



# ENA



energy and environment  
agency of arrábida

## territory and activity

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The municipalities of Palmela and Sesimbra have a relatively low population density, with the agricultural activities and tourism playing an important economical role, taking into consideration the urban-rural dichotomy in a region characterised by the combination of tradition and technology.

The region brings together heavy and cutting-edge technology industry, handicraft activities, good quality tourism infrastructures and large natural areas with outstanding characteristics.

The landscape morphology is dominated by plains, with the exception of the mountainous range of Arrábida - highest point at 500 meters above sea level.



Overlooking the Atlantic Ocean, the slopes of the Arrábida Chain are covered with the most characteristic vegetation of the region - Mediterranean maquis.

The Arrábida Natural Park and the Natural Reserve of Sado Estuary, created by the urgency of preserving natural, historical, cultural and socio-economical values, is a revitalisation area of the countryside and traditional activities,

promoting the intimate and conscious contact of Man with the environment.

The Volkswagen AutoEuropa factory is located in Palmela and represents the most important industrial foreign investment made in Portugal and one of the five most modern car plants in Europe.



## Convenant of Mayors for Climate and Energy



With its municipalities actively participating in the Covenant of Mayors for Climate and Energy, ENA is responsible for the production, monitoring and assessment of the Sustainable Energy Action Plans (SEAPs) and all activities developed in their scope.

The municipality of Palmela joined the Covenant of Mayors in 2009, registering, for the reference year (2008), an energy consumption of 1.501.672 MWh (1.036.667 MWh fossil fuels and 465.005 MWh electricity).

The transport sector showed the highest energy consumption level (694.253 MWh), followed by the industrial sector (356.546 MWh).



Setúbal joined the Covenant of Mayors for Climate and Energy in 2016. The reference year, 2011, registered a total energy consumption of 7.216.981 MWh (3.712.649 MWh fossil fuels and 3.504.332 MWh electricity).

The industrial sector reveals the highest energy consumption level (3.646.077 MWh), followed by the energy production and distribution sector (1.801.479 MWh).

Sesimbra participates in this initiative since 2019.

Following the commitments under the Covenant of Mayors for Climate and Energy, ENA is involving the local community and is working together with the municipalities of Palmela, Setúbal and Sesimbra for the implementation of activities and projects that will help to achieve, respectively for Palmela and Setúbal, a reduction of 20,2% and 20,0% on their CO<sub>2eq</sub> emissions (Table 1).

Table 1 – Estimated contribution of SEAPs' measures

Municipality	Decrease on energy consumption [MWh/y]	RES production [MWh/y]	Reduction of emissions [tCO <sub>2eq</sub> /y]
Palmela	214.016	28.444	97.571
Setúbal	84.385	2.901	58.662

## Our expertise

**KNOWLEDGE:** Continuous collection, organisation and processing of policy, research and innovation data and information, transforming them into knowledge and skills to support the decision making processes of the agency and its stakeholders.

**NETWORKING:** Development of strategic partnerships among relevant stakeholders (at national and European level), fostering public and private participation in the knowledge exchange process, facilitating the access to financing opportunities and increasing the technology transfer with a view to contributing to the efficiency and equity of the resources' utilization.

**PROJECT DEVELOPMENT:** Systematised evaluation of the energy and environment landscape and the market challenges. Identification of the green growth needs and opportunities, improving and externalising knowledge and networks.

**AWARENESS AND BEHAVIORAL CHANGE:** Development of training actions, awareness campaigns, educational material and workshops to address behavioral change, energy and environmental literacy, looking for a fair and sustainable energy transition.

ENA technically supports its associates in the implementation of methodologies and studies, namely by carrying out:

- Energy audits at the industry, transport sector, services and housing;
- Implementation of energy management systems (ISO 50001);
- Measurement and verification of the energy performance and savings (ISO 50015 and IPMVP);
- Technical and economic studies and analysis on energy production and consumption equipment, searching for the best financing strategies;
- Analysis of energy supply contracts;
- Environmental impact studies;
- Evaluation of environmental incidences;
- Development and monitoring of environmental and energy sustainability plans;
- Adaptation plans and territory management tools;
- Sustainable mobility plans;
- Strategies to ensure the correct routing of waste;



## Associates

ENA has relevant associates, maintaining a strong and skillful relationship that results from services and advice provided as well as from development of joint projects:

- Municipality of Palmela (municipality);
- Municipality of Setúbal (municipality);
- Municipality of Sesimbra (municipality);
- IPS (polytechnic institute);
- EFPS (professional education);
- TST (road public transport);
- Fertagus (rail public transport);
- E-REDES (national energy network);
- DOCAPESCA (seaport management);
- AMARSUL (solid waste treatment);
- BLUEOTTER CIRCULAR (waste management);
- AICEP – Global Parques (management of business parks)
- AROLLA (industry)

ENA is also involved in national and international networks, as member of RNAE (National Network of Energy and Environment Agencies) and Energy Cites, having close connection with significant local and national stakeholders: schools, governmental entities, environmental and sectoral associations.

## Relevant projects

Project	Programme	Duration	Website
	PT/ENA (coordinator)	2008-...	<a href="http://oau.ena.com.pt/?cix=388">http://oau.ena.com.pt/?cix=388</a>
	EU/IEE (partner)	2008-2011	<a href="http://www.promotion3e.ips.pt">www.promotion3e.ips.pt</a>
	PT/PPEC (partner)	2009-2011	<a href="http://www.ecosave.org.pt">http://www.ecosave.org.pt</a>
	EU/IEE (coordinator)	2012-2015	<a href="https://www.recoilproject.eu">https://www.recoilproject.eu</a>
	EU/IEE (partner)	2012-2015	<a href="http://www.appliance-energy-costs.eu">www.appliance-energy-costs.eu</a>
	PT/PPEC (partner)	2014-2016	<a href="http://www.conhecereagir.pt">http://www.conhecereagir.pt</a>
	PT/PPEC (coordinator)	2014-2016	<a href="https://www.facebook.com/GEEPMEs">https://www.facebook.com/GEEPMEs</a>
	PT/PPEC (partner)	2014-2016	<a href="http://energyoff.pt">http://energyoff.pt</a>
	EU/ Interreg MED (partner)	2016-2019	<a href="https://compose.interreg-med.eu">https://compose.interreg-med.eu</a>
	PT/PPEC (coordinator)	2017-2019	<a href="http://www.porumturismosustentavel.pt">http://www.porumturismosustentavel.pt</a>
	PT/Fundo Ambiental (coordinator)	2017-...	<a href="http://www.maletas.ena.com.pt">http://www.maletas.ena.com.pt</a>
	EU/H2020 (partner)	2018-2021	<a href="https://www.pontoenergia.pt/english">https://www.pontoenergia.pt/english</a>
	EU/ Interreg MED (partner)	2018-2020	<a href="https://esmartcity.interreg-med.eu/">https://esmartcity.interreg-med.eu/</a>
	EU/ Interreg MED (partner)	2018-2022	<a href="https://enernetmob.interreg-med.eu/">https://enernetmob.interreg-med.eu/</a>
	PT/EEA Grants (coordinator)	2021-2022	<a href="https://www.eeagrants.gov.pt/pt/programas/ambiente/projetos/projetos/planos-locais-de-adaptacao-as-alteracoes-climaticas-arrabida-plaac-arrabida/">https://www.eeagrants.gov.pt/pt/programas/ambiente/projetos/projetos/planos-locais-de-adaptacao-as-alteracoes-climaticas-arrabida-plaac-arrabida/</a>

## Relevant publications

Title	Date	Project/Information
Sustainable installation and implementation of the LogisticHub of Poceirão: LogZ Handbook	2009	
Palmela's SEAP: Sustainable Energy Action Plan for Palmela	2009	<a href="http://www.cm-palmela.pt/pages/1700">http://www.cm-palmela.pt/pages/1700</a>
Energy matrix for the municipalities of Palmela, Setúbal and Sesimbra	2013	<a href="http://ena.com.pt/?cix=655&amp;lang=1&amp;uix=652">http://ena.com.pt/?cix=655&amp;lang=1&amp;uix=652</a>
Arrábida Energy Plan	2014	
Setúbal's SEAP: Sustainable Energy Action Plan for Setúbal	2016	<a href="http://www.mun-setubal.pt/pt/pagina/pacto-de-autarcas/416">http://www.mun-setubal.pt/pt/pagina/pacto-de-autarcas/416</a>
RecOil Handbook "The power of Used Cooking Oil"	2015	RecOil/ <a href="http://ena.com.pt/?cix=667&amp;lang=1&amp;uix=652">http://ena.com.pt/?cix=667&amp;lang=1&amp;uix=652</a>
Handbook for Energy Management Process Implementaiton in SME's	2016	GEEPME's/ <a href="http://ena.com.pt/?cix=673&amp;lang=1&amp;uix=652">http://ena.com.pt/?cix=673&amp;lang=1&amp;uix=652</a>
The Used Cooking Oil-to-biodiesel chain in Europe: assessment of best practices and environmental performance	2015	RecOil/ <a href="http://www.sciencedirect.com/science/article/pii/S1364032115010096">http://www.sciencedirect.com/science/article/pii/S1364032115010096</a>
Resource Guide	2017	Sustainability briefcases/ <a href="http://www.maletas.ena.com.pt/?cix=300&amp;lang=1">http://www.maletas.ena.com.pt/?cix=300&amp;lang=1</a>
Sustainable Energy Planning Toolbox	2019	<a href="https://reselplan-toolbox.eu/">https://reselplan-toolbox.eu/</a>
RES in Rural Environments (Sesimbra Natura Park and Biovilla)	2019	<a href="https://reselplan-toolbox.eu/case-studies/res-in-rural-environments---sesimbra.html">https://reselplan-toolbox.eu/case-studies/res-in-rural-environments---sesimbra.html</a> <a href="https://reselplan-toolbox.eu/case-studies/res-in-rural-environments-a-biovilla.html">https://reselplan-toolbox.eu/case-studies/res-in-rural-environments-a-biovilla.html</a>
COMPOSE pilots in Setúbal Península: Storytelling video	2019	<a href="https://www.youtube.com/watch?v=wVRnkPnQkJM">https://www.youtube.com/watch?v=wVRnkPnQkJM</a>