ENERGY SAVING TECHNOLOGIES

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Faculty of Electric Power Engineering and Automatics, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" Energy-saving technologies are a method of manufacturing products with rational use of energy. Use of energy, which allows to reduce the amount of energy waste generated in the production of products.

Energy-saving technologies are relevant not only in highly developed countries, but also in a country at war, as the destruction of businesses and production forces them to look for alternative sources and quick ideas that will influence further development.

The main types of energy-saving measures are as follows:

1) organisational measures - quick-impact measures – internal energy audits, preparation of an enterprise's energy passport, development of energy saving measures and improvement of technological processes efficiency, monitoring of the implementation of the measures taken to stimulate and motivate energy-saving behaviour, the introduction of the right to dispose of funds from energy-savings.

2) technological measures – basic measures – are more radical and facilitate the rapid implementation of cost-effective and financially attractive investments.

3) investment measures - high-cost and high-efficiency measures help to eliminate the main causes of low energy efficiency, in most cases guaranteeing more significant energy savings, but require higher initial costs.

If we take the energy sector as a whole, we can see that many new and interesting companies are opening in Ukraine during the war, which are already automating the production and installation of modular equipment, as well as the use of new technologies for the construction of movable walls called "sandwich panels", which help to quickly assemble partitions and load-bearing walls.

And some words about saving energy in the household.

Modern energy-saving technologies for residential buildings are becoming more and more popular. The easiest option for an audit is the use of a thermal imager - the results show the main causes of heat loss.

For a more rational use of thermal energy, we can take the following measures:

1) Wall insulation. This measure can greatly reduce your financial losses on

heating in the winter. And in the summer, our house stays cool.

2) Making our heating system more efficient. You can try:

1)insulation of pipes of heating systems;

2)Installation the screen behind the radiator;

3)If your radiators are too old - you should install new, because old radiators heat transfer is too bad.

3) Recuperation of heat. Recuperation is reusing of heat and moisture from air from our home. Recuperators get heat from air from home and give it to fresh air from the outside. As a result, living building is warm in winter and cooling in summer.

4) Using of solar collectors. This thing uses power of visible and infrared rays of solar radiation. This way can provide us with hot water during all year. And you can use it as part of a heating system.

For more rational use of electric energy in the household is necessary to use high-efficient instruments (with A+++, A++, A+, A, and, at least B efficiency class). And, for efficient use of those instruments is necessary to follow regulations of using and make full service in time.

All these measures don't give results instantly and require investment. It must pay off in several years and in the future, you can economize your money without discomfort.

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