

## **Natural mechanisms of energy-saving and effective usage of energy**

Sventitskii I.I.

*V.I.E.S.H. , Russia*

It is found from fundamental research, that a number of the extraordinary phenomena which reliably are determined empirically, but not explained by science, represent the natural mechanisms of energy-saving. They are golden section, physics-chemical, biological, social, structures and processes decried by fractal dependencies, solitons, the beauty and harmony of a self-organising nature etc. This is a new principle direction of energy-, resource-saving and protection of nature. It is possible to use these mechanisms for solution of practical problems of energy-saving.

For example, the golden section (relationship of the Fibonacci numbers) is convenient for using at energy-saving optimisation of operating modes and parameters of technologies and technical devices based on rhythmic principles (Patent VIESH, # 2108025, Bulletin of inventions, # 10,1988, Method optimisation of modes and parameters of technologies and technical devices based on rhythmic principles). This method using in case of acts on man and animals (massage, milking and so on.) provide pleasant aesthetic influence. For example, in traditional milk apparatus relation of time working to resting period is limited values from 1,0 to 0,17. According to patented method this relation should be 0,618. It close to mean arithmetic found experimentally from many experiments. Favourable action of this relation (rhythm) on man and animals organism connects to their resonance with natural heart rhythm of organism.

The second example using energy-economy gold section is using energy-, resource-saving optimisation of structures complex nets (for transmitting electrical energy, gas, sewage, liquids and so on.). Natural analogy of such nets is heart-vessel system men and mammal animals. In this system relations of lengths branching segments, diameters are strongly correspond to gold section. There mechanisms of energy economy of nature can be used not only for optimisation technological and technical system and also for optimisation of economic and social-cultural processes.