Explanatory Notes on Main Statistical Indicators

Total Primary Energy Production refers to the total production of primary energy in a given period of time. It is a comprehensive indicator to show the level, scale, composition and growth of energy production of the country. It includes that of coal, crude oil, natural gas, hydropower and electricity generated by nuclear energy and other means such as wind power and geothermal power, etc. However, it does not include the production of fuels of low calorific value and secondary energy converted from primary energy.

Total Energy Consumption refers to the total consumption of energy of various kinds by the production sectors of the economy and the households in a given period of time. It includes primary energy such as coal, crude oil, natural gas, hydropower, nuclear power, wind power, solar power, geothermal power and bio-energy; the secondary energy and their products which are transformed from the primary energy such as washed coal, coke, coal gas, electricity, heating, and petroleum products; and other kinds of fossil energy, renewable energy and new energy. The renewable energy refers to the part of renewable energy that is attained with some given technical means and used for commercial purposes, including hydropower, wind power, solar power, geothermal power and bio-energy. In the process of accounting, there should be no double or multiple counting between and primary and the secondary accounting. Total energy consumption can be divided into three parts: final energy consumption; loss during the process of energy transformation; and other losses.

(1) Final Energy Consumption: It refers to the consumption of various kinds of energy in a given period of time, not involving the energy consumed for transformation.

(2) Losses During the Process of Energy Transformation: It refers to the total input of various kinds of energy for transformation, minus the total output of various kinds of energy products in a given period of time. It is an indicator to show the losses that occurs during the process of energy transformation.

(3) Other Losses: It refers to the total of the losses of energy during the course of energy transport, distribution and storage and the losses caused by any objective reason in a given period of time. The losses of various kinds of gas due to gas discharges and stocktaking is not included.

Elasticity Ratio of Energy Production is an indicator to show the relationship between the growth rate of energy production and the growth rate of the national economy. The formula is:

$$\text{Elasticity ratio of energy production} = \frac{\text{Average annual growth rate of energy production}}{\text{Average annual growth rate of national economy}}$$

The average annual growth rate of the national economy can be measured by indicators such as the gross national product or the gross domestic product, depending on the purposes or needs. The gross domestic product has been used in the calculation of the ratio in the Yearbook.

Elasticity Ratio of Electricity Production is an indicator to show the relationship between the growth rate of electricity production and the growth rate of the national economy. The formula is:

$$\text{Elasticity ratio of electricity production} = \frac{\text{Average annual growth rate of electricity production}}{\text{Average annual growth rate of national economy}}$$

Elasticity Ratio of Energy Consumption is an indicator to show the relationship between the growth rate of energy consumption and the growth rate of the national economy. The formula is:

$$\text{Elasticity ratio of energy consumption} = \frac{\text{Average annual growth Rate of energy consumption}}{\text{Average annual growth rate of national economy}}$$

Elasticity Ratio of Electricity Consumption is an indicator to show the relationship between the growth rate of electricity consumption and the growth rate of the national economy. The formula is:

$$\text{Elasticity ratio of electricity consumption} = \frac{\text{Average annual growth rate of electricity consumption}}{\text{Average annual growth rate of national economy}}$$

Efficiency of Energy Transformation refers to the ratio of the total output of various kinds of energy products after transformation to the total input of various kinds of energy for transformation during a given period. It is an important indicator to show the current conditions of energy transformation equipment, production technique and management. The formula is:

$$\text{Efficiency of energy transformation} = \frac{\text{Output of energy after transformation}}{\text{Input of energy for transformation}} \times 100\%$$

Energy Consumption per Unit of GDP refers to the energy consumption per unit of gross domestic product in a country or in a region during a given period. The formula is:

$$\text{Energy consumption per unit of GDP} = \frac{\text{Total energy consumption}}{\text{Gross domestic product}}$$

Electricity Consumption per Unit of GDP refers to the electricity consumption per unit of gross domestic product in a country or in a region during a given period. The formula is:

$$\text{Electricity consumption per unit of GDP} = \frac{\text{Total electricity consumption}}{\text{Gross domestic product}}$$