



NJSC "Astana Medical University"

Energy saving program of NJSC "Astana Medical University"

Ed. № 1
Page 1 of 6

«I APPROVE»

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Energy saving program
NJSC "Astana Medical University"

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Passport of The Energy Saving Program

Full name of the organization	Non-commercial Joint-Stock Company "Astana Medical University"
The basis for the development of the program	<p>In the context of global climate change and growing scarcity of natural resources, energy conservation and energy efficiency issues are becoming increasingly relevant for educational institutions around the world. In particular, for the University in Kazakhstan, the development and implementation of an energy saving program is a strategic necessity for several key reasons:</p> <ol style="list-style-type: none"> 1. Reducing energy costs: Universities, as large energy consumers, face high energy costs. In the context of unstable energy prices and growing budget constraints, effective energy consumption management can significantly reduce costs and free up funds for other educational needs and initiatives. 2. Environmental responsibility: Kazakhstan strives to implement strategies for sustainable development and combating climate change, which is reflected in government policy and international commitments. Universities play a key role in this process, setting an example of responsible attitude to the environment. The development and implementation of an energy saving program will help reduce the carbon footprint of an educational institution and contribute to overall efforts to protect the environment. 3. Infrastructure improvement: There may be energy efficiency disadvantages in old and new university buildings, such as outdated heating, ventilation and air conditioning systems, inefficient lighting and other factors. The energy saving program will allow for the modernization of infrastructure, increasing its energy efficiency and providing a modern level of comfort for students and staff. 4. Increasing educational value: The introduction of an energy saving program creates unique opportunities for practical training of students. Energy conservation projects can become part of training courses, research initiatives and student projects, which contributes to the formation of skills in the field of sustainable development and resource management for future specialists. 5. Social recognition and competitiveness: The University, which actively implements modern principles of energy conservation, is recognized as a leader in the field of sustainable development and social responsibility. This can increase its attractiveness to applicants, partners and investors, as well as improve the image of the institution at the regional and international levels. 6. Compliance with regulatory requirements: In the context of changing legislation and strengthening control over compliance with environmental standards, universities need to adapt to new requirements. The development of an energy saving program will help to comply with current norms and standards, preventing possible sanctions and fines. The development of an energy saving program for a university in Kazakhstan is an important step toward



	sustainable development, reducing costs and ensuring a high-quality educational process. This is not only economically feasible but also meets the modern requirements of environmental and social responsibility.
The purpose of the program	Improving energy efficiency when using energy resources at the University.
Program objectives	The implementation of measures, the execution of which will lead to an increase in the efficiency of the use of energy resources, reduction of financial costs for ensuring the energy supply of the organization.
Program targets	A decrease in the volume of consumed energy resources in comparable conditions with an annual decrease in such volumes by at least one percent compared to the level of the previous year.
Deadlines for the implementation of the program.	2024 – 2029
Planned results of the program implementation.	A decrease in the volume of consumed energy resources in comparable conditions with an annual decrease in such volumes by at least one percent compared to the previous year. Raising the level of culture in the field of energy conservation and energy efficiency



1. The expediency and necessity of developing a Program.

The program is aimed at solving the problems of energy saving and increasing energy efficiency. In conditions of constant growth of energy tariffs, the importance of introducing energy-saving measures, mainly aimed at saving heat, electricity and water consumption, is increasing. Energy saving is an urgent and necessary condition for the normal functioning of NJSC AMU, since increasing the efficiency of using energy resources and water (hereinafter referred to as ER) with a continuous increase in energy prices and, accordingly, an increase in the cost of electric and thermal energy allows for significant savings in both ER and financial resources. An analysis of the functioning of the NJSC AMU shows that the main losses of ER are observed with inefficient use, distribution and consumption of thermal and electrical energy. The irrational use of energy leads to the loss of thermal energy and electrical energy. And as a result, this leads to:

- to increase the budget financing of the institution;
- the growth of the "financial burden" on the district budget;
- to the deterioration of the environmental situation.

The energy saving program should ensure a reduction in ER consumption by switching to economical and rational use of ER in NJSC AMU while fully meeting the needs in the quantity and quality of ER.

2. The purpose and objectives of the Program.

The purpose of the Program is to reduce budget expenditures on energy supply in the NJSC "AMU".

The main objective of the Program is the implementation of a set of measures that will lead to an increase in the efficiency of using ER, including equipping the institution with thermal energy metering devices, installing energy-saving equipment, and warming the building in order to reduce heat losses. This set of measures should lead to a reduction in budget expenditures for ensuring the organization's energy supply.

In order to achieve the set goals, the Program provides for activities aimed at achieving certain values of the target indicators.

3. The values of targets in the field of energy saving and energy efficiency improvement.

The main target indicator for the implementation of the Program is a decrease in the volume of consumed ER by at least one percent compared to the previous year in comparable conditions.

The fulfillment of the targets as a result of the implementation of the program (in kind and in value terms) is recorded annually in the forms of the actual fulfillment of the targets, both for the year and with an increasing total, after summing up the results of the activities.

4. List and description of program activities.

During the energy surveys, recommendations were made to determine the potential for energy saving and the development of energy-saving measures, and the areas where energy-saving measures should be carried out in the first place were identified.

Saving of electric energy is planned due to the following measures:

- installation of energy-saving lamps;
- installation of motion sensors throughout the facility;
- when purchasing electrical equipment
- purchase of equipment of high energy consumption classes;

Saving of thermal energy is planned due to the following measures:

- installation of thermal energy meters;
- flushing of central heating systems with subsequent adjustment and adjustment;
- replacement of doors;
- replacement of radiators of the heating system;



-installation of plastic windows.

The reduction of water consumption is planned through the implementation of the following measures:

-monitoring the performance of the cold water supply system.

The list of program activities and their financing from the budget and extra-budgetary sources is subject to clarification annually when forming the budget for the corresponding financial year based on the results of the implementation of energy-saving measures.

5. Resource provision and financing of the Program activities.

The implementation of program activities is planned at the expense of the budget of the NJSC "AMU" and extra-budgetary funds. The cost of events may be reviewed when making changes and additions to the list of events.

Subject to budgetary financing, the list of Program activities and their amounts of financing from the budget are subject to annual clarification when forming the budget for the corresponding financial year under comparable conditions and taking into account the results of the implementation of energy-saving measures in the previous financial year.

6. The mechanism of the Program implementation.

The implementation mechanism of the Program includes:

- implementation of program activities at the expense of the provided sources of financing;
- annual preparation of a report on the implementation of the Program and discussion of the results achieved;

- annual adjustment of the Program taking into account the results of the Program for the previous period.

The adjustment of the Program includes making changes and additions to the list of program activities, taking into account the results of the implementation of energy-saving measures in the previous year, as well as on the basis of identified shortcomings and the need to eliminate them, determining the potential for energy saving.

7. Expected results of the Program.

During the implementation of the first stage of the Energy Saving and Energy Efficiency Improvement Program, the budget institution will conduct energy surveys. The potential for reducing the volume of consumed energy resources (water, thermal energy, electric energy) has been identified, the institution will install energy metering devices. Analysis of the decrease (increase) in expenses (in comparable conditions) in 2024 in relation to 2029.

When implementing measures at the current stage, it is expected to reduce costs by 2029 by at least five percent of the amount actually consumed in 2024 for each of the resources.

8. Deadlines for the implementation of the Program.

The implementation of the Program's activities is planned for 2024-2029.

9. Monitoring the progress of the Program.

The responsibility for compliance with the established deadlines for the implementation of program activities and the achievement of specific results rests with the Vice-Rector/Managing Director of NJSC "AMU".