Amid global challenges such as climate change, the growing need for energy independence, and the implementation of the European Green Deal, the development of a skilled workforce capable of working with advanced energy-efficient technologies across all stages of the building life cycle has become a critical priority.

Enhancing professional competencies in this field is key accelerating the deployment of renewable energy technologies in nearly zero-energy buildings (NZEBs). This, in turn, will drive continuous improvements in the energy performance of the building sector, attract investment, and foster the transition towards a more sustainable and resilient energy system. In the long term, such efforts will strengthen the energy autonomy of communities, promote the decentralization of energy systems, and advance climate action at both national and local levels.

In this context, the third International Scientific and Practical Conference "Digital Technologies in Energy and Automation" was held at the Educational and Scientific Institute of Energy, Automation and Energy Saving, initiated by the National University of Life and Environmental Sciences of Ukraine, in cooperation with the Institute of General Energy of the National Academy of Sciences of Ukraine and with the support of the Digital Energy Cluster. As part of the conference, the **second Round table** under the project **“New Skills for Nearly Zero Energy Buildings” (NS4NZEBs)** took place under the theme «Training the Professionals of the Future: Educational Programs for NZEBs».

THE NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENTAL SCIENCES OF UKRAINE

GENERAL ENERGY INSTITUTE NAS OF UKRAINE

INSTITUTE OF RENEWABLE ENERGY OF THE NAS OF UKRAINE

INSTITUTE OF ELECTRODYNAMICS NAS OF UKRAINE

INSTITUTE OF ENGINEERING THERMOPHYSICS NAS OF UKRAINE

EDUCATION AND RESEARCH INSTITUTE OF ENERGETICS, AUTOMATICS AND ENERGY SAVING

PROGRAM

III International Scientific and Practical Conference

«DIGITAL TECHNOLOGIES IN ENERGY AND AUTOMATION»

June 6, 2025

INVITATION
The second workshop
LIFE22-CET-NS4NZEBs
"Training the Professionals of the Future: Educational Programs for NZEB"

June 6, 2025 beginning at 2:00 p.m.

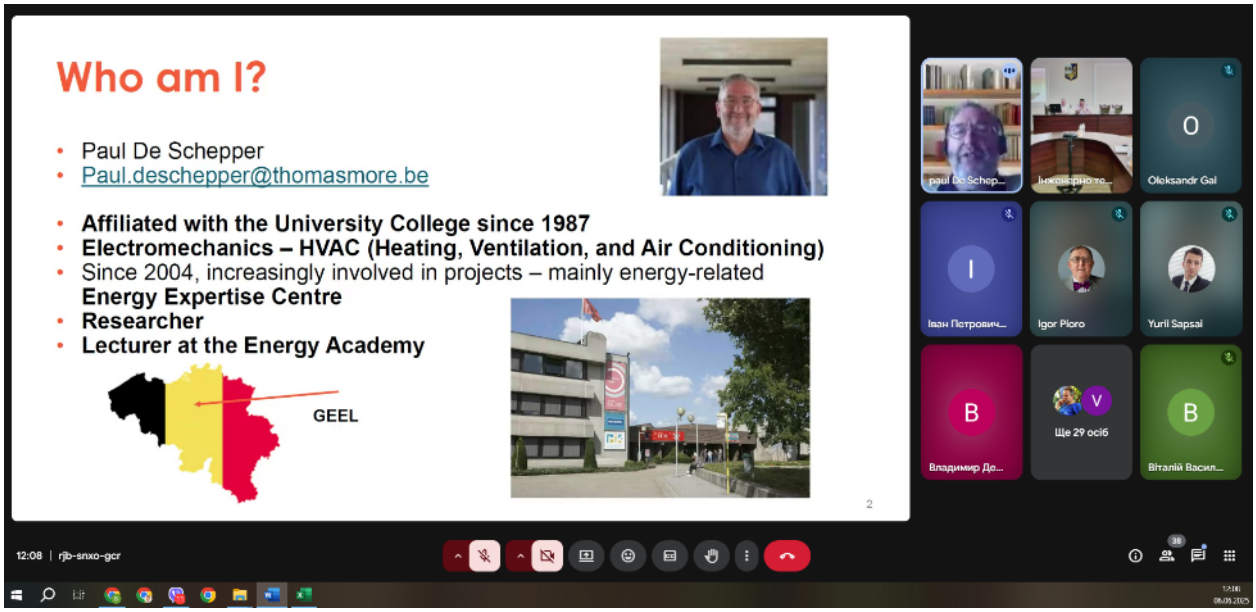
Kyiv, st. Heroiv Oborony, 15, educational building 3, room 213
The form of the meeting is face-to-face and online
Link to join: https://meet.google.com/rjb-snxo-gcr

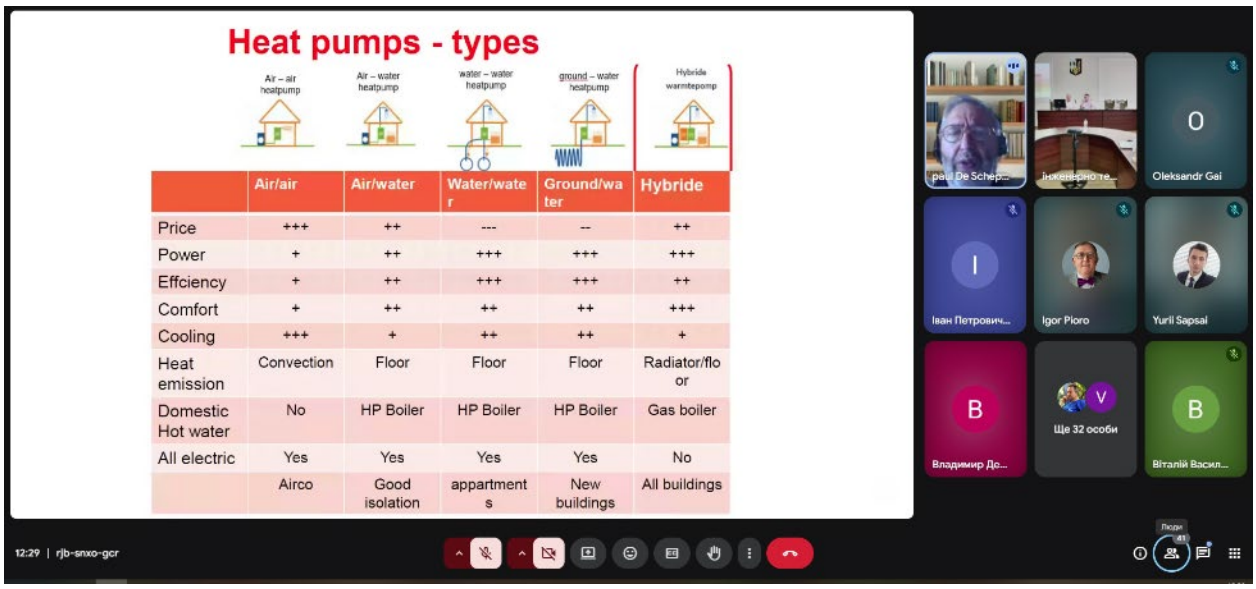
THE AGENDA

1. **Welcome**
   Оксана Тонха, проректор з наукової роботи та інноваційної діяльності НУБіП України.
2. **The integrated concept of nZEBs and zero emission buildings**
   Speakers: Nina NIKOLOVA, Chamber of Installation Specialists in Bulgaria, Bulgaria), Victor KAPLUN, National University of Life and Environmental Sciences of Ukraine.
3. **Heat pumps: European experience for Ukraine**
   Speakers: Paul De SCHEPPER, Olena SHELIMANOVA
4. **Training program for specialists in the field of NZEB.**
   Speaker: Svitlana MAKAREVYCH, project expert LIFE22-CET-NS4nZEBs, NULES of Ukraine.
5. **Optimization of the use of electric energy by residential and public buildings**
   Speaker: Vadym LYTVYN, Chairman the Board Association of Energy Auditors of Ukraine
6. **Dispersed energy balances in multi-family residential buildings**
   Speaker: Inna BILOUS, Igor Sikorsky National Technical University of Ukraine
7. **Experience using of heat pumps in various sectors of the economy**
   Speaker: Eduard PASTUSHENKO, Head of RES Heat Pumps
8. **. Discussion and summing up of the event.**

Approximate timing of the event- 2 год.

At the plenary session, accompanied by presentation ***material Paul De Schepper***, **Thomas More Kempen University of applied science, Belgium**, Project Coordinator **NS4nZEBs** told about «Heat pumps: European experience for Ukraine».





The Seminar was held within the section **"Digital Energy and Polygeneration Systems"**, moderated by **Victor Kaplun**, Director of the Institute. It was emphasized that the **NS4nZEBs** project aims to strengthen the human resource capacity in the field of renewable energy deployment — in particular, photovoltaic installations, heat pumps, energy storage systems, smart grids, and local hydrogen solutions. It is about training specialists who will have the necessary skills for the design, operation, maintenance and economic evaluation of such systems.

Report about **«The Integrated Concept of NZEBS and Zero Emission Buildings»** spoke ***Nina Nikolova*** (Co-speakers: ***Olena Shelimanova, Evelina***

***Stoykova, Victor Kaplun, Svitlana Makarevych*) Chamber of Installation Specialists in Bulgaria, Bulgaria, Sofia Energy Centre (SEC), Bulgaria, NUBIP.**

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The presentation delivered by **Vadym Lytvyn**, Chairman the Board Association of Energy Auditors of Ukraine sparked active dialogue and strong interest among participants.

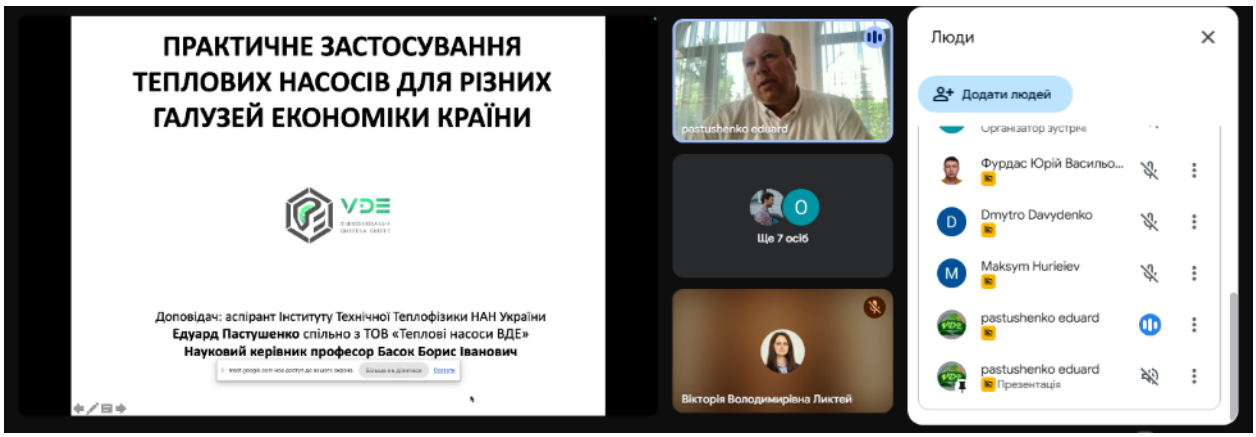
In his address, Mr. Lytvyn outlined key issues related to the optimization of electricity use in residential and public buildings equipped with hybrid solar power plants, particularly in the context of the evolving electricity market environment.

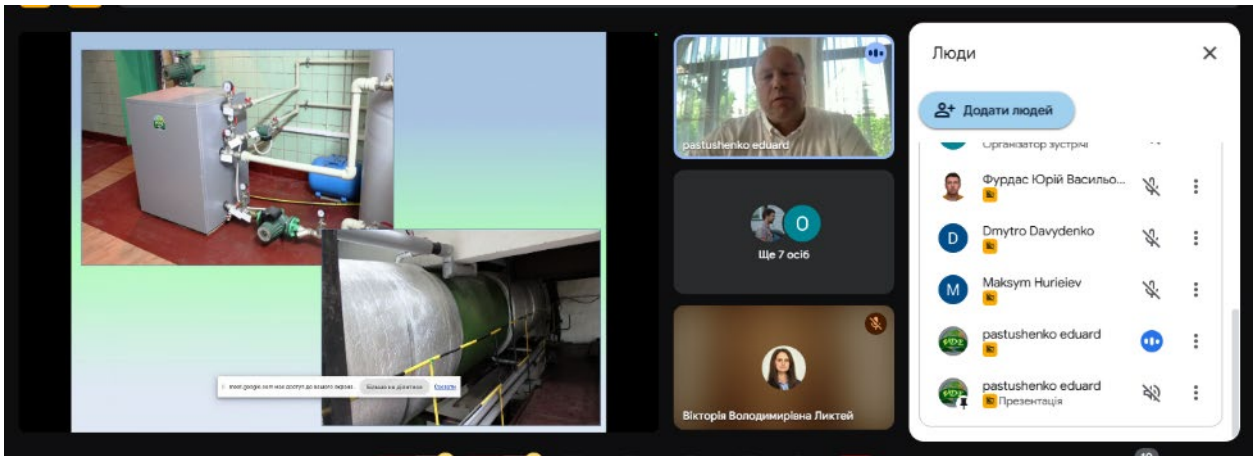
Inna Bilous, **National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute**, told about dispersed energy balances in multi-apartment residential buildings.

The training program for specialists in the field of NZEB. the framework of the **LIFE-NS4nZEBs project,** accompanied by presentation material, was presented ***by Svitlana Makarevych*****, NUBIP.**

The main message of the report was the words of the President of the European Commission ***Ursula von der Leyen*** at the Future **of Energy Security 2025 Summit**: "If you want run fast, run alone. If you want to get far, let's go together!"

Eduard Pastushenko, **Head of Renewables Heat Pumps**, reported about experience of using heat pumps in various sectors of the economy.





The International Seminar provided an excellent opportunity to disseminate information about the project to a broad audience of representatives from academic and research institutions across Ukraine and several European countries.

At the conclusion of the seminar, the event moderator — **Victor Kaplun**, **Director of the Educational and Scientific Institute of Energy, NUBiP** — sincerely thanked all participants for their active involvement, insightful presentations, and constructive discussions. He emphasized the importance of uniting the efforts of the scientific community, educators, and business sectors to find effective solutions for training a sufficient number of highly qualified specialists capable of working with advanced energy-efficient technologies at all stages of the building life cycle.