



MINISTÉRIO DA ECONOMIA E DO EMPREGO



European Local Energy Assistance - ELENA

“Vila Nova de Gaia Sustainable Energy Programme”

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European Local Energy Assistance (ELENA)

• General objectives

-The **EIB-ELENA Facility** was established in 2009 and provides Project Development Services, designed to support generation of a flow of bankable projects in the field of greenhouse gas emission reduction, energy efficiency and renewable energy sources at local and regional levels, by helping promoters to structure and implement projects.

-The **EIB-ELENA** continues to provide support to municipalities/regions to prepare and define bankable projects which will contribute to achieving and going beyond the objectives of the EU sustainable energy policy and to implementing their sustainable energy action plans, such as those developed under the **Covenant of Mayors Initiative**. Eligible projects are selected by the EIB and submitted to the Commission for approval.



ELENA:

- Assists in the transition between the preparation of action plans and the realization of investments (greater than 50 million euros);
- Supports programs that can be replicated in other regions or cities;
- Promotes the use of innovative techniques;
- Finances up to 90% of the eligible costs necessary for technical support related to an investment program clearly identified;
- Covers the feasibility and market studies, structuring programs, business plans, energy audits, and the preparation of public tendering processes.



Covenant of Mayors



“Vila Nova de Gaia Sustainable Energy Programme”

- **Location** - Vila Nova de Gaia, Portugal
- **Beneficiary** – Vila Nova de Gaia
- **Date** - April 30, 2009, the municipality joined the **Covenant of Mayors**
- **ELENA contribution:** EUR 920.315, contract signed on January 26, 2011
- **Sector** - EE&RES in Buildings and public lighting
Urban public transport EE



•Project development services (PDS) financed by ELENA:

- Identification of individual investments and preparation of tender documentation;
- Structuring and planning of operations and setting up the financing system;
- Tendering procedure for EE/RES measures in schools, sport halls and public lighting sector through EPC with the involvement of ESCOs;
- Tendering procedure for urban transport measures.

•Description of ELENA operation

- A Project Implementation Unit (PIU), formed by 6 additional members of staff will be established within the municipality.
- It will: identify the specific investments, manage the tendering procedures, and contract negotiation process covering the whole investment process.
- The PIU will be supported by existing staff from concerned city departments and external subcontracted expertise



- **Time frame:** 2010-2013
- **Basis for investment identification:** SEAP developed in the framework of Covenant of Mayors
- **Investment programme description:**
 - RES/EE measures via EPC involving ESCOs for improving the energy performance of 200 schools and public sport facilities;
 - Installing PV plants on roofs of selected public buildings and retrofitting of public lighting and traffic lighting systems;
 - Improvement of urban public transport EE including a new design of current bus network, the deployment of more efficient bus fleet and the implementation of integrated e-mobility network



•Type of measures to implement

✓Buildings

- Photovoltaic panels;
- Solar thermal panels;
- Thermal insulation;
- Efficient ventilation systems;
- Monitoring systems.



✓Public lighting

- Installation of equipment to consumption optimization;
- Installation of LED in traffic lights.





•Type of measures to implement (cont)

✓Transport

- Network's redefinition, promoting intermodality:

- Creation of priority bands;
- Prohibition bus on Avenue of the Republic;
- Intermodal Center N222;
- Integrated ticketing system;
- Traffic management measures;
- "smartphones" solution;

- Fleet renovation:

- Introduction of 60 efficient vehicles;

- Electric vehicle promotion's plan:

- Charge network (150 slow and 5 fast);
- Municipal fleet renovation: 12 EV in 2013;





- **Investment to be mobilized:** EUR 73,4 million
- **Expected results:**
 - PV electricity production: 5,63 GWh/year;
 - Energy savings: 34,5 GWh/year;
 - CO2 reduced: 12 120 tCO2eq/year.
- **Market replication potential:** Considered as high: first large-scale EPC model in Portugal
- **Project Status** – ELENA contract signed on 26 January 2011



• Structure of “Vila Nova de Gaia Sustainable Energy Programme”





• Investment of “Vila Nova de Gaia Sustainable Energy Programme”

Actions		Investment (€)
Buildings	Pavilions	620.000€
	Swimming pools	1.575.000€
	Schools	25.000.000€
	Photovoltaic	4.068.000€
Public Lighting	Public Lighting	6.500.000 €
	Traffic lights	448.000 €
Public Transport	Network redefinition	4.600.00€
	Fleet efficient	30.000.000€
	Electric Vehicles	600.000€
Total		73.411.000€



• Investment of “Vila Nova de Gaia Sustainable Energy Programme”

Human Resources Team (ELENA)	558.972 €
ESCO and EPC Training	75.000 €
Audits to Sports Equipment	23.800 €
Audits to Schools	36.000 €
Audits to Schools	10.800 €
Evaluation PV in buildings	18.000 €
Mobility studies	300.000 €
Total	1.022.572 €
ELENA funding (90%)	920.315 €
CMG Funding (10%)	102.257 €



➤ Project's preparation:

- Project preparation lasted about one year, and had several revisions which led to the reformulation or even removal of some of the measures planned at the beginning.
- Technical and financial analysis requires a solid justification which can be complex and time consuming. Dialogue with the EIB is a process that implies the involvement of various interdisciplinary technicians without forgetting the necessary and essential involvement at political level with a clear demonstration of commitment. From the EIB team, a large capacity of support and constructive criticism can be expected.
- The fact of ELENA's project in Vila Nova de Gaia being the only one that simultaneously includes the areas of **energy efficiency, renewables and public transport** led to the need for approval in more than one DG, and the project's preparation was more complex.



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Thank you for your attention

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