



cim alto minho
comunidade intermunicipal do alto minho



area alto minho
agência regional de energia e ambiente

MLEI GLEE AM – Alto Minho (PT)

galvanizing local energy efficiency in Alto Minho

Result oriented report

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1. MLEI GLEE AM brief project overview

The MLEI GLEE AM project aims to provide project development assistance to the 10 municipalities of Alto Minho area in Portugal in order to bundle investments and to sign energy performance contracts (EPC) on public buildings and on street lighting.

Consortium:

Coordinator: CIM Alto Minho (a public body)

Partner: AREA Alto Minho (Alto Minho's Regional Energy and Environmental Agency)



Final Beneficiaries:

Municipalities of:

Arcos de Valdevez | Caminha | Melgaço
| Monção | Paredes de Coura | Ponte
da Barca | Ponte de Lima | Valença |
Viana do Castelo | Vila Nova de
Cerveira

The MLEI GLEE AM project specific objectives may be summarized by the following topics:

- creating a dedicated local consortium which will work together and be focused on sustainable energy projects;
- establishing an accurate equipment inventory and precise energy consumption assessment in Alto Minho's street lighting and in municipal sports facilities;
- preparing and conducting the public procurement procedures;
- executing and assessing the signed Energy Performance Contracts;
- promote capacity building amongst relevant stakeholders;
- inform; inspire and motivate.

- a dedicated local consortium which would work together and be focused on sustainable energy projects was created;
- an accurate equipment inventory and precise energy consumption assessment in Alto Minho's street lighting and in municipal buildings was established;
- capacity building was promoted - training sessions addressing street lighting; energy performance of buildings; public procurement of EPC were carried out;
- tender documents templates were prepared;
- actions aiming to inform, inspire and motivate other local authorities to replicate the experience were implemented (amongst which project's webpage; presentations and result oriented report).

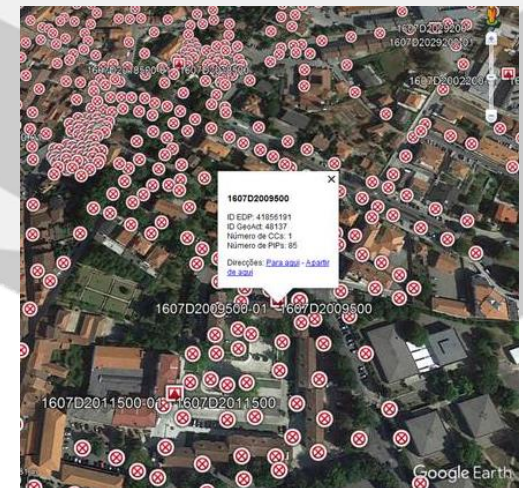
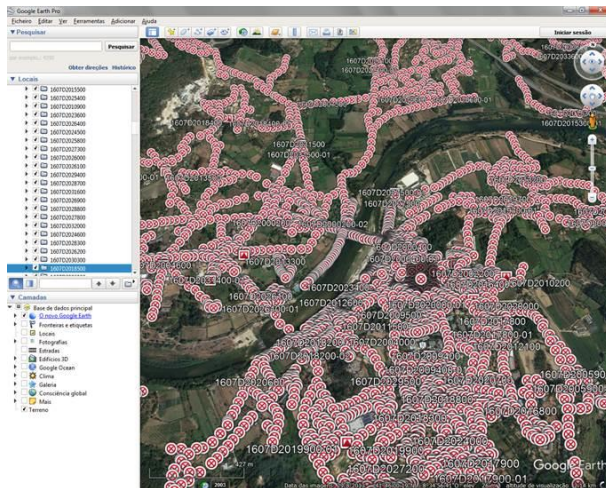
- **An Executive Committee and a Working Committee were established and are operating;**
Several executive committee's meetings and working committee's meetings were held during which, amongst other subjects:
 - (i) the MLEI GLEE AM project was presented;
 - (ii) were given details, from a theoretical point of view, on the foreseen financing scheme;
 - (iii) the “new” pipeline of investments, on both public buildings and street lighting, was addressed;
 - (iv) the terms of the mandatory legal agreement – which will allow, despite the existing concession contract, the implementation of an EPC on street lighting - were presented and discussed;
 - (v) feedback on the contacts with the Portuguese Government and with ADENE regarding the impact of energy performance contracts on municipal accounts was given;

During such meetings, all those present reflected on: (i) the need to reassess the “new” pipeline of projects proposal in light of their contingencies to increase debt; (ii) insisted on the need to clarify how energy performance contracting (EPC) shall be accounted for in terms of municipal accounts.

In all, the 10 Alto Minho municipalities' were represented.

- **A street lighting systems GIS based maps and database was reviewed and corrected (102.256 lamps are represented and characterized);**

Meetings were held with relevant stakeholders (local authorities' technicians and representatives of EDP Distribuição) in order to determine which needs were to be addressed; which data was to be collected; which methodology was to be applied; which resources were needed (both human and technology) as far as street lighting inventory and assessment was concerned. The street lighting systems GIS based maps and database was reviewed and corrected.



- **Energy consumption in public buildings under local authorities' management was assessed and ranked;**

A total of 1.398 municipal buildings and infrastructures energy consumption was assessed.

- **Template for energy audits and tender specifications were prepared and 10 energy audits in public buildings were tendered and carried out;**

A template for the energy audits was elaborated in order to have the same data and the same evaluation methodology for all buildings.

Specifications (including timing, calculation tools, etc...) were then elaborated and 10 energy audits were carried out.

The following municipal buildings were audited:

Arcos de Valdevez: Paços do Concelho; In.cubo

Ponte da Barca: Pavilhão desportivo; Portas do parque

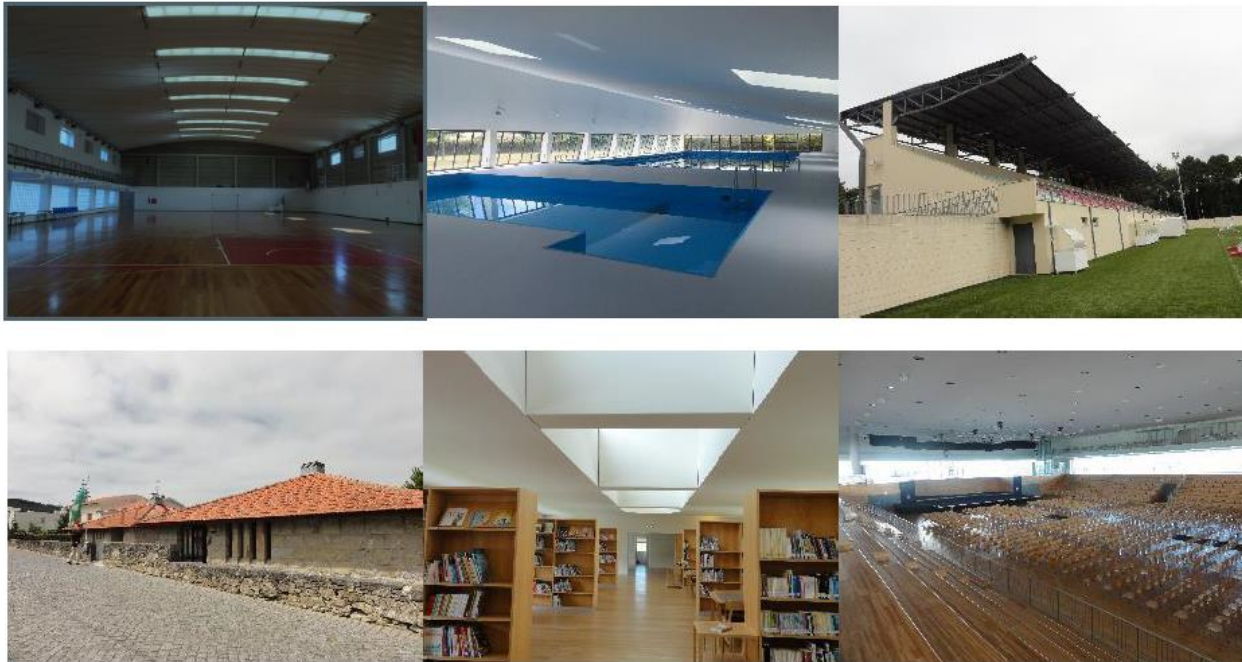
Ponte de Lima: Paços do Concelho; Biblioteca municipal

Valença: Paços do Concelho

Viana do Castelo: Museu do Traje

Vila Nova de Cerveira: Paços do Concelho; Aquamuseu

- **Walkthrough audits were carried out in the most energy consuming buildings and opportunities for energy performance improvements were identified;**
A total of 62 municipal buildings and infrastructures were visited and assessed.



- **Both Alto Minho's technicians as well as Municipal technicians attended training sessions addressing street lighting;**

During these training sessions, emphasis was given to some of the available technologies and solutions whose implementation help boost energy efficiency in the existing public lighting systems and the technicians who benefited from these capacity building actions consolidated their knowledge on the content and specifications of the document “Eficiência Energética na Iluminação Pública | Documento de Referência”.

- **Both Alto Minho's technicians as well as Municipal technicians attended training sessions addressing energy performance of buildings;**

Through these training sessions the technicians who benefited from these capacity building actions consolidated their knowledge on: applicable regulations as well as with Portuguese legislation on energy performance of buildings (including certification); types of energy consuming equipment which may be installed in municipal buildings; energy audit procedure (ex. information which needs to be provided by the building owner; information which needs to be collected by the auditor; methodology used for data assessment; prioritizing proposed interventions; etc.).

- **Both Alto Minho's technicians as well as Municipal technicians attended training sessions addressing public procurement of EPC;**

Through these training sessions the technicians who benefited from these capacity building actions became familiarized with Portuguese public procurement legislation on Energy Performance Contracting – tendering procedure; tendering documents templates; proposal evaluation methodology.



- **Meetings took place with relevant stakeholders – potential ESCO suppliers, potential financing institutions - during which the MLEI GLEE AM project was presented;**

5 potential ESCO suppliers have been met in order to present the MLEI GLEE AM project and to understand their willingness to finance investments both addressing street lighting and public buildings.

- **The legal terms in which the EPCs on street lighting could coexist with EDP Distribuição's concession were negotiated and a draft version of such an agreement was established;**
Several contacts, verbal and written, formal and informal, both at technical and political level, were established between MLEI GLEE AM consortium and EDP Distribuição. As a result of this interaction process, on one hand, municipalities have now a broad idea of the potential financial implications of signing EPCs on street lighting while the EDP Distribuição's concession remains valid and, on the other, it is now clear which are the aspects which need to be carefully looked at and addressed during the preparation of the EPC tender documents', namely those related to security – both of people and of assets – and to the mandatory pre-requisites in terms of the quality of the goods to be installed and of the service to be provided, for safety reasons
- **A preliminary pipeline of investments, on both public buildings and street lighting, was established;**

- **Tender documents templates were prepared;**

Based on the knowledge acquired during the training session on public procurement of EPC and on the applicable Portuguese legal framework, templates of the tender documents for the EPC on street lighting and for the EPC on public buildings were prepared.



- **A seminar, entitled “Eficiência Energética ALTO MINHO 2014-2020: Que instrumentos de financiamento?”, was organised;**

During this seminar the framework for intervention in energy efficiency was discussed, from a technical and financial point of view, as were innovative financing schemes (namely EPC).

- **MLEI GLEE AM webpage was created** (<http://www.cim-altominho.pt/gca/index.php?id=1306>);
- **MLEI GLEE AM presentation slides were put together in order to publicly present the project;**
- **A MLEI GLEE AM project presentation took place during the ManagEnergy Capacity Building Workshop “Financiamento de projectos de eficiência energética a nível local”.**

Three critical aspects have made it difficult for the MLEI GLEE AM project to go beyond the already mentioned achievements, namely:

- 4.1 pending written confirmation from Direção-Geral das Autarquias Locais (DGAL) regarding its understanding on the impact of EPCs on municipal accounts
- 4.2 pending accurate quantification of the amount of compensation to be paid by municipalities to EDP Distribuição, related to the not amortized electrical infrastructures, should EPC on street lighting be signed before the concession contracts' expiry date
- 4.3 existing uncertainties and instability of the financing framework for energy efficiency investments, both on street lighting and on municipal public buildings

4.1 pending written confirmation from Direção-Geral das Autarquias Locais (DGAL) regarding its understanding on the impact of EPCs on municipal accounts

Still pending is written confirmation from Direção-Geral das Autarquias Locais (DGAL) regarding its understanding on the impact of EPCs on municipal accounts - now also considering the content of the September 19th, 2017 Eurostat Guidance Note on “THE RECORDING OF ENERGY PERFORMANCE CONTRACTS IN GOVERNMENT ACCOUNTS”.

It is still unclear whether or not EPC should be accounted as public debt. As can be easily understood, this clarification from DGAL is of crucial importance to the municipalities due to their contingencies to increase debt (since they will be the ones signing the EPCs).

4.2 pending accurate quantification of the amount of compensation to be paid by municipalities to EDP Distribuição should EPC on street lighting be signed before the concession contracts' expiry date

Due to the existing concession contract, between EDP Distribuição and each of the Alto Minho's Municipalities - which remains valid until 2021 - there is a need to accurately quantify the amount of compensation to be paid by municipalities to this energy company, related to the not amortized electrical infrastructures, should EPC on street lighting be signed before the concession contracts' expiry date. This information was requested but hasn't yet been provided by EDP Distribuição, and is of crucial importance in the decision making process as far as EPCs' investment pipeline is concerned.

On top of such uncertainties, and again for reasons totally beyond the MLEI GLEE AM's consortium control, it should also be highlighted that during the course of implementation of the MLEI GLEE AM project, **an amendment was made to the existing concession contract (its Annex 1 was updated), making it now possible for LED technology to be considered as standard technology.** Accordingly, and on the basis of such amendment, EDP Distribuição is currently replacing the existing mercury-vapor lamps by LED technology.

Furthermore it should also be added that the legal terms for the future concession contract are currently being established and the existing legal framework points out to a joint procurement procedure.

4.3 existing uncertainties and instability of the financing framework for energy efficiency investments, both on street lighting and on municipal public buildings

- The **Ministerial-Order No. 57-B/2015** - which adopts the specific regulation for Sustainability and Efficiency in the Use of Resources – **was only published on the 27.2.2015**, only then was the MLEI GLEE AM consortium able to begin assessing ways to articulate these investments, both in public buildings and in street lighting, with those foreseen in the Portuguese Partnership Agreement aiming to maximize synergies between the two programmes. Additionally, because EU funding for investments in energy efficiency, intelligent energy management and use of renewable energy in municipal infrastructures, within the 2014-2020 timeframe, would only be possible through regional operational programmes and only if considered in the “Pacts for Territorial Development and Cohesion” (PTDC), CIM Alto Minho prepared and submitted Alto Minho’s PTDC – which was approved.

4.3 existing uncertainties and instability of the financing framework for energy efficiency investments, both on street lighting and on municipal public buildings

- In the meantime: (i) the **Ministerial-Order No. 57-B/2015** was revised twice – firstly by **Ministerial-Order No. 404-A/2015**, on 18.11.2015, and then, on 31.08.2016, by the **Ministerial-Order No 238/2016** – , and the rules which apply to energy investments covered by the specific regulation for Sustainability and Efficiency in the Use of Resources were, finally, made clear, and (ii) the **call for projects NORTE 03-2016-26 - Eficiência Energética nas Infraestruturas Públicas da Administração Local** - which supports energy investments made by local public authorities, namely the use of renewable energy sources and the implementation of energy efficiency measures in public infrastructures (including public buildings and street lighting) in the North region of Portugal - **was finally published, on 05.10.2016 and later revised on 21.10.2016**, and additional information on the requirements and constrains which apply to investments on energy efficiency and renewables supported by the NORTE 2020 programme was finally made available.

4.3 existing uncertainties and instability of the financing framework for energy efficiency investments, both on street lighting and on municipal public buildings

- Despite: (i) not agreeing with the imposed requirements and constrains; (ii) several aspects remaining somewhat unclear and (iii) some tools which, according to the call, were mandatory annexes, continuing to show malfunctions, in light of the published information, **Portuguese municipalities began negotiations with the managing authorities of the Regional Programmes in order to redefine their PTDC investment project pipeline.**

4.3 existing uncertainties and instability of the financing framework for energy efficiency investments, both on street lighting and on municipal public buildings

- In parallel, the MLEI GLEE AM consortium continued to establish contacts with: the Portuguese Government; the managing authorities of the NORTE 2020 Programme; the Associação Nacional de Municípios Portugueses (ANMP) and the Rede Nacional de Agências de Energia (RNAE), both at political and technical levels, aiming to guarantee that:
 - i. the remaining doubts were fully clarified – among which: how to integrate the allocated grants, as well as the energy investments themselves, on the municipal accounts, considering that they are a reimbursable subsidy, which is to be fully refunded, without payment of interest, at an annual rate of 70% or more of annual energy savings until the total amount of the subsidy has been settled within a certain period of time which is to be defined in the evaluation phase of each application?;
 - ii. all the needed tools were available and functioning properly, and
 - iii. the municipalities' needs were met, in terms of eligible public infrastructures and of allocation and conditions of grant.

4.3 existing uncertainties and instability of the financing framework for energy efficiency investments, both on street lighting and on municipal public buildings

- During such interactions, **the MLEI GLEE AM consortium was informed that a negotiation process aiming to readjust the specific regulation for Sustainability and Efficiency in the Use of Resources, fitting it to the existing needs and current Portuguese municipalities' reality, was taking place, between the Portuguese Government and the European Commission, and, for that reason, the Portuguese municipalities were advised, by the ANMP, not to submit applications to the above mentioned call for proposals.**
- In **July 2017**, in the ambit of the above mentioned negotiation process, the **Portuguese Government submitted a proposal aiming to modify the Investment Priority (IP) 4.3 of the PO SEUR as well as of the Portuguese Regional Programmes** – thus addressing investments supporting energy efficiency, intelligent energy management and the use of renewable energies in the public infrastructures, managed by central, regional and local public administration -, in order to adjust programming to the demand and to the context of the sector, as well as to match financing mechanisms to those of other Member States.

4.3 existing uncertainties and instability of the financing framework for energy efficiency investments, both on street lighting and on municipal public buildings

- As the end result of this negotiation process, on **27.10.2017**, the **Ministerial-Order No. 325/2017 was published** - being the fifth amendment to the Ministerial-Order No. 57-B / 2015, of February 27 -, introducing some adjustments to the eligibility rules and forms of support of energy efficiency interventions benefitting Central and Local Public Administration, which was then followed by the publication, on **17.11.2017**, of the call for projects **NORTE-03-2017-42 - Eficiência Energética nas Infraestruturas Públicas da Administração Local** - which supports energy investments made by local public authorities, namely the use of renewable energy sources and the implementation of energy efficiency measures in public infrastructures (including public buildings and street lighting) in the North region of Portugal.

4.3 existing uncertainties and instability of the financing framework for energy efficiency investments, both on street lighting and on municipal public buildings

- In light of this recently published information and also considering the currently available alternative financing solutions - as those made available to the municipalities under the projects supported by a national financing instrument, managed by the Portuguese Energy Services Regulatory Authority (ERSE), entitled Plano de Promoção da Eficiência no Consumo de Energia Elétrica (PPEC) (namely the projects “save to compete” and “edifícios municipais LED”, which support energy investments at a 46% non-reimbursable rate) - **Alto Minho’s municipalities began redefining their PTDC investment project pipeline...** with the inherent repercussions on the municipal infrastructures which will be considered for EPC procurement.

In terms of lessons learnt, the following should be highlighted:

- 5.1 Due to the innovative character of the foreseen financing scheme and the current lack of experience of the Portuguese municipalities in celebrating EPCs, **the services provided by an Energy Performance Contracting (EPC) Facilitator** – which already exist in some Member States - **are of paramount importance**, not only during the procurement process (Initial assessment of project suitability for EPC; Initial assessment of potential energy savings and investment required; Initial technical analyses; Support during procurement process), but also throughout the implementation of an EPC project;
- 5.2 In light of the content of the Eurostat guidance notes on “THE IMPACT OF ENERGY PERFORMANCE CONTRACTS ON GOVERNMENT ACCOUNTS”, dated from 7 August 2015, and on “THE RECORDING OF ENERGY PERFORMANCE CONTRACTS IN GOVERNMENT ACCOUNTS”, dated from 19 September 2017, it is of **crucial importance to have a full clarification, from the Portuguese government, on whether or not EPCs should be accounted for as public debt and, if so, on the way they are to be recorded in the municipalities public accounts**. This clarification is of crucial importance to the municipalities due to their contingencies to increase debt (since they will be the ones signing the EPCs). Only then will it be possible for the municipalities to choose the most advantageous financing solution for their sustainable energy projects in street lighting and in municipal public buildings;

- 5.3 It is of the utmost importance to ensure effective articulation between available funding programmes,** promoting synergies and complementarities between the various existing financing instruments and adapting them to the current economic and financial context as well as to the real investment needs of the municipalities;
- 5.4 Capacity building on the EPC model and its procurement is a valuable asset** for overcoming the lack of knowledge and experience of the municipal technicians in preparing the tenders and celebrating EPCs.



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