PRICING AT POWER ENGINEERING AS A GEAR OF SUSTAINABLE DEVELOPMENT ENSURING

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1. Ever more frequently in scientific, educational, journalistic and other editions is raised a problem, or more precisely, range of problems concerning "sustainable development" (SD) of the world, society, countries, areas etc. The core point of SD consists in providing of balanced and harmonious advance of humanity in three directions: economic, environmental, and social. The idea of SD spreads nowadays in international legal and contractual documents, framework agreements, and occurs in the legislative acts of Ukraine. Such interest to relatively "new" vision of development of the world, however founded yet in papers of the world-known Ukrainian scientists V. I. Vernadskiy at the beginning of 20th century, first of all is connected with unfavorable long-term forecasts of humanity evolution in relation to the normal supply of energy resources, potable water, other natural resources, food; "sustainable worsening" instead of "sustainable improvement" of environmental conditions; expected growth of socio-economic, demographic, intercultural, religious problems and crisis phenomena in a world. The foresaid specifies about 1) complexity, 2) global character, and 3) dynamism of subject matter of SD and consequently about the necessity of system approach to its solving.

2. Considerable part in a system of SD occupies an energy sector, in particular, power engineering (PEN). Its progress correlates with all of the three constituents of SD, and especially closely with economic and environmental ones. The PEN therewith acts simultaneously as a factor of influence, and as a function of given constituents changing. From one side, growth of technological level of energy sector, structural changes in energy-producing (by types of power stations and primary energy resources), increase of energy efficiency (EEF) influence on financial and economic indices and tendencies of national economy, environmental conditions. From the other side, the rates of economy growing, changes of branch-wise structure of GDP, poor provision with domestic energy resources, international cooperation, socio-economic and environmental policies of Ukraine determine directions and scales of PEN development. Under such conditions the key task of PEN within SD framework is permanent increase of EEF that is to be concretized in a system of proper technical, economic, and environmental performance indicators.

3. Among a kit of possible tools of influence on economic players of power market in order to increase their EEF a price policy (PPL) could be marked out as one of an effective and efficient gear. The key direction of PPL at PEN is differentiation of prices that is expedient to realize mainly for industrial enterprises (by time mode of energy consumption (ENC)) and households (by volume and mode of ENC). It is accounted for the biggest part of ENC of these groups of users (circa 55% and 18% respectively) and considerable possibility of optimizing the volumes and modes of their ENC. Then retail prices differentiation should be the basis for differentiation of wholesale prices of electric power.

4. The main expected first level results of PPL influence on the entities of PEN is diminishing of specific volumes and optimizing the modes of their ENC. A system of probable positive effects of demand-side management carried out by industrial enterprises and households under PPL impact presented at fig. 1.

Fig. 1 shows that appropriate positive effects could be got by all economic players of PEN and society on the whole. Further it is worth to make a quantitative estimation and analysis of stated effects in order to identify and formalize feed-backs between managerial influences on an ENC processes, in particular through the PPL, and background and proper indicators of SD.

5. PPL can not be the unique tool of adjusting the processes in PEN. In order to realize a systems approach in management pointed at SD achievement it is expedient to use the complex toolkit of influence on the subjects of PEN taking into account proper advantages and disadvantages, optimal terms of different tools application, interrelations between tools, synergetic effects and integral influencing on SD of country or its areas.



positive effects of ENC optimizing

Figure 1 – System of probable