



## ELENA Completed Project Factsheet

### Energy efficiency Milan Covenant of Mayors

<b>Location</b>	Province of Milan, Italy
<b>Beneficiary</b>	Province of Milan
<b>CoM signatory</b>	Yes
<b>Sector</b>	Energy Efficiency
<b>Total PDS costs</b>	EUR 1 864 871
<b>ELENA contribution</b>	EUR 1 671 957
<b>Project development services financed by ELENA</b>	<p>ELENA TA aims at:</p> <ul style="list-style-type: none"> <li>Significantly reducing the final energy consumption in the public building stock of small municipalities;</li> <li>giving birth to a mature ESCO market able to offer Energy Performance Contracts with Guaranteed Results;</li> <li>Strengthening the capacity and knowledge of local administrations to replicate the procedure.</li> </ul>
<b>Description of ELENA operation</b>	<p>An Investment Programme Support Unit, formed by internal and newly hired staff, was created to manage the whole investment program and its main tasks were to provide:</p> <ul style="list-style-type: none"> <li>The assessment of existing audits and the design of terms of references for the Energy Performance Contracting (EPC) bidding process;</li> <li>the preparation of tender documents, contracts, negotiation with suppliers and banks, handling of litigation;</li> <li>The results-based monitoring, dissemination and transfer of “know-how”.</li> </ul> <p>External consultants were hired to perform technical studies and legal support.</p>
<b>Timeframe</b>	November 2010-December 2014
<b>Basis for investment identification</b>	<p>Building auditing programme (2006-2008) in 101 municipalities with less than 30 000 inhabitants. Roughly 1.000 public buildings have been audited (of which 800 light audits and 200 detailed audits) providing an estimate of saving potential and financial needs to achieve identified measures.</p> <p>SEAPs carried out or expected to be carried out in municipalities supported by the Province.</p>
<b>Investment programme description</b>	<p>Refurbishment of 98 buildings in 16 municipalities and 38 schools of the Municipality of Milan through two tender processes for energy performance contracting with guaranteed savings. The investments implemented by the ESCOs include the following measures: envelope insulation, window replacements, micro-cogeneration, heat pumps, condensation boilers, solar thermal, intervention on the lighting systems, BEMs and natural gas conversion of fuel oil boilers.</p>
<b>Investment in implementation phase</b>	EUR 46 711 662
<b>Expected results</b>	<ul style="list-style-type: none"> <li>Energy savings: 14.12GWh/y</li> <li>RE heat and electricity generation: Not Available</li> <li>CO<sub>2</sub> reduction: 2 337t/y</li> </ul>

<b>Leverage factor</b>	28
<b>Lessons learnt</b>	<ul style="list-style-type: none"> <li>• Energy Supply Contracting is largely predominant in Italy over Energy Performance Contracting (EPC), thus the Elena facility had to face all the difficulties inherent to pilot projects.</li> <li>• Drawing Energy Performance Contracts (legal, financial and technical structure) within the boundary conditions of public procurement law in Italy proved to be a rather complex exercise.</li> <li>• Major ESCOs, tend to hinder tenders for EPC with guaranteed results preferring embedded contracts (EE refurbishment, O&amp;M, fuel supply) without cost separation and thus without full transparency on achieved energy savings.</li> <li>• Loans are still largely bounded to the classical counter-guarantees. Commercial banks are reluctant to accept the negative cash flows generated by energy savings as main collateral and thus adopt a very tight precautionary behaviour versus ESCOs against the risk of insolvency. Thus it has been difficult finding financial intermediaries to finance the projects.</li> </ul>
<b>Further information sources</b>	Province of Milano was dissolved and the functions taken over by the Metropolitan City of Milan
<b>Contact person at Beneficiary</b>	Not available