

*"Financing Energy for Low-carbon Investment Cities Advisory Facility - Eastern Partnership and Central Asia Countries"*

# FELICITY II

**CROSS-SECTORAL APPROACHES TO TURN CLIMATE CHALLENGES INTO INVESTMENT OPPORTUNITIES**

**UKRAINE**  
**MOLDOVA**      **KAZAKHSTAN**  
**UZBEKISTAN**

On behalf of:



Implemented by:



# FELICITY II: Transforming Cities through Climate-Sensitive Infrastructure Investment

According to the International Energy Agency (IEA), **cities account for 70% of global energy use** and related Greenhouse Gas emissions. By 2050, an additional two billion people are expected to live in urban areas. The Financing Energy for Low-carbon Investment Cities Advisory Facility – Eastern Partnership and Central Asia Programme (**FELICITY II**) helps to overcome technical, institutional, financial, and capacity barriers to the development of low-carbon and climate-resilient urban infrastructure.

The programme focuses on climate investments in the building sector in the partner countries of **Kazakhstan, Moldova, Ukraine, and Uzbekistan**. In Ukraine, the water and wastewater sector is an additional focus. The programme takes the development interests of cities as its starting point and links these with the perspectives and requirements of international climate finance institutions.

## FELICITY II: KEY FEATURES

5

YEARS

The five-year programme (January 2022 to December 2026, in Ukraine until the end of 2027) is funded by the **International Climate Initiative (IKI)** of **Germany's Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety**, and implemented by **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH** in cooperation with the **European Investment Bank (EIB)**. It builds on the success and experiences from the FELICITY I programme, which was implemented in Latin American and South-East Asian countries. At the same time, the programme fits in with and continues the IKI's involvement in other decarbonisation projects in the infrastructure sector in the countries of the Eastern Partnership and Central Asia. The FELICITY II programme has a total funding of €20 million.

20€

MIO

There is a high demand for low-carbon infrastructure investment, and significant challenges must be addressed in order to improve the low degree of energy efficiency and high greenhouse gas emissions in the **building, water, and wastewater** sectors in the partner countries.

In Ukraine, the focus is on rebuilding and modernising war-damaged infrastructure in line with the **"Build Back Better"** principle.

At the **national** level, governments are supported in creating favourable conditions for infrastructure investment. Financial intermediaries are strengthened to enable them to structure climate finance.

At the **subnational** level, experts, and project promoters are supported in preparing bankable, low-carbon investment projects. This technical assistance is coupled with a financial contribution from an IFI to ensure that low-carbon infrastructure projects are implemented and scaled up. By participating in such financial-technical alliances in the infrastructure sector, countries can learn from regional and international best practices.

2

SECTORS

BUILD  
BACK  
BETTER

2

LEVELS

In Ukraine, the programme also involves preparing a technical project for large-scale contributions from the IKI to the EIB, which will be invested in renewable energy solutions for public buildings.

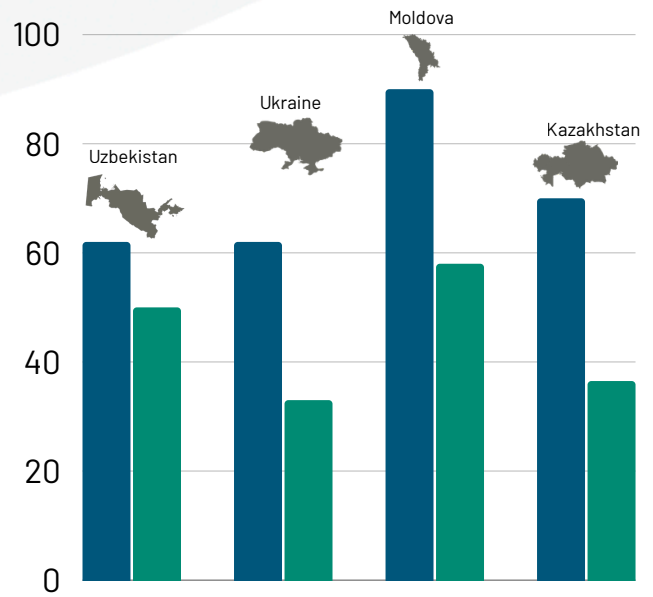
The project directly contributes to strengthening the role of sustainable infrastructure in **Low Emission Development Strategies (LEDS)** and the implementation of the **Nationally Determined Contributions (NDCs)** under the Paris Agreement.



Nukus pilot in Uzbekistan is aimed to demonstrate how energy-efficient refurbishment planning should be organized in real life.

## CITIES: BRINGING CLIMATE FINANCE WHERE IT'S NEEDED MOST

The escalating **climate crisis** and rapid **urban growth** are putting pressure on cities to transform their outdated, **fossil-fuelled infrastructure**. The FELICITY II programme is working closely with national government institutions and local city authorities in partner countries to build cooperation bridges to create enabling framework conditions, clear financial mechanisms, and assist in concrete pilot investment projects' design. A flexible partner-oriented approach is crucial, especially during times of uncertainty and complexity, facilitating opportunities for **investing in climate-sensitive infrastructure** while fostering emerging markets for it.



**Urbanisation rate**  
**Building sector total energy consumption rate**

Sources: [IKI](#), [Kazinform](#), [IEA](#), [Astana Times](#), [UNFCCC](#), [Kazakhstan Bureau of Statistics](#), [World Bank](#), [IEA](#)



### COMMISSIONER

**IKI** is a flagship funding program of the German government supporting ambitious climate action and biodiversity projects in developing, emerging, and transition economies.



### IMPLEMENTING PARTNERS

**EIB**, which refers to itself as the "EU's climate bank", is the lending arm of the European Union and one of the world's largest multilateral financial institutions.



**GIZ** is a German state-owned technical development agency that provides specialised services in international cooperation for sustainable development.

### FELICITY II: TARGETS IN PROGRESS

<b>Financing leveraged for sustainable infrastructure</b> <b>€100 Mio</b>	<b>Projects ready for investment</b> <b>29</b> <input checked="" type="checkbox"/>
<b>Policy &amp; regulatory documents</b> <b>29</b>	<b>Public buildings benefiting from RES</b> <b>70</b>

### THE FELICITY APPROACH

**LOW CARBON INFRASTRUCTURE PROJECTS IN CITIES**



**CLIMATE FINANCE**

- Enhancing Enabling Environment
- Establishing Financing Mechanism
- Preparing Project Design
- Knowledge and Capacity Development

## FELICITY II KEY ACHIEVEMENTS

### UKRAINE: PILOTING COMPREHENSIVE ENERGY-EFFICIENT (EE) REFURBISHMENT OF WAR-DAMAGED 20 MULTI-FAMILY BUILDINGS IN MYKOLAIV AND KRYVYI RIH FOR SETTING "BUILD BACK BETTER" STANDARDS

Following successfully applied models from Germany and the Baltic states and in cooperation with dena, IWO, Bauhaus Earth, Rožkvit, Art-Bud, DELTA, KyivESCO, Covenant of Mayors, a standard methodology for scaling reconstruction and EE refurbishment of multi-family buildings in Ukraine is currently in co-creation. Implementation funding is envisaged via the Energy Efficiency Fund, which will be supported by EIB loan.



dena training in Lviv, Ukraine, November 2025

### UZBEKISTAN: PROJECT APPRAISAL DOCUMENT FOR 143 MIO EUR EIB LOAN FOR UZPBEE PROGRAM FINALIZED

The project appraisal document (PAD) has been prepared and submitted for the final approval of the Ministry of Economy and Finance. As part of PAD development, more than 60 buildings have undergone energy audits, and a feasibility study outlining three renovation packages has been completed. Approvals have been obtained from seven municipal authorities. After final approval, the loan agreement is expected to be signed in 2026, and renovation works are scheduled to begin in the first quarter of 2027.



Energy audit of a school in Tashkent, Uzbekistan, September 2025

### UKRAINE: ACCELERATING INVESTMENTS IN WATER AND WASTEWATER SECTOR

100 Mio Water & Wastewater EIB loan program facilitated, and pipeline established, currently supporting the preparation of 5 climate-sensitive projects by water utilities.



Field visit to Khmelnytskyi water treatment plant, Ukraine, August 2025

### KAZAKHSTAN: UNLOCKING GREEN INVESTMENT FOR NEW RESIDENTIAL BUILDINGS

The Kazakhstan Housing Company (KHC) and the EIB signed a Memorandum of Understanding to establish financing mechanisms that support the application of new energy efficiency standards in future residential buildings.



EIB and KHC sign an MoU, Kazakhstan, May 2025

### MOLDOVA: IMPROVING ACCESS TO FINANCE WITH MINISTRY OF ENERGY

FELICITY II provided institutional support to Moldova in securing international financing for the renovation of public and residential buildings, including through MEEP and INSPIREE programmes.



INSPIREE grant signing, Moldova, March 2025



# FELICITY II KAZAKHSTAN

Financing Energy for Low-carbon Investment – Cities Advisory Facility

## SAVING ENERGY FOR BETTER LIFE

### BACKGROUND

#### THE BEST POWER PLANT IS THE ONE WE DON'T NEED

Kazakhstan's cities are expanding rapidly, and with them, the demand for energy keeps rising.

Yet almost 35% of this energy is consumed by buildings, many of which are poorly insulated and use outdated heating and power-systems. This is 2-3 times higher energy use per m<sup>2</sup> than Northern Western European buildings, and as a result, 2-3 times more energy per square meter than buildings in northern parts of Western Europe.

In fact, average heat-energy consumption in Kazakh buildings reaches about 240 kWh/m<sup>2</sup>-year, compared to 80-130 kWh/m<sup>2</sup>-year in countries like Sweden, Germany, England, or France.

35% of energy is consumed by buildings

Instead of investing in new, coal or gas-based generation capacity that locks the country deeper into fossil fuel dependency, Kazakhstan has a chance to act smarter by more efficient consumption at its source.

FELICITY II is supporting partners in Kazakhstan to modernize the housing sector, scale up building refurbishment, and strengthen technical and institutional capacities for low-carbon and climate-resilient urban development.

“ *The modernization of public utilities must be accompanied by an increase in the energy efficiency of infrastructure and housing stock.* ”



PRESIDENT KASSYM-JOMART TOKAYEV

### OUR PARTNERS



ҚАЗАҚСТАН РЕСПУБЛИКАСЫ  
ӨНЕРКӘСІП ЖӘНЕ ҚҰРЫЛЫС  
МИНИСТРЛІГІ



BAITEREK

KAZAKHSTAN  
HOUSING  
COMPANY



ELECTRIC POWER  
AND ENERGY SAVING  
DEVELOPMENT INSTITUTE

### OUR SUPPORT



EE Residential and Public Buildings

#### Establishing effective policies and supporting public understanding

In Kazakhstan, energy efficiency and buildings sector development are still seen as separate issues, even though they are closely interlinked. Establishing legal and policy frameworks that connect them, along with efforts to raise awareness and improve standards and regulations, is an important step forward.

How we create momentum for results:

- Use data and analysis to build an evidence base that supports the alignment of energy and construction policies, while bringing together key stakeholders for dialogue.
- Contribute to the development of new national regulations on EE construction
- Provide technical input, as needed, for the revision of the national Law on Energy Saving and Energy Efficiency.
- Support the Electric Power and Energy Saving Development Institute (EEDI) in designing and delivering a nationwide public awareness campaign on EE.
- Produce and disseminate knowledge on EE modernisation in the building sector, including through national and international dialogue.
- Support the integration of the building sector into Kazakhstan's Nationally Determined Contributions (NDCs) under the UNFCCC by preparing a background study.
- Contribute to the development of the national roadmap for decarbonising buildings as part of the 2060 Carbon Neutrality Strategy.

#### Unlocking green investment for new residential buildings

In partnership with the KHC, FELICITY II is helping set new energy standards for future residential buildings while creating pathways for large-scale international financing.

What we are doing:

- Facilitating cooperation between the EIB and KHC to develop potential funding mechanisms for new EE houses.
- Supporting the EIB's policy dialogue with Kazakh partners.
- Backing technical exchanges between EE experts and national developers through KHC to integrate efficiency standards into design documentation for new buildings.
- Conducting trainings and study tours for developers and experts on the practical integration of energy efficiency into planning and construction.
- Providing advisory support through dena for one pilot EE residential building with a local construction company.

## Mobilizing international financing for EE public buildings

The project identifies strong entry points for integrating EE standards in the public buildings sector, and scaling them.

What we are doing:

- Providing hands-on training and ongoing advisory support through dena on integrating efficiency standards into the national health infrastructure project.
- In cooperation with the Ministry of Health and its subordinate institution, Turar Healthcare, a pilot EE hospital is being designed. An energy balance model will be prepared with advanced simulation software to compare three different efficiency design options.
- Supporting the planning process for integrating efficiency standards into the design of future hospitals.

A pilot project in Kokshetau will demonstrate how EE refurbishment planning should be organised in real life, showing actual costs, engaging homeowners in decision-making, and testing the services of local design companies and newly trained energy consultants. The pilot case also explores financing mechanisms and fair cost-sharing between households and the state. The experience will be synthesised in a handbook, inform national policy dialogue, and create the foundation for scaling up modernisation across Kazakhstan.

## Piloting EE refurbishment planning in Kokshetau

## KOKSHETAU PILOT: LAUNCHING LOW-CARBON URBAN SOLUTIONS

- ✓ Dialogue with homeowners facilitated with support from IWO (Housing Initiative for Eastern Europe)
- ✓ Refurbishment Office set up to coordinate the pilot project with Kokshetau city authorities
- ✓ Complete project design documentation prepared by the national company Archikom, together with dena, FELICITY II and project-trained energy consultants
- ✓ Design documentation provided to homeowners for further possible use for modernization and access to state co-financing programs
- A handbook will capture pilot results to guide national policy and future scale-up
- Replication of EE modernization planned under Kokshetau's complex renovation & modernization programme, in cooperation with the Social and Entrepreneurial Corporation "Kokshe" of Akmola region.



## ENERGY-EFFICIENT NEW BUILDINGS WITH KHC



### STEP 2

EIB and KHC sign an MoU to integrate energy efficiency standards into new construction



### STEP 4

GIZ, KHC, and Shar Kurylys sign an MoU to pilot the first EE residential building in Astana

### STEP 1

FELICITY II facilitates dialogue between the EIB and the KHC on financing EE housing



### STEP 3

dena provides training and technical advice to KHC and construction companies, with regular exchanges involving EIB technical staff



## INTRODUCING ENERGY CONSULTANT APPROACH

Kazakhstan does not yet have the profession of energy consultant, although such experts are essential for refurbishment programs, as proven in Europe. FELICITY II is addressing this gap by training five specialists through dena's multi-module program. Using the Kokshetau pilot as a practical case, they learn to integrate energy efficiency requirements directly into project design documentation. In parallel, the project is raising the demand for this expertise and advising legal reform at the national level to establish the development and registration of a professional standard for energy consultants, ensuring that these new experts can play a recognized role in real refurbishment projects across the country.

“Improving people's quality of life and developing a modern, comfortable urban environment are the key priorities of Kazakhstan Housing Company.”



ALTAY KUZDIBAYEV  
KHC MANAGEMENT BOARD CHAIRMAN

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