



## Energy management the answer to energy efficiency



High rates of growth in natural gas prices, high level of energy resource consumption, increase in the share of energy consumption in production costs, low fuel efficiency and significant emissions of greenhouse gases in the atmosphere - it all leads to finding alternative sources of energy, energy efficiency or developing methods of energy efficiency. Energy efficiency - is to increase the volume of activity per unit of output. Energy audit - verification and validation of a third party that controls the system power consumption of the enterprise or organization to meet the requirements of international standards.

### Energy management

Energy management systems enables on a regular basis control of the use of energy and consequently the costs. In addition, adopting the system and obtaining a certificate of conformity will improve a company's position in the global market, attracting new investors. Energy management can provide:

- Identification of defects, poor performance and failures in energy-consuming systems;
- rapid intervention in case of adverse trends towards increased use of energy;
- Identification of recommended improvements and their priority;
- more attention to the use of energy and the environment at all levels in the municipality.

The process of organizing energy management can start with one building and developing it to the level of the institution or other formation. It should be emphasized that energy management is a relatively simple technique which can often be quite simple common sense.

Today, one of the key priorities is energy efficiency - reducing energy consumption by enterprises and the residents of the country. This is primarily connected with the needs of reduction of impact on the environment in terms of the consumption of energy resources and associated with the generation of waste, emissions, discharges, as well as increasing requirements for energy efficiency around the world.



Stages of implementation of energy management in the enterprise:

1. Evaluation Audit – organization and conduction of the evaluation audit of the existing system of energy management company to meet the requirements of International standards. Formation and report on the level of company compliance with non-compliance and recommendations on their elimination
2. Education - organising and conducting training sessions for senior management, representatives of the services and departments of the main power, the chief engineer and chief technologist, participants in the project implementation, the internal auditors
3. Planning - establish (define), facilities, equipment, processes and staff that greatly affects energy consumption (energy aspects of identity). Identify legal and other requirements in the field of energy conservation, to be followed by the company. Determination of energy policy, energy goals and indicators of energy management programmes. The distribution of duties, responsibilities and powers in the energy management system. Establishing the required level of employee competency. Drawing up of schedule of development of the necessary documentation
4. Development - Development of documentation, manuals describing the elements of international standards, documented procedures, records, the provisions of subdivisions, officers, and work instructions
5. The implementation and final evaluation - Introduction of the developed instruments in constant practice of the company. Organizing and conducting internal audits. Conduct in conjunction with senior management analyze the functioning of the energy management system. Conduct of a final evaluation by the rules of the certification authority.

Results - Benefits of implementing an Energy Management System:

- improve the production cycle;
- a timely lead effective action on energy conservation;
- to get benefit in the form of financial gain;
- to improve energy efficiency;
- implement plans to improve energy efficiency by analyzing the current energy consumption with respect to the expected;
- implement and apply various legislative, regulatory, contractual and other requirements and obligations; perform an important regulatory role in climate change.

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