         | 10.6         | 9.6          | 9.9          | 0.9         | 0.8         | 0.9         |
|                        | (-1.1)       | (0.4)        | (0.2)        | (3.1)        | (8.9)       | (-4.0)      | (2.1)       |
| Share of feedstock (%) | 59.5         | 58.7         | 58.7         | 59.9         | 60.3        | 62.5        | 59.5        |

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

Source: Monthly energy statistics

### ► Industrial energy consumption & production index



## 12. The Transport Sector

□ **Transport energy use was almost flat compared to the same month last year, despite a drop in the road transport sector, because of an increase in the domestic navigation and aviation sectors.**

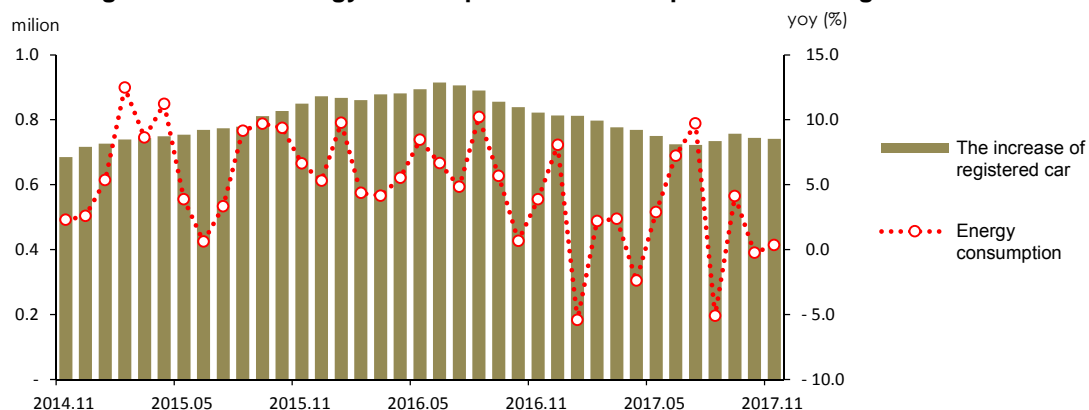
- The transport sector's petroleum consumption in barrels fell by 0.4%, but when a different energy unit is used—tonnage of oil equivalent— it rebounded by 0.2% according to the 7th revision of calorie conversion factor which was retroactively applied from January, 2017.
- As for the domestic prices of petroleum products, the prices of gasoline, diesel, bunker-C oil and butane for transport all increased by 6.6%, 7.4%, 5.9% and 22.0% respectively.
- Energy consumption for road transport fell for two consecutive months despite the increased number of registered cars (3.4%), because of higher petroleum product prices.
- Energy consumption for domestic navigation bounced back, boosted by increased export volume, although the price of bunker-C oil was higher and cargo volume was smaller in coastal transport.
- Energy consumption for aviation has been growing for eight months in a row, despite a drop in domestic air freight, owing to the growing air travel demand on domestic and overseas routes, and consequently increased number of flights and passengers.

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

|                         | 2015        | 2016p       | 2017p       |            |            |            |            |
|-------------------------|-------------|-------------|-------------|------------|------------|------------|------------|
|                         |             |             | M1~11       | M11        | M9         | M10        | M11        |
| <b>Transport (Mtoe)</b> | <b>40.3</b> | <b>42.7</b> | <b>38.9</b> | <b>3.5</b> | <b>3.7</b> | <b>3.5</b> | <b>3.5</b> |
|                         | (7.1)       | (6.0)       | (5.8)       | (0.4)      | (4.1)      | (-0.3)     | (0.4)      |
| Road                    | 32.8        | 34.4        | 31.4        | 2.8        | 3.0        | 2.8        | 2.8        |
|                         | (5.6)       | (4.9)       | (4.7)       | (-1.5)     | (4.9)      | (-1.3)     | (-1.5)     |
| Navigation              | 2.9         | 3.4         | 3.0         | 0.3        | 0.3        | 0.3        | 0.3        |
|                         | (27.0)      | (13.8)      | (14.4)      | (11.4)     | (-3.3)     | (-1.9)     | (11.4)     |
| Aviation                | 4.3         | 4.7         | 4.2         | 0.4        | 0.4        | 0.4        | 0.4        |
|                         | (7.5)       | (9.1)       | (8.0)       | (5.5)      | (3.6)      | (7.9)      | (5.5)      |
| Rail                    | 0.3         | 0.3         | 0.3         | 0.0        | 0.0        | 0.0        | 0.0        |
|                         | (2.2)       | (8.3)       | (9.4)       | (13.1)     | (2.0)      | (13.4)     | (13.1)     |

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

### ► The growth rate of energy consumption in the transport sector & registered car status



## 13. The Buildings Sector

□ **Energy consumption in buildings increased by 4.4% year-on-year in November due to the higher heating degree days and lower prices of heating energy.**

- Energy consumption in buildings increased as a result of growing heating demand, affected by higher heating degree days and lower prices of city gas, heat energy and electricity, though the LPG consumption declined as its price increased.
- Energy consumption in residential buildings posted the highest growth rate of 2017, backed by increased use of city gas, heat energy and electricity (7.7%, 11.9%, 1.0%), although coal and LPG consumption declined by 2.4% and 8.8% respectively.
- Energy consumption in commercial buildings rose by 2.8%, due to more use of heating energy sources except LPG (kerosene 14.6%, diesel 32.8%, heat energy 20.5%) and electricity (2.3%), along with the increased production index of the service industry (4.1%) and higher heating degree days.
- Energy consumption in public buildings went up by 5.6%, according to the increased use of diesel, electricity and heat energy (12.2%, 2.0% and 9.7%), though the LPG and city gas consumption declined (-9.7%, -10.9%).

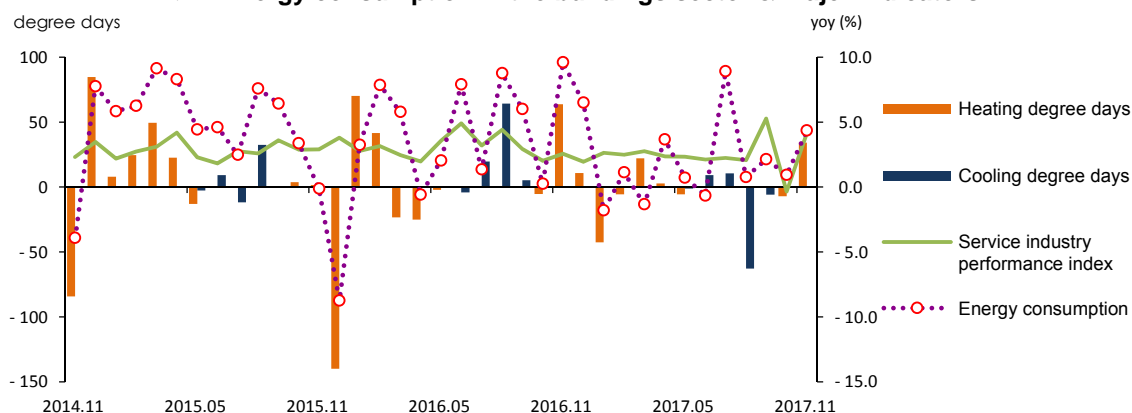
► **Energy consumption trend in the buildings sector**

|                         | 2015        | 2016p       | 2017p       |             |            |            |            |
|-------------------------|-------------|-------------|-------------|-------------|------------|------------|------------|
|                         |             |             | M1~11       | M1~11       | M9         | M10        | M11        |
| <b>Buildings (Mtoe)</b> | <b>42.4</b> | <b>44.5</b> | <b>39.4</b> | <b>39.9</b> | <b>2.9</b> | <b>2.9</b> | <b>4.1</b> |
|                         | (3.6)       | (5.1)       | (4.9)       | (1.4)       | (2.2)      | (0.9)      | (4.4)      |
| Residential             | 20.1        | 21.3        | 18.5        | 18.6        | 1.1        | 1.3        | 2.1        |
|                         | (2.2)       | (5.6)       | (5.2)       | (1.0)       | (2.7)      | (1.2)      | (5.1)      |
| Commercial              | 16.5        | 17.0        | 15.3        | 15.6        | 1.3        | 1.2        | 1.4        |
|                         | (4.0)       | (3.3)       | (3.2)       | (1.8)       | (1.8)      | (1.7)      | (2.8)      |
| Public-others           | 5.8         | 6.2         | 5.6         | 5.7         | 0.5        | 0.5        | 0.5        |
|                         | (7.8)       | (8.4)       | (8.4)       | (1.5)       | (2.0)      | (-1.7)     | (5.6)      |

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

Source: Monthly energy statistics

► **Energy consumption in the buildings sector & major indicators**



## 14. Transformation

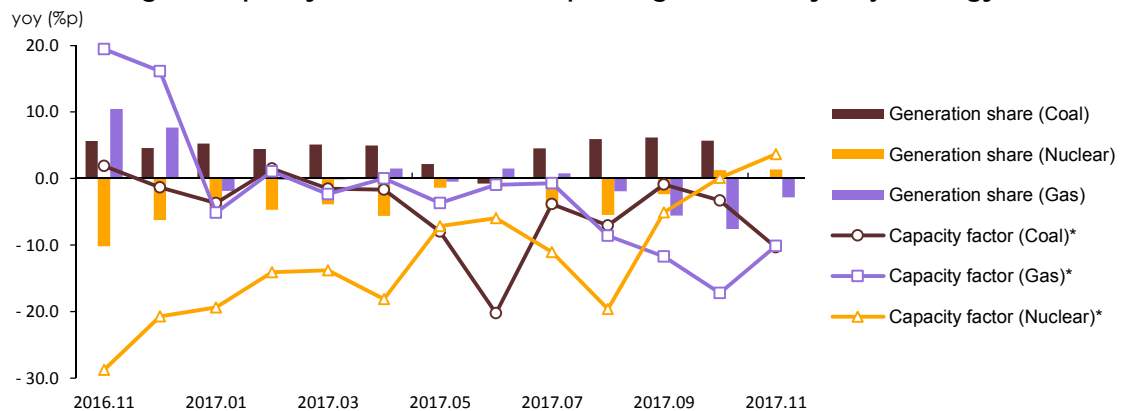
- Total energy input for power generation posted a year-on-year growth of 4.3% in November, as coal and nuclear energy were consumed more, though gas was consumed less.
  - The total power generation and energy input increased, especially coal and nuclear energy, owing to the commissioning of a new generation facility in addition to the base effect.

### ► Energy consumption in the power generation sector

|                        | 2015         | 2016p        | 2017p        |              |            |            |            |
|------------------------|--------------|--------------|--------------|--------------|------------|------------|------------|
|                        |              |              | M1~11        | M1~11        | M9         | M10        | M11        |
| <b>Input (Mtoe)</b>    | <b>110.1</b> | <b>110.9</b> | <b>100.9</b> | <b>100.7</b> | <b>9.3</b> | <b>8.7</b> | <b>9.2</b> |
|                        | (1.1)        | (0.8)        | (0.8)        | (-0.2)       | (8.1)      | (3.1)      | (4.3)      |
| Coal                   | 50.6         | 49.2         | 44.4         | 47.9         | 4.8        | 4.5        | 4.3        |
|                        | (2.7)        | (-2.8)       | (-3.6)       | (7.8)        | (25.9)     | (21.8)     | (7.9)      |
| Oil                    | 2.0          | 3.0          | 2.7          | 1.0          | 0.0        | 0.0        | 0.1        |
|                        | (16.6)       | (50.1)       | (65.4)       | (-62.9)      | (-61.4)    | (-80.5)    | (-62.6)    |
| Gas                    | 19.3         | 20.5         | 18.6         | 18.2         | 1.4        | 1.3        | 2.0        |
|                        | (-10.5)      | (6.3)        | (5.0)        | (-2.0)       | (-16.0)    | (-30.0)    | (-5.1)     |
| Nuclear                | 34.8         | 34.2         | 31.5         | 29.4         | 2.6        | 2.6        | 2.4        |
|                        | (5.3)        | (-1.7)       | (-0.1)       | (-6.8)       | (-1.8)     | (4.9)      | (10.5)     |
| Hydro/other renewables | 3.4          | 4.0          | 3.7          | 4.3          | 0.4        | 0.4        | 0.4        |
|                        | (0.4)        | (17.4)       | (16.7)       | (15.0)       | (24.9)     | (16.9)     | (17.4)     |

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

### ► Change in capacity factor and share of power generation by major energy sources



\*Capacity factor is the ratio of actual energy produced to the amount of energy produced from continuous operation at full rated power

## <Appendix> Major Indicators & Statistics of Energy Supply and Demand

### Major Statistics & Indicators of the Economy

|  | 2014               | 2015             | 2016             |                  |                  |                 | 2017              |                 |                  |
|--|--------------------|------------------|------------------|------------------|------------------|-----------------|-------------------|-----------------|------------------|
|  |                    |                  |                  | 1Q               | 2Q               | 3Q              | 1Q                | 2Q              | 3Q               |
| GDP (trillion won)                                 | 1 427.0<br>(3.3)   | 1 080.2<br>(2.6) | 1 508.3<br>(2.8) | 355.5<br>(2.9)   | 378.6<br>(3.4)   | 378.2<br>(2.6)  | 365.8<br>(2.9)    | 388.8<br>(2.7)  | 392.0<br>(3.6)   |
| Private consumption                                | 692.2<br>(1.7)     | 525.6<br>(1.8)   | 725.0<br>(2.5)   | 181.9<br>(2.3)   | 176.6<br>(3.5)   | 181.9<br>(2.7)  | 185.6<br>(2.0)    | 180.7<br>(2.3)  | 186.3<br>(2.4)   |
| Facilities investment                              | 134.0<br>(6.0)     | 104.2<br>(5.2)   | 137.0<br>(-2.3)  | 31.9<br>(-4.6)   | 35.2<br>(-2.9)   | 33.1<br>(-3.9)  | 36.5<br>(14.4)    | 41.3<br>(17.3)  | 38.8<br>(17.0)   |
| Construction investment                            | 198.5<br>(1.1)     | 153.4<br>(5.5)   | 234.2<br>(10.7)  | 44.7<br>(9.0)    | 62.4<br>(10.6)   | 62.2<br>(11.2)  | 49.7<br>(11.3)    | 67.4<br>(8.0)   | 66.9<br>(7.6)    |
| Consumer price index (2010=100)                    | 99.3               | 100.0            | 101.0            | 100.6            | 100.8            | 101.0           | 102.7             | 102.7           | 103.3            |
| USD to KRW exchange rate (won)                     | 1 052.8            | 1 122.1          | 1 160.8          | 1 202.4          | 1 163.2          | 1 121.1         | 1 154.9           | 1 129.4         | 1 132.3          |
| Benchmark rate (%)                                 | 2.3                | 1.7              | 1.4              | 1.5              | 1.4              | 1.3             | 1.3               | 1.3             | 1.3              |
| Coincident composite index (2010=100)              | 113.6              | 116.6            | 121.1            | 119.5            | 120.5            | 122.0           | 124.2             | 125.2           | 126.1            |
| Mining & manufacturing production index (2010=100) | 108.4              | 106.9            | 109.2            | 105.6            | 109.7            | 106.5           | 109.5             | 110.3           | 110.2            |
| Manufacturing operation ratio index (2010=100)     | 94.3               | 91.9             | 90.4             | 89.1             | 92.3             | 86.9            | 88.2              | 91.2            | 89.5             |
| Average temperature                                | 13.3               | 15.2             | 13.6             | 1.3              | 19.1             | 25.8            | 1.4               | 18.9            | 25.0             |
| - year-on-year difference                          | 0.9                | -0.2             | -0.0             | -0.8             | 0.5              | 0.9             | 0.1               | -0.2            | -0.8             |
| Heating degree days                                | 2 501.6<br>(-13.5) | 1 593.0<br>(6.1) | 2 589.7<br>(5.3) | 1 513.2<br>(6.2) | 140.9<br>(-16.2) | 0.3<br>n.a      | 1 487.5<br>(-1.7) | 138.6<br>(-1.6) | 0.6<br>(100.0)   |
| Cooling degree days                                | 125.4<br>(-35.6)   | 151.8<br>(21.1)  | 238.1<br>(56.9)  | -<br>n.a         | 10.2<br>(-24.4)  | 227.9<br>(64.8) | -<br>n.a          | 18.2<br>(78.4)  | 169.9<br>(-25.5) |
| Energy intensity                                   | 0.20<br>(-2.4)     | 0.20<br>(-0.8)   | 0.20<br>(0.0)    | 0.22<br>(0.4)    | 0.18<br>(-1.7)   | 0.19<br>(0.9)   | 0.22<br>(-1.1)    | 0.18<br>(-0.5)  | 0.19<br>(-0.5)   |
| Per capita consumption                             |                    |                  |                  |                  |                  |                 |                   |                 |                  |
| oil (bbl)  | 16.2<br>(-1.1)     | 12.3<br>(2.7)    | 18.0<br>(7.5)    | 4.5<br>(7.2)     | 4.3<br>(8.0)     | 4.5<br>(7.8)    | 4.6<br>(1.0)      | 4.3<br>(1.3)    | 4.6<br>(1.8)     |
| Electricity (MWh)                                  | 9.4<br>(-0.1)      | 7.2<br>(1.5)     | 9.7<br>(2.3)     | 2.5<br>(1.4)     | 2.3<br>(1.0)     | 2.5<br>(3.8)    | 2.6<br>(0.9)      | 2.3<br>(0.6)    | 2.5<br>(3.3)     |
| City gas (1 000 m <sup>3</sup> )                   | 0.4<br>(-8.1)      | 0.3<br>(-4.4)    | 0.4<br>(1.8)     | 0.2<br>(2.7)     | 0.1<br>(-3.2)    | 0.1<br>(-2.6)   | 0.2<br>(1.9)      | 0.1<br>(3.5)    | 0.1<br>(3.5)     |
| Total energy (toe)                                 | 5.6<br>(0.3)       | 4.2<br>(1.3)     | 5.8<br>(2.4)     | 1.5<br>(2.8)     | 1.3<br>(1.2)     | 1.4<br>(3.0)    | 1.5<br>(1.4)      | 1.4<br>(1.8)    | 1.4<br>(2.8)     |

Note: Figures are based on the real price of 2010, p means provisional, ( ) is year-on-year growth rates (%)  
Source: BOA Economic statistics system, Monthly energy statistics

## The Index of Production & Operating Ratio by Sectors

(2010=100)

(2010=100)

|                             | 2015            | 2016            |                 |                 |                 |                 | 2017           |                 |                  |                 |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|------------------|-----------------|
|                             |                 |                 | M1~11           | M9              | M10             | M11             | M1~11          | M9              | M10              | M11             |
| Industrial production index |                 |                 |                 |                 |                 |                 |                |                 |                  |                 |
| All industry                | 110.0<br>(1.9)  | 113.3<br>(3.0)  | 111.9<br>(2.9)  | 112.4<br>(1.3)  | 113.8<br>(1.8)  | 115.6<br>(4.9)  | 115.0<br>(2.8) | 120.7<br>(7.4)  | 111.0<br>(-2.5)  | 117.7<br>(1.8)  |
| Mining & manufacturing      | 108.1<br>(-0.3) | 109.2<br>(1.0)  | 108.4<br>(0.7)  | 104.8<br>(-2.0) | 111.5<br>(-1.2) | 114.9<br>(5.4)  | 109.8<br>(1.3) | 113.9<br>(8.7)  | 104.5<br>(-6.3)  | 113.0<br>(-1.7) |
| Iron & steel                | 110.9<br>(-2.0) | 112.7<br>(1.6)  | 112.1<br>(1.2)  | 110.9<br>(4.3)  | 117.3<br>(2.3)  | 113.5<br>(1.5)  | 113.9<br>(1.6) | 113.2<br>(2.1)  | 113.3<br>(-3.4)  | 112.7<br>(-0.7) |
| Cement                      | 125.8<br>(19.4) | 134.3<br>(6.8)  | 133.3<br>(6.6)  | 126.0<br>(-4.0) | 146.1<br>(1.0)  | 158.9<br>(21.7) | 135.3<br>(1.5) | 149.1<br>(18.3) | 121.1<br>(-17.1) | 149.3<br>(-6.0) |
| Basic compound              | 115.5<br>(2.2)  | 120.5<br>(4.4)  | 119.9<br>(4.4)  | 119.3<br>(1.7)  | 117.1<br>(2.3)  | 118.3<br>(4.2)  | 125.6<br>(4.7) | 126.4<br>(6.0)  | 128.2<br>(9.5)   | 120.3<br>(1.7)  |
| Transport equipment         | 120.8<br>(1.2)  | 117.4<br>(-2.8) | 115.4<br>(-3.7) | 93.9<br>(-13.9) | 116.8<br>(-8.0) | 133.2<br>(6.8)  | 116.2<br>(0.7) | 119.7<br>(27.5) | 97.2<br>(-16.8)  | 125.4<br>(-5.9) |
| Electric & electronic       | 95.6<br>(-3.3)  | 96.6<br>(1.1)   | 96.0<br>(0.9)   | 96.1<br>(-0.1)  | 102.4<br>(2.8)  | 106.4<br>(8.7)  | 93.8<br>(-2.3) | 100.6<br>(4.7)  | 86.3<br>(-15.7)  | 100.5<br>(-5.5) |
| Service                     | 112.1<br>(2.9)  | 115.5<br>(3.0)  | 114.5<br>(3.1)  | 115.7<br>(2.9)  | 116.3<br>(2.0)  | 116.0<br>(2.6)  | 117.5<br>(2.6) | 121.8<br>(5.3)  | 115.9<br>(-0.3)  | 120.8<br>(4.1)  |
| Operating ratio index       |                 |                 |                 |                 |                 |                 |                |                 |                  |                 |
| Manufacturing               | 92.4<br>(-2.0)  | 90.4<br>(-2.1)  | 90.0<br>(-2.4)  | 84.8<br>(-4.7)  | 91.1<br>(-4.6)  | 94.3<br>(2.6)   | 89.2<br>(-0.9) | 92.0<br>(8.5)   | 82.9<br>(-9.0)   | 91.1<br>(-3.4)  |
| Iron & steel                | 100.2<br>(-2.4) | 103.4<br>(3.2)  | 102.8<br>(2.8)  | 102.3<br>(5.8)  | 108.9<br>(4.2)  | 103.6<br>(1.9)  | 105.4<br>(2.6) | 102.5<br>(0.2)  | 106.5<br>(-2.2)  | 102.4<br>(-1.2) |
| Cement                      | 108.8<br>(8.3)  | 129.8<br>(19.4) | 128.8<br>(19.4) | 122.0<br>(14.0) | 140.6<br>(15.2) | 153.1<br>(36.2) | 130.6<br>(1.4) | 144.2<br>(18.2) | 117.7<br>(-16.3) | 145.6<br>(-4.9) |
| Basic compound              | 91.1<br>(-1.8)  | 94.1<br>(3.3)   | 93.7<br>(3.4)   | 92.7<br>(0.7)   | 90.4<br>(2.3)   | 91.1<br>(3.3)   | 96.1<br>(2.6)  | 97.2<br>(4.9)   | 97.0<br>(7.3)    | 91.1<br>-       |
| Transport equipment         | 105.0<br>(1.5)  | 97.2<br>(-7.4)  | 95.1<br>(-8.7)  | 70.0<br>(-24.6) | 95.9<br>(-14.8) | 115.1<br>(5.5)  | 96.6<br>(1.6)  | 99.1<br>(41.6)  | 77.4<br>(-19.3)  | 105.7<br>(-8.2) |
| Electric & electronic       | 91.4<br>(1.0)   | 92.2<br>(0.8)   | 91.7<br>(0.6)   | 94.6<br>(2.0)   | 98.6<br>(0.7)   | 102.2<br>(11.6) | 89.7<br>(-2.2) | 94.3<br>(-0.3)  | 84.0<br>(-14.8)  | 95.6<br>(-6.5)  |

Note: p means provisional  
Source: Monthly energy statistics



## International Energy Prices

|  | 2015             | 2016             |                  |                  | 2017            |                 |                 |                 | 2018            |
|--|------------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|  |                  |                  | M11              | M12              | M1              |                 | M11             | M12             | M1              |
| Crude oil (USD/bbl)                    |                  |                  |                  |                  |                 |                 |                 |                 |                 |
| WTI                                    | 48.8<br>(-47.5)  | 43.3<br>(-11.2)  | 45.8<br>(6.6)    | 52.2<br>(39.8)   | 52.6<br>(65.5)  | 51.0<br>(17.6)  | 56.7<br>(23.8)  | 58.0<br>(11.1)  | 63.7<br>(21.0)  |
| Dubai                                  | 50.8<br>(-47.5)  | 41.2<br>(-18.8)  | 43.9<br>(5.5)    | 52.1<br>(49.1)   | 53.7<br>(100.0) | 53.2<br>(28.9)  | 60.8<br>(38.5)  | 61.6<br>(18.3)  | 66.2<br>(23.3)  |
| Brent                                  | 53.6<br>(-46.1)  | 45.0<br>(-16.0)  | 47.1<br>(2.5)    | 54.9<br>(41.2)   | 55.5<br>(73.7)  | 54.8<br>(21.7)  | 62.9<br>(33.5)  | 64.1<br>(16.7)  | 69.1<br>(24.6)  |
| Unit value of import (C&F)             | 53.3<br>(-47.5)  | 41.0<br>(-23.0)  | 47.5<br>(4.7)    | 48.0<br>(19.5)   | 52.5<br>(56.7)  | 53.3<br>(29.9)  | 57.9<br>(21.8)  | 62.1<br>(29.3)  | -<br>-          |
| LNG                                    |                  |                  |                  |                  |                 |                 |                 |                 |                 |
| From Indonesia (USD/MMBTU)             | 10.2<br>(-36.3)  | 6.9<br>(-32.6)   | 7.1<br>(-20.5)   | 7.1<br>(-16.5)   | 7.5<br>(-4.2)   | 8.0<br>(16.8)   | 7.9<br>(11.7)   | 8.1<br>(14.1)   | 8.1<br>(7.7)    |
| Unit value of import<br>(USD/ton, CIF) | 549.1<br>(-35.3) | 356.7<br>(-35.0) | 388.3<br>(-21.6) | 379.0<br>(-16.4) | 412.7<br>(-0.9) | 416.3<br>(16.7) | 400.3<br>(3.1)  | 430.0<br>(13.5) | -<br>-          |
| Bituminous coal (USD/ton)              |                  |                  |                  |                  |                 |                 |                 |                 |                 |
| From Australia                         | 57.5<br>(-18.0)  | 65.9<br>(14.5)   | 100.0<br>(90.2)  | 86.3<br>(65.6)   | 83.7<br>(68.1)  | 88.4<br>(34.2)  | 96.6<br>(-3.4)  | 102.1<br>(18.3) | 106.8<br>(27.5) |
| Unit value of import (CIF)             | 73.9<br>(-19.8)  | 68.9<br>(-6.8)   | 95.1<br>(45.3)   | 99.9<br>(55.1)   | 104.2<br>(67.5) | 104.3<br>(51.5) | 107.1<br>(12.6) | 101.2<br>(1.3)  | -<br>-          |
| Petroleum product (USD/bbl)            |                  |                  |                  |                  |                 |                 |                 |                 |                 |
| Gasoline                               | 69.4<br>(-37.4)  | 56.2<br>(-19.1)  | 59.0<br>(-0.4)   | 66.6<br>(20.4)   | 69.5<br>(37.5)  | 68.1<br>(21.2)  | 75.7<br>(28.2)  | 75.4<br>(13.1)  | 78.7<br>(13.2)  |
| Kerosene                               | 64.7<br>(-42.5)  | 52.8<br>(-18.3)  | 56.6<br>(-0.3)   | 64.1<br>(33.6)   | 65.1<br>(72.7)  | 65.3<br>(23.6)  | 74.0<br>(30.9)  | 75.5<br>(17.7)  | 81.0<br>(24.3)  |
| Diesel                                 | 66.6<br>(-41.6)  | 53.0<br>(-20.4)  | 57.0<br>(-2.1)   | 64.2<br>(32.5)   | 66.0<br>(75.1)  | 66.4<br>(25.1)  | 73.2<br>(28.3)  | 75.9<br>(18.2)  | 81.9<br>(24.1)  |
| Bunker-C                               | 45.2<br>(-47.7)  | 35.4<br>(-21.6)  | 42.6<br>(22.0)   | 50.2<br>(77.7)   | 50.8<br>(122.5) | 49.7<br>(40.2)  | 56.7<br>(33.1)  | 56.4<br>(12.2)  | 58.9<br>(15.9)  |
| Propane                                | 416.3<br>(-47.4) | 323.3<br>(-22.3) | 390.0<br>(-1.3)  | 380.0<br>(-17.4) | 435.0<br>(26.1) | 468.8<br>(45.0) | 590.0<br>(51.3) | 590.0<br>(55.3) | 590.0<br>(35.6) |
| Butane                                 | 436.7<br>(-46.1) | 355.8<br>(-18.5) | 440.0<br>(1.1)   | 420.0<br>(-11.6) | 495.0<br>(26.9) | 500.8<br>(40.7) | 570.0<br>(29.5) | 570.0<br>(35.7) | 570.0<br>(15.2) |
| Naphtha                                | 52.5<br>(-44.3)  | 42.5<br>(-19.0)  | 46.5<br>(-2.6)   | 51.3<br>(13.9)   | 55.4<br>(50.1)  | 53.8<br>(26.6)  | 64.4<br>(38.4)  | 65.0<br>(26.9)  | 66.1<br>(19.4)  |

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.petrinet.co.kr, IMF (primary commodity price), Monthly energy statistics

## Total Primary Energy Supply (TPES)

|                                | 2015                  | 2016p                 | 2017p                 |                      |                       |                      | M1~11                 | M9                   | M10                  | M11                  |
|--------------------------------|-----------------------|-----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|
|                                |                       |                       | M1~11                 | M9                   | M10                   | M11                  |                       |                      |                      |                      |
| Coal (Mton)                    | 135.2<br>(1.2)        | 129.4<br>(-4.3)       | 117.5<br>(-4.5)       | 10.5<br>(-3.0)       | 10.5<br>(-4.6)        | 11.1<br>(4.3)        | 126.8<br>(7.9)        | 12.2<br>(16.1)       | 11.5<br>(9.3)        | 11.8<br>(6.4)        |
| - Coking coal excluded         | 98.5<br>(2.6)         | 96.0<br>(-2.5)        | 86.9<br>(-2.8)        | 7.7<br>(-1.5)        | 7.6<br>(-3.7)         | 8.3<br>(9.1)         | 93.8<br>(8.0)         | 9.2<br>(19.8)        | 8.5<br>(12.7)        | 8.8<br>(5.5)         |
| Oil (Mbbbl)                    | 856.2<br>(4.2)        | 924.2<br>(7.9)        | 838.1<br>(7.9)        | 75.1<br>(8.7)        | 77.8<br>(6.0)         | 79.7<br>(7.7)        | 853.0<br>(1.8)        | 77.1<br>(2.7)        | 80.1<br>(2.9)        | 80.2<br>(0.6)        |
| - Non-energy oil excluded      | 411.7<br>(6.0)        | 458.0<br>(11.2)       | 414.3<br>(11.2)       | 37.2<br>(11.4)       | 38.7<br>(6.8)         | 39.6<br>(6.9)        | 405.1<br>(-2.2)       | 37.0<br>(-0.5)       | 36.5<br>(-5.7)       | 38.0<br>(-3.8)       |
| LNG (Mton)                     | 33.4<br>(-8.7)        | 34.9<br>(4.4)         | 30.9<br>(3.7)         | 2.1<br>(1.0)         | 2.6<br>(8.6)          | 3.5<br>(30.1)        | 31.1<br>(0.8)         | 2.0<br>(-5.3)        | 2.2<br>(-15.8)       | 3.6<br>(2.8)         |
| Hydro (TWh)                    | 5.8<br>(-25.9)        | 6.6<br>(14.5)         | 6.2<br>(13.4)         | 0.6<br>(22.7)        | 0.5<br>(15.0)         | 0.4<br>(32.5)        | 6.5<br>(5.9)          | 0.7<br>(7.2)         | 0.6<br>(19.7)        | 0.4<br>(2.5)         |
| Nuclear (TWh)                  | 164.8<br>(5.3)        | 162.0<br>(-1.7)       | 149.4<br>(-0.1)       | 12.7<br>(-0.8)       | 11.7<br>(-18.8)       | 10.3<br>(-30.4)      | 138.0<br>(-7.6)       | 12.3<br>(-2.8)       | 12.1<br>(3.9)        | 11.3<br>(9.5)        |
| Others (Mtoe)                  | 12.8<br>(17.2)        | 13.6<br>(5.7)         | 12.4<br>(5.5)         | 1.1<br>(2.3)         | 1.1<br>(3.6)          | 1.1<br>(8.1)         | 13.7<br>(10.5)        | 1.3<br>(14.1)        | 1.2<br>(8.8)         | 1.2<br>(9.8)         |
| <b>TPES (Mtoe)</b>             | <b>287.7</b><br>(1.6) | <b>294.6</b><br>(2.4) | <b>266.9</b><br>(2.4) | <b>22.9</b><br>(2.4) | <b>23.6</b><br>(-0.2) | <b>25.1</b><br>(4.7) | <b>272.2</b><br>(2.0) | <b>24.1</b><br>(5.0) | <b>24.0</b><br>(1.7) | <b>26.0</b><br>(3.6) |
| - Non-energy oil excluded      | 232.4<br>(1.4)        | 236.6<br>(1.8)        | 214.1<br>(1.8)        | 18.2<br>(1.5)        | 18.7<br>(-1.5)        | 20.1<br>(3.8)        | 216.5<br>(1.1)        | 19.0<br>(4.8)        | 18.5<br>(-0.7)       | 20.8<br>(3.2)        |
| - Non-energy oil&coal excluded | 206.7<br>(1.9)        | 213.2<br>(3.2)        | 192.7<br>(3.1)        | 16.2<br>(2.6)        | 16.6<br>(-0.8)        | 18.2<br>(5.2)        | 193.5<br>(0.4)        | 16.9<br>(4.6)        | 16.5<br>(-0.8)       | 18.7<br>(2.6)        |

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

## Share of TPES by Sources

(unit: %)

|                           | 2015         | 2016p        | 2017p        |              |              |              | M1~11        | M9           | M10          | M11          |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                           |              |              | M1~11        | M9           | M10          | M11          |              |              |              |              |
| Coal                      | 29.8         | 27.8         | 27.8         | 29.2         | 28.2         | 27.7         | 28.8         | 31.4         | 29.5         | 27.9         |
| - Coking coal excluded    | 20.8         | 19.8         | 19.8         | 20.4         | 19.5         | 20.0         | 20.4         | 22.6         | 21.0         | 19.8         |
| Oil                       | 38.1         | 40.1         | 40.1         | 41.6         | 42.1         | 40.4         | 39.9         | 40.9         | 42.4         | 39.5         |
| - non-energy oil excluded | 18.9         | 20.4         | 20.4         | 21.0         | 21.4         | 20.5         | 19.5         | 20.1         | 19.9         | 19.3         |
| LNG                       | 15.2         | 15.4         | 15.1         | 12.1         | 14.2         | 18.4         | 14.9         | 10.9         | 11.8         | 18.3         |
| Hydro                     | 0.4          | 0.5          | 0.5          | 0.6          | 0.4          | 0.4          | 0.5          | 0.6          | 0.5          | 0.4          |
| Nuclear                   | 12.1         | 11.6         | 11.8         | 11.7         | 10.4         | 8.7          | 10.8         | 10.9         | 10.8         | 9.2          |
| Others                    | 4.5          | 4.6          | 4.6          | 4.8          | 4.7          | 4.5          | 5.0          | 5.3          | 5.0          | 4.7          |
| <b>TPES</b>               | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> | <b>100.0</b> |

Note: p means provisional  
Source: Monthly energy statistics

## Total Final Consumption (TFC)

(Unit: Mtoe)

|                         | 2015                  | 2016p                 | 2017p                 |                      |                      |                      | 2017p                 |                      |                      |                      |
|-------------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|
|                         |                       |                       | M1~11                 | M9                   | M10                  | M11                  | M1~11                 | M9                   | M10                  | M11                  |
| Industry                | 135.7<br>(0.3)        | 138.3<br>(1.9)        | 125.9<br>(1.9)        | 11.5<br>(3.6)        | 11.8<br>(2.2)        | 12.0<br>(7.8)        | 131.0<br>(4.0)        | 11.8<br>(3.0)        | 11.9<br>(0.8)        | 12.4<br>(2.8)        |
| Transport               | 40.3<br>(7.1)         | 42.7<br>(6.0)         | 38.9<br>(5.8)         | 3.6<br>(5.7)         | 3.6<br>(0.7)         | 3.5<br>(3.9)         | 39.5<br>(1.3)         | 3.7<br>(4.1)         | 3.5<br>(-0.3)        | 3.5<br>(0.4)         |
| Residential-commercial  | 36.6<br>(3.0)         | 38.3<br>(4.5)         | 33.8<br>(4.3)         | 2.3<br>(5.7)         | 2.4<br>(-0.9)        | 3.4<br>(10.3)        | 34.2<br>(1.3)         | 2.4<br>(2.2)         | 2.4<br>(1.4)         | 3.6<br>(4.2)         |
| Public                  | 5.8<br>(7.8)          | 6.2<br>(8.4)          | 5.6<br>(8.4)          | 0.5<br>(7.4)         | 0.5<br>(6.6)         | 0.5<br>(5.1)         | 5.7<br>(1.5)          | 0.5<br>(2.0)         | 0.5<br>(-1.7)        | 0.5<br>(5.6)         |
| <b>TFC</b>              | <b>218.4</b><br>(2.1) | <b>225.5</b><br>(3.3) | <b>204.3</b><br>(3.2) | <b>17.8</b><br>(4.4) | <b>18.2</b><br>(1.6) | <b>19.5</b><br>(7.4) | <b>210.4</b><br>(3.0) | <b>18.4</b><br>(3.1) | <b>18.4</b><br>(0.6) | <b>20.0</b><br>(2.7) |
| Coal (Mton)             | 52.7<br>(-1.1)        | 49.1<br>(-6.8)        | 45.0<br>(-6.2)        | 4.3<br>(-0.5)        | 4.5<br>(-8.9)        | 4.5<br>(5.9)         | 45.8<br>(1.8)         | 4.1<br>(-4.6)        | 3.9<br>(-13.4)       | 4.5<br>(-1.1)        |
| Oil (Mbbl)              | 841.6<br>(4.1)        | 902.4<br>(7.2)        | 818.5<br>(7.1)        | 74.2<br>(8.4)        | 76.3<br>(5.2)        | 78.4<br>(9.4)        | 844.6<br>(3.2)        | 76.7<br>(3.4)        | 79.7<br>(4.4)        | 79.6<br>(1.5)        |
| Electricity (TWh)       | 483.7<br>(1.3)        | 497.0<br>(2.8)        | 453.5<br>(2.6)        | 41.2<br>(3.7)        | 38.5<br>(2.9)        | 40.3<br>(3.5)        | 462.0<br>(1.9)        | 42.3<br>(2.7)        | 38.4<br>(-0.5)       | 41.3<br>(2.6)        |
| City gas (Bm³)          | 20.8<br>(-5.9)        | 21.3<br>(2.3)         | 18.6<br>(1.6)         | 1.0<br>(-3.0)        | 1.2<br>(1.1)         | 1.9<br>(12.7)        | 19.5<br>(4.5)         | 1.1<br>(11.6)        | 1.3<br>(0.7)         | 2.1<br>(7.8)         |
| Heat-others (1 000 toe) | 12.2<br>(13.4)        | 12.6<br>(3.8)         | 11.4<br>(3.7)         | 0.9<br>(1.6)         | 0.9<br>(3.2)         | 1.1<br>(6.0)         | 12.3<br>(7.9)         | 1.0<br>(9.6)         | 1.0<br>(6.9)         | 1.2<br>(7.5)         |

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

Source: Monthly energy statistics

## Share of the Total Final Consumption by Sources

(unit: %)

|                        | 2015  | 2016p | 2017p |       |       |       | 2017p |       |       |       |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                        |       |       | M1~11 | M9    | M10   | M11   | M1~11 | M9    | M10   | M11   |
| Industry               | 62.2  | 61.3  | 61.6  | 64.3  | 64.8  | 61.7  | 62.3  | 64.3  | 64.9  | 61.8  |
| Transport              | 18.5  | 18.9  | 19.1  | 20.0  | 19.5  | 18.1  | 18.8  | 20.2  | 19.3  | 17.7  |
| Residential-commercial | 16.8  | 17.0  | 16.5  | 13.0  | 13.2  | 17.5  | 16.3  | 12.8  | 13.3  | 17.8  |
| Public                 | 2.6   | 2.8   | 2.8   | 2.7   | 2.5   | 2.6   | 2.7   | 2.7   | 2.5   | 2.7   |
| Final energy           | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Coal                   | 16.1  | 14.5  | 14.6  | 16.0  | 16.2  | 15.1  | 14.5  | 14.9  | 14.1  | 14.7  |
| Oil                    | 49.1  | 50.9  | 50.9  | 52.8  | 53.1  | 51.0  | 51.1  | 53.2  | 55.1  | 50.9  |
| Electricity            | 19.0  | 19.0  | 19.1  | 19.9  | 18.2  | 17.8  | 18.9  | 19.8  | 18.0  | 17.7  |
| City gas               | 10.1  | 10.1  | 9.7   | 6.1   | 7.3   | 10.5  | 9.7   | 6.5   | 7.3   | 10.9  |
| Heat-others            | 5.6   | 5.6   | 5.6   | 5.3   | 5.2   | 5.6   | 5.9   | 5.6   | 5.5   | 5.8   |

Note: p means provisional

Source: Monthly energy statistics

## Statistics on Energy Production Facilities

|                              | 2014           | 2015          | 2016           | 2017p          |                |                | 2017p           |                 |                 |
|------------------------------|----------------|---------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
|                              |                |               |                | M9             | M10            | M11            | M9              | M10             | M11             |
| Total capacity (GW)          | 93.2<br>(7.2)  | 97.6<br>(4.8) | 105.9<br>(8.4) | 102.0<br>(5.4) | 103.1<br>(5.7) | 103.3<br>(5.8) | 115.2<br>(19.0) | 115.9<br>(18.9) | 116.3<br>(19.1) |
| Nuclear                      | 20.7<br>-      | 21.7<br>(4.8) | 23.1<br>(6.4)  | 21.7<br>(0.0)  | 21.7<br>-      | 21.7<br>(-0.0) | 22.5<br>(3.7)   | 22.5<br>(3.7)   | 22.5<br>(3.7)   |
| Bituminous coal              | 25.9<br>(10.7) | 26.2<br>(1.1) | 30.9<br>(18.0) | 28.8<br>(11.3) | 29.9<br>(14.7) | 29.9<br>(14.1) | 36.2<br>(39.8)  | 36.2<br>(39.1)  | 36.2<br>(38.3)  |
| Gas                          | 30.3<br>(27.2) | 32.2<br>(6.5) | 32.6<br>(1.2)  | 32.6<br>(2.3)  | 32.6<br>(1.1)  | 32.6<br>(1.2)  | 36.6<br>(15.0)  | 37.1<br>(15.0)  | 37.5<br>(16.2)  |
| Refinery capacity (mil BPSD) | 2.9<br>-       | 3.1<br>(3.7)  | 3.1<br>-       | 3.1<br>-       | 3.1<br>-       | 3.1<br>-       | 3.1<br>-        | 3.1<br>-        | 3.1<br>-        |

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

Source: The monthly report on major electric power statistics

## Statistics on Energy Consumption

|  | 2014          | 2015          | 2016          | 2017p         |               |               | 2017p         |               |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|  |               |               |               | M9            | M10           | M11           | M9            | M10           | M11           |
| The number of household demanding city gas (mil) | 16.9<br>(3.1) | 17.4<br>(3.0) | 18.0<br>(3.4) | 17.7<br>(3.4) | 17.8<br>(3.4) | 17.9<br>(3.4) | 18.2<br>(3.3) | 18.3<br>(3.1) | 18.4<br>(3.0) |
| Registered cars (mil)                            | 20.1<br>(3.7) | 21.0<br>(4.3) | 21.8<br>(3.9) | 21.6<br>(4.1) | 21.7<br>(4.0) | 21.7<br>(3.9) | 22.4<br>(3.5) | 22.4<br>(3.4) | 22.5<br>(3.4) |
| - gasoline                                       | 9.6<br>(2.0)  | 9.8<br>(2.3)  | 10.1<br>(2.9) | 10.0<br>(2.8) | 10.0<br>(2.8) | 10.1<br>(2.8) | 10.3<br>(2.9) | 10.3<br>(2.9) | 10.4<br>(2.9) |
| - diesel   | 7.9<br>(7.3)  | 8.6<br>(8.6)  | 9.2<br>(6.4)  | 9.0<br>(7.2)  | 9.1<br>(6.9)  | 9.1<br>(6.6)  | 9.5<br>(4.8)  | 9.5<br>(4.7)  | 9.5<br>(4.6)  |
| - LPG  | 2.3<br>(-2.3) | 2.3<br>(-3.4) | 2.2<br>(-4.0) | 2.2<br>(-3.8) | 2.2<br>(-3.9) | 2.2<br>(-4.0) | 2.1<br>(-3.1) | 2.1<br>(-3.0) | 2.1<br>(-2.9) |
| - hybrid   | 0.1<br>(40.0) | 0.2<br>(31.3) | 0.2<br>(37.6) | 0.2<br>(36.7) | 0.2<br>(37.3) | 0.2<br>(37.4) | 0.3<br>(36.4) | 0.3<br>(36.2) | 0.3<br>(37.6) |

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

Source: Monthly energy statistics

# KEEI

MONTHLY **KOREA ENERGY TRENDS** [2018, NO.71]



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KEEI Monthly Korea Energy Trends is designed to be used for energy policy and market strategy in the government and industrial sector by analyzing and providing energy economic indicators in Korea.

This report is written by the Energy Demand and Supply Division of the Center for Energy Information and Statistics in cooperation with the Energy Statistics Research Division of KEEI and other related research divisions.

The energy economic indicators included in this report will be constantly updated until further confirmation.

If you have any further inquiries, please send an email to [EnergyOutlook@keei.re.kr](mailto:EnergyOutlook@keei.re.kr) or call +82-52-714-2270.

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405-11, Jongga-ro, Jung-gu, Ulsan, Korea, 44543

Phone: +82-52-714-2270

Fax: +82-52-714-2025

Email: [webmaster@keei.re.kr](mailto:webmaster@keei.re.kr)

Homepage: <http://www.keei.re.kr>