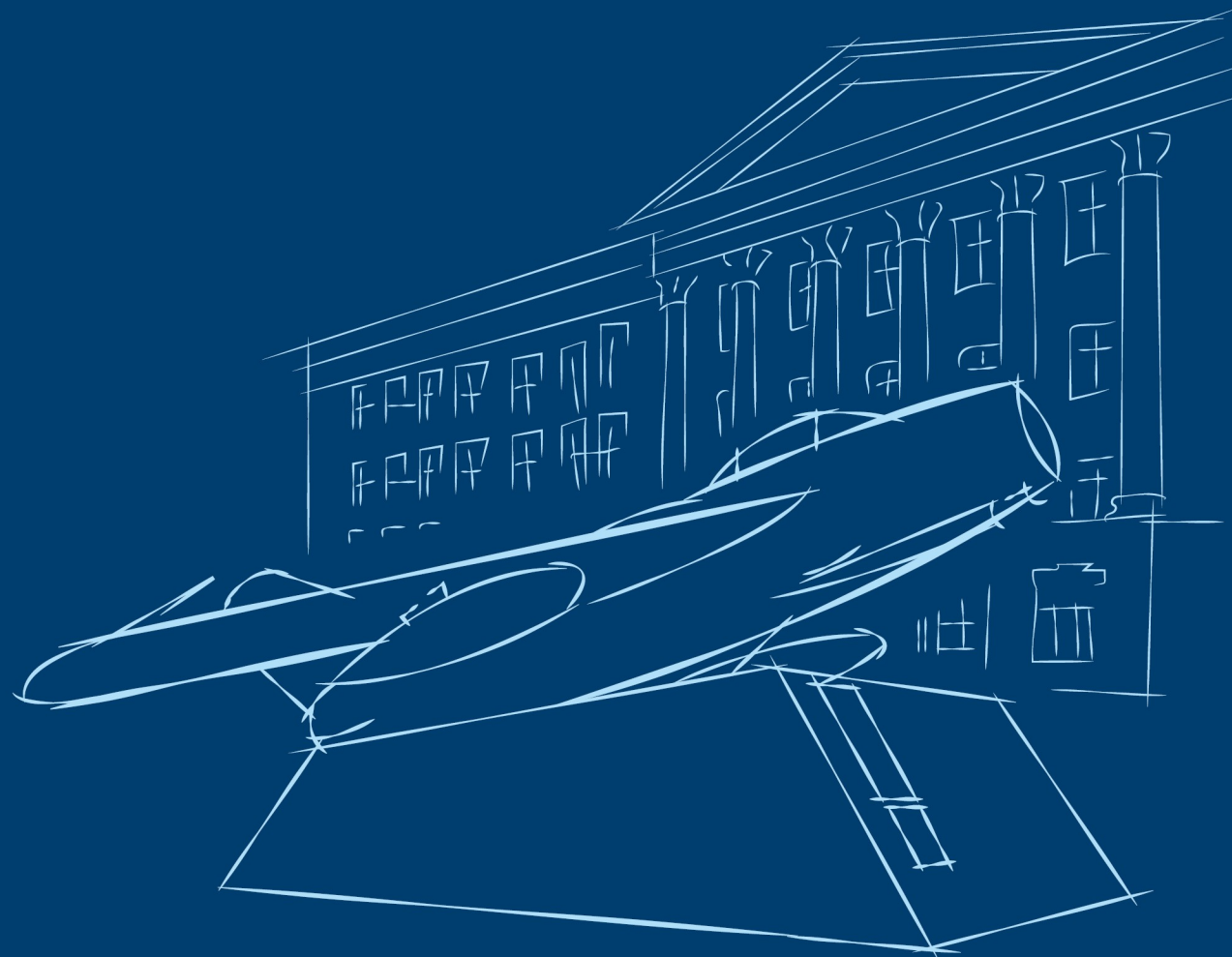




НАЦІОНАЛЬНИЙ  
АЕРОКОСМІЧНИЙ УНІВЕРСИТЕТ  
«ХАРКІВСЬКИЙ АВІАЦІЙНИЙ ІНСТИТУТ»

NATIONAL AEROSPACE UNIVERSITY  
«KHARKIV AVIATION INSTITUTE»

## 7 Affordable and Clean Energy



The Center for the Creation and Research of Aerospace Objects and Systems at the National Aerospace University “Kharkiv Aviation Institute” has been included in the list of 19 Shared Research Equipment Centers (SREC).

In 2024, the Ministry of Education and Science of Ukraine provided support for the implementation of energy-efficient solutions. This modernization will allow the center to reduce energy costs and ensure the uninterrupted operation of scientific equipment even during energy crises.

This support provides the following opportunities:

- the purchase of alternative and renewable energy systems, such as solar panels, energy storage units (batteries), hybrid inverters, BMS controllers, and other necessary components for their installation and uninterrupted operation;
- repair work and the procurement of new parts for technically worn-out or damaged equipment;
- technical maintenance, including calibration and adjustment to optimize equipment performance.

This initiative represents a strategic step by the Ministry of Education and Science toward strengthening energy independence and the sustainable development of Ukraine’s research infrastructure.



The National Aerospace University “Kharkiv Aviation Institute” implements practical measures to achieve the Sustainable Development Goal “Affordable and Clean Energy,” aimed at improving energy efficiency and using renewable energy sources.

Modern inverter systems have been installed in the university buildings, providing autonomous power supply and efficient use of solar energy. These devices convert the energy from solar panels into electricity, stabilize voltage, and ensure uninterrupted power supply to the university’s critical facilities.

Through the implementation of such systems, KhAI:

- reduces the consumption of conventional energy resources;
- contributes to lowering CO<sub>2</sub> emissions and protecting the environment;
- increases the university’s energy independence;
- ensures the stable operation of educational and research activities even in the event of power outages.





The National Aerospace University “KhAI” actively implements energy efficiency principles and the use of renewable energy sources in its activities, supporting the achievement of the Sustainable Development Goals.

One example is the use of energy storage battery systems, which allow:

- store electricity generated from renewable sources (solar panels, experimental energy installations);
- ensure the autonomous operation of laboratories and academic buildings in the event of power outages;
- reduce the consumption of conventional energy resources and lower the university’s carbon footprint;
- create educational and research conditions for students and scientists to study sustainable energy systems.

Such technological solutions align with the university’s strategic goal of developing innovative, environmentally oriented solutions in the fields of energy and aviation technologies, contributing to the transition toward a sustainable energy future.

