



ELENA Completed Project Factsheet

ELENA-MODENA

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| Location | Province of Modena, Italy |
| Beneficiary | AESS – Agenzia per l'Energia e lo Sviluppo Sostenibile di Modena |
| CoM signatory | Yes (Municipalities belonging to the region) |
| Sector | Energy efficiency and renewable energy in public buildings and street lighting |
| Total PDS costs | EUR 896 324.88 |
| ELENA contribution | EUR 806 692.39 |
| Project development services financed by ELENA | <p>ELENA technical assistance supported an investment programme focused on the installation of PV plants on publicly owned roof tops, mostly based on concession contracts, energy retrofitting of public buildings to improve the energy efficiency, including renewable energy, as well as enhancing the energy efficiency in street lighting within a number of municipalities in the Province of Modena by:</p> <ul style="list-style-type: none"> • Providing assistance for the preparation of calls for tender without using funds from municipal budgets; • Pooling municipalities' projects through joint calls, thus improving efficiency and contribution to achieve economies of scale; • Supporting the municipalities in the identification and use of innovative financing schemes like leasing or energy performance contracts. |
| Description of ELENA operation | <p>The technical assistance team was composed of three dedicated staff members. They were assisted by external technical experts who were involved in the definition of baseline for Energy Performance Contracts/Energy Service Contracts for buildings and street lighting systems, as well as in the development of feasibility studies for solar PV roofs.</p> |
| Timeframe | August 2011– June 2015 |
| Basis for investment identification | <p>The identification of priority areas was based on the following existing documents:</p> <ul style="list-style-type: none"> • 12 studies for energy efficiency in buildings, for about 30 local administrations, implemented by calls for tender prepared by AESS, all based on Third Party Financing; • Preparation of the regional investment programme “Minimum 500 toe”. <p>During the project implementation, several other studies were prepared by the project team, to adjust the planned activities to the particular characteristics of buildings that could be identified and also adjust the project to the earthquake that occurred in the region of Modena. This resulted in the exclusion of several buildings because of severe damages that they suffered.</p> |
| Investment programme description | <p>ELENA technical assistance supported an extensive investment programme which targets the municipalities located in the Province of Modena, focusing on:</p> <ul style="list-style-type: none"> • PV plants on publicly owned roof tops, based on the concession of the roofs; • Energy retrofitting of public buildings to improve the energy efficiency, including also renewable energy sources; • Energy efficiency investments in street lighting systems. |
| Investment in implementation phase | EUR 27.7m |

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| Expected results | | Energy savings [GWh/y] | RE heat and electricity generation [GWh/y] | CO ₂ reduction [t/y] |
| | Buildings | 12.43 | 2.42 | 4 663 |
| | Street Lighting | 7.04 | - | 3 668 |
| | Total | 19.47 | 2.42 | 8 332 |
| Leverage factor | 34 | | | |
| Lessons learnt | <ul style="list-style-type: none"> • Financing: during the project development, it was decided to leave free choice to the ESCO to use, or not, a financial aid from the EIB through other banks (particularly the Deutsche Bank), or to be financed by other instruments as public revolving funds, allowing them to find the most effective financing source; • Tender dimension: AESS developed many small tenders in place of only two or three big tenders in order to facilitate smaller ESCOs participation in tenders, and to minimize risks associated to legal actions during tender phase and contract signature; • Energy Performance Contracts potential is still misunderstood by municipalities and requires further clarification, and represented one of the major challenges faced during project development; • Changes in the legal framework, namely the reduction in the feed in tariffs, reduced the number of projects that were expected to develop; • Municipalities frequently do not prioritize their investments, and the decision making process is typically longer than expected in earlier stages, and due to the existence of natural disasters (earthquake), some of the investments were postponed; • Changes in regulatory framework (e.g. feed in tariffs) retracted investment decisions both from public and private investors; • Lack of financial own resources by the municipalities is also a constrain in the development of energy efficiency projects; • Capacity building: the identification of qualified personnel within the municipalities to be involved in the project development isn't usually an easy task. | | | |
| Further information sources | http://www.aess-modena.it/il-progetto-elena.html | | | |
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