



Fifth
ENERGY SUMMIT
in Bosnia and Herzegovina



Implemented by
giz
Technische Zusammenarbeit
für internationale
Kooperationen seit 1972



UNDER THE AUSPICES OF



Ministry of Foreign Trade and
Economic Relations of BiH



State Electricity Regulatory
Commission



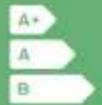
Regulatory Commission for
Energy of RS



Regulatory Commission for
Energy in FBiH

Energy Efficiency Project

Partner Microcredit Foundation



Energy Efficiency in Partner – the beginning

- 2011 - USAID Solar Energy Project (initiated domestic production of solar collectors and raised awareness on benefits from usage of renewable sources of energy).
- 2012 – Partner introduced a special Loan Product for Energy Efficiency with technical assistance from European Green for Growth Fund (GGF).
- 2012 – start using eSave software for evidencing EE individual projects and calculations for savings from implementation of EE measures on individual housing.

Present EE funds in Partner

- EBRD (European Bank for Reconstruction and Development) - Financing energy efficiency projects for households with grants ranging from 15% to 20% depending on the type and number of technologies used.
- KfW (Kreditanstalt für Wiederaufbau, a German government-owned development bank) – Financing energy efficiency projects for Businesses with 10% grant on the investment.
- GGF (The Green for Growth Fund) – Financing energy efficiency projects for households (75% of investment for EE measures, 25% for other costs).
- CEB (The Council of Europe Development Bank) – Financing EE projects for households

Market potential in BH housing sector

- 85% of individual houses in BH have unsatisfactory thermal protection in terms on prescribed regulations.
- Poor energy characteristics of individual houses with high energy consumption.
- Non-efficient outer shell of the typical housing object with high thermal efficiency values.
- Buildings bilt before 1970 have no insulation, and buildings built before 1980 has moderate or no thermal insulation.
- Great potential for energy savings, 80% of energy consumed in a household is used for heating and hot water.
- An average house in BH spends 180 kWh/m² of energy for heating while in West Europe an average house spends 55 kWh/m² for the same purpose.



Partner's impact

- Partner MCF loan products has impact on improvement of energy efficiency in BH, contributing to BH international undertaken obligations.

Partner directly contributes to savings in:

- Energy (MWh),
- Money (KM),
- Reducing CO₂ emission (tones)



- Important impact is also made in employing domestic companies and workers on implementation of EE technologies.

Energy efficiency data sheet

Since the beginning of the EE financing project (2012) the following results were achieved:

- 31,3 million BAM disbursed
- 6.645 loans
- over 7.000 implemented EE measures
- Average EE investment size 5.200 BAM



Savings:

- Primary energy savings - 100 thousand MWh
- Reduction of CO2 emission - 33 thousand tons

Savings for the lifetime of installed EE equipment:

- 1,91 million MWh of primary energy,
- Equivalent to annual consumption of energy of 7.600 households or savings of almost 292 million BAM.
- Reduction of CO2 emission for over 576.000 tons,
- Equivalent to amount of CO2 emission of 4.500 households with coal based heating for lifetime period (28.5 years).

EE project results in BH context

- Savings from Partner's EE project represent **5%** of total savings in Bosnia and Herzegovina.
- Savings from Partner MCF represent **14%** of savings in BH housing sector.
- Partner's present share in national CO₂ emission reduction is **1,9%**.
- Savings planned for the equipment lifetime period (28,5 years) will result in **44%** primary energy savings in housing sector, and **6,2%** savings of CO₂ emission reduction in Bosnia and Herzegovina.



EE measures implemented

The most commonly used energy efficiency measures on individual households funded by the EE loans are:

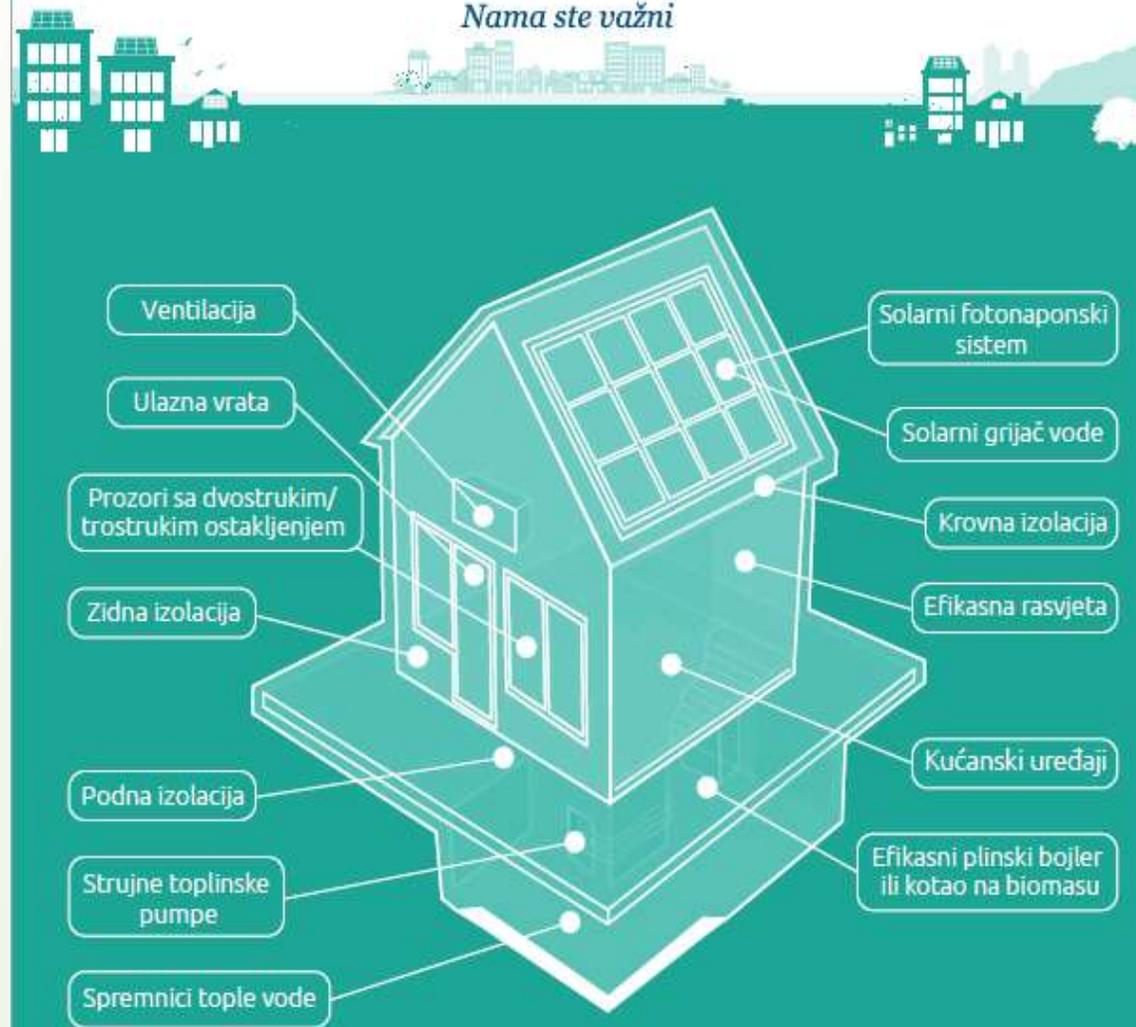
- Thermal building insulation - 46,78%
- Replacement of windows/doors - 43,99%
- Heating systems (biomass) - 9,06%
- Other - 0,18%
 - EU labeled home appliances
 - HAVAC
 - Solar collectors



PARTNER

MIKROKREDITNA FONDACIJA

Nama ste važni



Key benefits for clients

- Inevitable increase of energy prices (electrical energy, water and energents)
- Energy savings
- Saving on energy and water heating cost
- Appordable financing options with fund return (from 10% to 20%)
- Loan cost are being paid off through return and achieved savings
- Better life quality / more comfort in housing unit/apartment
- Increase in realestate value on the market



Client testimonials



- „Last winter the only warm room was our living room since the coal stove was there, and now, with new boiler, the rest of the rooms are warm enough throughout the day. Most importantly, our little sons, Antonio and Andrej, can now stay in their rooms in the winter, spend time there in learn and play“ - says Ana Vidović, Partner MCF’s client.
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- „In addition to the economic, energy and ecological reasons that are constantly being mentioned, I would also add aesthetic reasons, since house with a facade looks much better, the durability of the walls are prolonged, and thermal insulation, apart from winter, also has its effects in the summer, as well“ - says Mario Tadijić, a client Partner MKF.

Client Salih Gurić from Bugojno (EBRD loan)



eSave

Creation of a loan

Data entry / Selection

- ▶ Client ID
- ▶ Org. Unit
- ▶ Type of client
- ▶ (economic sector)

Loan saved

Creation of measures

Selection

- ▶ Groups of measures
- ▶ Measures

Data entry / Selection

- ▶ Measurement costs
- ▶ Technic information

Calculation

savings in primary energy
and in CO2 emission

Measure saved

**Creation of additional
measures**

Approval

Loan approval
from the bank's loan
committee

Finalization

Adjustment
of loan or measured in
according to approval
from the committee

Finalization
of the loan, together
with associate EE
measures

Reporting

Selection
▶ Group of measures
▶ Reporting period

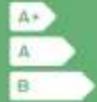
Creation of report

Export
through xlm/xls interface



Key challenges

- Insufficient knowledge of general population on energy efficiency and benefits of investing in EE measures and technologies
- Low prices of electric energy and thermal energy
- Perception of people what is comfortable (21° C) or overheating (25 ° – 27 ° C).
- Not enough subventions on EE investments on individual housing
- Defining a market value of a house still does not include EE valuation





Future perspectives

- In the forthcoming period, the focus of Partner MCF will be on energy efficiency projects, which imply financing through EE loans for households and business facilities. Partner wants to be recognized as the leader in this area.
- Further communication with the target population on benefits from the use of EE measures by educating users and raising awareness of the importance of energy efficiency.
- By relying on knowledge of Loan Officers who, will keep providing our clients with first-hand conseling and advises.
- This year, a credit portfolio of 28 million KM is planned for energy efficiency measures for households and businesses.
- Partner will keep providing technical assistance on savings calculations for beneficiaries of Energy Efficiency Project.

Thank you!

