



D. Serikbayev  
**EAST  
KAZAKHSTAN  
TECHNICAL  
UNIVERSITY**

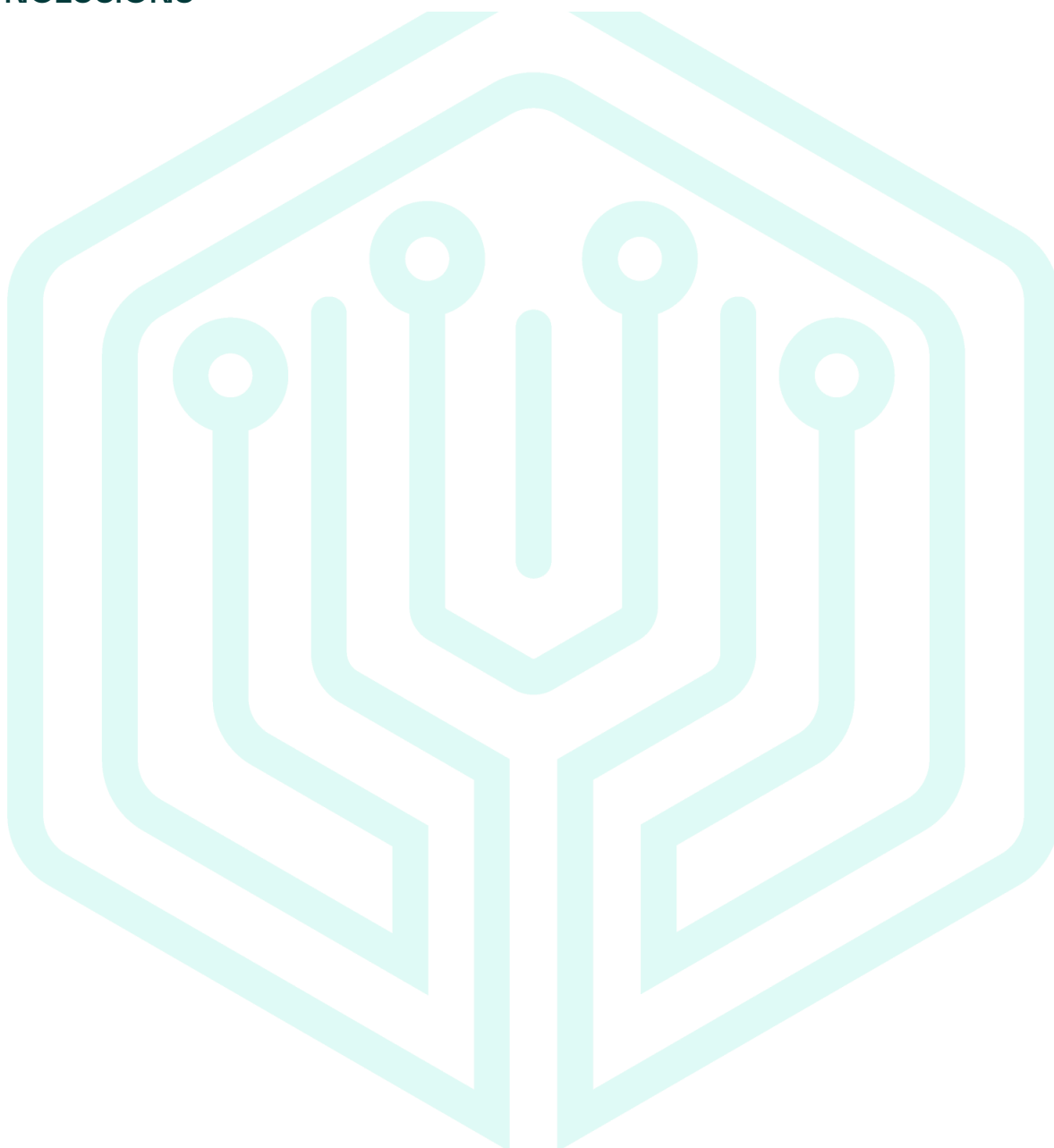
# SDG 7

Policy of NJSC «D. Serikbayev EKTU»



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# 1 GENERAL PROVISIONS



D. Serikbayev East Kazakhstan Technical University (hereinafter – the University) recognizes the importance of sustainable development, including the **United Nations Sustainable Development Goal (SDG) No. 7, «Affordable and Clean Energy»**. The University adheres to a policy of promoting affordable and clean energy sources through research and the gradual implementation of energy efficiency standards for all renovation projects and new buildings across

its campuses. In pursuit of sustainable «green energy» development, the University seeks to refrain from investing in carbon-intensive energy sectors, particularly coal-based industries.

## 1.1 Goal

Integration of SDG 7 principles into the educational, research, and infrastructural activities of EKTU with the aim of enhancing energy efficiency, promoting the sustainable use of energy, and implementing clean and renewable energy sources.

# 2 MAIN POLICY DIRECTIONS

| Direction                                   | D. Serikbayev EKTU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Infrastructure and Energy Efficiency</i> | <p>The University maintains an <b>energy saving policy</b> that includes:</p> <ul style="list-style-type: none"> <li>○ replacing outdated lighting and equipment with new energy-efficient systems (LED lighting);</li> <li>○ requiring energy efficiency certification for all procurements;</li> <li>○ installing automated heating control units;</li> <li>○ implementing a «Smart Campus» system (95.55% completed);</li> <li>○ introducing elements of «green» construction.</li> </ul> <p><b>Renewable Energy Sources:</b> solar power systems are installed in the main building and at the SEC «Prostor», along with heat pumps at the same facility.</p> |
| <i>Education and Academic Activities</i>    | <p><b>Educational programs</b> include the Bachelor's program 6B07104 – Electric Power Engineering and the Master's program 7M07115 – Renewable Energy.</p> <p>The University is equipped with modern laboratories, such as the <b>Alternative and Traditional Energy Laboratory</b> within the School of Architecture, Construction, and Energy.</p>                                                                                                                                                                                                                                                                                                             |

|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                              | Students undertake industrial internships at leading regional energy enterprises, gaining hands-on experience with advanced technologies and equipment.                                                                                                                                                                                                                                                                                                                     |
| <b>Research and Project Activities</b>       | <p>The University receives grant funding in priority areas of scientific and technological development.</p> <p><b>Research project:</b> AP22685023 «Development of an Energy-Efficient Method for Fine Grinding of Materials», aimed at reducing the energy consumption of material crushing processes by 20%.</p> <p><b>Collaborative projects:</b> a memorandum with the city administration, USAID, and the AES Group on energy storage systems and energy auditing.</p> |
| <b>Awareness, Culture, and Communication</b> | <p>The University conducts lectures on energy conservation (including online sessions and guest expert lectures) for students and staff.</p> <p>It also organizes international conferences, seminars, forums, and other events that draw attention to issues of ecology and energy efficiency.</p>                                                                                                                                                                         |





## 2.1 Proposed Measures

### 1) Modernization of the University's Energy Infrastructure

— Comprehensive energy audits of buildings, phased replacement of equipment, and implementation of automated systems for heating, ventilation, and lighting.

### 2) Introduction of Renewable Energy Sources on Campus

— Installation and expansion of solar panels, heat pumps, and pilot wind and geothermal energy systems.

### 3) Development of «Green Standards» for Construction and Renovation

— Mandatory energy efficiency and environmental sustainability requirements for all new buildings and reconstruction projects within the University.

### 4) Development of Educational Programs in Sustainable Energy

— Integration of modules and courses on renewable energy, energy efficiency, and «green» technologies into academic curricula.

### 5) Practice-Oriented Learning and Laboratory Development

— Utilization of training laboratories and industrial internships at energy enterprises; support for research units conducting applied studies and innovations.

### 6) Partnerships with Industrial and International Organizations

— Joint projects with energy companies, governmental bodies, and international agencies.

### 7) Support for Student Initiatives and Startups

— Promotion of project-based learning, creation of student clubs, and startup incubators in the field of clean energy.

### 8) Awareness Raising and Formation of a «Green Culture»

— Regular lectures, seminars, energy-saving campaigns, and activities engaging both students and staff.

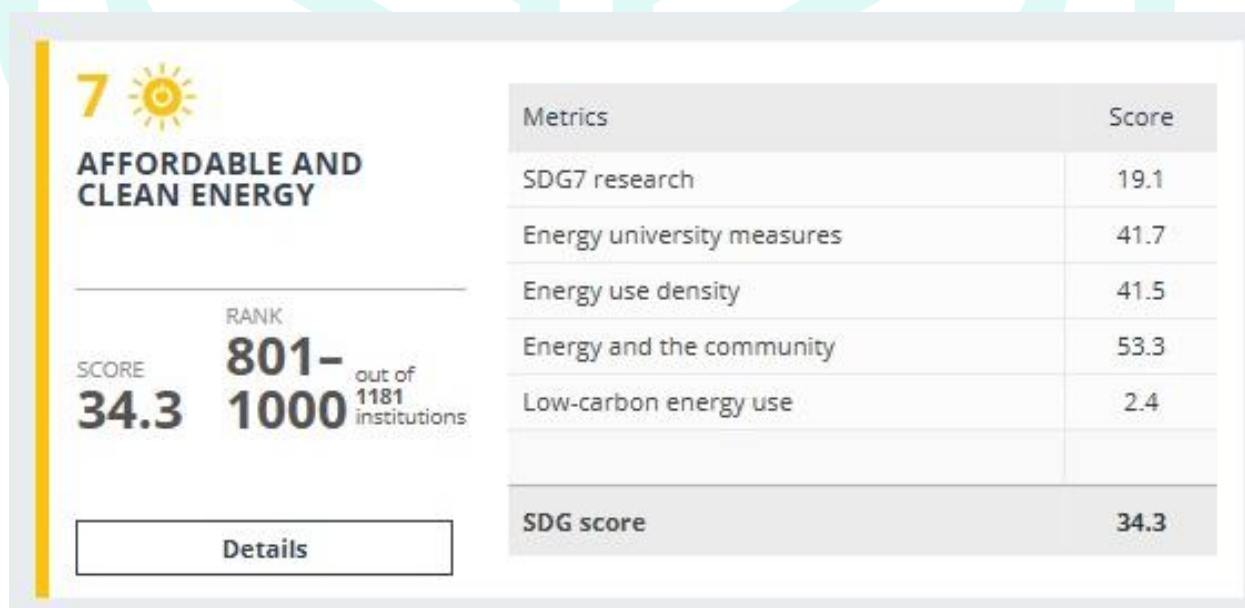
### 9) Monitoring and Reporting

— Annual reports on the University's energy consumption and achievements, open access to data, and policy adjustments based on monitoring results.

## 3 EXPECTED RESULTS



Enhancement of the University's standing in the international THE Impact Rankings under SDG 7 «Affordable and Clean Energy».





Reduction of overall energy consumption and an increase in the share of renewable energy sources within the University's energy balance.

Growth of the University's research and educational potential in the field of clean energy.

Formation of a «green campus culture» among students and staff.

## 4 CONCLUSIONS

D. Serikbayev East Kazakhstan Technical University is committed to the principles of sustainable development and SDG 7. This Policy serves as a roadmap toward modernization, innovation, and environmental responsibility. Only through the joint efforts of faculty, students, administrative staff, and external partners can the University achieve sustainable, clean, and affordable energy – both within the institution and for the benefit of the region.

