The LEMON project, using EPC in Social Housing – Brussels, 21st February 2018
Claudia Carani – AESS Modena

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 695863
LEMON target

Background: The social housing sector in EU manages over 26 million homes (11% of existing dwellings in Europe).

In Emilia-Romagna the Social Housing companies (ACERs) manage 78,703 dwellings in 6,404 buildings with energy demand ranging from 80 to 450 kWh m² per year and average energy costs from € 600 to € 2,500 per year.

Social housing company in Italy manage, maintain and retrofit the properties and manage the contracts with the tenants. They receive a yearly fee from the LA for the service.

Beneficiaries: 622 private and public dwellings managed by the social housing of Reggio Emilia and Parma.

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LEMON partnership

• 4 organizations are partners of the LEMON project:
  – Agenzia per l’Energia e lo Sviluppo Sostenibile di Modena (AESS), the project coordinator
  – ACER Reggio Emilia
  – ACER Parma
  – ASTER, the Consortium for the innovation and the technology transfer of the Emilia-Romagna Region.

• The Emilia-Romagna region is supervising the projects
LEMON objectives

- To experiment innovative financing models for social housing retrofit through EPC model contracts, mobilising 15,290 million Euros of investments in energy retrofitting, in order to reduce the buildings energy demand;
- To develop and implement energy efficiency projects in 622 private and public dwellings involved in the energy retrofit programme;
- To identify the buildings were retrofit intervention can maximise the energy saved, reaching at least an average 40% energy reduction.
- Lead to 5,74 GWh primary energy saved and 1.159 t CO2 emissions avoided for the social housing sector within the end of the project;
- To develop a new lease based on the energy performance of the housing unit, called EPTA - Energy Performance Tenancy Agreement.
LEMON financing scheme

- Beneficiaries: Buildings/dwellings owners (Cities an private owners) and tenants
- Role of the beneficiaries: approve Lemon investment and energy performance objective (city deliberation for the Cities and investment agreement for the private) and co-fund the investment (increased management fee from the Cities, co-funding from the private, EPTA from the tenants)
- Energy performance guarantee: is provided by ACER ‘public ESCo’ that share the risk with a private ESCo engaged with a EPC tender
- Financing: 70% covered by ACER with a loan and 30% by the ESCo. ACER will recover the investment with the co-fund of the beneficiaries in 15 years, fiscal incentives and grants. The ESCO will recover the investment with the energy saving.
LEMON activities

1. Preliminary phase to define the investment programme and cities/private approval

2. Identification of the financing product to support ACERs in the investment programme

3. Identification of the ESCO/companies to retrofit the dwellings and co-fund the investment programme through EPC tender

4. Definition of the EPTA

5. Communication, dissemination and capacity buildings
LEMON activities

PHASE 1: Preliminary activities Energy audits and feasibility studies set up in 622 dwellings involved by the retrofit interventions.

- 70% with autonomous boilers
- 30% with centralized heating system
LEMON activities

<table>
<thead>
<tr>
<th>INVESTMENT SCHEME</th>
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<tbody>
<tr>
<td>Yearly energy costs methan</td>
</tr>
<tr>
<td>- Total investments</td>
</tr>
<tr>
<td>- Grants and national incentive ‘conto termico’</td>
</tr>
<tr>
<td>Net investment</td>
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<tr>
<th>SdF</th>
<th>CANONE ANNUO (1° ANNO)</th>
<th>CANONE ANNUO (DAL 2° AL 9°ANNO)</th>
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<td>IVA</td>
<td>€277.729,70</td>
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<td>Qiqu</td>
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<td>€1.540.137,41</td>
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LEMON activities

PHASE 2: identification of the financial instruments to cover about 70% of the investment covered by ACER

1) Initial scouting and discussion with the banks once the investment programme was available
2) Competitive dialogue tender published in the end of August (banks didn’t apply)
3) Direct negotiation with the banks comparing different financing institutions (EEEF, Cassa Depositi e Prestiti, Local Banks, PF4EE).
LEMON activities

Many findings, in general:

- Local banks prefers investments fragmentation (reduce the risk of the local banks);
- Large banks prefers large investments (maximum 2 lots);
- The evaluation of the investment bankability requires between 2-4 months.
- Most of financing available have variable interest rate that is not accepted in the Municipalities balance
- Some banks are interested in the fiscal credit for EE investment transfer of ACER fiscal incentives for energy retrofit (65% of the investment) to the bank. ACER is no profit and not interested in the tax deduction.
LEMON activities

<table>
<thead>
<tr>
<th>Loan duration</th>
<th>% of investment supported</th>
<th>Interest rate</th>
<th>% interest rate</th>
<th>Assessment requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEEF</td>
<td>18 years</td>
<td>80%</td>
<td>Variable (fixed rate with derivates security)</td>
<td>medium</td>
</tr>
<tr>
<td>PF4EE-BPER</td>
<td>5 years</td>
<td>70%</td>
<td>Variable (fixed rate with national guarantee)</td>
<td>Medium up to 5 years – high up to 15 years</td>
</tr>
<tr>
<td>Cassa Depositi e Prestiti</td>
<td>18 years</td>
<td>100%</td>
<td>Fixed rate</td>
<td>Low with guarantee from the cities</td>
</tr>
</tbody>
</table>
LEMON activities

PHASE 3 and 4: EPC tender development

- EPC tender for investment, maintenance and monitoring of the energy performance. The ACERs agree on an EPC tender with energy supply based on D.LGS.102/2014 for the centralized heating system buildings.
- Call for tender of works in buildings with autonomous boilers
- Monitoring, maintenance and guarantee of the performance in centralized heating system and autonomous boilers
- The hypothesis expects 70% of the investment covered by the ACERs and 30% on investments covered by the ESCO.
- The ACERs will have a payback period of 15 years, while the ESCO with the will have a payback period of 7 years.
- EPTA - Energy Performance Tenancy Agreement
PHASE 4: Capacity building, communication and dissemination

Target Groups
- Decision makers in social housing companies and public authorities (region, provinces and municipalities)
- Energy Service Companies (ESCos), Innovation Companies, Financing institutions
- Building tenants

Aims
- Capacity building and Information on EPC contract energy saving potential
- Information on energy saving, RES and ICT measures
- Disseminate the EPTA
- Provide innovation solutions in EPC contract
- Informing on the project objectives
- Provide feedback on financing products viability
- Informing on the new contract
- Capacity building and information on the measure implemented in the buildings

Measures and channels
- Project website
- Presentation at regional stakeholders events and training courses
- EU short course
- National and European brochure
- Article in specific media
- Network of social housing companies (Housing Europe, Federcasa, CISPEL)
- Meetings with key decision makers
- Energy Performance Tenancy Agreement
- Other actions expected in the dissemination and exploitation plan
- Project website
- Focus group events
- Presentation at stakeholders events
- National and European brochure
- Network of Innovation Community (Climate KIC)
- Report on financing products available
- Other actions expected in the dissemination and exploitation plan
- Energy Performance Tenancy Agreement
- Dwelling Energy Management Manual for tenants
- Training courses on dwellings energy management
- Other actions expected in the dissemination and exploitation plan

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