

Preconditions for the introduction of thermo-modernization measures of the housing fund in Ukraine

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Abstract

In the theses, we determined the preconditions for the introduction of measures for the thermo-modernization of housing stock in the context of increasing its energy efficiency. An analysis of the current state of the housing sector and the state housing policy in Ukraine was realized. We have disclosed the structure of housing and communal services and analysed the debt of the population on their payment. Based on analysis of the solvency of the Ukrainian population and providing subsidies to households we came to the conclusion about the need to reduce the inefficient use of energy resources. In the conclusions, we determined the prospects for further research on this issue, which consist in the need for the formation of methodological support for real estate market monitoring in terms of energy efficiency and energy conservation and the search for financing mechanisms for the thermo-modernization of housing stock.

Keywords: thermo-modernization, housing stock, energy efficiency, financing mechanisms

1 Introduction

In the years of independence, housing reform in Ukraine was purely declarative. The analysis of the state housing stock showed that a significant part of it, where about 50% of the country's population lives, is in an emergency condition or is obsolete and requires major repairs. According to experts of the Ministry of Regional Development as of January 1, 2017, more than 70% of the housing stock needs thermo-modernization. In this regard, more than 40,000 multi-storey buildings need to increase their energy efficiency and reduce energy consumption through thermal upgrading.

2 An analysis of preconditions for the thermo-modernization of housing stock

Another factor for the urgency of a thermo process is the growth of the consumer price index on utilities, reducing the solvency of the population and the late payment of wages. Thus, the consumer price index for utilities tended to increase during September 2016 - September 2015; it had a negative impact on the level of solvency of the population for housing and communal services. The increase in prices (tariffs) for housing, water, electricity, gas and other fuels by 3.7% was mainly due to an increase in electricity tariffs by 27.8%. An analysis of the distribution of the level of payment by the population of housing and communal services across regions showed that Cherkasy (141%), Zhytomyr (139.6%), Khmelnytskyi (139.5%), regions have the highest level of payment and Sumy (43.8%) and Ivano-Frankivsk (42.1%) regions have the lowest level of payment (Figure 1). This situation is due to the increase in the price of housing and communal services and low wages of the

population of Ukraine.

Having analysed the regional distribution of the debt of the population for August 2016, we have concluded that the largest share of the debt for gas supply. The lowest debt of all types of housing and communal services are Kyiv, Dnipropetrovsk, Kharkiv and Odessa regions and the greatest - Ternopil and Cherkasy region. In turn, the problem of improving the quality of housing and communal services is closely linked with the consumers' understanding the need to timely and fully pay for the services received.

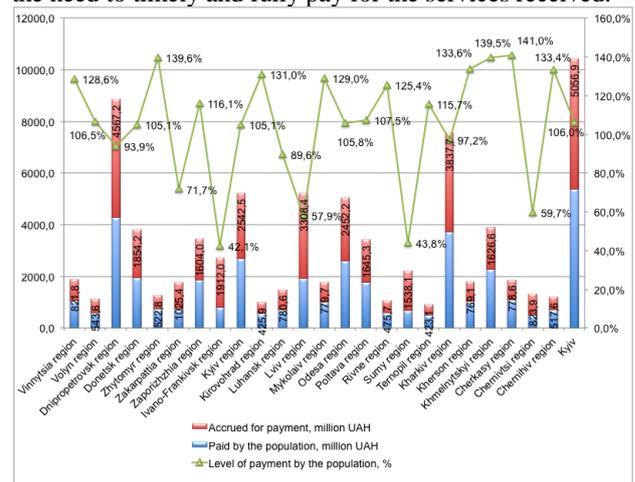


FIGURE 1 Regional distribution of payment for housing and communal services in January-August 2016

A separate reason for the urgent thermal modernization of housing stock is the imperfection of the management system of housing and communal services in Ukraine and the delay in its reform, which resulted in the industry's failure to work effectively in market conditions and provide

consumers with services of the appropriate level and quality.

To improve the situation with payment of housing and communal services and strengthen social protection of the most vulnerable segments of the population in Ukraine, since 2014, the instrument of the government subsidies has been actively used. Subsidies for payment of housing and communal services are provided to citizens by state authorities and local authorities within the social norms of housing space and the norms of consumption of communal services, taking into account the subsistence level, the aggregate family income and operating benefits.

The number of households receiving subsidies accounted for 34.5% of the total number of households in August 2016. Among the regions, the larger part of such households was in the Sumy and Ternopil regions (58.8% and 54.9%, respectively), and the lowest in the Odessa region and Kiev (12.6% and 18.8%, respectively). The total amount of subsidies allocated to households was 2648.3 million UAH (in urban settlements - 1581.8 million UAH, in rural areas - 1066.5 million UAH) in January-August 2016, in the corresponding period of 2015 - 625.8 million UAH (in urban settlements - 473.7 million UAH, in rural areas - 152.1 million UAH).

The analysis of the state of housing and communal services, the solvency of the population of Ukraine and the provision of subsidies to households allows us to assert about the need to reduce inefficient consumption of energy resources. Given the scarcity of energy in Ukraine, import volume that is 75% natural gas and 85% of oil and petroleum products, we conclude that the structure of the energy balance is critical and is unacceptable from the standpoint of energy security. In this connection, energy saving is one of the priority directions of Ukraine's development. Out-dated energy-consuming production base, together with the established social stereotypes is a real obstacle to the formation of the energy-efficient economy. At the same time, energy production costs, create a huge potential for implementing policies in the field of energy conservation and efficient energy consumption. All of the

foregoing requires a focused state energy policy which will take into account the possibility of Ukraine's domestic production of hydrocarbons, the development of restoring energy and energy saving, transition economy to a broad introduction into production innovation.

During 2014 - 2016 there is a stable dynamics of the reduction in gas consumption by the population, heat-generating enterprises and budget organizations. The total reduction of gas consumption in the heating season 2015/2016 in relation to the heating season of 2013/2014 is 7.2 billion m³, (30%), including the population's consumption from 14.09 to 9.6 billion m³ (or 32%); HCE from 8.8 to 6.38 billion M³ (or 27%); budget from 0.73 to 0.49 billion m³ (or 33%).

Along with a reduction in gas consumption in order to increase the energy security of Ukraine is necessary to increase the use of renewable energy sources. State policy should be aimed at energy saving, energy efficiency and rational use of resources and economic energy expenditure.

3 Conclusions

Thus, the increase in consumer prices, the growth of debt in wages and pensions, lead to an increase in the debt of Ukrainian citizens for housing and communal services. In the conditions of the constant increase of prices for energy carriers, the uncertainty of the situation with the supply of natural gas at the state level, it is necessary to take measures to stimulate energy saving in the housing stock, including by carrying out its thermo-modernization. So, the current state of the real estate market in terms of energy conservation, which is at the stage of formation, requires increasing its efficiency. Prospects for further research on this issue include the need to develop methodological support, in particular, the choice of methods and tools for monitoring the real estate market in terms of energy efficiency and energy conservation and the search for financial support for its thermal upgrading.

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