

1. Objectives of the ENERGO 2004 survey

The main purpose of the whole survey was obtaining as large as possible quantities of data concerning parameters, availability, energy intensity and operational expenses of dwelling (household). In principle following indicators were considered:

* Average dwellings characteristics and parameters

Characteristics and parameters of selected dwellings are gathered in modules 1 and 2 in questionnaire A. Above all following parameters are concerned: Region/district/municipality, urban / rural locality, family house/multi-dwelling building, kind of dwelling ownership, building's age and isolation, dwelling's living / heated floor area, kind of heating, used fuels and energy (including renewable energy sources surveyed separately in questionnaire B), as well as to establish whether a dwelling is used for private enterprising. Further there were found out and processed another data, in division according to localities, for Higher Territorial Self-Governing Units (=NUTS, further regions), for whole CR.

* Energy appliances availability in dwellings

One of the main objectives of the survey was to establish availability of electrical appliances ensuring current needs of households (so-called "white ware" - e.g. washing machine/dryer, refrigerator/freezer, dish washer and others), further then of other electric appliances, i.e. e. TV set, lighting, PC etc., including their average age.

Further it was established availability (as well only found out existence, not number) of appliances for all other fuels and energies, ensuring energy needs of household; i.e. e. heating, preparation (production) of domestic hot water (further only DHW) and cooking, including their average age.

* Money expenditures of households on fuels and energies

There were established total annual costs on spent fuels and energy, relating to:

- one dwelling [CZK/dwelling]
- 1 m² of heated floor area [CZK/ m²]

* Energy consumption of dwellings

Total average annual energy consumption relating to 1 dwelling in division according to localities and regions, was established including/without entrepreneurial (business) activities [GJ/dwelling].

Annual energy consumption of dwellings at various ways of their energy supply provision then gives picture on fuels and energy consumption per 1 dwelling or per 1 m² of heated floor area of dwelling at different combinations of used fuels and energies.

* Specific fuels and energy consumption according to purpose of use

Total energy consumption of dwelling was, by utilization of characteristic specific consumption values of final work for individual purposes of use, divided into partial consumptions for

- heating
- preparation (production) of domestic hot water (DHW)
- cooking
- lighting and operation of domestic electrical appliances (so-called "incommutable electricity")

* **Application of renewable energy sources in households**

Application of renewable energy sources (onwards RES) for covering dwelling energy consumption was surveyed separately in questionnaire B, and there were concerned:

- use of heat pumps
- use of solar panels.

It was surveyed operation of small hydro power plants (SHPP), as well.

* **Car availability in household**

There are stated following data: availability (existence), kind of mainly used fuel, consumption in l/100 km and annually traveled kilometers by vehicle. Specific consumption and annual run (average kilometers per year) are calculated from data of households with one reported car in order to avoid the data deformation. Data on number of households with more than one car are presented as well. All data are presented in division of dwellings in urban and rural localities.

* **Influence of above sea level height on dwellings energy consumption**

Realized survey proved influence of above sea level height of dwellings on their specific energy consumption level.

* **Validity of data**

To assess data validity by their comparison with data from other information sources it is necessary to tell that fundamental causes of possible numerical differences may be three:

- We work with mean values estimates of indicator under observation using the sample whose size is about 1% of the population. When estimating measured parameter, it is necessary to make allowance for an error of +/- 20%.
- Data obtained from another informative source/sources need not be comparable in terms of methodology.
- Data under comparison do not refer to the same year.

Evaluation of the validity of the data obtained was therefore made case to case.