

ECOLOGOLOGICAL AND ECONOMIC PROBLEMS OF POWER SAVING UP TECHNOLOGIES' INTRODUCTION IN UKRAINE

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Summary. Problems of municipal services from the ecological point of view are covered, conditions and possibility of effective power saving up technologies use, problems of financing of ecological power saving up investment projects and system engineering of their financing with attraction of credit resources are considered.

Key words: housing and communal services, the power savings, power efficiency, ecological investment projects, ecological safety of Autonomous Republic of Crimea.

INTRODUCTION

The share of emissions of polluting substances in surrounding atmosphere of the enterprises and objects of power system is about 60 %. But the cited data are far from the real scale of environmental problems because nowadays in most cases the control and management of wildlife management in the country is carried out on the basis of the influence on environment declared by the enterprises and organisations, but declared influence basically is considerably below the actual.

Sharp deterioration of a financial and economic condition of the enterprises and absence of interest at local governments in their investment have led to ageing of fixed capital of the branch. Inadequate financing of works on major repairs of constructions and networks makes practically impossible uninterrupted and qualitative service of consumers and is the reason of increase the number of failures at objects, occurrence of emergency situations.

Investment requirements of housing and municipal sector on building and reconstruction of objects of a municipal infrastructure are comparable with requirements of other monopolies.

According to expert estimations on normalization the situation in housing and communal services only in Autonomous Republic of Crimea it is necessary about 1,5 billion grivna within the next 5 years, that is 38 million dollars per year.

Tariffs for heat and water, as a rule, do not include a component of ecological expenses. Moreover, absence of the water drain in some settlements leads to pollution by sewage of systems of a superficial drain and the storm water drain, and also the top horizons of the ground waters which are quite often being a source of city water supply.

The municipal service is extremely inefficient from the ecological point of view. In the conditions of deterioration of a financial position of enterprises the building of new ecologically effective equipment stops and the strengthened operation of old capacities which is accompanied by growth of volumes of emissions of polluting substances on the background of production decline proceeds.

Set of technical, financial, organizational, environmental problems, peculiar for the municipal enterprises - monopolists leads to unreliability of service and as a consequence to a dissatisfaction of consumers and to financial instability of the enterprises of a municipal infrastructure.

All these circumstances cause unreasonably big ecological damage and lead to unacceptable size of risk of threat to population health.

Questions of ecological safety and environment protection influence our life more and more.

Increasing pollution of the environment, infringement of thermal balance of the atmosphere leading gradually to global climate changes, and also deficiency of energy and limitation of fuel resources with more increasing sharpness show inevitability of passing to non-conventional alternative energy sources.

Questions of power savings, stocks of the minerals alternative energy sources, heat saving technologies, use of low-energy methods in national economy branches have been discussed from the first day of our state independence. Work activization in the given direction is extremely important for Ukraine. Thanks to efforts of some enthusiasts, enterprises and support of corresponding authorities began the development of wind-power engineering, bioenergetics, solar power and other sources of reception of heat - straw, tree waste, fire wood, etc., however the level of development of non-conventional power is still low enough.

OBJECTS AND PROBLEMS

It is all known that traditional hydro carbonic minerals are not renewed and soon they will be exhausted completely. Their extraction only rises in price from year to year and more and more efforts are required for environment protection for the use of the given power resources.

According to the present situation in the world it is quite expedient to consider the problem of power resources supply. Usually the position of the country in the world is characterized by the energy power supply factor representing relation of its own manufacture of power resources to their consumption. If the factor is less than a unit - the country satisfies the requirements at the expense of import of power resources. If the factor is greater than a unit - the country exports the resource. In compliance with operative data of security power resources factor of the countries called "Big Eight" looks as follows: Canada - 1,5; France - 0,5; Germany - 0,4; Italy - 0,16; Japan - 0,2; Great Britain - 1,2; the USA ~ 0,74; the Russian Federation - 1,6, in Ukraine power security factor is 0,77.

Today the share of fossil fuel in the world power consumption makes 82-85 % from the general power consumption, an atomic energy - more than 6 % and renewed energy sources about 15 %, but without taking into account large Hydroelectric Power Stations it is 12 %. So due to the importance of atomic engineering, its share, more than twice is less than share of renewed power. The present condition of objects of the enterprises of housing and communal services demands considerable investments.

Existing and potential initiators of ecological projects in housing and communal services are the enterprises of heat and water supply and water drain.

From the economic point of view actions and projects of an ecological orientation can be divided into two categories: expenditure and paid back. Projects of a natural and social orientation concern to expenditure category - (gardening, restoration of bioresources, ecological education); ecological effect of such projects in the conditions of the current legislation cannot be expressed economically. To the paid back projects refer projects directed on maximization "Ecological benefit / economic expenses" factor. Ecological

benefit of such projects is expressed in the estimated cost, owing to the present economic conditions.

Paid back investments now are those which are directed to the reduction of the influence of polluting substances on health of people. These are projects with the short period of capital investments return, and besides there are projects on power resource saving, on introduction of small-waste technologies and on changing the structure of fuel consumed in municipal power system.

Paid back ecologically effective projects are first of all the projects in the sphere of municipal infrastructure, demanding, as a rule, considerably less expenses in comparison with projects introducing ecologically effective technologies at the industrial enterprises.

To my opinion, the main aspect of municipal power is the ecological because the extraction of organic fuel resources on the Earth and as a consequence exponential increase of catastrophic changes in the atmosphere and planet biosphere have led to the fact that the traditional power existing today is deadlock and for high-grade evolutionary development of the society it is necessary to begin gradual transition to alternative energy sources.

In the decision of problem concerning the investment financing projects first of all act the foreground questions of creation the sufficient internal resources of housing and communal services enterprises and the stimulus to effective resource saving nature protection investments. Therefore a priority problem is the increase of resources and the expansion of a circle of ecological actions sources cofinancing.

Financing of ecological actions and projects in Ukraine is carried out from different sources: means of the budget and ecological funds, own means of the enterprises, banks credits, etc. Now budgetary financing of ecological actions constitutes no more than 0,5 % from a Gross National Product (in industrially developed countries - 2-3 % from a GNP(Gross National Product)).

Thereupon it is necessary to notice that the basic place in dynamics of growth of expenses of the municipal enterprises is occupied with expenses for energy carriers. For example, the growth of the tariff for the electric power monthly makes 4-5 kopecks for one kw. and reaches 25-40 % per year. Thus the tariff for the electric power is established and affirmed by the state structures and is introduced immediately without coordination both with local authorities, and with any other structures generally. At the same time, modification of the tariff applied by the municipal enterprises, according to the existing regulatory legal acts occupy at least three months, but sometimes one year.

Considering stated above, it is necessary urgently to make changes and additions to current Laws and the regulatory legal acts of Ukraine controlling the order of tariffs formation and the order of powers of local governments stating the tariffs for communal services thus considering the possibility of an investment component in the tariff.

MAIN SECTION

The major source of investments for financing the ecological investment projects, including the field of housing and communal services, is the bank sector. However now this part of bank activity has developed poorly and that explains both a current state of bank system and a situation on the credit market.

Unfortunately, now the work of banks with the enterprises and the organizations of housing and municipal sector has the limited character. A prevailing special-purpose designation of given out credits on replenishment of circulating assets, on the covering the

cash ruptures purposes, on the operational expenditure of the municipal enterprises. For supplying the credit banks accept guarantees of corresponding authorities issued by the separate point in the local budget. Besides, the credit contract, as a rule, provides that the bank has the right to write-off the means from the account of the financed enterprise without the order of the owner, for realization the payments on repayment of the credit and paying the percent.

The basic problems connected with crediting of objects of a housing and municipal infrastructure are: low solvency of the enterprises of housing and communal services; problems of security of credits for projects of a housing and municipal infrastructure; absence at a potential borrowers of the credit history, allowing to estimate risks of credits granting; absence of methodical base on evaluation the risks of investment in sphere of a housing and municipal infrastructure: absence of the bank resources necessary for granting the long-term credits. On the other hand, the problems of attraction of extra resources by the municipal enterprises are caused by the following factors: the existing system of tariff regulation, as a rule, does not give possibility to the enterprises to generate necessary volume for realization ' the investment projects financing; in most cases the system of contractual relations of the municipal enterprises with consumers is imperfect; the system of mutual relations between the enterprises and local governments as usual allows to substitute economic influence levers by administrative one that creates additional risk for the potential investor.

Priorities in sphere of perfection the system of prices/tariffs regulation for services of the centralised water supply and water removal should be the following:

1. Reduction of Ukraine Laws norms "About housing and municipal services", "About a heat supply", "About electric power industry", "About potable water and drinking water supply", "About local state administrations", "About local government in Ukraine", "About the prices and pricings", "About natural monopolies" in conformity among themselves, in particular regarding powers of bodies which carry out regulation of the prices/tariffs, and as well the definition of procedures of the statement of the prices/tariffs for housing and municipal services;

2. Modification of Laws of Ukraine "About housing and municipal services" and "About natural monopolies" concerning application of alternative methods of prices/tariffs regulation and determination of the debit items which should be necessarily considered in the prices/tariffs;

3. stage-by-stage replacement of privileges and subsidies for the reimbursement for the expenses of services by address monetary payments to the population;

4. Perfection of the order of tariffs formation;

5. Definition of criteria according to which the estimation of economic validity of the prices/tariffs at a stage of their establishment and application, including taking into account the level of social and economic development of corresponding region and technical possibilities of subjects of housekeeping should be carried out:

- maintenance of the separate account of incomes, expenses and financial results by each kind of activity of housekeeping subjects which are subjected to regulation;
- the account of an investment component for realization of investment projects confirmed in the established order;

- introduction of expenditure and expenses regulation of resources which would stimulate optimization of expenses of housekeeping subjects which afford housing and municipal services;
- 6. working out the prices/tariffs order of updating, particularly for the cases of price changes for the energy carriers and the size of the minimum wages;
- 7. working out the order of carrying out recalculation of a payment for the housing-and-municipal services which were not afforded or partial services with the quality were offered not corresponding to standard requirements;
- 8. establishment of profitability level for housekeeping subjects taking into account expenses on capital investments;
- 9. working out the compensation order between the confirmed prices and economically well-grounded expenses on their manufacture;
- 10. introduction of the mechanism of introducing in action the new prices for energy carriers which are a component of the price for housing and municipal services, not earlier than in 30 days after their promulgation in mass media;
- 11. working out the regulatory legal act about the order of organization the public hearings concerning the prices/tariffs changes for the services of the centralized water supply and water removal and to inform the consumers about the list of services, their costs and structure, norm of consumption, the order of offered services, validity of expenses and so forth;
- 12. strengthening the responsibility of consumers for untimely payment for the received services;
- 13. definition of main principles of application of account means and consumption of services;
- 14. working out mechanisms of the account during the price formation corresponding to the services quality afforded to the consumers;
- 15. introduction of the automated monitoring systems of granting to the consumers of services of the centralized water supply and water removal.

The existing problems of financing the ecological investment projects designated above in the field of a municipal infrastructure demand the complex decision. During the working out the most comprehensible to realization under our conditions variants of financing system of infrastructural ecological projects it is necessary to consider both existing requirements of initiators of projects and existing possibilities on their financing from the side of all accessible sources.

First of all, it is necessary to limit a circle of possible ecological investment projects by which the realization of the offered system of financing should be guided. Investment projects should be understood as ecological projects in municipal economy, namely: projects on clearing of household sewage, potable water improvement of quality, removing and processing (recycling) of a household waste, increasing of efficiency of power resources use in systems of the cities heat supply etc. The given projects, besides the expressed ecological effect, have the identical economic nature and the same risks of investment that allows developing the same schemes of their financing and the general approach to their estimation.

The basic idea of created system of financing is that the projects of the given type should be financed, first of all, at the expense of the extra means involved under market rates. Besides, it is necessary to leave possibility of address gratuitous support of projects. Thus gratuitous (budgetary) financing should be considered not as alternative, and as

addition to extra financing. Hence, initiators of projects should have stimulus to finance the given projects first of all at the expense of extra means.

The carried out analysis of possible sources of financing designated above projects shows that today they, as a rule, cannot be realized at the expense of possibilities existing in the market on financing attraction. In particular, high interest rates and small terms of the credits given by the Ukrainian commercial banks, do not satisfy to requirements of the given projects. In turn, the impossibility of granting of long-term credits from outside commercial banks is defined by absence at them long-term resource base.

Nowadays the work on perfection of budgetary process on housing and communal services reforming is conducted, the increase in the openness and the transparency of activity of local governments, their financial condition, perfection of system of payments for housing and communal services should become the result of that.

A strategic line of reforming the housing and communal services is the transfer of the municipal enterprises on market functioning bases. Thereupon the scheme of granting the credits to directly municipal enterprises looks more preferably. As the positive moments of the given variant it is possible to name:

- presence of the worked methods of an estimation of solvency of the organizations and procedures of registration of credits;
- more operative registration of the credit;
- maintenance of the current control over the course of the project realization;
- possibility of maintenance of the credit by the liquid equipment which is in the enterprises' possession;
- possibility of the reference of collecting on such maintenance at a credit non-return.

CONCLUSION

The fund created in Ukraine on protection of a surrounding environment urged to promote improvement of a condition of a surrounding environment in the territory of our country by realization of ecologically focused projects in the field of housing and communal services (water supply, sewage treatment, a heat supply, export and recycling of a household waste etc.) . For the achievement of the specified purpose it is necessary to solve the following primary goals:

1. Formation of the market of the long-term credits which are given out by commercial banks for financing of projects in housing - municipal branch, having an ecological orientation. The organization of market system of financing of infrastructural ecological projects with participation of banks thus is supposed.

Considering that the main terminators of participation of banks in crediting of projects of the municipal enterprises are high risks of crediting and the absence of sources of long-term resources, for achievement of the specified purpose it is necessary to solve the following basic problems:

- decrease in investment risks at crediting of ecological projects;
- creation of the financial conditions for crediting by the banks of the long-term projects. The decision of these problems will promote increase of interest of banks to activity on crediting of ecologically focused projects of a housing-and-municipal infrastructure.

Standardization and unification of procedures of crediting of ecological projects in sphere of a municipal infrastructure. It is necessary to develop and introduce corresponding standards of crediting. Support of interests of participants of the market of crediting of projects in housing and communal services sphere in representative and power executive powers at the state, regional and local levels.

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ЭКОЛОГО-ЭКОНОМИЧЕСКИЕ ПРОБЛЕМЫ ВНЕДРЕНИЯ ЭНЕРГОСБЕРЕГАЮЩИХ ТЕХНОЛОГИЙ В УКРАИНЕ

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Аннотация. Освещены проблемы коммунального хозяйства с экологической точки зрения, рассмотрены условия и возможность использования энергоэффективных энергосберегающих технологий, проблемы финансирования экологических энергосберегающих инвестиционных проектов и разработка системы их финансирования с привлечением кредитных ресурсов.

Ключевые слова: жилищно-коммунальное хозяйство, энергосбережение, энергоэффективность, экологические инвестиционные проекты, экологическая безопасность.