

NSF IMPRESS-U



RENEWABLE ENERGY FOR BOLSTERING UKRAINE'S INFRASTRUCTURE BY LEARNING AND DESIGN (REBUILD)

The Ukrainian team of the international REBUILD (Renewable Energy for Bolstering Ukraine's Infrastructure by Learning and Design) project received funding under the "International Multilateral Partnerships for Resilient Education and Science System in Ukraine" (IMPRESS-U) program under contract No. 7135 of the Science and Technology Center in Ukraine (STCU). The funding source is the US National Academy of Sciences (US NAS). The project officially started on May 1, 2025 and will last for two years.

The goal of the REBUILD project is to improve the qualifications of Ukrainian teachers by providing them with the necessary knowledge and methodological tools to conduct extracurricular classes on energy efficiency in buildings and renewable energy.

The following tasks have been formulated to achieve this goal:

1. Develop innovative technology to support the "learning by design" educational approach in the context of energy efficiency in buildings and renewable energy using the Aladdin online platform developed by the project's American partner, the Institute for Future Intelligence
2. Create educational and methodological materials on energy efficiency in buildings and renewable energy for teachers involved in extracurricular programs aimed at Ukrainian youth and integrated into the concept of citizen science.
3. Develop a project website with materials for teachers and an AI-powered chatbot to support teachers in mastering topics related to energy efficiency in buildings and renewable energy.
4. Conduct professional development for teachers on energy efficiency in buildings and renewable energy use.
5. Organize competitions for school teams in the field of energy efficiency in buildings and renewable energy.

The REBUILD project is being implemented by teams from three countries:

- The United States, represented by the **Institute for Future Intelligence** (Natick, Massachusetts);
- Lithuania, represented by **Kaunas University of Technology** (Kaunas);

- Ukraine, where the coordinating institution is the **Institute of Renewable Energy of the National Academy of Sciences of Ukraine** (Kyiv), and participating organizations include:
 - *Institute of Digitalization of Education of the National Academy of Pedagogical Sciences of Ukraine* (Kyiv);
 - *Kyiv National University of Construction and Architecture* (Kyiv);
 - *G.E. Pukhov Institute for Modelling in Energy Engineering of the National Academy of Sciences of Ukraine* (Kyiv);
 - *Sumy State University* (Sumy);
 - *Lviv Polytechnic National University* (Lviv);
 - *The State Institution "South Ukrainian National Pedagogical University named after K. D. Ushynsky"* (Odesa);
 - *Berdyansk State Pedagogical University* (Zaporizhzhia);
 - *Vinnitsia Mykhailo Kotsiubynskyi State Pedagogical University* (Vinnitsia).

Learn more about the project at: <https://sites.google.com/view/rebuild-ua>

Facebook page: <https://www.facebook.com/profile.php?id=61577153046280>

REBUILD



У 2025 році в межах реалізації проєкту заплановано:



Опитування вчителів



Використання онлайн платформи Aladdin



Підвищення кваліфікації для вчителів



Конкурс шкільних команд

З 2025 року в Україні розпочався міжнародний проєкт REBUILD (англ. Renewable Energy for Bolstering Ukraine's Infrastructure by Learning and Design, укр. Відновлювана енергетика для зміцнення інфраструктури України через навчання та проєктування) в рамках програми IMPRESS-U.

Метою проєкту є підвищення кваліфікації вчителів України шляхом надання їм методичних матеріалів та цифрових інструментів для проведення позакласних занять, присвячених питанням енергоефективності будівель і використання відновлюваних джерел енергії. Інтеграція онлайн платформи Aladdin та впровадження чат-ботів сприятиме розвитку STEM-освіти в Україні, водночас підвищуючи рівень зацікавленості учнів у вивченні енергоефективних технологій і відновлюваної енергетики.

<https://sites.google.com/view/rebuild-ua>



Сайт

