Gemeinde Eichenau

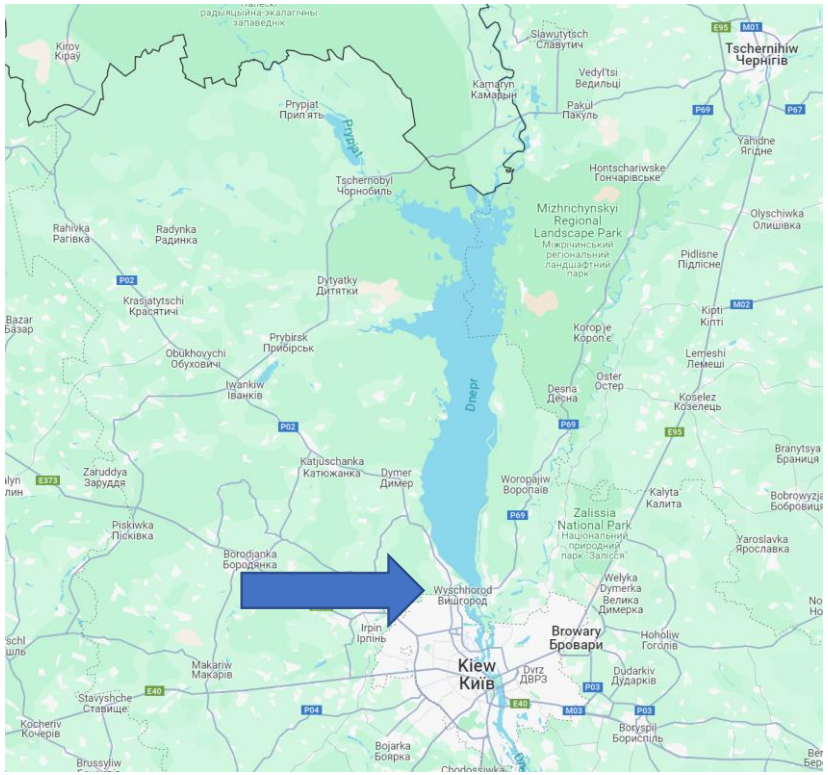
ENERVYSH - a joint endeavour in energy management

Peter Münster, Mayor of Eichenau, GER

Gefördert durch ENGAGEMENT GLOBAL Service für Entwicklungsinitiativen
mit ihrer SERVICESTELLE KOMMUNEN IN DER EINEN WELT
mit Mitteln des Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung

Location Vyshgorod and Eichenau

Vyshgorod & Eichenau



Prtnership Vyshgorod - Eichenau

• 1992	signature of partnership between Eichenau and City and Rayon Vyshgorod
• Since 1992	Youth exchange during summer
• 1992 - 2003	regular visits of delegations in Vyshgorod and Eichenau
• 1994	House for Children in Novo Petriwzi through Freundeskreis Wischgorod e. V.
• 2004 bis 2013	Reduction of official visits
• 2014 bis 2016	Restart of official relations between twin cities
• Since 2016	Intense exchange including cultural, youth and political topics

NAKOPA Project Vyshgorod - Eichenau

- 2017 Thermal Analysis of municipal buildings Vyshgorod
- 2018 Selection of Building & application for NAKOPA project
- 2019 Award of Nachhaltiges kommunales Energiemanagement (NAKEMA) by Engagement Global via Communities in the One World (SKEW) with funds from Federal Ministry for Economic Cooperation and Development of Germany
- 2020 renamed for int. use to Enervysh – Acronym of Energy and Vyshgorod
- Planned, coordinated and implemented by Eichenau and Vyshgorod
- Part of program Sustainable Community Development through Partnership Projects (NAKOPA)

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Target & Objectives (1)

View from East 2020

- Lighthouse demonstration of renovation and thermal-modernization of the Administrative Building of City of Vyshgorod, 9-A Kurhusow-Street, built in 1986
- Introduction of sustainable energy management at municipal level by means of a lighthouse project with signal effect
- Trough
  - backdrop of climate and environmental protection
  - reducing energy cost
  - to be made tangible to wider population through the project.

Target & Objectives (2)

- Using current consumption of municipal buildings vs. after renovation of a lighthouse project and further measure-ments
- Illustrating possible savings in public and private heating energy consumption

3D Model of Renewed Building

- Savings of up to two-thirds are conceivable through renovation
- Savings of approx. 20% through changes in heating behaviour
- Project goal is to reduce CO2 emissions by 50%.

Means

- Energetic renovation of the heating and ventilation systems
- Facade insulation
- Energetic renovation of the roof
- Training in energy-saving behaviour for staff of municipal administration and teachers as multipliers
- On-site training of craftsmen by German engineering office
- Citizen information in Vyshgorod through annual exhibitions
- A joint workshop on climate protection development

View from East 2022

Progress (1)

- Building 2020

View from South

Façade Detail

Non insulated Roof

Heating Tubes

January 2021
Project start in January 2020 with kick-off meeting in Eichenau with participation of representatives of SKEW
Due to global corona pandemics shut downs in March 2020, next steps delayed until autumn 2020
Continuous Measurement of data (energy consumption, temperature, hours of service etc.)
July 2020
Identification of new Engineering partner office ibk by Eichenau after severe illness of German accompaining engineer
August 2021
Tendering of construction work
October 2021
Successful auction and award to general contractor already carrying out the first surveying work.

Progress (2)

View from East

New Windows

New Roof

View from North

Insulation
Of top floor ceiling

LED Lights

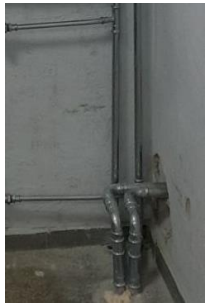
March 2021
recovery plan implemented and preparation of the concepts for energy, fire protection, lightning protection, escape and rescue, heating and electrical
November – December 2021
Replacement of all lighting with long-lasting energy-efficient LED technology
Renewal of the fire detection and alarm system and designation of building escape scheme based on Ukrainian legislation and European standards
January – June 2022
Energy retrofit –
replacement of windows
insulation of the top floor ceiling
renewal of the roof including the roof truss
on the basis of Ukrainian legislation and in accordance with European standards

Progress (3)

- **Building Dec. 31, 2022**

View from North

Façade Detail



Heating Tubes

New Heating & Insulated Windows

Roof

July – November 2022
Professional core drilling for the installation of decentralised ventilation units (recuperators)
Energy upgrading, insulation and plastering of the exterior walls on the basis of Ukrainian legislation and in accordance with European standards, preparatory construction measures for the renewal of the plant room / heating system.
November – December 2022
Professional installation of decentralised ventilation (recuperators) and air conditioning units
Energy retrofit, insulation and plastering of the exterior walls based on Ukrainian legislation and European standards.
renewal of the district heating transfer, heat distribution and heat transfer via Installation of heat transfer surfaces (radiators), including hydraulic balancing for uniform energy-efficient heat transfer to the individual rooms.
Measurement (monitoring) of representative rooms on the basis of comfort criteria.

Additional campaigns

Since 2017
Measurement of data (energy consumption, temperature, hours of service etc.) continuously improved
Since 2020
Media publishing
Since 2021
The project accompanied by Faculty of Physics, Electrical Engineering and Energy Technology of the Ukrainian Academy of Engineering and Pedagogy
Visit at building in Vyshgorod
two Master degree works at UIPA under Vice-Rector of UIPA
presentations of Project in international symposia in Ukraine, Poland and the Baltic states
scientific results published in Ukraine and Poland

The Team

Photo from left to right:
Prof. Dr. Jürgen Köberlein, Vitaly Sardak, Vitaly Paroschenko, Dr. Edigna Kessel, Peter Münster, Aleksey Momot, Olga Makaritskaja
Not all project participants are shown in the photo.

Project responsibility Vyshgorod:
Aleksey Momot , First Mayer

Project management Vyshgorod:
Vitaly Sardak

Project support technical:
Vitaly Paroschenko

Project management Scientific / technical:

- Academy of Engineering and Pedagogy Serhiy Voytenko and Zlata Oberemok (UEPA), Kharkiv:
- Oleksandr Kupriyanov, Vice-Rector for Scientific Work
- Yuliya Oliynyk, Associate Professor of the Faculty of Physics, Electrical and Power Engineering
- Voytenko Sirhiy, Master's student

Oberemok Zlata, Master's student

Project responsibility Eichenau:
Peter Münster, First Major

Project management Eichenau:
Alexandra Gorski

Project support technical Eichenau:
Prof. Dr. Jürgen Köberlein, Engineering office for climate-friendly and energy-efficient building technology, Würzburg

https://enervysh.net/

Enervysh – Municipal energy management project in Vyshgorod

Gemeinde Eichenau

Thank You !