UDC 519.865

ENERGY MANAGEMENT COMPANIES IN THE EMERGENCY MEASURES ON THE ELECTRICITY MARKET

H. Kachurivska, V. Kachurivsky

The work of the enterprise depends on the reliability of energy supplies. The introduction of emergency measures on the electricity market of Ukraine in 2014 to carry out tests to limit electricity consumption and adherence to limits capacity. Setting limits on electric power makes the task managers of optimal use of available resources.

The active energy-saving policy is reflected in the Law of Ukraine "On energy saving", the Cabinet of Ministers of Ukraine "On approval of the Energy Strategy of Ukraine till 2030" "On taking temporary emergency measures on electricity market" and others.

Scientific substantiation and practical application of the criteria of efficient energy consumption in the production of various models implemented in enterprise management, optimize energy consumption, optimal distribution, consumption reduction, etc.

Remains unaddressed modeling of the enterprise in emergency measures at the electricity market.

The purpose of research - to build a mathematical model of limit distribution of electricity between departments of the enterprise to maximize profits, which is the basis for energy management company.

Materials and methods of research. Consumes a certain amount of electricity that is shared between divisions, producing products. Product sales revenue the company generates.

Today, due to the insufficient generation of electricity in Ukraine, and interim emergency measures on the electricity market, the company must follow the established limits capacity. Probable situation is that the company does not receive the necessary power in accordance with the established limits. The lack of power leads to the necessity of pererozpodu between units. Now considered using backup

power source to compensate for the capacity in terms of minimizing the cost of energy production. This distribution does not always provide profit maximization. Therefore, in modeling the enterprise with limited electricity, the problem should be resolved in parallel to maximize profit at minimum cost to produce and make decisions on the use of certain energy distribution.

Results. Consider the case when the enterprise no power to compensate for lack of electricity. Solving this problem is reduced to finding the solution of linear programming distribution type.

If the total power consumers exceed set limits on consumption, the system is unbalanced. To find the solution of the problem it is necessary to balance capacity. To introduce a system of balancing false source a1, which supplies energy shortage.

In the simulation task costs and returns will be measured in conventional units per unit of power.

Obviously, we get two matrices distribution. The first matrix is to minimize costs, the second - to maximize profits. The decision of the distributions that use the company make a difference target functions for distributions found.

Conclution

The model makes it possible to take a decision for the possible distribution of electric energy in the company, under the conditions set limits and no compensatory energy sources in order to maximize profits.