ECONOMIC ASPECTS OF ENERGY SAVING IN THE HOUSING COMPLEX

E.V. Shkarupa, V.V. Parkhomenko V.V.
Sumy State University, Sumy, Ukraine

Large budget expenditures of the country spend on heat and energy consumption in the residential sector. The growth of these costs is less connected with the growth of housing stock as increase the loss of heat energy in housing and utility networks due to their wear. Along with these processes is the process of environmental degradation and pollution of the environment.

Let's examine the problems of energy efficiency of housing stock and their possible solutions and select the most cost-effective energy efficiency measures in housing and communal services (HCS).

Electricity saving

Saving of electricity on the one hand the easiest way: in most cases there is metering, and ongoing low-cost events provide an immediate economic effect. If we take into account the inevitable increase in electricity tariffs in the near future, investing in energy efficiency can be regarded as one of the most lucrative sources of investment.

The significant effect for residents in modern conditions makes installation of multi-tariff metering.

The special light modes require house territory, canopies porches, parking lots and parking, stairs, porches, platforms, warehouses, hallways and other common areas and utility.

Because these objects do not require constant illumination, the most effective option for saving these sites is to install utilities floodlights with motion sensors and to set the corresponding regimes. Energy saving from the use of halogen floodlights with motion sensors up to 70% [2].

Savings on heating

Heating costs are the largest paper in the payment of municipal services. And at the same time, the heat, is the most wasteful using and providing with the worst quality of all supplied to us resources. In this situation, the introduction of accounting systems can monitor and manage the receipt and use of thermal energy. And what is more important provides economic leverage in the relationship with the supplier.

The main task of heating the housing stock is to provide a comfortable temperature in the house. Along with those who suffer from cold, there are those who suffer from heat. These typically include the people who are closest to the source of heat. A practical solution to this issue is to set regulatory systems heat. Because of the conditions of the central heating is hard to do. Substations are derived outside the home and serve several homes.

The main reason for creating the central heating was the lack of low-noise pump. Which were capable to provide the desired mode works without violating the comfort of living.

Modern technologies are already prepared to offer enough low-noise pumps, which allow organizing individual heating units (ITP) in every residential building.

This will reduce the cost of heating water, implement regulation of thermal energy consumed and, ultimately, significantly reduce the cost of heating homes. With the problem of subcooling is much harder to fight because of it expensive.

The reason for the low temperature in the apartments is not a bad quality heating, this is just a consequence, but a tremendous heat loss of dwelling houses. Generated and supplied to the house heat is lost through:

- Window and door openings: 40-50%;
- floor attics and cellars: 20%;
- Exterior walls: 30-40%. [3]

Energy efficiency measures derived from the existing problems, it is necessary to improve the place of heat loss.

Water saving

Survey of water supply systems with high specific water consumption shows that the excess consumption consists of the sum:

• leakage of water into the system in-house water leaks from plumbing in homes, in networks hot and cold water;

• over-pressure after the economic pump;

• unrecorded tenants;

• errors in accounting populations.

Thus, identifying the main problems in the country's housing stock, possibly the introduction of energy saving measures to achieve budgetary savings and to ensure the necessary level of comfort of living.

References

1. http://www.regenergo.ru/index.php?z=u&mat_id=32 – официальный сайт компании «Межрегионсервис»

2. http://steinel96.ru/node/711 - официальный сайт компании STEINEL

3. Энергосбережение в жилищном фонде: проблемы, практика и перспективы. М.: dena, Фонд «Институт экономики города», 2004-108стр.