



ELENA Completed Project Factsheet For Castro Pretorio Smart and Efficient (4CPS&E)

Location of planned investments	City of Rome, Italy
Final Beneficiary	The Energy Task Force (SPE - Struttura di Progetto Energia) of the Italian Ministry of Defense (MoD). The main activities of the SPE concern the identification of the most economical solutions for energy supply (electricity, gas and water) and the identification of the most cost-effective energy efficiency works for the MoD assets.
Final Beneficiary's address	Via XX settembre 8, 00187 Rome, Italy
CoM signatory	No
Sector	Energy Efficiency and Renewable Energy in public buildings, EE in Street Lighting, Smart Grid, District Heating
Total PDS costs	EUR 1,008,063.05
ELENA contribution	EUR 907,256.75 (90%)
Project development services financed by ELENA	<p>For the preparation of the investment programme, the MoD created an ELENA Project Implementation Unit (PIU) consisting of existing staff and supported by external experts. The PIU was allocated to the Energy Task Force (SPE) within the MoD.</p> <p>The PIU supported the kick off activities of the 4CPS&E project (preparation and evaluation of the tender for the required external expertise) and was in charge of the implementation of the whole project. The PIU performed the administrative and supporting tasks under the supervision of the SPE. The PIU was responsible for the preparation of the EPC tender for the implementation of the investment programme.</p> <p>The PIU consisted of 9 internal staff working part-time. In addition, external experts were hired to perform the following tasks:</p> <ul style="list-style-type: none"> • Project Legal Advisor: provided legal expertise, prepared all needed tenders (to select the external experts and the ESCO company) • Project Communication Advisor: developed the communication strategy, conducted seminars and workshops • Project Energy Advisor: prepared the technical requirements to select the energy audit company and controlled the execution of their works (assessment of the energy audits) • Project Cyber Security Advisor: set up all the characteristics of IT and energy Systems to guarantee the IT security of the entire district. He defined the technological and operational features of the smart grid. • Advisory Services Company: performed all the energy audits, feasibility studies and drafted the technical requirements for the EPC tenders. • University "La Sapienza": defined the technical requirement for the storage and smart district (integration of renewable energy into the project).

Description of ELENA operation	<p>The investments will be delivered through an EPC/PPP contract, with partial financing by a third party. The PPP partner will be responsible for the final design, construction, (partial) financing, operation and maintenance of the needed works to achieve a minimum guaranteed energy performance for the Ministry of Defence.</p> <p>The ESCO/general contractor will be chosen through an international procurement process. The implementation phase will start once the EPC/PPP contract is signed.</p> <p>The Ministry of Defence published the EPC/PPP tender in December 2023. The tender was closed unsuccessfully due to the absence of bids (see “Lessons Learned” for the reasons). A revised tender is expected to be published in the first half of 2025.</p>
Timeframe	October 2019 – June 2024
Investment programme description	<p>The investments target the area of Castro Pretorio, in the centre of Rome, which currently hosts 6 different entities from the Italian Defence Ministry. These buildings were designed as offices and provide other supporting functions such as sport facilities, guesthouses and hospital.</p> <p>The investments to be implemented by the ESCO company will include the following measures:</p> <ul style="list-style-type: none"> • Energy efficiency improvements in buildings: improvement of the buildings’ envelope, improvements of the heating, air conditioning and lighting facilities • EE in street lighting: LED lamp installation in every external lighting point • Renewable Energy: Installation of PV panels and electric storage • Smart Grids: Energy management hardware and software for user interaction/involvement and Smart meters • District heating (DH): installation of a trigeneration plan and expansion of the existing DH network
Investment in implementation phase	EUR 43,500,000.00
Results expected to be achieved	<p>The total estimated contributions are:</p> <ul style="list-style-type: none"> • Energy Efficiency – Annual total savings in final energy consumption of 18.25 GWh (42% versus the baseline) • Renewable Energy- Annual RE production of 5.93 GWh/year • CO2 reductions- Annual total emission reductions of 6,021 t CO2 eq.
Leverage factor achieved	47.95
Lessons learnt	<p>The ELENA Final Beneficiary provided the following explanations for the tender to be void:</p> <ul style="list-style-type: none"> • The tender did not include the supply of the energy carriers (gas and electricity). The inclusion of the energy carrier in the EPC would certainly make the project more attractive for ESCo, but this procedure implies the need to provide justifications to the Ministry of Defence’s control bodies for the choice to supply gas and electricity with a contract different from the standard ones provided for all public administrations. • The calculation of the investment cost was not considered adequate as it did not take into account the increase of prices of materials and equipment due to the macroeconomic context (Ukraine war). • In addition, many ESCOs in Italy were engaged in the so-called “Superbonus”, a state-funded energy efficiency program for residential buildings that will end by 2024, so the interest/availability of ESCOs to bid for this tender was limited.
Further information sources	N/A
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