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O**.V. Klymchuk,**
candidate of agricultural sciences
Vinnytsya national agrarian university

Economic value and optimization of the use of power resources

Aim. To define economic essence of fuel and energy resources, to optimize the process of their use and begin the scale passing of Ukraine to the refurbishable power mediums. Methods. Analysis of the systems, graphic and abstractly logical. Results. The system of effective management productive processes must take into account territorial features and carry out the consumption of the productive-expedient least of energy resources, giving priority to the biopropellant. Conclusions. In the process of the increase the industrial use of refurbishable types of resources will give an opportunity to satisfy considerable part of power necessities of different industries of economy of Ukraine. The most potential consumers of biological fuel (hard biopropellant, bioethanol, biodiesel and biogas) the agrarian sector of economy, transport and housing and communal services, will become.

Key words: economy, energy, fuel and energy resources, power market, energy-savings, biopropellant.

Raising of problem. In all periods of economic development of human society actual is a problem of the effective use of the limited productive resources or rational management by them for the achievement of maximal satisfaction of material necessities of man. It is the basic postulate of theory of employment and policy stabilizing of economy, that are based on static or short-term approach. Taking into account it assumed, that at the fixed volume of resources an economy is able to provide the certain level of gross national product in the conditions of full employment. Thus, does the theory of employment foresee a main question: "That it is needed to do for the complete use of present in an economy production capacities"? In relation to the theory of the economy growing, then is a basic problem formulated so: "As possible to increase the volume of production capacities or gross national product in the conditions of full employment"? [7]. As a result - the economy growing simplifies the decision of problem of the limited nature of resources, and the increase of production is predetermined by availability of the most best in quality of natural and labour resources, in particular technological potential, that, in the end, gives an opportunity to increase the production of the real product. A basic economic argument in behalf on the market system consists in that she assists effective allocation of resources in particular fuel and energy.

In opinion of O. Dikareva [4], presently fuel and energy resources keep the geostrategic value on such reasons: the most economically developed countries of the world are the importers of fuel and energy resources; the enterprises of fuel and energy complex depend on agreements with the governments of countries, that accept resources, that moves negotiations and conflicts that arise up automatically, in the sphere of policy; the transnational companies of fuel and energy complexes operate jointly with governments, that provides to them public investments and insurances of risks for realization of геолого-розвідувальних works. With a display the brought factors over co-operation mostly cardinally opposite interests of public organs, countries and private firms quite often creates at the market of fuel and energy resources the opaque charts of calculations, that is accompanied by an unbalance in a world economy through power crises, embargoes, falling of rates and levels of booty, and by a swift price increase. Therefore on such conditions most successful are enterprises with innovative strategies of development.

The modern industrial profile of the most world countries, even on condition of their hi-tech development, is largely formed under act of fundamental sectors of economy, that in her branch structure are most energy-intensive. Actually, it predetermines maintenance of proof macroeconomic dependence between production volumes and consumption of energy resources, and converts constancy, price acceptability, plenitude of енергозабезпечення and, mainly, efficiency of energy consumption into the determinatives of national competitiveness. For establishments of this fact the necessity of providing of strong power constituent becomes obvious in the process of forming of competition position of the state in international financial and

economic space, and thus, necessity of becoming and development of competition national markets of energy resources [6].

The competition relations of countries in relation to access to the markets of productive resources, physical limited nature of volume of the last render direct influence on resource support of national economies, them mutual integration within the limits of world economy. The copulas of participants of international co-operation are not always rectilineal: trade spores, that sometimes outgrow in scale conflicts, capable to determine the new vectors of development of national models of ресурсокористування, increase or diminish their influence on the economy growing of countries, happen. A further production will be determined by a necessity prudently to use all more expensive fuel and energy resources, to decrease them specific part in the structure of productive charges, that will promote the level of profitability of entrepreneurial activity, will serve as an impulse to the speed-up increase of economy of Ukraine [9].

Analysis of the last researches and publications. The study of theoretical and practical aspects of the rational use of fuel and energy resources is carried out by the whole cohort of the known researchers and scientists, in particular In. Dolinsky, G. Gelotukha, In. Dubrovin, T. Zhelezna, G. Sluggish, G. Kaletnik, M. Kalinchik, M. Kovalko, G. Kondratyuk, S. Kudrya, Yu. Matveev, S. Oliynichuk, P. Apiary, In. Semenov, S. Tsygankov, O. Shpichak, Shidlovsky and other.

However without regard to the far of publications, there is an urgent requirement in realization of further researches in relation to the optimal consumption of fuel and energy resources with the grant of advantage to the refurbishable kinds in the structure of energy consumption of Ukraine.

An aim of researches is determination of economic essence of fuel and energy resources for optimization of process of their use and scale transition in Ukraine to the refurbishable power mediums and consumption of biological types of fuel.

Materials and methods of researches. In researches methods are used: analysis of the systems - for the study of socio-economic processes in the consumption of power resources, graphic - for the evident reflection of classification description of primary power resources, abstractly-logical - for realization of theoretical generalizations and forming of conclusions.

Results of researches. In accordance with a state standard [5], a term "power resource" has such determination: "Fuel or energy of different kinds and parameters that is used or can be used in industry". Self floor "resource" is taken the from French (ressources), where it appeared from the Latin word of resurgo - rise, appear again. Usually mark "material facilities, values, supplies, money that it is possible to use" in case of necessity this term [10].

Energy resources it is accepted to divide into primary and secondary. In turn, primary Energy resources is divided into refurbishable and unrefurbishable (rice. 1) from that, accordingly, in the process of the use get the refurbishable and unrefurbishable types of energy.

Rice. 1. Classification description of primary power resources [it is systematized by an author]; *type of power resources, that is subject to research

Refurbishable energy sources are power resources proceeding in that comes true in an environment on the basis of permanent or such, that periodically arise up in the wild streams of energy. Practically as inexhaustible resources come forward sunny energy and wind, біомаси (what is raw material for the production of different types of biopropellant) power, water-power, is predefined by her, energy of earthly bowels of the earth, pestilences and oceans and others like that. Unrefurbishable resources is accumulated in the bowels of the earth of planet fossil fuel, that appeared a natural method and consists of fuel substances, bits and pieces, that does not burn, and corresponding amount of moisture [11]. In economic activity power resources are intensively used with an exception or without an exception, to get mainly thermal and electric energies from them.

Thus it is necessary to notice that in the physical understanding no type of energy recommences, and constantly withdrawn from afore-named sources. The limited nature in the wild of supplies of traditional types of fuel determines them economic value, and that is why refurbishable power resources in the nearest prospect will have a permanent increase in the pattern of consumption of energy. Taking into account that, what rapid rates are close unrefurbishable energy sources, it is possible to talk about the increase of

technological complication and energycapacity them industrial booty that on the whole results in the decline of economic efficiency. A problem is predefined not so much by physical exhaustion of energy resources, as by economic and ecological pointlessness of their booty. Therefore with the origin of power crises wide introduction of complex directions of ресурсозбереження began in a public production, that were based on the economy use of present resource base, optimal combination of primary and secondary resources, introduction of маловідходних or in general zero-emission productive processes, and also on passing to the consumption of refurbishable energy sources.

Thus conception of quality of energy must become the important factor of policy of energy-savings, that determines not only diminishing of losses to energy but also diminishing of losses to her quality. Id est fully a requirement in energy it is expedient to provide at the minimum charges of primary energy resources, minimizes quantitative and quality losses [13, 14]. And, to do енергоефективність and refurbishable energy attractive for private to the sector of economy, it is needed to get a trust, be reliable and effective in the process of acceptance of political decisions, and also on an of long duration prospect to provide profitability of financial receivabless in refurbishable sources. In ideal terms to political guidance it is needed impartiality to compare potential possibilities of all refurbishable sources and determine the chances of these technologies at the market, to render an adequate, however excessive help to them [12].

Powerful industrial potential and accordingly developed enough productive infrastructure was created in Ukraine. Traditionally an important place in the economy of our state occupies an agroindustrial complex. On maintenance and by a structure power potential of this industry of national economy is a difficult complex category, that embraces different resources that present power basis of functioning of agrarian production. Taking into account this important value has a theoretical ground of conformities to law of development of power potential of industry, as it is impossible to compare the separate types of energy, their nature and functional orientation that complicates combination of such constituents and determination of the generalized size of power potential [8]. He must be examined as an index of equilibrium of numerous substructural elements, that gives an opportunity to define optimal combination of political, economic, social and other components of state and public activity, the combined display of that gives an opportunity to attain the positive state of power safety of country, in end-point [1]. Ability of enterprise to mobilize the resources during realization of productive process comes forward as an important constituent of power potential, and one of effective custom power resources controls the exposure of internal factors of influence must become on the process of energy-savings. The search of backlogs of economy of energy resources needs to be conducted in such directions, as technical, technological, resource and organizationally-qualificatory. It is needed also to take into account and external factors that influence on power potential of enterprise, in particular it нерозв'язаність problems with an energy supply, uneffective realization of public power policy, competition strategies of suppliers and financial mediators [2].

A process of consumption of power resources must be maximally purposeful and properly organized in relation to the all growing necessities of society and objects of menage. According to claim of V.V. Grishka and other [3], at the rational expense of energy resources an agrarian enterprise must aspire to their best use (maximal production of goods calculating on unit of power mediums), if it does not conflict with the requirement of maximization of income.

The question of the optimal providing of economy and population of power resources different kinds from year to year becomes all more problematic not only in Ukraine but also in most countries of outer space. More often there are international conflicts through a swift price increase and intensifying of fight for distribution and possessing energy resources on world power markets. Accordingly, it results in the permanent increase of risks in relation to stable power supply and overcoming of limit of critical contamination of natural environment as a result of booty and further use of traditional types of power mediums. Through this decision of problems of power safety now becomes the article of the increased attention not only of separate countries or their associations (in particular European Union), and also and all world community.

Therefore economic security of Ukraine requires the presence of sufficient amount of fuel and energy resources for realization of reproductive processes in all spheres of the mass use publicly of useful work, providing of stability of development of society and maintenance of independence of the state in relation to the independent forming of domestic and external policy. It is thus needed to take into account that motive

force that determines the that or other type of power source is an economy, but not concrete technologies. What touches our state, then speed and efficiency of decision of problems of power safety are determined her by economic feasibility, and the important problems of power complex are increases of charges of production and specific capital investments in energy. The system of effective management productive processes must take into account territorial features and carry out the consumption of the productive-expedient least of energy resources, giving priority to the biological fuels.м.

Conclusions

In the process of the increase the industrial use of refurbishable types of resources will give an opportunity to satisfy considerable part of power necessities of different industries of economy of Ukraine. Taking into account it power safety of the state will increase and an energy supply will increase to the regions with the badly developed power infrastructure. The most potential consumers of biological fuel (hard biopropellant, bioethanol, biodiesel and biogas) the agrarian sector of economy, transport and housing and communal services, will become. Development of bioenergetics will assist more rational use of agricultural lands and labour resources in rural locality, and also will stipulate the decision of questions of decline of level of contamination of natural environment.

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