EmpowerMed

# Appropriate financial and repayment solutions

*Training module*

Work package: WP2 - Building capacity for practical measures implementation
Work package leader: SOGESCA
Responsible partner: SOGESCA
Deliverable 2.2: Training materials

Authors: Rose Ortolani

Version: Final
Date: April 2020



This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 847052. The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein.

# TABLE OF CONTENTS

# PREAMBLE

The households, in order to be able to implement some renewable energy (RES) or energy efficiency (EE) solutions, have some financial tools that allow them not only to invest their own money but to have access to a kind of facilitated credit line or to enter in a customer group with a bigger purchasing power.
Here below some selected financial tools.

# 1 Energy cooperatives

Energy cooperatives refer to a business model where citizens jointly own and participate in renewable energy (RES) or energy efficiency (EE) projects. In energy cooperatives citizens are involved in both the decision making and financial & economical participation. All citizens are eligible to participate. After purchasing a cooperative share and becoming a member or co-owner of local RES and EE projects, members share in the profits and often are given the opportunity to buy the electricity at a fair price. In addition, members can actively participate in the cooperative: they can decide in what and where the cooperative should invest and are consulted when setting the energy price.
Citizen cooperatives can potentially invest in projects covering all SECAP sectors.

## 1.1 Objective

Energy cooperatives offer potential to help mobilise finance for reaching renewable energy targets, while involving citizens and other stakeholders in the production and use of renewable energy. Those who sign up as members can buy shares of the cooperative, which in turn owns renewable energy installations and provides a return on investment to its members over time. Provided the energy cooperative acts as, or sells to, a licensed supplier, members can also get access to locally-produced green electricity at a fair price.

## 1.2 Pros and cons

The main advantages are:

- Leverage private capital for local energy projects.
- Generate revenue that stays in the local community and can be reinvested to address local (societal) needs.
- Considerably increase social acceptance of local renewable energy deployment.
- Provide affordable access to local renewable energy and energy services to citizens.
- Create opportunities to cooperate with motivated local citizens who may provide (technical) expertise to the cooperative on a voluntary basis.

There are, however, some caveats to consider:

- Mostly depend on the voluntary engagement of members who might not always be professionals in the energy sector and may lack the experience to overcome administrative hurdles.
- Raising the initial capital can be a challenge if opportunities and benefits are not properly communicated to potential members.
- Energy cooperatives may have a hard time competing with established market actors for larger projects, where renewable energy projects are commissioned through tendering.

## 1.3 Measures eligible for energy coopératives

- Investment in renewables
- Investment in energy efficiency

# 2 EPC Energy

Energy Performance Contracting (EPC) is a form of creative financing for capital improvement which allows funding energy upgrades from cost reductions. Under an EPC arrangement, an external organisation (Energy Service Company - ESCO) implements a project to deliver energy efficiency, or a renewable energy project, and uses the stream of income from the cost savings or the renewable energy produced to repay the costs of the project (including the costs of the investment). Essentially, the ESCO will not receive its payment unless the project delivers energy savings as expected.
The approach is based on the transfer of technical risks from the client to the ESCO based on performance guarantees given by the ESCO. In EPC ESCO remuneration is based on demonstrated performance; a measure of performance is the level of energy savings or energy service. EPC is a means to deliver infrastructure improvements to facilities that lack energy engineering skills, manpower or management time, capital funding, understanding of risk, or technology information.

## 2.1 Objective

The main objective of the EPC is to get a 'creative financing' form for capital improvement which allows funding energy upgrades from cost reductions, without running the risk of investing in a new and more efficient technology

## 2.2 Pros and cons

The main advantages of the EPC are:

- Reduction of risks and costs in case of unforeseen events
- No further expenditures for the municipality
- Reduction of the energy costs
- Release of human resources previously dedicated to maintenance and operating works
- Maximum performance guaranteed
- At the end of the contract, all installations will belong to the public body and no more costs are allocated for the investment return. Then the municipality gets important cost saving.

However, this contract model has also some cons, like:

- The contracts lifetime is often quite long (7-12 years)
- The property of the new facilities/equipment during the contract time belongs to the ESCO and not to the public body
- New concept for the municipality. The procurement process is complex and require some assistance to prepare tender documents and to evaluate the proposals
- Initial savings are lower than in the case of the municipality made its own investment.

## 2.3 Measures eligible for EPC

- Investment in renewables
- Investment in energy efficiency

# 3 On-bill financing

On-bill lending is a method of financing energy efficiency improvements that uses the utility bill as the repayment vehicle. Energy suppliers collect the repayment of a loan through energy bills. It leverages the relationship, which exists between a utility and its customer in order to facilitate access to funding for sustainable energy investments.

## 3.1 Objective

The main objective of on bill financing is to enable owners to carry out a global and efficient energy renovation, by financing the work thanks to the future energy savings generated by the work.

## 3.2 Pros and cons

The main advantages of on bill financing are:

- Improving the thermal comfort of homes
- Reduce environmental impact
- Local communities to benefit from increased economic activity, including job and wealth creation
- If the resident moves therefore, no longer benefits from the improvements, then he/she stops paying for them
- Helps utilities meet state and federal government requirements
-

However, it has also some cons, like:

- In order for the third-party funder to be reimbursed, the savings generated as a result of the energy renovation must be significant (more than 50%)
- If transferability is not allowed, homeowners may have some problems repaying on bill financing, which would have an impact on the financial savings generated by improved consumption being realised

## 3.3 Measures eligible for on bill financing

- Investment in energy efficiency (equipment and building insulation works).

# 4 Soft loans, guarantees

Financing the energy retrofitting of buildings is a great challenge. With investments varying from 200 to 1,200 EUR/m2, access to attractive and long-term financing is perceived as the primary barrier for homeowners. Financial incentives such as grants, guarantees or soft loans for energy renovation could motivate homeowners to make the investment decision more easily.
Local and regional authorities in cooperation with financing institutions can offer to homeowners of private residential buildings:
- Soft loans: loans with interest rates below standard market conditions and longer payback periods, including eventually other advantages (e.g. grace period, lower administrative or insurance costs)
- Loan guarantees: buffer by first losses of non-payment are incentives triggering investments in energy renovation.
Portfolio guarantees for ESCOs reduce the risks of payment delays, so reduce the overall costs of financing (solid protection from later payments).

## 4.1 Objective

The main objective of soft loans in the context of energy and climate policies is to enable investment that would not be possible otherwise. Those investments may be large infrastructures such as trams, energy renovation of local authorities' legacy (public lighting, buildings…), energy renovation of homes, etc.

## 4.2 Pros and cons

The main advantages of the soft loan are:

- A lower rate than the market rate to carry out energy saving actions
- An additional investment fund at the disposal of energy efficiency improvement actions
- Complementary to other support systems such as subsidies, so it is a leverage effect to carry out actions to improve energy performance
- A longer maturity that allows homeowners to adjust the amount of monthly loan repayments based on their financial resources and, ideally, to take into account the financial savings from energy savings to repay their loan
- A longer grace period that allows homeowners to accumulate financial savings by reducing their energy bills and start repaying the loan at a later stage
- Reduced or zero administration and insurance costs in the event of early repayment

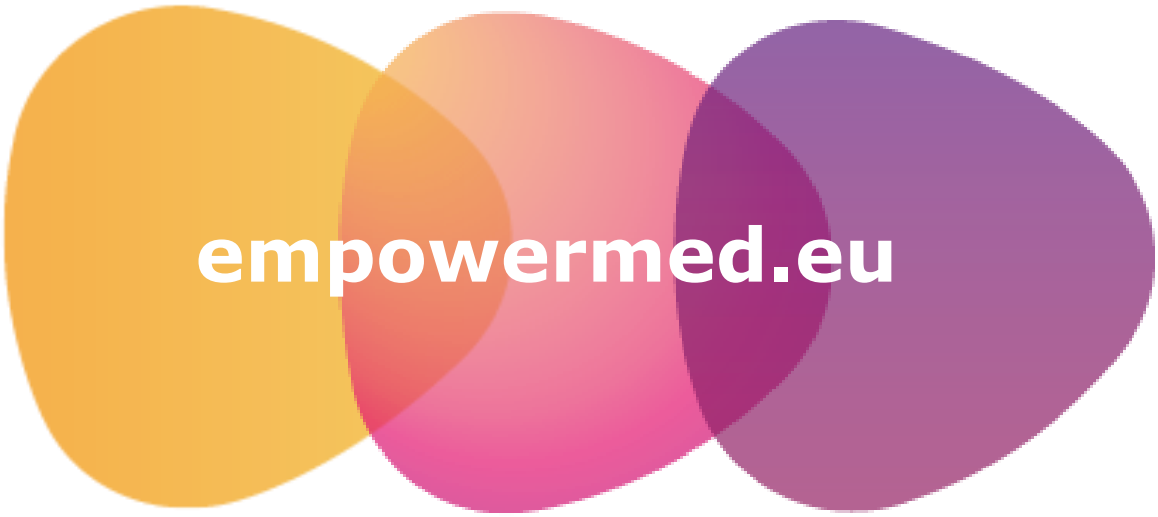
However, soft loan has also some cons, like:

- The investment horizon goes beyond the decision horizon (many homeowners expect to sell their property in the short to medium term)

- Energy renovation of a home requires many market players: construction companies, craftsmen, real estate agencies, financial institutions, consultants, energy auditors

## 4.3 Measures eligible for soft loan

- Investments in renewables energies
- Investments in energy efficiency
- Investments in large infrastructures


empowermed.eu