

## INCREASES OF ENERGY EFFICIENCY IN BUILDINGS OF THE BUDGETARY SPHERE

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### ABSTRACT

In this article the author considers states and development energy saving in budgetary organization of the Republic of Kazakhstan. The short description of the main directions of development of power branch, actions for energy saving and increase of energy efficiency of budgetary organization of RK is given.

**KEYWORDS:** Energy Efficiency, Budgetary Organizations, Energy Resources, Modernization, Decrease in Power Losses, Energy Audit, Power Performance Contract, Autonomous Organizations

### INTRODUCTION

Energy efficiency becomes one of the priority directions of public policy in Kazakhstan. Growth of tariffs for energy resources makes investments into energy efficiency more attractive, and inaction consequences – more obvious, than ever.

Capital investments in increase of energy efficiency make one third of the expenses necessary for increase in production of energy resources. Each kilowatt-hour saved in Kazakhstan, cubic meter of gas or barrel of oil postpones need of investment into new power assets.

Realization of energy saving actions demands so-so and long-term investments, however, budgetary organizations under the law can't enter any financial relations with the third parties, and until recently they had no right to sign contracts for term more than 1 year. Moreover, the legislation on purchases doesn't allow budgetary organizations to finance realization of energy saving actions by the section of future economy on operational expenses and doesn't take into consideration the concept of expenses throughout the term of life of the investment project. All these restrictions disturb emergence of the organizations like ESKO and the companies which are carrying out the ESKO functions which could help budgetary organizations to save on payment of utilities.

First of all, essential increase of efficiency of use of energy resources has to be provided. The enterprises can request financing on such purposes, as:

- The modernization of the power equipment promoting decrease in power losses;
- The modernization of processing equipment providing decrease in consumption of energy on unit of the made production;
- Introduction of use of renewables (only in case of commercial profitability of such projects);
- The application of alternative energy sources for own needs based on rational use of production wastes, decrease in dependence on increase in prices for traditional types of fuel.

Thus in connection with specifics of projects on increase of energy efficiency and energy saving there can be additional difficulties, for example, complexity of calculations of economic effect of realization of actions in the conditions of constantly changing prices and tariffs; insufficient quality of study of the feasibility report and business plan that substantially complicates attraction of external financing.

In case the company has no sufficient qualification and knowledge for carrying out the detailed analysis, the initiator of the project can sign the power service contract (power performance the contract), or the contract for introduction of energy saving technologies that substantially can minimize part of design risks.

The power service contract assumes performance by specialized power service company (ESKO) of a full complex of works on introduction of energy saving technologies at the customer at the expense of the proceeds of credit raised by ESKO. ESKO is the natural or legal entity who is providing services and/or carrying out actions for energy efficiency increase, thus, assuming a certain share of financial risk. Moreover, ESKO can carry out an energy audit, provide information on the best practitioners of increase of energy efficiency, recommend the most energy saving equipment, and also provide financing. This mechanism of attraction of financial resources is known long ago and is widely used in world practice, however, it didn't find due distribution in the CIS countries. The complex of services includes before an investment energy audit (determination of basic parameters of energy consumption), development of funding mechanisms and introduction of energy saving actions, and also monitoring and confirmation of results. A key element of the contract is the financing which isn't demanding own means from the customer and realization of the actions planned to introduction by forces of power service company.

The current legislation of Kazakhstan yet not fully considers the available possibilities of regulation of the relations in the sphere of increase of EE and RES. It is necessary for real implementation of energy saving policy that motivation conditions under which the state policy of energy saving, increases of energy efficiency and expansion of use of RES would become favorable to both producers of energy, and their consumers were defined. On these principles it is necessary to develop in details provisions of normative legal acts, and then legislatively to fix them.

The policy on increase of power efficiency has to include not only a legislative initiative, but also broad informing the public on need of introduction of power effective behavior. So, for example, certification and marking gained distribution at the initiative of business in the developed countries "from below" — in response to demand from consumers. Therefore the power effective policy has to include gradual formation of such demand by increase of knowledge of the population of the existing programs, reports on their realization, on opportunities of RES, use of secondary energy resources, alternative types of fuel, local and renewables.

This sector can give the fastest return for the state, however increase of energy efficiency in the budgetary establishments now minimum for a variety of reasons. It isn't authorized to budgetary establishments to leave to itself or to redistribute the reached economy of costs of energy resources, and they can't sign long-term contracts or contracts with return of investments from future economy. Besides, procedures of purchases demand the conclusion of contracts on the basis of the smallest price of the demand, but not the smallest expenses during all term of operation. The government can stimulate economy having given opportunity to the budgetary establishments to dispose of the saved means or having transformed them to autonomous non-profit organizations. However these measures have to be followed by installation of target indicators on decrease in energy consumption on the basis of the comparative analysis with reference indicators (benchmarking). Assistance to purchases of the power effective equipment and power services by budgetary organizations

requires change of requirements to government procurements: introduction long-term (five years and more) the contracts, contracts constructed by the principle of payment after delivery of achievement of economy, and the principle of the smallest expenses during all term of operation.

Despite ease and obvious benefits of intervention for the purpose of increase of energy efficiency in buildings of the budgetary sphere, still in Kazakhstan in this area it is made a little.

Metering devices can give only limited economy if, for example, tariffs remain at the level which isn't providing a full recovery of production expenses or if the system of drawing of accounts by the power supplying enterprises doesn't change. In some cases after installation of metering devices in budgetary organizations practice of exposure and payment of accounts on the basis of standards, but not real volumes of consumption, owing to absence of necessary knowledge and incentives at the management of these organizations, and sometimes as a result of technological difficulties proceeds. Kazakhstan as well as Russia can give to budgetary organizations one more powerful spur to financial independence, having provided some of them the status of the autonomous organizations. As well as in a case with block subsidies, budgetary funds are allocated the autonomous organization without any concrete instructions concerning their use. The status of the autonomous organization gives to budgetary organization the additional chance of optimization not only the expenses covered from budgetary funds, but also other income which they gain independently. The autonomous organizations, certainly, will demand additional control (Board of directors or trustees) as the state keeps the property, but gives the chance of budgetary organization to function more likely as to business concern.

Decrease in consumption of energy resources is carried out by energy saving actions, thus the basic level of natural limits of power supply for the term exceeding the period of payback of energy saving actions for one year remains. Concerning energy saving bases in the budgetary sector, it is necessary to fix an order of the conclusion and execution of separate types of contracts for rational use of energy resources.

Performance contract and the power service contract promote increase of energy efficiency in the budgetary sphere. Performance contract and the power service contract provide attraction of private investments for ensuring growth of efficiency of use of thermal and electric energy in budgetary organizations and establishments.

Performance contract is concluded by budgetary organization or establishment with the organization, the rendering service and (or) performing works of energy saving character on a professional basis (further - power service company), the contract directed on implementation of the investment projects which are intended for decrease in consumption by budgetary organization or establishment of volume of municipal resources with fee and (or) works of power service company from part of the received economy of budget funds.

Broad application of such types of contracts as performance contract and the power service contract, demands normative legal documents and methodical instructions. Creation of methodology of definition of possible effect from economy will be able to affect an energoeffektinost in general. The power passport of the building can form legal base for such calculations. Besides, it is impossible to do without adoption of the regulatory legal act regulating a conclusion order performance contracts and affirming the right for the conclusion of such contracts budgetary organizations allowing to use settlement economy on fee of power service companies.

Tax incentives in the long term can become the effective mechanism of increase of appeal of investments into energy efficiency. However it should be noted the difficulties and risks connected with introduction of tax incentives in

such country as Russia where the collecting of taxes remains rather low, and the problem of evasion of taxes and fraud isn't solved completely yet. There are three main types of tax incentives at acquisition of the power effective equipment:

- The accelerated depreciation improves financial performance of the project, allowing to write off quicker equipment cost in the tax purposes. Thus the additional resources provided to the enterprises, due to its application, come back to the state budget subsequently;
- Tax deductions allow to subtract part of cost of the equipment from profit;
- Decrease in taxes and fees, as a rule, means decrease or release from customs payments at acquisition of the power effective equipment

Energy saving and increase of energy efficiency of all branches of Kazakhstan is now a priority task which will allow to resolve a complex of topical issues: power, ecological and economic. According to item 5 of Art. 3 of the Law RK "About Energy Saving and Increase of Energy Efficiency" promotion of economic, ecological and social advantages of effective use of energy resources, increase of public educational level in the field of energy saving and increase of energy efficiency is the basic of the direction of state regulation. A main objective of energy saving is realization of strategy of complex effective use of energy resources at sustained economic growth both steady improvement of quality of life and preservation of healthy environment. And today the special part is assigned to questions energy saving promotion as knowledge, the high culture of energy saving of people determines the level of efficiency of use of energy resources in the majority.

Energy saving and increase of energy efficiency of all branches of economy is now a priority task which decision will promote a further sustainable development of economy and increase of its competitiveness.

Energy saving becomes a synonym of a sustainable development since positively influences and an ecological situation – due to decrease in need for new capacities and use of new technologies. Losses of energy in the cities and the industry are idle capital, the main source of decrease in expenses today.

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