

Source of financing	Grant funding for young scientists under the “Zhas Galym” project for 2023-2025 (Ministry of Science and Higher Education of the Republic of Kazakhstan)
Priority directions	Energy and mechanical engineering
Specialized scientific areas	Alternative energy and technologies: renewable energy sources, nuclear and hydrogen energy, other energy sources
IRN of the project:	AP19174390
Name of the project:	“Development of hydrogen energy in Kazakhstan and international energy security: experience of the European Union countries”
Project Manager	Aigerim Ibrayeva, PhD
Implementation deadlines	2023-2025 yy
Relevance (briefly)	The global economic crisis is leading today to a transformation of international energy security. Sustainable development of states is associated with “green” energy using hydrogen. Kazakhstan has declared a commitment to the low-carbon economic development paradigm and is at an early stage of the energy transition. European experience will help Kazakhstan formulate approaches to implementing energy sector development strategies. The EU is an important participant and financial sponsor of projects for the sustainable development of countries in the Central Asian region. The EU is strengthening cooperation with Kazakhstan on the Green Deal, promoting the energy transition and combating climate change. In general, a comprehensive analysis of EU energy programs in the context of their implementation in Kazakhstan’s hydrogen policy is a key aspect of the study. provide recommendations on how to improve system.
Purpose	Analysis of the state and prospects of energy security in Kazakhstan in connection with the formation of a low-carbon development paradigm, on the one hand, and radical changes in the global geopolitical and geo-economic situation, on the other. A conceptual approach to the research and development of public policy for hydrogen energy in Kazakhstan will be proposed based on the EU experience.
Expected Result	Determining the relevance of the development of hydrogen energy as one of the promising areas of the energy industry of the future, with the functions of maintaining environmental balance; Publication of 1 article in domestic publications recommended by KOKSNVO. Analysis of the implementation of energy diplomacy to strengthen a mutually beneficial partnership with the EU in ensuring global energy security; Development of recommendations for state planning and stimulation of the development of hydrogen energy based on the study of international experience and analysis of program documents of the UN, OPEC, EU strategies, as well as an expert survey;
Target consumers of the results obtained	Scientific research centers, teaching staff, masters/doctoral students