

# Creation of the excellence center – demonstration project of renewable energy in Feștelîța, Moldova

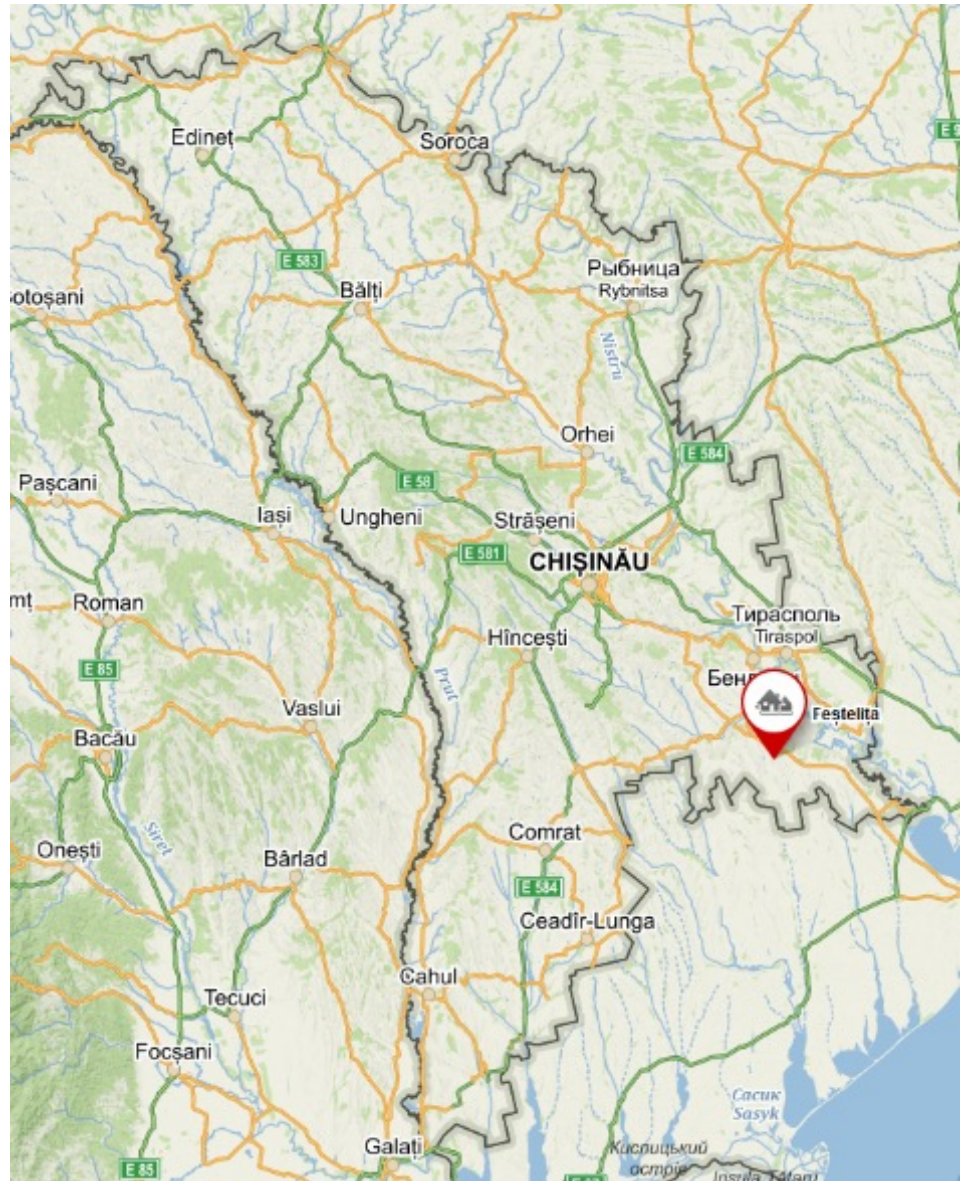
The Clinic Workshop “Renewable Energy in Central Asia: Potential for Small- and Medium-sized Solutions”  
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## Project background

Feștelița is village, population 2936 citizens, located in Stefan Vodă district, located in southern part of Moldova

Feștelița joined the Covenant of Mayors in 2013,



Funded by the  
European Union

# WECOOP

EU – Central Asia Cooperation on  
Water – Environment – Climate Change



This project is implemented by the consortium led by Stantec, with ELLE (Estonian, Latvian & Lithuanian Environment), ACTED, and KommunalKredit Public Consulting as the consortium partners.



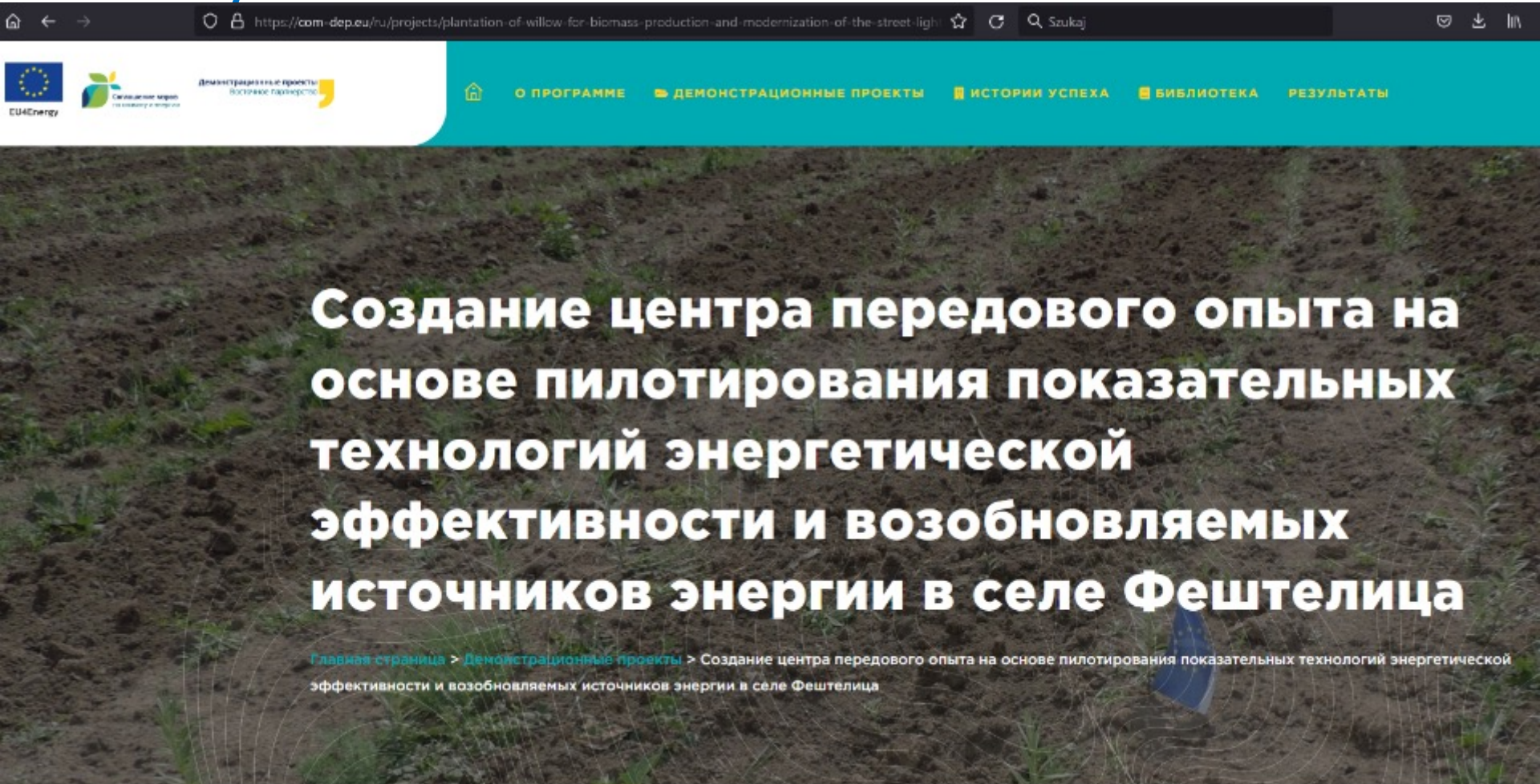
## Project background



Feștelița prepared the Sustainable Energy Action Plan (SEAP) in 2014 where included Energy ambitions

Project proposal raised back in 2018 and was intensively consulted with the local population, parents of public schools. Pupils from gymnasium were involved in distribution of leaflets to individual householders. As result the whole Festelita village is informed about the Action.

<https://com-dep.eu/ru/projects/plantation-of-willow-for-biomass-production-and-modernization-of-the-street-lighting-system-in-festelita/>





## Components of the project (total about 1 milion EURO)

- **Installation of Solar panels system for water heating at kindergarten;**
- Installation of Biomass burning boiler rooms at 4 public institutions (gymnasium, kindergarten, culture house and mayoralty) with total capacity of cca 561 kWh;
- Plantation of 5 ha with Short Rotation Energy Crops (energy willow and poplar);
- Installation of 241 LED luminaries on public streets, and intelligent M&E system;
- **Installation of a 312 kWh PV solar park;**
- Extension of public lightening and intelligent M&E system on 2 additional streets, (+25 LED luminaries);
- City Hall Thermal insulation;
- **Installation of individual 40kWh on-grid PV panel systems on the roofs of 3 public institutions (City Hall, Gymnasium and Kindergarten);**
- Creation/Renovation of the CEEE meeting room (within the City Hall);
- Creation of the ECO Recycle Centre to prevent Covid-19 (within the gymnasium);
- Creation of the ECO Educational Centre (within the kindergarten).

# Installation of a 312 kWh PV solar park

Installed in 2020, total costs of the component were 215 208.78 EUR





## Installation of individual 40kWh on-grid PV panel systems on the roofs of 3 public institutions (City Hall, Gymnasium and Kindergarten);

Installed in 2021 together with the thermal insulation thus buildings are **nearly Zero-Energy Buildings (nZEBs)**



# Results of the project

Component	Installed power kW	RES production MWh/year	Financial savings EUR/year	CO2 reduction tonnes /year
<b>Kindergarten – Solar water heating system</b>			<b>932</b>	<b>5</b>
Kindergarten – Biomass Boiler	174		5513	58.06
City Hall - Biomass Boiler	25		675	7.68
Culture House - Biomass Boiler	139		3610	44.21
Gymnasium - Biomass Boiler	208		6811	69.78
Street Public Lightening (266 LEDs)			6306	29.26
<b>PV park</b>	<b>312</b>	<b>340</b>	<b>15300</b>	<b>160.8</b>
<b>3 (PV) on-grid systems</b>	<b>40</b>	<b>44</b>	<b>1980</b>	<b>20.6</b>
SREC plantation (5ha)			5261	42
City Hall Thermal insulation				3.29
Gymnasium Thermal Insulation				13.94
Total	898		46389	464.7



## How the project was financed

Total costs: 995 000 EUR of which

EU grant: 500 000 EUR (50.25%)

NEFCO loan to the local public administration: 112 000 EUR

GEF UNDP grant: 50 000 USD

Remaining part was financed locally and includes:

Agency for Energy Efficiency

Budget of the Feștelița village

Budget of Ștefan-Vodă District Council

Population of Feștelița village

NGO „Asociatia Bastinasilor din s. Feștelița” (fund raising)

Parents Association of the gymnasium

## Nordic Environmental Finance Corporation (NEFCO) loan

NEFCO is an international financial institution (IFI) that finances the initial scale-up of Nordic green solutions on international markets. Founded in 1990 by the five Nordic countries, we serve the interests of our owners, Denmark, Finland, Iceland, Norway and Sweden, and take concrete actions to accelerate the green transition.

### **Feștelița is the first NEFCO-financed energy-efficiency project in Moldova**

NEFCO provides a low interest loans in local currency

NEFCO loan will be repaid from the local budget thanks to the savings achieved by the project implementation



## Fundraising

Feștețița local budget is small and was not able to co-finance the local contribution thus the fundraising campaign was organized

There were initiated 2 on-line and 1 off-line fundraising activities with involvement of migrants and local people.



# Fundraising



## ENERGIE DE LA SOARE ȘI BIOMASĂ LA FEȘTELIȚA



### DESCRIEREA

Satul Feștești, r-nul Ștefan Vodă este semnatara Convenției Primarilor pentru Climă și Energie. Începând cu 14 iunie, 2013. Conform acestui document comunitatea se angajează să contribuie la reducerea emisiilor de CO2, până în anul 2020, cu cel puțin 20% față de anul de referință - 2011 și anume cu 178.6 tone de CO2

### LISTA DONATORILOR

Suma donată	Donator
100,00 lei	Anonymous

30, July, 2020, 07:10



# WE COOP

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## Conclusions

Project was successful regardless that Feștelița is rather a small village

Ambitious local administration with good plans (SEAP)

Information and involvement of the local population

EU support was curtail but Feștelița looked for many other financial sources: grants, loans and it organized fundraising

Solar park will sell energy to the grid – revenues of the local budget that will be used to repay the loan

Energy from the PV on buildings will be used locally (net metering) and will decrease the operating costs



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# Thank you!



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