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## INNOVATIVE WAY OF DEVELOPMENT AT THE HOUSING AND UTILITY SERVICES



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**Abstract.** The main problems of housing and utility services of Ukraine are considered in the given article. The definition of innovation activity of housing and utility is proposed. The main directions of housing and utility services' reforming are analyzed, the basic problems are revealed. The innovative ways of sector are proposed.

**Keywords:** innovation activity, enterprises, development of housing, utility services, type of innovations

**Formulation of the research problem.** Recently Ukraine follows the innovative way of development. Modern economists believe that this orientation of the economy will allow the enterprises to increase their competitiveness, product quality, make management more effective, as well as increase the profits. Mostly innovative model to improve the efficiency of industrial enterprises is contained in the economic literature but the question of the development of housing and utility sector remains open.

For this reason it is rationally to develop recommendations for the use of innovative model of development at enterprises of housing and utility services, as the representatives of this particular sector are responsible for the country life support system.

The following papers of the world's scientists such as: E. Plankeit, V. Lorn, D. Fridman, E. Mills, R. Gordon, M. Kind, H. Rozen, J. Hicks, F. Derik, N.Kaldora, A. Bergson, G. Hotelling, J. Mirrlis, V. Pareto, G. Lindal and also of Ukrainian scientists such as: B. Adamov, L. Bezzubko, L. Brazhnikova, V.Goncharova, O. Dolgaleva, V. Dorofienko, U. Doroshenko, T. Koleneska, V.Sevka, G. Korotkyi, T. Semkina, M. Figurka were concerned with this issue (1-18) .

However, some issues of the development of housing and utility services require further study, namely, it is necessary:

- examine the content, methods and measures for housing and utility services' reforming, based on the experience of foreign countries;
- define the basic principles of housing and utility services' reforming in European countries;
- consider the basic principles of housing and utility services' reforming of Ukraine;
- identify and substantiate perspectives for development and modernization of housing and utility services.

The goal of housing and utility services is defined by social content and activities aimed to meet the needs of the population in housing and utility services of the demanded quality, which should assist to improve the conditions of its expanded reproduction.

The main problems of housing and utility services in Ukraine include:

low quality of housing and utility services;

a high level of regional differentiation of service state and service level;

depreciation of fixed industry assets, obsolescence of technologies and as a consequence of increased costs (water, heat) as well as a low energy efficiency;

non-conformity of existing infrastructure capabilities to the growing demands and needs;

a high level of monopolization sphere of housing and utility services' rendering and a low level of competition in this sector;

inadequacy of normative legal regulation of sector's activity, primarily diversification of the providers' services;

lack of transparency in the formation of prices / tariffs and current activities of housing and utility services;

inefficient management system: the customer and contractor is one and the same person, and consumer and customer of the services are different persons;

incompleteness of privatization of the housing stock in the homeowners association in apartment buildings in the association of co-owners.

The problems of housing and utility services concern almost everyone in the country – and it is a very low quality of housing and utility services (HUS), and constant environmental pollution and the risk of emergency situations, including severe consequences. These unresolved problems seriously impact on the welfare and morbidity rate. Simultaneously the problem of increasing of production costs of housing and utility services becomes actual (being low quality), and as a consequence of tariffs' increase (1, 4). Therefore, in our opinion, the development of methodological and theoretical positions to improve the level of management of the utilities on the basis of the innovation will be reasonable.

To solve the set problem, firstly, it is necessary to clarify the concept of innovation of housing and utilities and provide a clear definition of it. This can be done by using synthesis concepts of «innovation activity» and «housing and utility services». It should be noted that all definitions in one way or another reflect the changes, namely: the introduction of a new product or service; development of a new source of raw materials and semi-finished products; reorganization of the management structure. However, not all of these changes relate to utilities.

The Law of Ukraine «On the innovation activity» defines the concept of innovation activity, as such, that is aimed at the use and commercialization of the results of researches, developments and causes the placing on the market of new competitive products and services (19). This definition does not take into account the peculiarities of functioning of housing and utility services.

In our view, the housing and utility services – it is a business entity that provides housing and living conditions of the population.

Thus, innovation activity of housing and utility services – is a complex of organizational changes aimed at improving the housing and utility' needs of the population, in particular, to improve the quality of existing services, the reorganization of the management structure and the improvement of social services to improve the effectiveness of the entity which satisfy living needs.

Dividing of innovations depending on sphere of use is shown in figure 1.

Realization of the state policy of reforming of housing and utility services, the implementation of measures aimed at improving the efficiency and reliability of its functioning, assurance of stable development to meet the needs of the population and economic complex of housing and utility services in accordance with the established standards and national standards play an important role in the post crisis development strategy of Ukraine and modernization of utility sector of the country's economy.

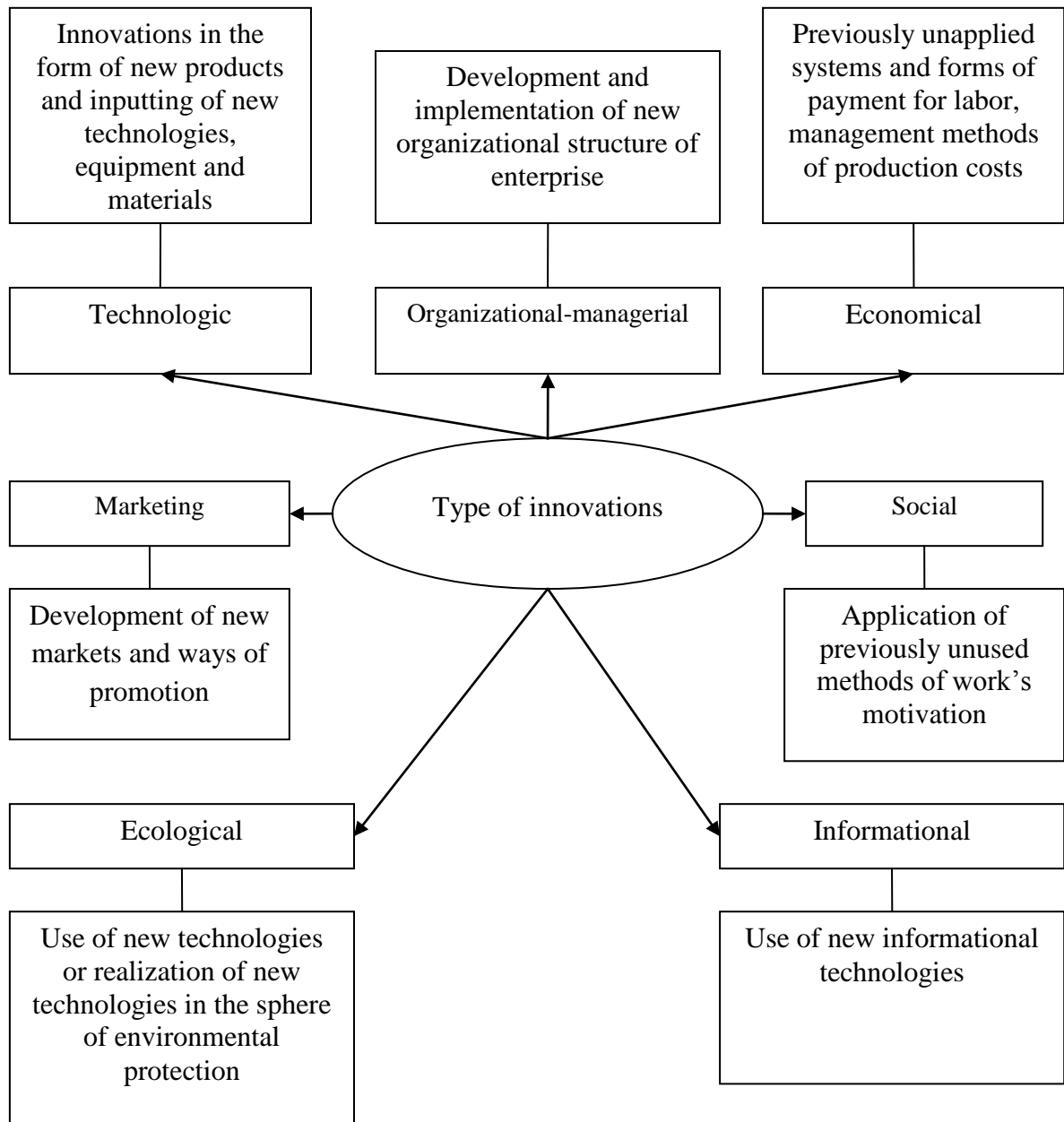


Figure 1. Types of innovation

Scheme of housing and utility services' reforming is shown in figure 2.

The State policy of housing and utility services' reforming of Ukraine recently is carried out pursuant to the National Program of the reforming and development of housing and utility services for 2009-2014, approved by the Law of Ukraine dated 11.06.2009 No.1511-17.

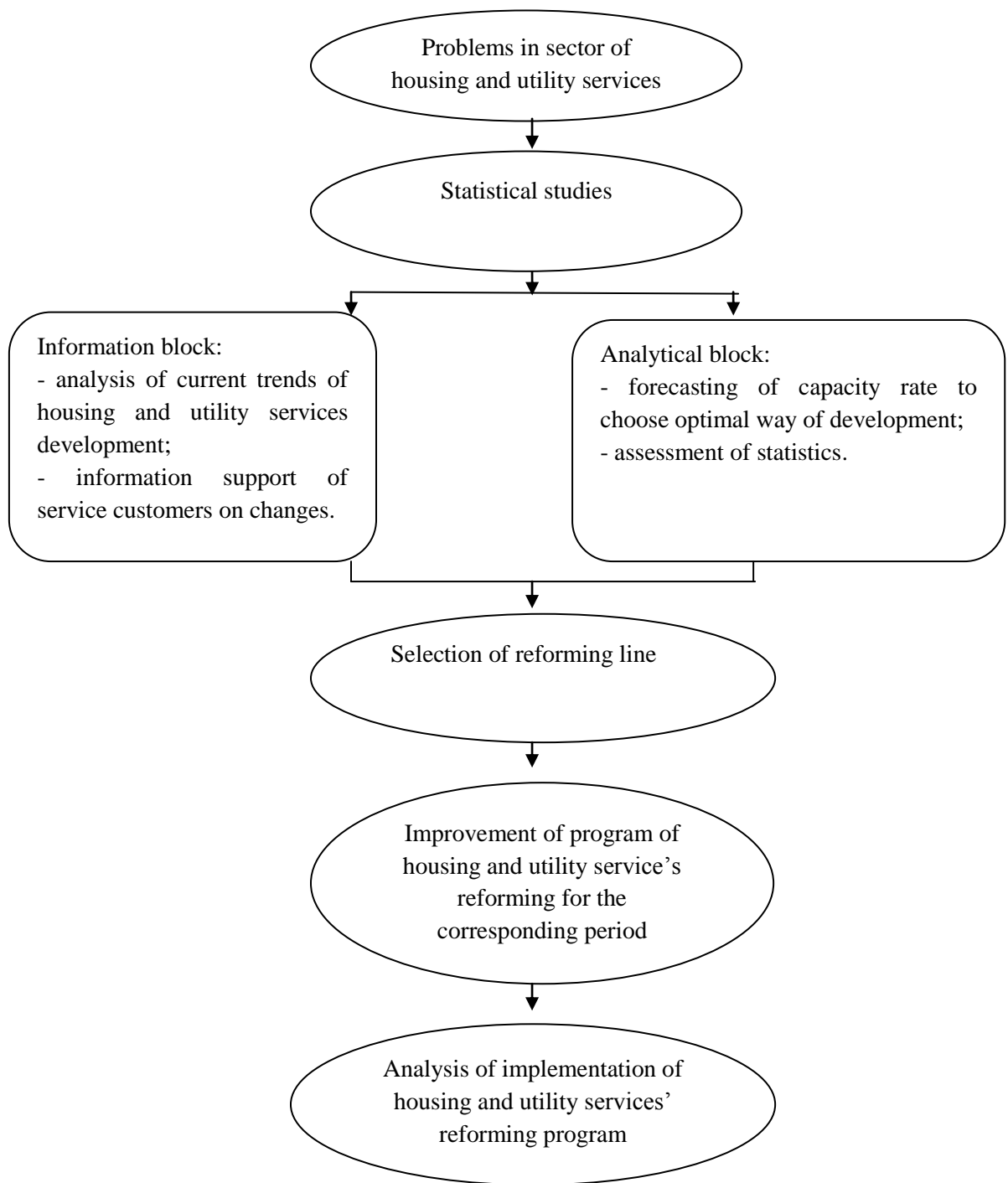


Figure 2. Scheme of housing and utility services' reforming

According to these policy documents reforming of this sector is carried out by fitting them to the world standards of the housing market, implementation of the non-discriminatory economic relations between the market entities and the state with a gradual restriction of functions of the state as the entity and its increasing influence on the formation of a market infrastructure that provides (19):

conduction of mutually agreed tariff, investment policy and the policy of the development of internal market;

realization of effective antimonopoly policy and the implementation of institutional transformations in the housing market and housing and utility services, aimed at the development of market relations and competition; stimulation of innovation, investment and energy conserving activity of business entities;

raising of energy efficiency by reducing the volume of loss of fuel and energy resources, reducing of energy intensity of certain types of products (services);

development of a transparent mechanism for the formation of prices and tariffs for products and services of enterprises that operate in the housing and utility sector.

The National Program has six specific directions of housing reforming (Figure 3)

Currently, within this sector, the serious work has been done, both at the state level and at the level of the different regions. In the framework of All Ukrainian program of local government development the reconstruction program of exterior lighting system through the introduction of innovative technologies in Slavyansk was worked out.

The National Action Plan for 2013 provides the work on realization of pilot projects to implement performance contracts for energy efficiency of budgetary institutions. At the meeting of the working group "On reforming of housing and utility services" on 18.12.2013 the most ambitious pilot project on the conclusion of an energy service contract on the territory of Kiev was presented. Its cost is 27 million U.S. dollars, volume is 1500 buildings.

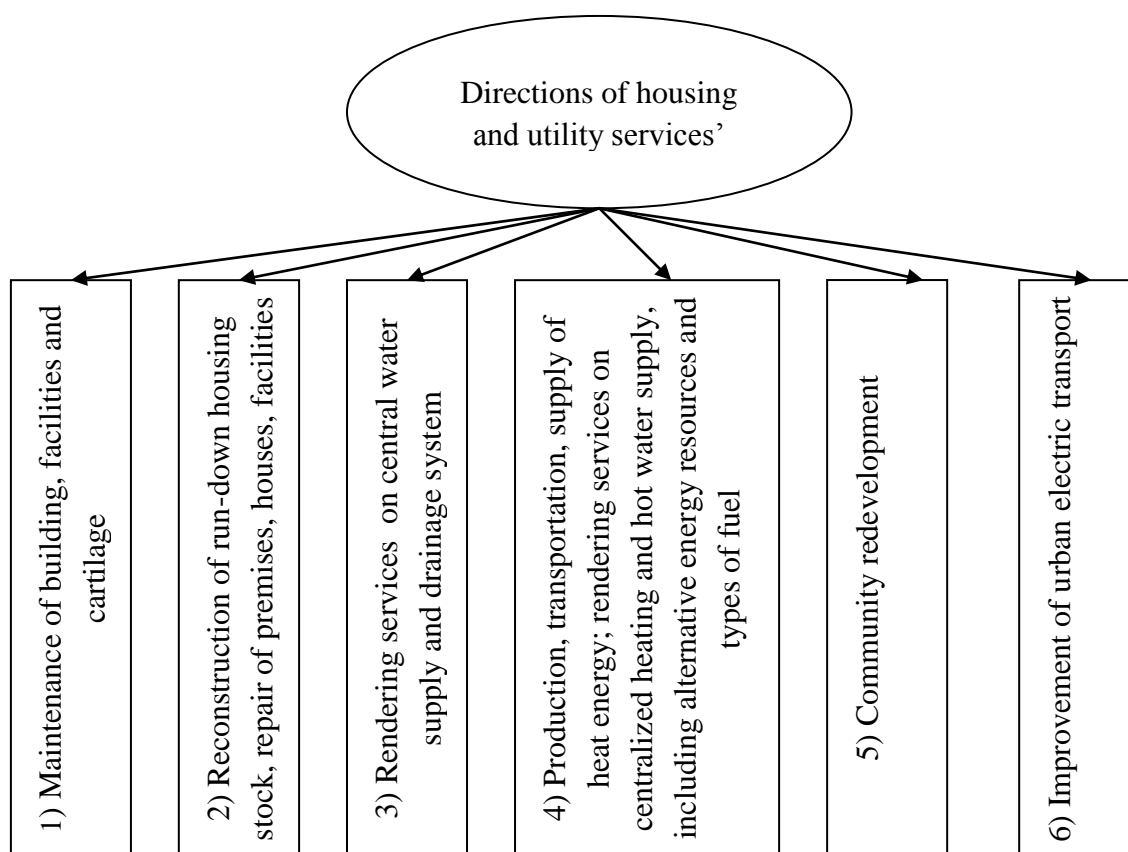


Figure 3. The main directions of housing and utility services' reforming

The average annual energy savings is 350000 Gcal., which amounts 1 billion UAH. Today, 635 private enterprises on housing stock operate in Ukraine that increased by 18.4% (117 units) during 2009-2013. Besides, 303 single customer services were set up, which increase the efficiency of the utilities that is 4.6 times more than in 2009. Unfortunately, the most homeowners do not participate in the selection of a model housing management and providing housing and utility services. The offers of management services are remained monopolized and as a result – it is a poor quality of services. In spite of it, a significant problem is the presence of debts on service payment by population and by large industrial companies, as well as opacity formation of tariffs by local authorities, their compliance with the actually existing economic conditions. (16). The activity of most housing and utilities is unprofitable and characterized by inefficient use of major industrial and financial assets, all moneys received are directed to meet the



current needs and no funds remain for the implementation of technical or management innovations.

The extent of the development of innovation activity is behind the needs of technological renovation of production, in which the level of depreciation of fixed assets in industry significantly exceeded 50%, and fully depreciated fixed assets - 20%. The main reason for such state of affairs is a small amount of investment only those are allocated for technological innovation in housing and utility services. It stipulates the necessity of the systematic study, generalization and critical rethinking of the formed management practice of housing and utility services on the basis of innovation.

It should be noted that a similar situation occurred in the UK in the middle of the XX century and in East Germany. In view of this, the governments of these countries resorted to reform the housing and utility sector. For example, methods of management were improved such as: reduced bureaucratization and politicization of the control process; reduced staff number. (16)

It was determined that the developed countries have a large percentage of the investment - an average of 23-25 % and in the U.S.A. – about 30 % , and from 20 to 25% personal savings to recreate the housing stock. Investment indicators of housing building in Ukraine in 2009, fell sharply. At the same time, deductions for social infrastructure are reduced and consequently, production level of social sphere. Given the persistence of the investment process and the lack of building potential, one can predict that the resumption of volume of setting into operation of housing will not happen till the 2nd half of 2014. The general part of the investments in the housing sector in 2010 amounted to 1% only. Wherefore, the author proposed to consider the alternative ways to attract investment in the housing and utility sector. The leading role in this process should be given to public - private partnership, conclusion of the concession contracts. In this paper we brought up that the creation of economic conditions for innovation - investment development and effective functioning of residential mortgages in order to

implement social policies, including the state youth housing policy will contribute to overcoming the negative trends in housing and utility services.

In the housing and utility services about 5 thousand companies and organizations are now functioning, 25% of assets are operating and involved in the state's economy, 5% of the working population is employed. However, to date, the majority enterprises in the sector actually work at the expense of resource capabilities that have been accumulated before the 90s.

In contrast to the efficient foreign experience of development of utilities under the Ukrainian model the created housing and utility services are remained unprofitable (Table 1).

Table 1

Trend data of financial performance of housing and utility services of Ukraine,  
2002-2013 years

Year	Net profit (+) (loss (-)), mil. UAN	Percent of loss-making ventures of housing and utility services to the total quantity of sector's enterprises
2002	- 210,5	37,9
2003	- 220,9	36,5
2004	-300,7	34,7
2005	-316,4	36,8
2006	-497,3	35,8
2007	- 579,1	35,0
2008	- 1224,7	34,8
2009	- 2251,4	58,7
2010	- 3588,9	55,9
2011	-4785	42
2012	-11575	44
2013	-12680	47

According to the table 1 the net loss of the sector's enterprises increased from 210.5 mln.UAH in 2002 to 3588.9 mln. UAH in 2010 that means that during nine years loss ratio has increased by 17 times. To modernize emergency lines it is needed to invest more than 60 billion UAH. This indicates that the state of housing

and utility services of Ukraine today is critical and needs to reform management sector. To stop the process of destruction in the housing and utility services is an urgent need to attract investments to activate innovation.

Thus, we can conclude that the reform of housing and utility services should be directed to the following issues:

- providing of uninterrupted operation of housing and utility services;
- retooling of housing and utility services;
- improvement of management system in housing and utility services' sector;
- demonopolisation of housing, development of competitive environment on the market of services provided by housing and utility sector;
- creation of computer information management systems of providing and control over the housing and utility services;
- attraction of investments in the housing and utility sector's development ;
- ensuring of efficiency funds' use of consumers and the local budget.

To solve the above problems it is necessary to implement a number of innovative measures aimed at improving the efficiency of the housing and utility services.

The following groups of innovation such as technological, organizational and management, economic, social, informational innovations should be included into innovative directions in equal parts in the housing and utility services.

It is necessary to introduce technical innovations, such as the use of alternative heating sources in order to save natural gas, namely the use of boiler straw, husks and hulls of grains and oilseeds, sawdust, wood waste, wood, pellets, solid industrial waste. In addition to biofuels, another source of alternative heating systems are modern heat pumps using geothermal energy (air, water, land) in the primary heat generator.

It is necessary to develop the use of: wind power station, solar power plants, power plants, which use biomass as fuel.

To save water it is needed to motivate people to install water meters. This can be done by providing installments for purchase or installation of water meters.

Technical innovations will reduce the cost of services for the housing and utility services, and for the end user and also improve the quality of services provided, eliminating the main problems causing the uninterrupted services.

Introduction of economic innovation in the housing and utility sector will allow enterprises to improve tariff policy. For example, the application of differential tariffs that take into account not only the cost of electricity, water and other services, but also take into account the income of the population. So, vulnerable people will pay significantly less for utilities than citizens with high incomes.

Not least important is the implementation of managerial innovations. One of the main issues of the program of reforming of housing and utility services is providing at the regional and local levels the democratic flexible and effective organization management, implementation of mechanism of optimal self-sufficient functioning of the subjects of housing and utility services in the local self-government, performance of effective administrative and social control in the formation and development of the sector. Relying on the provisions of the National program of reforming and development of housing and utility services for 2009-2014, approved by the Law of Ukraine of 11.06.2009 No.1511-17, the Law of Ukraine "On Housing and Utility Services" the authors considered the issue on amending in regulatory acts. The rationale is the possibility of amending the legislation to resolve the issue of informational improvement of housing and utility services of Ukraine and improvement in quality of rendering the housing and utility services. The optimal variant stipulates the introduction of innovative approach to the management in this sector for the medium term which will allow: to create conditions for the provision of professional information services, implement a full time system of control service at all enterprises of service providers; introduce a system in-house dispatcher control that allow save time and human resources; make payments via the Internet at every enterprise of the sector. The realization of this project will improve the quality of services, the

modernization of the delivery of utility services, coordination between self-government and housing and utility services.

**Summary.** The attempts to implement communal reform in recent years revealed to be useless today because the high cost of production and services of utilities, which during the Soviet times almost was not considered, as well as a high level of depreciation of the main assets of the sector (on the border of 70 %), made them unprofitable and uncompetitive.

Introduction of economic reform in Ukraine requires the entering of housing and utility services in a competitive process, assurance of profitability, the use of effective methods of modern management and marketing, respectively the legal and administrative support. The reform process also depends on the availability of an adequate legal base, activities that stimulate the market relations at the national and regional levels, the real protection of the rights of the population and of housing and utility services.

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