

*"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 FELICITYII 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.

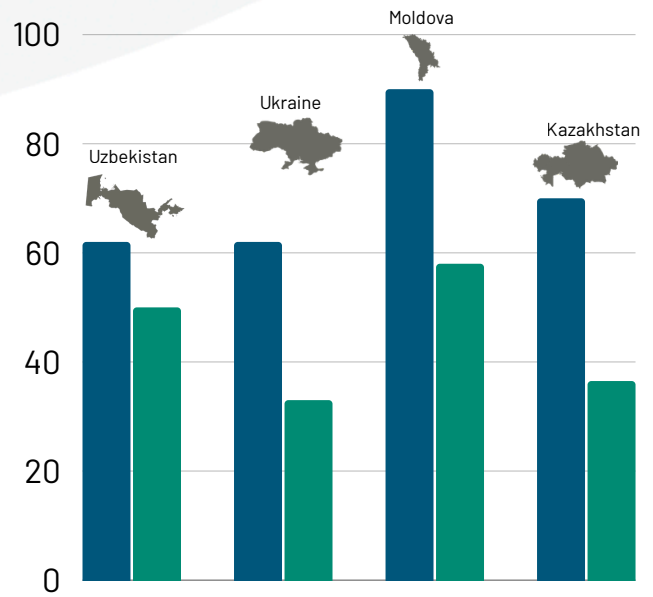
The project directly contributes to strengthening the role of sustainable infrastructure in **Low Emission Development Strategies (LEDS)** and the implementation of the **Nationally Determined Contributions (NDCs)** under the Paris Agreement.



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>
<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 UZBEKISTAN

Financing Energy for Low-carbon Investment – Cities Advisory Facility

## ENERGY EFFICIENCY FOR A SUSTAINABLE FUTURE

### BACKGROUND

On January 14, 2026, President Shavkat Mirziyoyev emphasised the need to strengthen energy efficiency alongside modernisation efforts, noting that “almost 50%” of Uzbekistan’s final energy consumption occurs in buildings.

#### EFFICIENCY IS THE FIRST FUEL

Uzbekistan’s cities are growing fast, and with them, the demand for heat and electricity continues to rise. Yet buildings account for roughly half of final energy consumption, and much of the housing stock still relies on inefficient heating systems and weak insulation. As a result, in Uzbekistan, average specific heat-energy consumption in residential and public buildings is estimated at around 320–390 kWh/m<sup>2</sup>-year, significantly higher than in many European countries, such as the Netherlands (about 95kWh/m<sup>2</sup>-year) or the European average (~150 kWh/m<sup>2</sup>-year).

Instead of locking the country deeper into fossil fuel dependency by expanding gas-based generation capacity, Uzbekistan has now the opportunity to act smarter by prioritising energy efficiency at the source.

Through FELICITY II, we support partners in Uzbekistan to modernise the housing and public building sector, scale up refurbishment programs, and strengthen technical and institutional capacities for low-carbon and climate-resilient urban development.

“The country is among the most energy-intensive, while buildings consume almost half of all final energy, and energy consumption per square meter is several times higher than in European countries.



PRESIDENT SHAVKAT MIRZIYOYEV

### OUR SUPPORT



#### EE Residential and Public Buildings

#### Revision of norms and standards to promote EE construction and modernisation

In Uzbekistan, the regulatory framework for energy efficiency in buildings is being modernised. While energy efficiency requirements exist, they have institutionally been fragmented across technical norms and sectoral regulations. This makes the systematic integration of energy performance, energy passports, and building energy performance categories a key priority for improving the quality, transparency, and effectiveness of the buildings sector.

What we are doing:

- Supporting the revision of nine national building codes and standards related to energy efficiency, including requirements for building energy performance, energy passports, and energy efficiency classification.
- Working closely with the Ministry of Construction, the Research Institute for Standardisation and Norms in Construction, and the Energy Saving and Energy Efficiency Agency (ESMA) to align construction regulations and national energy efficiency objectives.
- Strengthening the technical basis for the introduction and practical application of building energy performance categories in residential and public buildings.
- Strengthening national capacity through targeted trainings on energy audits and EE design, for designers, engineers, auditors, and public-sector specialists.

### Facilitating the access to international funding for EE refurbishment of public buildings\*

*\*Subject to the signing of the loan agreement in 2026, renovation works are anticipated to commence in 2027*

- Embedding energy efficiency requirements into design, construction, and renovation practices through updated norms, methodological guidance, and applied training materials.
- Producing analytical and knowledge products to support evidence-based policymaking and informed stakeholder dialogue on EE buildings.

FELICITY II is collaborating with IFIs to support the financing and refurbishment of public buildings in Uzbekistan.

- Project Appraisal and Financing Framework

A Project Appraisal Document (PAD) is being prepared in line with Presidential Decree No. 51 for a joint EIB-Government of Uzbekistan mechanism. The program aims to refurbish up to 200 public buildings, targeting energy savings of up to 70%. The loan agreement is expected to be signed this year, with renovation works planned to start in 2027.

- Pilot Renovation Solutions and Technical Guidance

Comprehensive renovation concepts are being prepared for three pilot buildings with support from the World Bank and GapFund. These pilots will serve as replicable models to help other cities access climate finance from IFIs.

- Awareness Raising and Knowledge Sharing

In partnership with IFC and CCFLA, events are being organized to inform public authorities and stakeholders about financing opportunities and implementation pathways for energy efficiency measures in public buildings.

### EE refurbishment of a pilot residential building in Nukus

The pilot project in Nukus is designed as a practical, real-life demonstration of how EE refurbishment of existing multi-apartment residential buildings can be planned, financed, and implemented within Uzbekistan's regulatory and market context. The project focuses on end-to-end implementation, covering the entire cycle from technical assessment and design to construction, supervision, and commissioning. It provides transparent data on actual investment costs, realistic technical solutions, and institutional arrangements, moving beyond theoretical models.

### Market development for energy efficiency and capacity development

In partnership with ESMA, FELICITY II supports the development of modern energy efficiency standards and market frameworks.

What we are doing:

- Supporting market development for building energy audits, including methodologies, demand generation, and professional capacity.
- Contributing to the development of the ESCO market by reinforcing the technical and institutional foundations for energy performance-based services.
- Supporting the design and implementation of renovation strategies for residential and public buildings, with a strong focus on energy efficiency and long-term sustainability.

## OUR PARTNERS



MINISTRY OF CONSTRUCTION AND HOUSING AND COMMUNAL SERVICES OF THE REPUBLIC OF UZBEKISTAN



MINISTRY OF ENERGY OF THE REPUBLIC OF UZBEKISTAN



NATIONAL AGENCY FOR ENERGY EFFICIENCY UNDER THE CABINET OF MINISTERS OF THE REPUBLIC OF UZBEKISTAN



**Video: Green Building Forum in Tashkent, October 2025 - supported by FELICITY II**

# ENERGY-EFFICIENT REFURBISHMENT OF A PILOT RESIDENTIAL BUILDING IN NUKUS

- ✓ Demonstration of real-life EE refurbishment of an existing multi-apartment residential building
- ✓ End-to-end project implementation, carried out in cooperation with partners and the Ministry of Construction and Housing and Communal Services of the Republic of Uzbekistan
- ✓ Structured dialogue with residents, facilitated with the support of IWO, ensuring homeowner involvement in decision making and approval of the scope of works
- ✓ Development of full design documentation in cooperation with the national design institute "Yangi Zamon Projekt"
- ✓ Methodological and technical support provided by the German Energy Agency (dena)
- ✓ Testing of financing mechanisms and transparent cost sharing between grant funding and public co-financing
- ✓ Coordination with local and regional authorities (Nukus, Republic of Karakalpakstan)
- Implementation support and project supervision by EC-IFAS (Nukus Branch Office of the Executive Committee of the International Fund for Saving the Aral Sea)
- Consolidation of pilot results in a handbook to support policy development and enable scaling-up across the Republic of Uzbekistan



## BUILDINGS STANDARDS



### STEP 2

GIZ and the Ministry of Construction sign an MoU to strengthen cooperation and establish a legal framework for energy efficiency in the buildings sector.



### STEP 4

Following inter-agency coordination an agreement, the final documents are submitted to the Ministry of Construction for approval and subsequent submission to the Ministry of Justice.

### STEP 1

FELICITY II facilitates dialogue between public and private sector stakeholders to identify priority building codes and standards requiring updates to enable EE construction and renovation.



### STEP 3

GIZ identifies and brings relevant international experience, while the Ministry of Construction provides local context and facilitates expert exchange and dialogue with relevant national institutions.



## PROJECT APPRAISAL DOCUMENT FOR UZPBEE

FELICITY II, in close cooperation with the National Agency for Energy Efficiency (ESMA), is developing a Project Appraisal Document (PAD) for the launch of the "Uzbekistan Public Building Energy Efficiency" (UzPBEE) project. The project aims to attract a subsidized loan from the EIB in the amount of 143 Mio EUR, as well as a local contribution of 50 Mio EUR, to comprehensively renovate up to 200 public buildings in seven cities across the country. The PAD is a standard document required by the Republic of Uzbekistan to secure foreign financing for development projects. As part of the PAD development, more than 60 buildings have undergone energy audits, and a feasibility study with three renovation packages has been developed. Approvals have been secured from seven municipal authorities, and the Project Concept, which is an integral and most important part of the PAD, has been submitted to the responsible ministry. The final submission of the PAD is planned for April 2026, with the loan agreement expected to be signed in summer/autumn 2026. Renovation works are scheduled to begin in the first quarter of 2027.



**Video: CCFLA Central Asia Hub Forum in Tashkent, February 2025 - supported by FELICITY II**

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