Financing energy efficiency measures in Maltese public buildings

Financing energy efficiency in Malta and Italy

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Westin Dragonara Resort, St Julians, Malta

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Overview

• Introduction – Local Scenario
• NEW FINANCE Project
• Main drivers, barriers, risks
• Third Party Financing - Energy Performance Contracting
• STEPPING Project
• European Local Energy Assistance
• Conclusions and recommendations
### Introduction – Local Scenario

- **2020 energy targets**: 20% reduction in energy consumption, 10% share of energy from renewables, diversification of energy mix
- **Public buildings stock**: 9,853 buildings, 158,701 sqm
- **Target energy savings**: 555,390 kWh by 2020

<table>
<thead>
<tr>
<th>Country</th>
<th>National strategies for building renovations</th>
<th>Residential buildings (kWh/m²/year or Energy Class)</th>
<th>Non-residential buildings (kWh/m²/year or Energy Class)</th>
<th>Share of renewable energy sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT</td>
<td>Malta’s Long-Term Strategy for mobilising investment in the renovation of the national stock of residential and commercial buildings</td>
<td>Apartment buildings: 140 Terraced houses: 90 Semi-detached house: 55 Fully detached house: 55</td>
<td>Deep retrofit targets: with RES: 40 without RES: 80</td>
<td>Office buildings: 90 Buildings with offices area &gt;50% of useful floor area: 350 Deep retrofit targets: 89-308</td>
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</tbody>
</table>
**MAIN ACTIVITIES**

- Organization and execution of NEW FINANCE ALLIANCE RETREATS
- Training for public building owners / financial sector across 6 countries
- Realization of NEW FINANCE & ALLIANCE E-PLATFORM

**MAIN RESULTS**

- 5 new lighthouse EE projects for public buildings in at least 3 different countries
- Public building owners and financial sector trained and prepared to initiate and self-implement new EE projects across 6 countries and beyond

**New Finance**

- Project budget: 931,600.37€
- ERDF / IPA: 791,860.37€
- Project duration: 18 months

**Interreg Mediterranean**

**NEW FINANCE**
Main drivers, barriers, risks

- Energy renovation of public buildings is a promising sector for public authorities and is mainly driven by **savings in energy bills**
- These projects are still mostly funded through **public budget**
- **Limited use of dedicated loans and third party financing**, due to public debt limitation, lack of internal know-how, of standardized procedures/contracts, of clear rules
- Banks would finance loan renovation projects if “guaranteed” by national governments and/or EIB, but often find it difficult to handle/evaluate **technically complex projects**
- **Difficult access to loans** due to lack of ESCOs, small dimension of EE projects, length of contracts. Other obstacles include **high interest rates** on loans, **users’ behavior**
NEW FINANCE Business Case Analysis
Results on main barriers

- Lack of standardized procedures: 28%
- Lack of adequate financial capacity: 12%
- Other: 1.50%
- Lack of stable/defined national regulation on EPC/PPP: 20.50%
- Insufficient internal technical know-how: 19.50%
- Lack of trust towards 3rd party financing: 18.50%

Data based on 26 interviews carried out in Malta.
Third Party Financing (ESCO, PPP)

- Public funding and EU co-financing are often insufficient to ensure the implementation of EE actions

- Strict budget constraints often prevent public building owners from committing resources to the energy retrofit of their buildings

- A good option is to establish a Public-Private Partnership in the form of a EPC – Energy Performance Contract, so that the private actor (usually an ESCO) covers investment costs, recovering them through energy savings, while the public building owner gets immediate benefits from energy refurbishment actions and from the related reduction of energy consumption.
Under an EPC arrangement, an Energy Service Company (ESCO) usually implements an energy efficiency project and uses income from cost savings to repay project costs.

The ESCO will not receive payment unless the project delivers the expected savings.
Energy Performance Contract

**Key Elements**

- tendering procedure
- investments costs
- energy savings
- preliminary studies
- project design
- project management
- energy renovation actions
- Maintenance & monitoring actions
- Training & awareness-raising actions
- debt reimbursement through energy savings

ESCOSs is stipulated between Public administration, is payed through long-term contract.

Implement perform conduct guarantee is awarded through.
Energy Performance Contracting - Phases

Analysis of the results of the energy audit
- Examination of the consumption and estimate of potential savings
- Identification of measures to be implemented and next phases
- Definition of the minimum energy savings achievable

Implementation of energy measures
- Preparation of contract
- Design and implementation of EE/RES measures
- Testing

Achieved savings and monitoring
- Operation and management
- Assessment of energy consumption
- Verify that minimum guaranteed savings are achieved
STEPPING project aims to increase the adoption of EPC (Energy Performance Contracts) investment schemes in the elaboration of Energy efficiency plans for public building in the MED area, raising the knowledge of MED institutions in designing, implementation and managing of energy efficiency plans for public buildings.
European Local Energy Assistance

• ELENA is a joint initiative by EIB and EU Commission established under Horizon 2020

• ELENA supports energy efficiency, distributed renewable energy and urban transport projects/programmes above € 30 million, by covering up to 90% of technical assistance costs (smaller projects can be supported if embedded into larger programmes)

• The grant can be used to finance feasibility & market studies, programme structuring, business plans, energy audits, preparation of tendering procedures, contract arrangements, PIU

• EE measures supported include energy retrofit, integration of RES into the built environment, district heating/cooling networks, local infrastructure including smart grids and ICT

• Projects evaluated and funded on a first-come-first-served basis
Conclusions/recommendations

- It is crucial to **increase the knowledge** of all actors involved in EE projects (PA, banks, enterprises, final users), as long as technological, financial and management aspects are concerned.

- Public Administrations should be enabled to assess sustainability of EE projects under market conditions, to choose the **optimal financial scheme** and carry out the required procedures.

- **Energy benchmarking** can help selecting buildings with the highest energy renovation potential; **Energy Audits** can help assess the status quo and define cost-efficient EE measures.

- It is important that the EU and its Member States keep on supporting **NZEB/EE initiatives**, which are crucial to achieve EU energy targets.
Thank You

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