



# Action Plan of the Municipality of Amaroussion in energy regarding the Procurement in Energy Efficient Products





The Municipality of Amaroussion is one of the largest Municipalities of the region of Attica and becomes a large business centre with strong abilities and great potential in the field of environmental issues as well as in the field of energy. Having as main goal the Sustainable Development the Municipality of Amaroussion undertakes initiatives but also participates actively in actions in order to reduce the greenhouses gasses, to raise energy efficiency, reduce the usage of fossil fuels and the rational energy sources management and improving competitiveness.

The Energy Efficiency Action Plan is enforced by the Municipal vision for the sustainable development. In particular, the Municipal energy plan will constitute the framework in which energy actions and projects will be integrated in order for the environmental policy to be implemented. The energy plan is also in accordance to the Local Business Plan for the period 2007-2010, as well as, with various local development programmes, transportation plans and waste disposal management programmes.

The Municipal authority having as main purpose the strategic enforcement for a sustainable local development, has the intention to try an organized intervention which will focus on **energy efficiency projects**, in the frame of specific pillars. The interventions which will be established are referring to the public sector. For this reason energy efficiency is integrated as main priority of the four pillars referring to interventions in municipal buildings, urban public spaces including road lightning, local transportation and finally, dissemination and information networking actions.

The above-mentioned interventions were planned in order to:

- Cover specific needs of the citizens or particular groups of citizens
- Be energy efficient and to raise the expected funds from energy saving
- Be easily applicable in order to become best practicable for the municipality for resuming successfully in small period of time and in various municipal places
- Assist towards the improvement of citizens and the visitors' quality life and be readily noticed and understood as interventions that attribute to their cost.

Please note that, in the Municipality of Amaroussion various departments/authorities are concerned regarding energy such as the Technical and Financial Service, the Outdoor Services Management, the Welfare Enterprise of Transportation, the Organization for the Environment, Planning and Quality of Life, the NGO "Athmonon", the European and National Funding Office, the



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Public Procurement boosts Energy Efficiency



Communication Office, the Welfare Enterprise of Education and Technology, and finally the Municipal Development Company of Amaroussion.



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## Energy Efficiency Policy

Measures	Method of Implementation	Financial resources/Environmental Benefit	Implementation Period				Person/Dpt in charge
			D	S	MT	LT	
Management Commitment	Environmental policy-making through the adoption of environmental management system /emphasis on energy saving and green procurement		X				Management/Quality Manager
Determination of Local Energy manager and energy team	<ul style="list-style-type: none"> <li>• Council decision for the determination of Energy manager ( 312/2009) /</li> <li>• Decision of the Secretary General for the establishment of a local team on energy saving controls and funds.</li> </ul>		X				
Creation of a data base on energy consumption data deriving from all priority areas	By the Municipal Council's decision a working team was assigned to imprint the current situation and submit funding proposals			X			
Determination of priority areas	A) Municipal Buildings Interventions B) Interventions in urban public spaces including street lightning C) Interventions in municipal transportation D) Communication and dissemination actions			X			

D: Direct :< 4 months

S: Short term: 5-12 months

MT: Up to 2 years

LT: > 2 years





## Energy Efficiency in Buildings

	E) Green Procurement						
Target adoption for reducing energy use	For all priority areas target determination for reducing energy use.			X			
Involvement of stakeholders	Horizontal and vertical shift in energy behavior and sensitization of local community/Participation of local stakeholders (i.e. trade associations) and public consultation.	<ul style="list-style-type: none"> <li>• Energy saving 163,37 MWh/y</li> <li>• Reduction of CO2 392 tn/y.</li> </ul>	X				
Validation of the overall energy planning	Submission of relative proposal to the Council of the Municipal Development Company.		X				





Measures	Method of Implementation	Financial resources/Environmental Benefit	Implementation Period				Person/Dpt in charge
			D	S	MT	LT	
Energy controls on the municipal buildings/ Adaptation, in pilot phase, of the Standards applied for the Energy Certification for Buildings for specific municipal buildings	As defined by the relevant legislation for the issue of the energy certificate	400,000 EURO/ NSRF, ROP (1321)		X			
Prioritization and selection of buildings with immediate need for intervention and determination of the type of intervention	A) Total energy upgrade of the building located in Perikleous Str. B) Total upgrade of the building located in Chlois Str. (Municipal Kindergarten) C) Total upgrade of the building located in Efkalipton Str. (5th High School) D) Total upgrade of the Town Hall				X		
Interventions to selected municipal buildings to optimize their energy efficiency	<ul style="list-style-type: none"> <li>• Energy upgrade of the building shell.</li> <li>• Upgrade of the electromechanical installations.</li> <li>• Construction of green roof.</li> <li>• Place a Building Energy Management System (BEMS) and result display panel for the citizens</li> </ul>	<ul style="list-style-type: none"> <li>• Energy Saving 470,65 MWh/y</li> <li>• Reduction of CO<sub>2</sub> 164,05 tn/y.</li> </ul>			X		
Determination of energy manager for every municipal building	Selection from the existing staff (preferably engineer)		X				





Replacement of lightning bulbs inside the buildings	Replacement to energy efficient bulbs and use of TL-D ECO	Total environmental benefit 174,4 ton CO <sub>2</sub>	X				
Systematic controls after working hours regarding the operation of air conditioners, lights, electric devices etc/maintenance of air conditioning /Fancoils	A requirement of the Environmental Management System	Own Resources	X				Quality Management Office / Building Security
Pilot implementation “smart” system IST (Information Society Technology)	In the frames of the EU Project PEPESEC  <ul style="list-style-type: none"> <li>• Installation of smart meters</li> <li>• Creation of a webpage which assisted to the energy planning with the involvement of citizens</li> </ul>	20,000EURO (subcontracted to CRES)	X				European and National Funding Office
Involvement of citizens and enterprises	A) Information campaigns for the citizens: <ul style="list-style-type: none"> <li>• Implementation of informative actions in order to raise awareness and motivate the citizens ,organize conferences as well as environmental campaigns addressed to students</li> <li>• Production and distribution of information material with the aims, actions and achievements of the Municipality</li> </ul>	Own resources/Sponsoring	X				Communication Office/ Municipal Organization for the Environment/ European and National Funding Office.





	<ul style="list-style-type: none"> <li>• Educational campaigns addressed to the employees of the Municipality and each related enterprise</li> </ul>						
Recycling	Materials consumed for the operations of municipal buildings go to separate waste streams	<ul style="list-style-type: none"> <li>• Own resources</li> <li>• No measurement of the environmental benefit</li> </ul>	X				





## Energy Efficiency in procurement

Measures	Method of Implementation	Financial resources/Environmental Benefit	Implementation Period				Person/Dpt in charge
			D	S	MT	LT	
Development of Procurement Policy	Written commitment of the administration in the framework of its existing environmental policy and environmental management system (ISO 14001:2007)		X				Management of the Municipality
Defining “green” standards and criteria for the procurement.	<ul style="list-style-type: none"> <li>Filling in the form of “green” standards for all the products (where possible) within the requirements of the environmental management system.</li> <li>Adoption of “green” standards and criteria in procurement tenders for energy-efficient products such as light bulbs, computer monitors etc.</li> </ul>		X				Quality Management Office/ Procurement Office
Continuous market research for new energy efficient products	Authorized employees from the Municipal organization for the Environment, the Procurement Office and the Quality Management Office conduct a regular market research in the framework of the environmental management system.	Own resources	X				Total Quality Management Office/ Procurement Office





<p>Involvement of suppliers/ enterprises and citizens</p>	<p>A) <i>Involvement of suppliers:</i></p> <ul style="list-style-type: none"> <li>• Creation of a list of “green” suppliers</li> <li>• Communicate the “green standards” to the suppliers</li> <li>• Invitation to an open dialogue with the suppliers</li> </ul> <p>B) <i>Informing the citizens:</i></p> <ul style="list-style-type: none"> <li>• Public consultation in order to inform the citizens and record their views</li> <li>• Launching of information campaigns in schools</li> </ul>	<p>Own resources /Sponsoring/ Social Corporate Responsibility</p>	<p>X</p>				
<p>Intermunicipal cooperation</p>	<p>Participation (if deemed necessary) in “joint” procurement for green products with other greek municipalities.</p>			<p>X</p>			



## Energy Efficiency in Public Urban Spaces

Measures	Method of Implementation	Financial resources/Environmental Benefit	Implementation Period				Person/Dpt in charge
			D	S	MT	LT	
Interventions for energy saving and management in municipal lighting/ Prioritization and selection of roads that need immediate action and determination of the type of intervention	<ul style="list-style-type: none"> <li>Changing of lighting fixtures with new technology Led ones</li> <li>A) Agias Eleousis 1350 m.</li> <li>B) Dafnis 610m</li> <li>Γ) Chlois 730m</li> <li>Δ) Papaflessa 330m</li> <li>E) Kodrou 350m</li> </ul>	<ul style="list-style-type: none"> <li>Energy Saving 236,02 MWh/y</li> <li>Reduction of CO<sub>2</sub> by 200,61 tn/y.</li> <li>Application in the framework of national funding program "Exoikonomo" (NSRF)</li> </ul>			X		Technical Service/ Outdoor Service Management/ European and National Funding Office
	<ul style="list-style-type: none"> <li>Replacement of 2000 old technology street lights by new technology lamps of low energy consumption in the city streets (urban planning units of Ag. Nikolaos, Ag. Anargiron, Ag. Thoma, Psalidi, Syggrou, N. Terma)</li> </ul>	<ul style="list-style-type: none"> <li>Energy Saving 730,8 MWh/y</li> <li>Reduction of CO<sub>2</sub> 658 tn/y.</li> <li>Own resources/sponsoring</li> </ul>	X				Technical Service/ Outdoor Service Management/ European and National Funding Office
Reconstruction of public squares	In each square, subject to reconstruction, the old street lights have been replaced with new low energy consumption ones.	<ul style="list-style-type: none"> <li>Own resources/sponsoring/ Social Corporate Responsibility</li> </ul>	X				Technical Service/ Outdoor Service Management
Bioclimatic restoration of the historic centre.	<ul style="list-style-type: none"> <li>A) Evaluation Study of the existing thermal and bioclimatic status</li> <li>B) Bioclimatic study and environmental evaluation of the proposed action plan</li> </ul>	Approved Financial resources at around 7,000,000 Euros by the Prefecture of Athens.			X		Technical Service/ External Consultants- University of Athens





	<p>C) Monitoring of the project regarding the bioclimatic interventions during the phase of construction</p> <p>D) Experimental evaluation of the final construction.</p>						
Involvement of citizens and enterprises	<p>Informing the citizens:</p> <ul style="list-style-type: none"> <li>• Public consultation in order to inform the citizens and record their views</li> <li>• Launching of information campaigns at schools and distribution of low energy consumption light bulbs to students</li> <li>• Production and distribution of information material.</li> </ul>	<ul style="list-style-type: none"> <li>• Sponsoring by Lighting companies /Social Corporate Responsibility</li> <li>• Own resources</li> </ul>	X				





## Energy Efficiency in Transportation Sector

Measures	Method of Implementation	Financial resources/Environmental Benefit	Implementation Period				Person/Dpt in charge
			D	S	MT	LT	
Developing a comprehensive strategy in order to promote a change of transportation behavior towards the use of Public Transportation	<ul style="list-style-type: none"> <li>Develop and implement an urban mobility study.</li> <li>Assignment of the study in an external consultant.</li> <li>The development/improvement of local bus services, as well as the modification/adjustment of existing bus routes by the Public Urban Transport Organization (OASA) and the municipal transportation in order to assist the traffic between the City bus stations and the metro stations. Future planning for the residential growth within the municipality.</li> <li>Motivation to citizens to avoid car and benefit from the use of the extra space for the construction of pedestrian and biking routes</li> </ul>	<ul style="list-style-type: none"> <li>National Funds/ Sponsoring/ Social Corporate Responsibility</li> <li>Saving 163.372 Lt of fuel and environmental benefit of 392.092 kgr CO2.</li> </ul>			X		Welfare Enterprise of Transportation /European & National Funding Office
Interventions in public places with high traffic	<ul style="list-style-type: none"> <li>Development of urban mobility and connection of the high traffic centers with environmentally friendly forms of travel such as pedestrian or/ and bicycle routes</li> </ul>	<ul style="list-style-type: none"> <li>National funding</li> </ul>			X		Technical Service/European and National Funding Office





	<ul style="list-style-type: none"> <li>• Development-expansion of pedestrian roads and bicycle paths.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding from Central Institutions for Investments (1322, 1326, 1327 except sectors of CSF and NSRF)</li> </ul>					
New Inter Municipal Bus Routes for the Northern Suburbs of Athens		<ul style="list-style-type: none"> <li>• 700.000 Euros/Source 7. NSRF Regional Operational Program (1321)</li> </ul>					
(ECO_DRIVING)	Targeted seminars for the drivers of municipal vehicles on eco-driving methods. The action is foreseen by the Welfare Enterprise of Transportation of the Municipality of Amaroussion in the framework of its environmental management system.	<ul style="list-style-type: none"> <li>• Own Resources</li> </ul>	X				Welfare Enterprise of Transportation / Quality Management Office
Pilot program CAR_SHARING	<ul style="list-style-type: none"> <li>• Possible participation of the municipality of Amaroussion in the European co funded project "Car Sharing" where the Centre of Renewable Energy (CRES) is already a partner</li> </ul>		X				European and National Funding Office / Welfare Enterprise of Transportation
Involvement of citizens and municipal employees	<ul style="list-style-type: none"> <li>• Public consultation for informing citizens on the results of various traffic studies and record their views.</li> <li>• Upload of information material on eco-driving methods on the municipal website.</li> <li>• Motivation of the personnel in avoiding using their vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>• Own Resources</li> </ul>	X	X	X	X	

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