



ELENA Project Factsheet

Funding Action in Bergamo for Emission Reduction (FABER)

Location	Province of Bergamo, Italy
Beneficiary	Province of Bergamo, Italy
CoM signatory	The Province acts as the territorial coordinator of the CoM; more than 180 municipalities have signed the CoM
Sector	Energy efficiency and renewable energy
Total PDS cost	EUR 1,478,000
Elena contribution	EUR 1,330,000
Project development services (PDS) financed by ELENA	The Province will act as a central purchasing body both for technical support and for implementation of energy efficiency measures. The Province will be in charge of technical assistance (audit assessment, baseline, saving potential and costs identification) using external expertise and support the preparation of agreements, call for tenders, contract definitions and tender awarding with the support of additional staff and administrative and legal experts. It will also cover the auditing of the performances achieved and carry out monitoring activities.
Description of ELENA operation	<ol style="list-style-type: none"> 1. Public Buildings (120 municipalities concerned, targeting in total some 445 buildings): works foreseen concern the improvement of the building envelope, the modernisation of the heating generation, distribution, and the building energy management and control systems. In certain cases where financially feasible, the use of renewable energies is also planned. 2. Public street lighting (67 municipalities are concerned with some 17,900 light posts): works planned cover the substitution of the existing lightings with more efficient technologies and the installation of voltage regulators. 3. Biomass fed district heating networks (5 municipalities concerned): The investment programme includes the construction of 5 small scale biomass fed district-heating networks in municipalities in mountain areas, not served by the gas network. 4. PV in public buildings: on around 280 buildings PV plants are intended to install with an average capacity of 14 kWp. Joined tenders are foreseen with point 1.
Timeframe	July 2015 – June 2018
Basis for investment identification	<p>Preliminary energy audits and existing studies for buildings and street lighting and outcomes of the SEAPs</p> <p>Pre-feasibility studies for the biomass district heating networks</p>

Investment programme description	<p>Buildings (445 targeted): improvement of the building envelope and modernisation of heat generation and distribution, indoor lighting, RE for heating</p> <p>Street lighting in 67 municipalities performance improvement through better lighting technologies and voltage regulators</p> <p>Biomass fed small scale district heating networks in 5 municipalities</p> <p>PV on public buildings (~ 280) for consumption on site</p>												
Investment to be mobilized	<table border="1" data-bbox="671 488 1283 813"> <thead> <tr> <th data-bbox="671 488 1034 551">Investment sector</th> <th data-bbox="1034 488 1283 551">Investments (MEUR)</th> </tr> </thead> <tbody> <tr> <td data-bbox="671 551 1034 636">EE in public buildings (incl. solar thermal)</td> <td data-bbox="1034 551 1283 636">26.0</td> </tr> <tr> <td data-bbox="671 636 1034 680">EE in public lighting</td> <td data-bbox="1034 636 1283 680">11.0</td> </tr> <tr> <td data-bbox="671 680 1034 743">Small scale biomass district heating networks</td> <td data-bbox="1034 680 1283 743">9.1</td> </tr> <tr> <td data-bbox="671 743 1034 788">PV in public buildings</td> <td data-bbox="1034 743 1283 788">8.0</td> </tr> <tr> <td data-bbox="671 788 1034 813">Total</td> <td data-bbox="1034 788 1283 813">54.1</td> </tr> </tbody> </table>	Investment sector	Investments (MEUR)	EE in public buildings (incl. solar thermal)	26.0	EE in public lighting	11.0	Small scale biomass district heating networks	9.1	PV in public buildings	8.0	Total	54.1
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Expected results	<p>Estimated achievements:</p> <ul style="list-style-type: none"> • Energy Efficiency: Annual total energy saved 29.1 GWh. • Renewable Energy: In total, 17.8 GWh of which 13.6 GWh RE heat and 4.2 GWh RE electricity generation. • CO₂ reductions: Annual total reductions of CO₂ emissions 11,300 CO₂ eq t. 												
Leverage factor (Minimum 20)	41												
Market replication potential	<p>Market replication potential for other municipalities and “aggregators” is considered high, notably the bundling of investment packages and the approach of joint procurement to achieve economies of scale, and the use of EPC in view of investing in EE measures without straining the municipal investment budget.</p>												
Project status	Contract signed 19/08/2015												
Contact person at Beneficiary	Claudio Confalonieri												