UPDATE OF IMPLEMENTATION OF ENERGY MANAGEMENT AT UKRAINIAN ENTERPRISES

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Relevance: The basis of the modern mechanism for improving the competitiveness of enterprises is an innovative model of economic development. The most important factor influencing the competitiveness of products is the share of the energy component in the cost of production. Reducing energy consumption leads to increased profitability and competitiveness of the enterprise. Energy efficiency is addressed through energy management.

In order to activate energy saving processes, the concept of the energy management system (CENM) was widely developed. World experience shows that the introduction of an efficient CENM service in an enterprise that implements the ISO 50001 Standard "Energy Management Systems: Requirements with Operations Manual" can provide an annual reduction in the cost of fuel and energy resources of about 10-15%.

Objective: To analyze the relevance of the implementation of energy management systems in Ukraine and the prospects for increasing the number of certified organizations.

Materials and Methods: Official data from the International Organization for Standardization (ISO) and the State Statistics Service of Ukraine were used to collect information and conduct the survey in order to obtain the most accurate and up-to-date official data on the dynamics of ISO 50001 certification.

Materials and Methods: The experience of European countries shows that implementing energy efficiency policies requires changes at the level of management decisions through the implementation of energy management systems in accordance with ISO 50001 "Energy management systems – requirements and guidelines for application". The state energy efficiency policy should cover all spheres of the national economy – from the regional to the national economy of the country and coordinate administrative, legislative and financial measures to stimulate the economy. Increasing the level of energy efficiency of an industrial enterprise is a task of paramount importance due to the requirements of modernization of the economy, the acceleration of scientific and technological progress, the requirements of socio-economic development, the need to improve the state of the environment. The implementation of the energy efficiency policy is achieved by reducing the energy consumption of industrial products, increasing the use of renewable energy sources and energy conservation. Achieving a significant energy-saving effect is possible provided that not only technical solutions are implemented, but also a more sophisticated energy-saving management mechanism, the energy management system, is applied.

The modern concept of energy management stimulates the emergence and development of metrological support and regulatory and methodological preparation of control, accounting, analysis of energy efficiency, leads to a significant expansion of rights and increase the responsibility of energy services of the enterprise, dramatically enhancing their impact on the efficiency of use of all types of energy resources . As practice shows, despite the significant benefits that can be gained from the implementation of CENM at enterprises, organizations and institutions, there has been no significant promotion of CEN implementation in Ukraine. This is due to the fact that there are many different barriers to the implementation of CEN, including:

- misunderstanding by management of the importance of energy conservation;
- financial unwillingness of enterprises to introduce SEnM;
- the need to reorganize the enterprise structure at the stage of CEN implementation;
- the lack of energy-saving policies;
- lack of incentive system for company personnel;

- insufficient support from management;
- Insufficient awareness of staff about CEN implementation;
- lack of sufficient venture required metering energy consumption.

The main economic benefits of implementing energy management system in the enterprise, providing attractiveness and capitalization growth companies):

- organizational effect (increase of company management): efficient management of energy consumption; improving the production cycle; improving the overall control of the company and optimizing all business processes;
- financial effect (cost optimization company): improving the financial performance of the company through direct savings of energy resources; increase of financial transparency of the company; guarantees of investment in energy-saving projects;
- Reputational effect (to support the image and reputation of the company): the image attractiveness of the company implementing the energy efficiency policy in the eyes of business partners, the population and the authorities; the company's reputation for being successful in improving its energy efficiency.

However, it is necessary to take into account the fact that the formation and development of CENM in enterprises may cause costs related to:

- the need for external expert advice;
- additional education of specialists;
- creation of energy management department;
- further development and maintenance of internal documentation;
- creation of additional means of energy monitoring;
- development, demonstration and dissemination of various information materials on the achieved results of activity of enterprises in the field of energy management, etc.

Activities in the field of energy management should be undertaken by enterprises based on the following principles:

- priority power management;
- «transparency» of the results of energy saving (energy-saving availability performance indicators of the company for all stakeholders);
- wide coverage (involvement of employees of all levels and positions in the energy management activities with clear definition of their subordination and responsibility);
- prevent environmental impact;
- continuous improvement of results of energy saving activities and improvement SEnM;

The company, which has established and built a high-quality work SEnM gets a unique opportunity to improve the production cycle, timely most effective energy saving measures, constantly getting out of these measures in the form of financial gain.

Conclusions: The ISO 50001 standard today is the generally recognized basis for ensuring the integration of energy efficiency into management practices. With the introduction of ISO 50001, companies have been granted access to a single, harmonized standard for the implementation of an enterprise-wide energy-saving system that includes a logical and consistent methodology for identifying and implementing improvements in energy-efficiency and energy efficiency.