

IX. ENERGY

The chapter comprises data characterizing the energy flows.

The overall energy balance comprises all primary and secondary energy sources, their transformation and final use.

Primary energy is the energy obtained from the nature that is not transformed, as hydro power, coal, crude petroleum, natural gas, firewood and thermal energy produced in chemical processes.

Secondary energy is obtained by transformation of primary energy (or from other types of secondary energy) as electricity, derived gases, oil products.

The national energy statistics gives also an account on the gross energy consumption, i.e. total energy consumed in the country including losses. The gross energy consumption includes the sum of produced primary energy, net imports of various energy sources (primary and secondary) and changes in stocks.

Final energy consumption includes the delivered and used energy for production (excluding production of another type of energy) and non-production needs of consumers.

A negligible part of the primary energy is used for direct (final) consumption and the largest part is used for production of secondary energy resources as electricity, briquettes, coke, liquid fuels, etc. The amounts of fuels and energy inputs for transformation are indicated in the energy balance by the sign '-', while those obtained as a result of transformed secondary resources - by the sign '+'. The change in stocks indicated by '+' shows decrease in the stocks of energy sources at the end of the year and this indicated by '-' shows increase.

Data on the consumption of energy-producing enterprises supplies information on the energy used for

exploitation of the installed equipment at the enterprises producing primary energy and energy-transforming enterprises.

The indicator 'Marine bunkering' represents the delivered amounts of fuels needed for long distance travel of ships irrespective of their nationality.

The energy reduced to conventional fuel is equivalent to the amounts of fuels that would be necessary for production of a definite amount of electricity by thermo-electric plants for public use.

The information on the overall energy balance is presented in Terajoules.

Joule and its multiples are used as general energy units in the world practice. The conversion from one type of measure unit into another is effected by the following relation:

$$\begin{aligned} 1 \text{ Gigajoule} &= 34 \text{ kg coal equivalent} = \\ &= 0,239 \text{ Gigacal} = 278 \text{ kWh} \\ 1 \text{ Terajoule} &= 10^3 \text{ Gigajoules} \end{aligned}$$

Data in Table 6 'Energy independence of the country' indicate the provision with domestic primary energy sources.

Data in Table 13 'Consumption of main raw materials in economy by branch' characterize the production use of main raw materials by respective branch-consumers.

Some of the totals (rows or columns) are not equal to the sum of the constituents because of the recalculation of the quantities of energy sources from a specific type of measure in general energy measure and procedures of rounding of the figures.