



## **Energy Efficiency and Small-Scale Renewable Energy Project Preparation Programme in Urban Areas of the Mediterranean Partner Countries**

### **“Med-ELENA study” – Executive Summary**

#### **Background**

The European Investment Bank (EIB), via the Facility for Euro-Mediterranean Investment and Partnership (FEMIP), promotes the objectives of the European Union (EU) by providing long-term financing to support economic and social development in the Mediterranean Partner Countries (MPCs). In terms of energy, the EIB is already active in the energy efficiency (EE) and renewable energy (RE) sectors in the MPCs, with the aim of improving the sustainability of economic growth while also limiting the environmental impacts of this growth.

An earlier study (Financing of Urban Energy Efficiency and Small-Scale Renewable Energy Investments in the Southern and Eastern Mediterranean Region<sup>1</sup>) already outlines the large potential for economically profitable investments in EE & small-RE in urban contexts. Despite this potential, and the existence of support programmes targeting EE & small-RE (notably for private sector investments, or at the more strategic level of policy frameworks), investments at the local and urban level with real EE and small-RE deployment have so far hardly materialised.

The EIB therefore decided to commission a study to assess the detailed needs of such projects, as well as what could be done to promote EE and small-RE investment further in urban areas of the MPCs, building on the EIB European Local ENergy Assistance (ELENA) programme<sup>2</sup> supported by the European Commission, which provides technical advice (TA) for projects inside the EU.

#### **Methodology**

The Med-ELENA study was carried out by the Lavola-Albea consulting consortium in 2012 and 2013, consisting of the following phases:

- *Phase I – Scoping*: taking stock of the sector, screening a preliminary pipeline of projects, ranking a selection of projects, and identifying three pilot projects (two in Morocco, one in Palestine);
- *Phase II – Detailed analysis of pilot projects*: analysing the needs of the three pilot projects, with a focus on TA requirements and financing;
- *Phase III – Synthesis*: combining the work of the two previous phases in order to recommend first steps on the design of an appropriate response to the identified needs.

#### **Pipeline**

The study found an estimated EUR 16.7 billion of market potential for projects in urban areas of the MPCs by 2030 (not including the estimated TA necessary for sustainable viable projects). This potential is approximately equally split between EE and small-RE projects. More specifically, the following sectors were found to offer the largest potential for investments in urban EE and small-RE:

- EE in new and existing buildings (insulation, energy efficient design, EE appliances, etc.);
- RE integration in buildings (solar water heaters, photovoltaic installations, etc.);
- EE and RE in local infrastructure (including street and traffic lighting, district heating & cooling systems, and possibly water systems);
- Improving EE and integrating RE in urban mobility and transport.

<sup>1</sup> EIB (2013). “Financing of Urban Energy Efficiency and Small-scale Renewable Energy Investments in the Southern and Eastern Mediterranean Region”. European Investment Bank (EIB), Luxembourg. Available at: [http://www.eib.org/attachments/country/femip\\_study\\_energy\\_en.pdf](http://www.eib.org/attachments/country/femip_study_energy_en.pdf) (accessed 13 January 2014).

<sup>2</sup> For more details on the ELENA programme please see: <http://www.eib.org/products/elena/>.

## Key challenges

Despite the large potential for investments in urban EE and small-RE projects, only a limited number of projects are reaching the implementation stage. In phase II, the study analysed three pilot projects to understand better the reasons for this low uptake of projects. The most common barriers identified were:

- *Limited information / lack of technical capacity:* technical barriers include limited awareness of possibilities in the sector and insufficiently qualified capacity; the absence of local expertise in manufacturing and installing EE and small-RE equipment; limited expertise in project planning and implementation of complex projects;
- *Limited borrowing capacity or budgetary autonomy for local authorities:* capital-intense projects face difficulties where public sector promoters have limited access to capital; when international finance is considered, promoters can be wary of foreign exchange risks;
- *Low perceived financial profitability of projects:* resulting from split or competing incentives, for instance where construction firms do not themselves benefit from the savings in efficient projects; low energy prices in the various countries also limit the incentive to take action.

## Recommendations

It was found that the pilot EE and small-RE investments experience significant needs for targeted TA and financing support. Without means to address these barriers, the projects struggle to be implemented in a reasonable timeframe. The study outlines that support should be provided during all stages of the projects, from identification and to implementation, and could include:

- *Technical:* such as energy audits to overcome the lack of information on possible options; feasibility studies to assess the technical merit of specific solutions; technical guides or other technical advice to promoters;
- *Management:* such as support for project implementation units; provision of procedures to follow up works and commissioning, in order to overcome promoters' limited technical capacity;
- *Financial:* such as support to prepare business plans; pricing analysis; recommendations on fund raising options, in order to improve promoters' ability to access finance;
- *Legal:* such as analysing the relevant legal frameworks for proposed projects; providing support with contractual aspects;
- *Structuring:* such as analysing public-private partnership (PPP) implementation strategies, pay-as-you-save methodologies or others, in order to diversify the options for financing projects.

The catalytic impact of the TA provided could be enhanced even further if it were systematically associated to adapted financing, possibly including investment grants. For example, projects could be identified on the basis that, after the provision of suitable TA with preparation, they would then be able to demonstrate their financial viability in order to apply for financing, including for example a loan from the EIB. If the support does indeed lead to project implementation, the leverage effect (i.e. the ratio between the total investment costs and the cost of provided TA) could be expected to be high: for example, the leverage factors calculated for the three pilot projects are around 1:20.

## Conclusions

The investment potential and the identified needs suggest that the creation of a Med-ELENA programme could unlock significant EE and small-RE investments in Mediterranean urban areas. Med-ELENA could offer both TA and financing for eligible projects. Building on the experience gained via the European ELENA programme, the structure of Med-ELENA should be adapted to the specific needs and stakeholders in the region. In particular, Med-ELENA should include active project identification in addition to TA encompassing all phases of the identified project, from design and structuring to final commissioning. A well-designed Med-ELENA programme would thereby complement other existing initiatives supporting the development of more sustainable energy systems in the MPCs.

*This study has been financed under the **FEMIP Trust Fund**. This Fund was established in 2004 and to date has been financed by 16 Member States and the European Commission. Its aim is to support the development of the private sector via the financing of studies and technical assistance measures and the provision of private equity.*

*This executive summary is compiled on the basis of the final report provided by the consultants. The opinions expressed do not necessarily reflect the opinion of the European Investment Bank.*