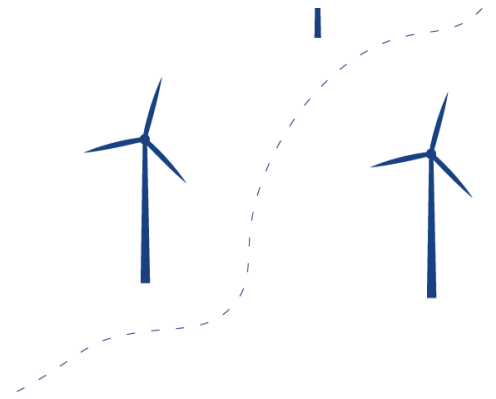


15-19 ЛИПНЯ

ЛІТНІЙ МОДУЛЬ

Івано-Франківськ



HZB Helmholtz
Zentrum Berlin

FEUI FLORENCE
SCHOOL OF
REGULATION

ksep Kyiv School
of Energy Policy

PRO Green Deal for Smart Cities Part 1

Date: 15th-19 July, 2024

Location: Ivano-Frankivsk city

On July 15th, 2024, the Green Deal Ukraïna project formally launched the Pro Green Deal for Smart Cities program in Ivano-Frankivsk. 25 local municipalities from the Western region of Ukraine participated.

The Program was dedicated to training the next generation of local energy advisors, with the main objective of providing participants with practical skills and experience that they can apply directly to their local communities. The program included applying theoretical knowledge in real-world settings, mentoring from experienced energy experts, developing concrete documents such as energy plans and grant proposals, and developing professional networks, contributing to strengthening energy sustainability and industry collaboration at the local and national levels.

The Program was divided into three parts: week 1 was an in-person summer school in Ivano-Frankivsk, week 2 consisted of an interactive online module delivered by the Florence School of Regulation entitled “Smart Cities: Fuelling Tomorrow's Local Energy and Climate Leaders”, and weeks 3-4 consisted of local communities drafting Municipal Energy Plans (MEPs) online (with the support of dedicated mentors).

On August 12th - 14th 2024, participants presented their draft MEPs to a panel of experts and received feedback. In mid-October, three communities will be chosen to present their MEPs at the Green Deal Ukraïna annual high-level policy event.

Ultimately, 24 local communities were awarded a Green Deal Ukraina certificate, jointly delivered by the Helmholtz-Zentrum Berlin (HZB), Kyiv School of Energy Policy (KSEP), and the Florence School of Regulation (FSR).

In early summer 2025, the Green Deal Ukraina project, in collaboration with partners, will be hosting the next cohort of local communities, this time from the central regions of Ukraine.

Below are summaries of the first week of presentations in brief.

The recordings of all lectures can be found on the [youtube channel](#).

July 15th, 2024:

Summary of Presentations by Communities

Various community projects focused on energy efficiency and renewable energy were highlighted during the session. Overall, the focus was on enhancing energy independence, efficiency, and sustainability across various regions.

Pryluky and Pervomaisk are implementing energy efficiency and solar power projects with grant support despite challenges like data collection and budget constraints. Nizhyn has adopted an energy management system and is collaborating with NEFCO on thermal modernisation and heating projects. Vinnytsia has completed numerous initiatives, including cogeneration units and wood chip boilers, with support from NEFCO and international partners. Ivano-Frankivsk is working on thermal modernisation for educational and healthcare facilities. Smaller communities like Khudoriv and Zhovkivska are seeking investors for renewable energy projects and developing local energy plans.

Summary of Presentation by Ielyzaveta Badanova, Ukrainian energy regulation expert and lecturer in energy law

The discussion on the Green Deal focused on its relevance to community plans, stressing the importance of aligning with EU directives and frameworks.

Participants from the Lviv and Zhytomyr regions expressed concerns about implementing EU directives, incentivizing local energy generation, and connecting new consumers to the central energy grid. They emphasized the need to integrate EU climate policies, emission reduction targets, and sustainable strategies into local planning. The session also introduced key concepts such as the emissions trading system, CBAM mechanism, and National Energy and Climate Plans, along with discussions on green budgeting and the need for clear regulations for decarbonisation offices. Practical tasks included mapping community synergies to boost collaboration.

July 16th, 2024:

Summary of Presentation by Dr. Joanna Pandera, President of Forum Energii

Dr. Joanna Pandera's presentation covered the development of Poland's climate policy and energy transition. She emphasised the fast-changing landscape of Poland's energy sector and emphasized the importance of continued investment in renewable energy for economic and environmental security.

Poland has significantly shifted from its reliance on coal, reducing coal-based electricity from 90% to 60% and aiming to phase it out by 2035-2040. This transition, driven by the desire for energy independence and alignment with EU policies, has not hindered economic growth, as GDP increased by nearly 25%. The EU Green Deal has expanded climate policies to all sectors, including agriculture, emphasising renewable energy. Public support for clean energy is rising. In Rybnik, a successful collaboration led to the renovation 6,500 homes, significantly improving air quality.

Summary of Presentation by Olga Yevstihnieva, Decarbonization expert of the Reform Support Team under the Ministry of Energy of Ukraine

Olga Yevstihnieva emphasised that the energy system's recovery depends on communities, as they best understand their own needs.

The presentation focused on the link between renewable energy and energy efficiency and the upcoming energy transition plans to be finalised by November. It highlighted that renewables are more efficient as they avoid heat conversion and are closer to consumption points. Key topics included benchmarking, decoupling, reducing energy consumption, and the state of Ukraine's coal sector. The TIMES energy transition model and the importance of limiting global warming to 1.5 degrees were discussed, referencing IPCC reports. The presentation stressed the need for communities to manage energy effectively by developing local energy plans.

July 17th, 2024:

Summary of Presentation by Dr. Susanne Nies, Project Lead of Green Deal Ukraina

Dr. Susanne Nies' presentation covered the historical context and technological advances of renewable energy systems in the past centuries, as well as their economic and policy impacts on local communities.

The history of renewable energy has been marked by trial and error, with solar energy emerging as a clear success story since the early 2000s. Over the past decade, costs for renewables have significantly decreased—wind energy costs dropped from \$180 to \$50-60 per megawatt hour, and battery storage has become more affordable. These advancements

make the EU's goal of achieving 60% renewable energy attainable. The key to success is engaging local communities as stakeholders, which can help address challenges like supply security and energy dependence. The EU's renewable directives and community involvement are crucial for a sustainable energy future.

Summary of Presentation by Andree Boehling, Campaigner Climate and Energy at Greenpeace

Andree Boehling from Greenpeace outlined the NGO's activities in Ukraine, focusing on its work with the city of Trostianets.

Greenpeace has supported Trostianets in rebuilding a multifamily building with energy efficiency in mind, which is part of the city's unique zero-gas strategy. The city's progressive master plan aims to phase out gas, comply with the EU Energy Efficiency Directive, and achieve a 40% energy efficiency target for existing buildings. Future efforts will focus on demonstrating solar PV and heat pump efficiency in 112 multifamily houses. Greenpeace also assessed Ukraine's wind and solar potential, identifying 80 GW of solar potential in the south, though current plans only aim for 0.7 GW by 2027. Expanding technical expertise, financing, and storage could unlock this potential.

Summary of Presentation by Maciej Zaniewicz, Senior Analyst at Forum Energii

Maciej Zaniewicz presented the Polish experience of how a city can become energy efficient. The focus was on improving air quality in cities through tailored local solutions. He also discussed the importance of standardising data collection across cities. Public awareness is a MUST to ensure the successful implementation of energy transition plans.

The LeadAir programme supports local energy transitions and air pollution reduction through renewables and energy efficiency, creating tailored roadmaps for five cities. Piastów reduced particulate matter emissions by 40% with smog control solutions. Poland's Clean Air Programme offers up to 100% financing for building thermal modernisation. The Zefir software helps develop energy transition scenarios for heating and electricity, practical for Ukrainian communities. Consistent data collection, crucial for effective implementation, is ensured through homeowner forms. Zefir's modelling shows that transitioning from coal and gas is the most cost-efficient scenario.

Summary of Presentation by Robert Carr, Modelling Officer at GDU

Robert Carr discussed how data and modelling can be used to make decisions about what to include in local energy plans. He stressed the importance of using mathematical and database methods to understand the best measures.

Despite challenges in accessing data, Ukrainian communities must use available information to create effective local energy plans, which are key to achieving national goals. Tailored strategies must consider regional differences and resource constraints, prioritising measures based on relevance, effectiveness, cost-efficiency, and environmental benefits. Public support is essential for success. Modelling plays a critical role in decision-making, simulating scenarios to clarify the impact of different measures. Effective modelling requires comprehensive data on buildings, energy consumption, and financial constraints gathered through audits and surveys. By leveraging data and modelling, regions can develop relevant and efficient energy strategies.

July 18th, 2024:

Summary of Presentation by Liubava Radiychuk, Recovery and Reforms Support Team at the MinInfrastructure of Ukraine

Liubava Radiychuk's presentation examined the changing energy efficiency agenda in the European Union and Ukraine. She covered the new Buildings Directive 2024, Ukraine's energy efficiency and decarbonisation strategy, and the history of local energy planning in Ukraine.

Ukrainian energy targets are currently lower than the EU average and are being achieved at the cost of territory and energy supply. By 2050, 90% of Ukrainian communities will implement energy management systems, and 10% of buildings should reach near-zero emissions. Municipal Energy Plans (MEPs) need to be tailored to local situations, covering data on public and residential buildings, heat and water supply, waste management, lighting, and transportation. Effective data collection should span at least three years, starting from 2017, though methodologies are flexible. MEPs must also simplify sustainable energy and climate actions without specific CO2 reduction targets.

Summary of Presentation by Olga Yevstihnieieva, Decarbonization expert of the Reform Support Team under the Ministry of Energy of Ukraine

Olga Yevstihnieieva presented Ukraine's climate policies for reducing greenhouse gas emissions. She covered the current challenges of carbon taxation, the Carbon Border Adjustment Mechanism (CBAM), and policies to promote decarbonisation in Ukraine. She highlighted the need for a stronger carbon taxation framework in Ukraine for effective decarbonisation.

The current carbon tax in Ukraine is too low to reduce emissions effectively. However, the newly approved Decarbonisation Fund could help by allocating tax revenue to decarbonisation measures like renewable energy, thermal modernisation, electric transport, and energy saving. Concerns were raised about the program requiring energy audits or management service opinions, which lack legal grounding. Additionally, relevant decarbonisation projects have been stalled since 2023 due to a lack of supporting legislation.

Summary of Presentation by Martin Schön-Chanishvili, Team leader international cooperation at Deutsche Energie-Agentur GmbH (dena)

Martin Schön-Chanishvili's presentation covered Ukraine's changing landscape in terms of energy efficiency and construction standards. He brought in the lessons learned in Germany to highlight the need for comprehensive planning and stringent energy efficiency standards when overseeing the development of the construction sector in Ukraine.

Ukraine is advancing standards in line with EU legislation, with the construction sector expected to grow rapidly, influencing wage levels. Involving women in construction is crucial, alongside developing local tools, training, and production facilities to create an energy-efficient construction cluster. New buildings set standards for transformation, offering opportunities for countries to update their housing stock while facing pressure from strict energy efficiency requirements. While Ukraine has some condominium experience, Germany's success is attributed to effective subsidies and regulatory measures.

July 19th, 2024:

Summary of Presentation by Dmytro Sakaliuk, Expert in energy efficiency at Ecoclub

Dmytro Sakaliuk stressed how developing a Municipal Energy Plan (MEP) requires alignment with urban planning documents, heating supply schemes, and relevant local programs.

The process involves multiple stages: initiation, data collection, analysis, goal setting, action planning, coordination, and program development. Data from 2017 onwards is required, and any missing data must be justified with at least three years of baseline data. Success hinges on effective stakeholder communication, particularly with regional power distribution companies. While penalties for data non-compliance were considered, they were rejected. If data is unavailable, using scaled data from a similar community is recommended.