



Energy renovation of buildings in Croatia

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Republic of Croatia

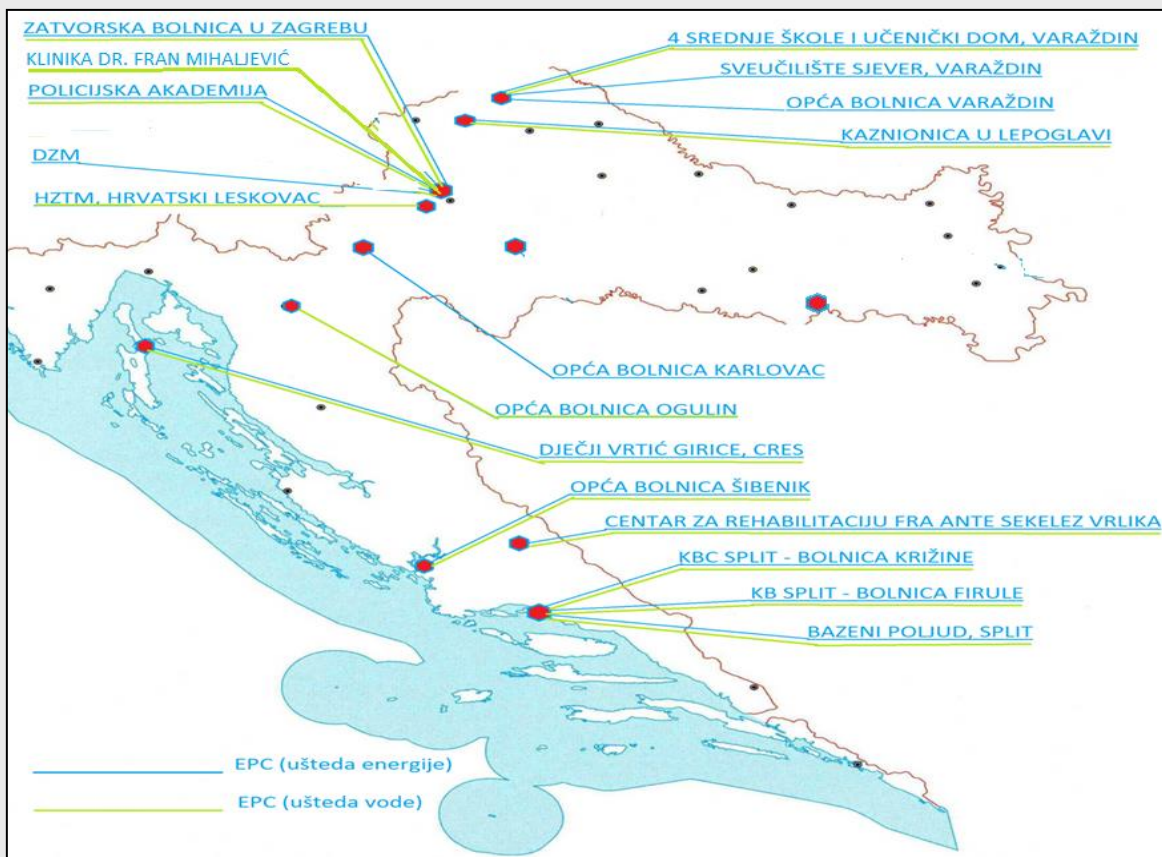
MINISTRY OF CONSTRUCTION AND PHYSICAL PLANNING

Milan 16 November 2017

Results of the Programme of energy renovation of public sector buildings 2014-2015



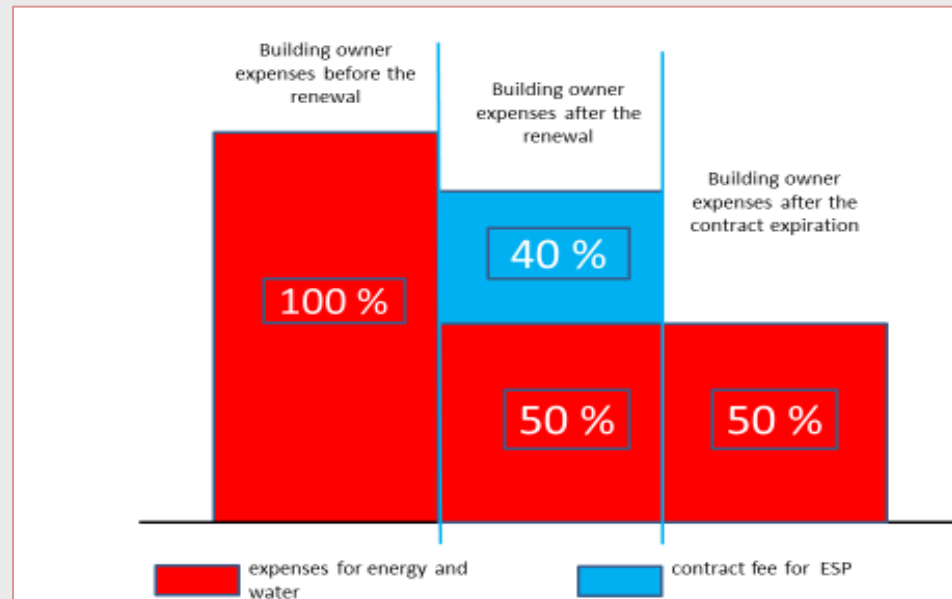
- **Croatian Government Real Estate Agency** announced 57 public procurement procedures for the provision of energy services
- **Environmental Protection and Energy Efficiency Fund** - co-finance with grant (40% of eligible costs to the public sector)
- **69 buildings** covered by active contracts
- **Total surface area 257 000 m²**
- **Total contract value 604 million kuna (82 M€)** (VAT excluded)
- By realisation of these contracts **annual savings shall amount to 70 GWh**





Basic settings and characteristics of the Program

- Programme promotes **integrated renovation concept** that includes renovation of buildings envelope, upgrades to the heating /cooling system water heating system, ventilation, lighting and water supply
- Building construction **measures that address the building envelope are mandatory !**
- **ESCO invests and takes technical and economic risk** so public sector does not have any additional costs
- Payment of services is based on **verifiable savings**
- **The service fee shall not exceed the savings**
- Energy savings are **proven by the Design**
- **EPC lasts 14 years**



Results of the Programme of energy renovation of public sector buildings 2014-2015



Completed renovations

- Clinical Hospital Centre Split - location Križine
- Clinical Hospital Centre Split – location Firule
- Building of Nursery school „Girice“ Cres
- General Hospital Karlovac
- State Institute for Metrology ZG



Σ 25 buildings
128 306 m²
Savings 55,38%

Results of the Programme of energy renovation of public sector buildings 2014-2015



Renovations under way

- Penitentiary Lepoglava
- University North, Varaždin
- Prison hospital in Zagreb
- General hospital Varaždin



**Σ 17 buildings
50 373 m²
Savings 33,7%**

Results of the Programme of energy renovation of public sector buildings 2014-2015



Contracted

- **Swimming complex Poljud**
- **Police academy, Zagreb**
- **General hospital Šibenik**

Σ 27 buildings
78 203 m²
Savings 57%



Programme of energy renovation of public sector buildings 2016-2020



Programme objective:

- Integral renovation
- Energy consumption **reduction up to 70%**
- Annual energy savings about **50 GWh**

Financing:

- with funds from the **ERDF** under the **Operational programme Competitiveness and Cohesion 2014-2020**
- **211 810 805 EUR** have been allocated

3 implementation models for energy renovation of buildings



Programme of energy renovation of public sector buildings 2016-2020



MODEL 1

- **Targeting public educational buildings** owned by the Republic of Croatia or local (regional) government
- buildings for preschool education, elementary and secondary school education and college/university education
- **co-financing by allocation of grants** from ESI funds

MODEL 2

- By **contracting energy services** using **standardized EPC**
- Public sector does not have to provide funds for the energy renovation
- **ESCO provides funds for the entire investment (60% own funds +40%grant)**
- Grants from ESI funds are allocated to the ESCO company (ESCO is the beneficiary of the grant)
- The procedure of allocation of grants from ESI funds is carried out in alignment with the procedure of energy service contracting



Programme of energy renovation of public sector buildings 2016-2020

MODEL 3

Public sector receives grants from ERDF but shall provide an own share:

1. By contracting the energy service

→ The obligation of paying charges for the public sector upon completed energy renovation of the building

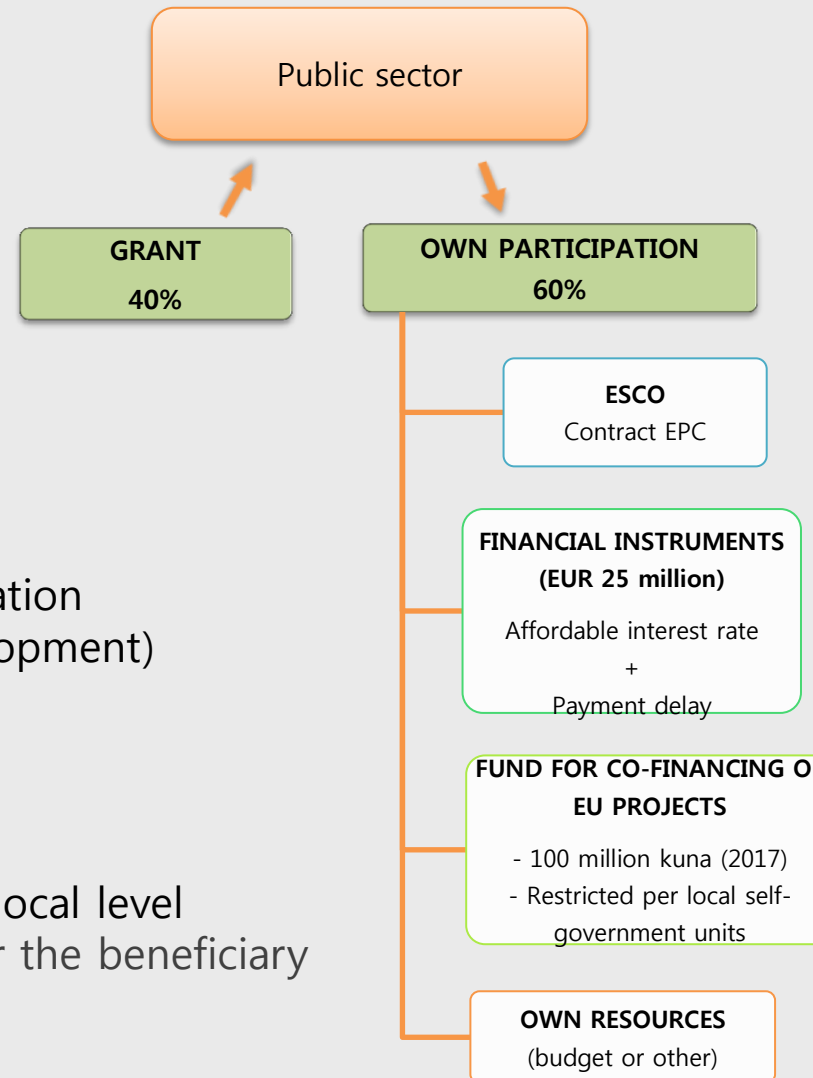
2. By a financial instrument

→ Specialised loan lines with favourable interest rates and grace period until completion of energy renovation (HBOR -Croatian Bank for Reconstruction and Development)

3. With funds from the Fund for co-financing implementation of EU projects

→ Funds provided by the MRDEUF for co-financing implementation of EU projects at the regional and local level
→ Very limited funds and limited maximum amount for the beneficiary

4. Own funds allocated in the budget



PUBLISHED PUBLIC CALLS **MODEL 1**



9.7.2015 -15.4.2016

19.6.2015 -28.0.2016

22.11.2016 - 20.2.2017

PILOT PROJECT

Development of project documentation for energy renovation and use of RES in public institutions performing educational activities

- 72 projects contracted
- Co-financing rate 100%
- Contracted grant amount: approx. 1M€
- Required minimum energy savings 20%
- Achieved energy savings in projects from 43% to 80%

PILOT PROJECT

Energy renovation and use of RES in public institutions performing educational activities

- 33 projects contracted
- Co-financing rate 70-95 %
- Contracted grant amount: approx. 6,5M€
- Required minimum energy savings 20%
- Achieved average energy savings 56%
- Highest achieved savings 80%
- Most often energy class upgrade from D to B

Energy renovation and use of RES in public institutions performing educational activities

- 224 projects accepted
- Co-financing rate 85% for project preparation and 35% -60% for implementation
- Required **minimum energy savings 50%**
- Average energy savings 60%
- Total value of energy renovation works exceeds 105 M€
- Grant amount exceeds 46 M€

PUBLIC CALL **UNDER PREPARATION** MODEL 3



PUBLIC CALL

Energy renovation of public sector buildings

- Planned allocation 50 M€
- Co-financing rate 85% for project preparation, and 35% -60% for implementation
- Required **minimum energy savings 50%**
- Educational buildings, and buildings in which the following is performed: scientific, theatre, audio-visual, museum and gallery, health care, administrative, sports and other social activities



Photo by Marko Vrdoljak. This photo is the property of The Zagreb Tourist Board.

Energy renovation of multi-apartment buildings



→ **Programme of energy renovation of multi-residential buildings 2014-2020**

→ national co-financing (ECO fond) by grants 40-80% started in 2014.

→ In 2 years 2 355 applications approved for more than 37 M€

→ **2016-2020 co-financing by grants from ERDF**

→ Jaspers Report „Outline of an energy efficiency and RES use scheme for public and residential buildings in Croatia“ 2015. as guidelines

→ „Analysis of the recommended co-financing rate for energy renovation of residential buildings“ EIHP

PUBLISHED PUBLIC CALL

**Energy renovation of
multiapartment buildings**

**Opened on
17.10.2016**

**Closed on
31.01.2017**

- 649 project applications
- **598 approved projects**
- **Co-financing rate 85% for project preparation and 60% for implementation**
- Required minimum energy savings 50%
- **Average energy savings 66%**
- **16 381 households**
- Average age of buildings 80y
- **Total value** of energy renovation works exceeds **135 M€**
- **Grant amount** exceeds **75 M€**

Energy renovation of single family buildings



→ **Programme of energy renovation of family houses 2014-2020**

- National co-financing (ECO fond) by grants 40-80% started in 2014.
- In 2 years 15 494 projects contracted
- 89 M€ approved for co-financing

→ **2016-2020 co-financing by grants from ERDF**

- Amendment to Regulation (EU) 1303/2013 is necessary in the part related to the eligibility of natural persons in the capacity of applicants
- Public call for **Energy renovation of family houses** in the course of 2018
- Planned allocation 30 M€
- Individual measures will not be co-financing (required minimum energy savings 50%)



Thank you for your attention !

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