

SUSTAINABLE ENERGY ACTION PLAN OF ESPOSENDE

PREAMBLE

Despite its size, Esposende is a county full of potential; from typical food to natural landscapes ... it's indeed a "Privilege of Nature", which captivates those who live within its boundaries and those who visit. But it is also a municipality eager for new challenges, focused on diversity and on quality, constantly trying to do more and to do it better... So, by accepting the challenge launched by the European Commission, the municipality of Esposende, at its 18th February 2010 meeting, decided to endorse the 'Covenant of Mayors' and, like its European counterparts, committed itself:

- to go beyond the objectives set by the EU for 2020, reducing the CO₂ emissions in our respective territories by at least 20%;
- to submit a Sustainable Energy Action Plan including a baseline emission inventory which outlines how the objectives will be reached, within one year of the above mentioned date;
- to submit an implementation report at least every second year following the submission of the Action Plan for evaluation, monitoring and verification purposes;
- to organise Energy Days or City Covenant Days, in co-operation with the European Commission and with other stakeholders, allowing citizens to benefit directly from the opportunities and advantages offered by a more intelligent use of energy, and to regularly inform the local media on developments concerning the action plan.

Accordingly, Esposende has promoted a series of actions that have culminated in the drafting and approval of this document - entitled Sustainable Energy Action Plan of Esposende. This plan, makes a brief description of the county of Esposende, characterizes its energy consumption and production and indicates a set of actions / measures whose implementation will lead to the progressive CO₂ emissions reduction and, subsequently, to the improvement of Esposende's energy and environmental performance.



PLAN CONTENT AND STRUCTURE

The Sustainable Energy Action Plan of Esposende (hereinafter referred to by PASEE) is a strategic document that shows how Esposende will honour the commitment of reducing its CO₂ emissions to 20% below the 2008 level by 2020.

With a geographic scope of action of 95.4 km², the PASEE is an instrument of the utmost importance for improving the energy and environmental performance of Esposende. Being based on a thorough research and data treatment - that culminated in the drafting of the "Baseline Emission Inventory of Esposende" (hereinafter referred to by IREE) - the PASEE gathers and systematizes a set of measures and actions whose implementation will enable Esposende to meet its 'Covenant of Mayors' pledge. Because it is a plan for the whole territory and given the small contribution of the municipality's energy consumption, the PASEE includes:

- Measures that rely entirely on the internal responsibility of the City Hall of Esposende (from now on referred to by CME) or that can be implemented by entities participated by the CME;
- Measures in whose implementation the CME has no intervention on, despite their contribution to the objectives set.

Still regarding IREE and PASEE content it is important to refer that, on their preparation, sources of CO₂ emissions other than those solely and exclusively related with the use and/or processing of energy weren't taken into account nor was it considered the potential contribution of sinks of CO₂ or of other greenhouse gases (GHG) to the aimed CO₂ emissions decrease.

A further comment to refer that, in the drafting of the IREE and of the PASEE, it was taken into account the content of the various supporting documents to the implementation of the initiative 'Covenant of Mayors' by the signatories, produced by the Secretariat of the Covenant of Mayors, in particular the information necessary to fill in the "SEAP template". Accordingly it should be noted that the PASEE has the year 2020 as time horizon and was structured taking into account the following sectors and subsectors:

- BUILDINGS, EQUIPMENTS / FACILITIES & INDUSTRIES: Municipal buildings, equipment/facilities; Tertiary (non municipal) buildings, equipment/facilities; Residential buildings; Municipal public lighting.
- TRANSPORT: Municipal Fleet; Private and commercial transport.
- LAND USE PLANNING: Strategic urban planning; Standards for refurbishment and new development.
- PUBLIC PROCUREMENT OF PRODUCTS AND SERVICES: Energy efficiency requirements/standards.
- WORKING WITH CITIZENS AND LOCAL ACTORS: Advisory services; Awareness raising and local networking; Training and Education.

OBJECTIVE(S) AND TARGETS

As previously mentioned, through the implementation of the PASEE, Esposende aims to reduce its CO₂ emissions to 20% below the 2008 level, by the year 2020.

CURRENT FRAMEWORK AND VISION FOR THE FUTURE

Although Environment has been regarded, for quite some time, as a priority by the municipality of Esposende the same did not happen, so evidently, with Energy. Indeed and notwithstanding the fact that energy consumption is, and for obvious reasons has been for quite some time, a major concern of the Executive, in 2007 was outlined the first integrated and concerted action strategy, guided by an accurate diagnosis, which deals solely and exclusively with energy issues and aims to reducing municipal energy consumption (with the subsequent effects on climate change). Effectively, in 2007 the Plan for Sustainable Energy (PGSE) was drafted and approved. With the time scope of 2008-2013, the PGSE's main objective was to guide the municipality's intervention regarding the management of Energy, in its different aspects. As far as its content is concerned, among other relevant information, the PGSE includes various actions and measures, whose implementation would, on one hand, lead to the improvement of the CME energy and environmental performance and, on the other, promote partnerships with private entities.

In 2008, and according to the then-defined schedule of action, begun the implementation of some of the actions and measures included in the PGSE. Two years after the approval of the PGSE and after a first assessment of results of the actions already undertaken, in 2009 adjustments were introduced - in order for the PGSE to comply with the Portuguese new legal context as well as to address gaps in information and constraints detected – and new actions were proposed.

Because the opportunity to do more and better is the common denominator that guides the conduct of the municipality of Esposende, on February 18, 2010 Esposende decided to accept the European challenge by signing the 'Covenant of Mayors'. As a corollary of this act, Esposende committed itself:

- to go beyond the objectives set by the EU for 2020, reducing the CO2 emissions in our respective territories by at least 20%;
- to submit a Sustainable Energy Action Plan including a baseline emission inventory which outlines how the objectives will be reached, within one year of the abovementioned date;
- to submit an implementation report at least every second year following the submission of the Action Plan for evaluation, monitoring and verification purposes;
- to organise Energy Days or City Covenant Days, in co-operation with the European Commission and with other stakeholders, allowing citizens to benefit directly from the opportunities and advantages offered by a more intelligent use of energy, and to regularly inform the local media on developments concerning the action plan;
- to attend and contribute to the annual EU Conference of Mayors for a Sustainable Energy Europe,

extrapolating, thereby, the PGSE objectives to the entire territory of Esposende, involving all those who live and / or operate in this territory and extending the timeframe to the year 2020.

Continuing to work towards energy efficiency and to promote the use of renewable energy resources thus became understood as fundamental, aiming Esposende at 'being, in 2020, a model county in terms of energy and environmental excellence, where the preservation of natural values and sustainable use of local resources guide the performance, drive innovation, quality, attractiveness and competitiveness of both territory and entities there based, and enhance the quality of life of all those resident'.

BASELINE EMISSION INVENTORY

According to the SEAP template instructions, statistical data was gathered, processed and then allocated to the following categories and subcategories:

- “Buildings, equipment/facilities and industries”: *“Municipal buildings and equipment/facilities”; “Tertiary (non municipal) buildings, equipment/facilities”; “Residential buildings”; “Municipal public lighting”*;
- Transport: “Municipal fleet”; “Public transport”; “Private and commercial transport”.

Because Esposende decided to exclude “Industry” from its Baseline Emission Inventory and Action Plan, the energy consumed by this sector as well as its CO₂ emissions weren’t reported.

SYNTHESIS OF THE DIAGNOSIS

The IREE is a prerequisite to the development of PASEE. Because it integrates a large set of quantitative information, alluding both to the energy consumption and to their associated CO₂ emissions, specified by energy carrier and by category of consumption, the IREE allows, one hand, to identify the nature of the issuers of CO₂ and, on the other, to adjust to Esposende a strategic plan which aims to improve this territory’s energy and environmental performance. In the future, IREE will be an instrument of paramount importance for assessing both the implementation of the PASEE as well as the effectiveness of measures adopted.

The data was processed for each energy carrier and four types of analysis were promoted, namely:

- evolutionary analysis of the consumption in the municipality of Esposende for the time series of available data;
- distribution of percentage of the consumption in 2008 in the municipality of Esposende by sector of economic activity;
- distribution of percentage of the consumption in 2008 in the municipality of Esposende by category;
- disaggregation of energy consumption registered and of its associated CO₂ emissions, for 2008 in the municipality of Esposende, by category.

Concerning the activity sectors considered on the preparation of the IREE and, subsequently, the PASEE, and given the freedom given to the ‘Covenant of Mayors’ signatories, Esposende chose to exclude ‘Industry’. Accordingly, it was subtracted, from the total energy consumption registered in the municipality of Esposende.

After the diagnosis, it is possible to perceive that, in terms of components, ‘Buildings, equipment and facilities’ is more energy consuming than ‘Transport’. Regarding the categories themselves and the fact that, for lack of basic information, it is not possible to disaggregate the energy consumption related to the component ‘Transport’ by category, the one with higher consumption percentage and subsequently greater CO₂emissions is ‘Residential buildings’.

The most consumed energy carrier in the municipality of Esposende in 2008 corresponds to ‘fossil fuels’ – with emphasis on diesel, which is responsible for 32% of recorded consumption) – followed by ‘electricity’.

STRATEGY, GOALS AND COMMITMENTS TILL 2020

In order to implement an action plan and aiming to enhance the success of its implementation, it is necessary to establish and detail the measures that need undertaking, translated into indicators, which should then be implemented within an adequate timeframe and defined accordingly to the resources available. Moreover, to each measure should be assigned a person responsible for its implementation as well as set a realistic budget.

Embodying, too, a strategy of action, this time aiming to improve the energy and environmental performance of the municipality of Esposende, the PASEE could not elope from these guidelines. Therefore, in accordance with the content of the document 'INSTRUCTIONS: How to fill in the Sustainable Energy Action Plan template?', were listed and grouped by fields of action (such as 'Municipal buildings, equipment/facilities'; 'Residential buildings'; 'Municipal public lighting'; 'Public transport', 'Training and education', among others) a set of measures/actions that will lead to the reduction, by 20% in 2020, of the CO₂ emissions. Furthermore, for each measure/action: was allocated, at least, one entity responsible; was defined the timing for implementation; was quantified, whenever reasonable, the estimated the cost associated with its implementation and was quantified and projected expected energy savings and production and respective reduction on CO₂ emissions.

As for the 'Industry', since the municipality of Esposende has chosen not to include it on the IREE, the PASEE does not include any measures relating to this sector.

Regarding the 'municipal' component though the final energy consumption and the CO₂ emissions corresponding to the categories 'Municipal buildings, equipment/facilities' and 'Municipal Fleet' are small, it was considered to be important to include, in the PASEE, a set of actions of the responsibility of the CME and/or of the two municipal companies.