



ELENA Completed Project Factsheet

Energetska obnova Ljubljane (EOL)

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| Location | Ljubljana, Slovenia |
| Beneficiary | City of Ljubljana |
| CoM signatory | Yes |
| Sector | Energy efficiency |
| Total PDS costs | EUR 1 098 011 |
| Elena contribution | EUR 975 034 |
| Project development services financed by ELENA | <ul style="list-style-type: none"> • Establishing of Project Implementation Unit: programme management. Project identification: groups of public buildings, in which to carry out energy retrofit following the ESCO model were defined. • Legal support: contracted experts prepared drafts of public procurement documentation for implementation of energy audits and investment documentation. Drafts of tender documentation for external technical experts; drafts of public-private partnership (PPP) documents; frameworks and baselines for PPP were prepared. • Technical support: extended energy audits in order to identify potential investments that would be carried out by private investors using PPP approach; the specifications on software and information system for energy management were prepared; measurement of electricity consumption profile; pre-investment documentation for the deep energy retrofits of buildings; updated analysis of energy use in public buildings; project documentation for the connection to the district heating system; thermography examinations; energy monitoring in 250 public buildings implemented. • Economic and financial support: financial and economic feasibility studies. • The analyses were made to find an optimal way to use PPP legislation for the implementation of EPC (energy performance contracts). As there were no clear guidelines on how to apply the EPC in public sector, the efforts were focused on cooperation with the Ministry of Infrastructure and Spatial Planning and Ministry of Finance to prepare the official EPC Guidelines. |
| Description of ELENA operation | Main achievement of the EOL programme was launching two tenders for Energy Performance Contracts to retrofit 76 public buildings, including deep retrofits, using ESCO model. In addition, more than 170 smaller energy efficiency investments were implemented with ELENA technical assistance support. |
| Timeframe | January 2013 – December 2016 |
| Basis for investment identification | The initial investment identification was a task of the Project Implementation Unit. Later in 2015, the City Council of Ljubljana in a Decree identified altogether 125 public buildings to be retrofitted of a total estimated volume of 33 MEUR. In the end, external experts identified two EPC models that were appropriate for the City of Ljubljana and realisation of EOL-ELENA investment programme. |
| Investment programme description | The majority of measures consisted of building retrofits, including walls insulations, replacing of old windows, boiler replacement, cooling and heating systems retrofits, installation of small renewable energy sources (PV). The measures also included district heating network and street lighting retrofits. |

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| Investment in implementation phase | EUR 49m |
| Results expected to be achieved | <ul style="list-style-type: none">• Energy savings: 114 GWh/y• RE heat and electricity generation: 0.25 GWh/y• CO₂ reduction: 8,864 t/y |
| Leverage factor achieved | 50 |
| Lessons learnt | <p>The project encountered many difficulties in its implementation, mainly due to the lack of legal basis and no practice in public-private partnership (PPP) and energy performance contracting (EPC) as well as underdeveloped ESCO market in Slovenia.</p> <p>Despite the complexity of the project, the EOL project played a significant role in the process of adopting the legal basis in Slovenia, including the publication of PPP EPC Guidelines in 2014 and adoption of other legal acts by the Slovenian Government that made PPP EPC approach feasible.</p> |
| Further information sources | https://www.ljubljana.si/en/ |
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