

1.1.1 Public Awareness Campaign - Ilioupoli (GR)

Municipality of Ilioupolis (meaning "sun city") is a suburb of Athens situated in the central part of Attica Region, located 6 km southeast from the centre of Athens. Ilioupolis has a population of 78,153 inhabitants (according to the census of 2011) and covers a total area of approximately 12.99 km² (mostly of semi-mountainous type).

The vision of the Municipality of Ilioupolis is to create an ideal living environment for its residents. To fulfil its vision, Municipality of Ilioupolis has set itself the following objectives:

- Local sustainable development using social cohesion policies and taking into account climate change considerations
- Transformation of the Municipality of Ilioupolis into a green and eco - friendly city
- Protection of the natural environment and exploitation of renewable energy sources
- Intelligent energy management concerning the municipal technical infrastructure and the public network services

Municipality of Ilioupolis signed the Covenant of Mayors (CoM) adhesion form on April 28, 2011 and submitted its Sustainable Energy Action Plan (SEAP) for approval in October 2012. Within the city, the reference annual GHG emissions were estimated at 386,796 tonnes of CO². The goal set is to reduce these emissions by 20.4% by 2020, i.e. by 78,759 tonnes of CO².

Municipality of Ilioupolis is specifically interested in implementing public awareness activities for the residential, tertiary and public sector. This interest is present in ten distinct actions for raising public awareness, mentioned in its SEAP document:

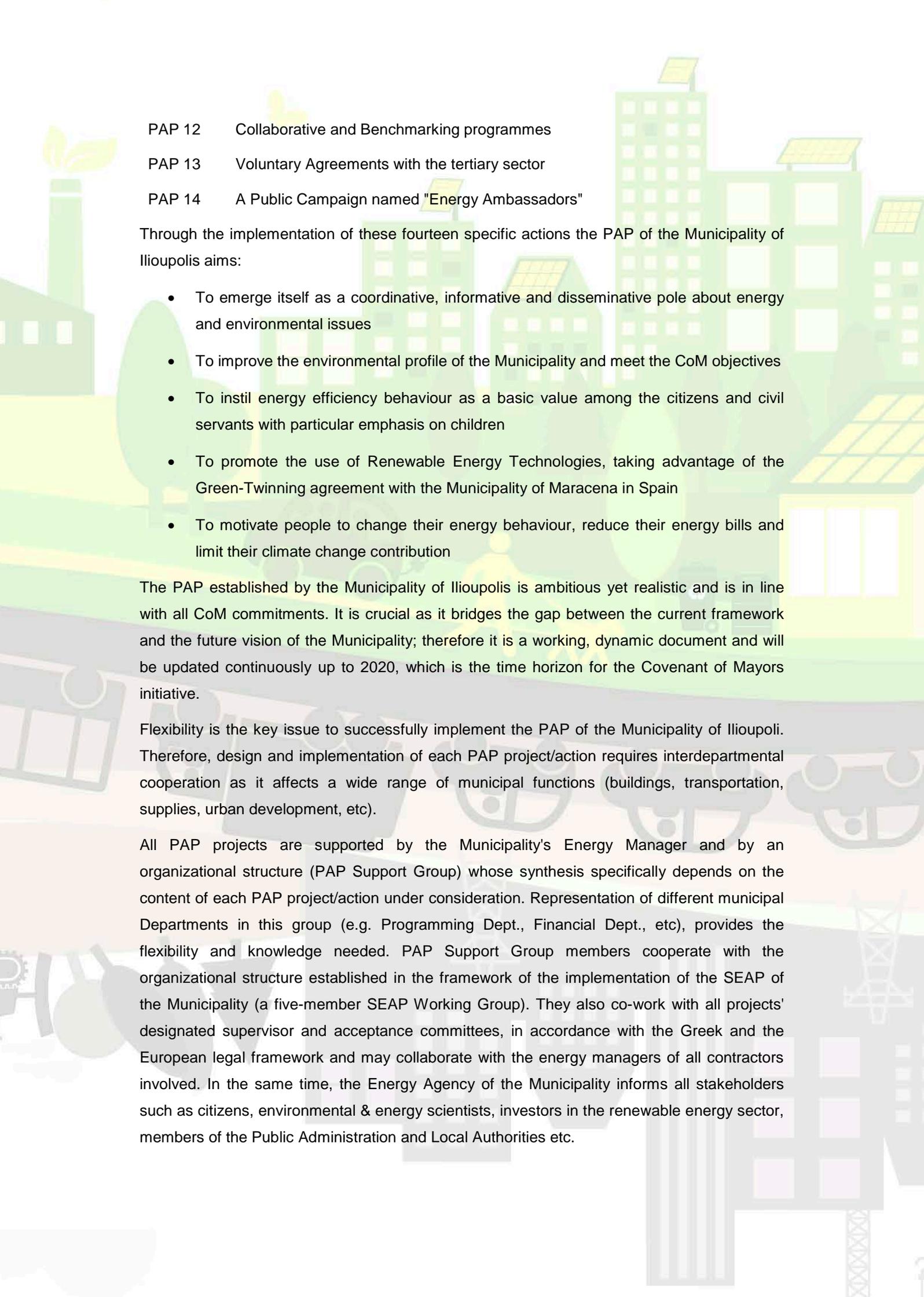
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| SEAP 1 | Energy Forums (Participation of all the Municipality's stakeholders) |
| SEAP 2 | Public Awareness Campaign: Old light bulbs replacement / Distribution of new energy saving lamps |
| SEAP 3 | Public Awareness Campaign for the residential sector (energy management, behavioural changes, low and medium cost Energy Efficiency measures) |
| SEAP 4 | Public Awareness Campaign for the tertiary sector (energy management, behavioural changes, low and medium cost Energy Efficiency measures) |
| SEAP 5 | Public Awareness Campaign: Promotion of national programmes/financing instruments for private housing |
| SEAP 6 | Study on the capability to reward citizens that implement energy saving measures (under the Greek national legal framework) |

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- SEAP 7 Eco-driving training (applying principles for energy efficient driving)
 - SEAP 8 Public Awareness Campaign for the Municipality buildings' sector (energy management, behavioural changes, low, medium and high cost energy efficiency measures)
 - SEAP 9 Public Awareness Campaign for the Municipality vehicles' sector (electric cars, hybrid vehicles, bio fuels)
 - SEAP 10 Public Awareness Campaign for the RES technology (photovoltaic, wind turbines, solar collectors)

Prerequisite for the successful implementation of the above mentioned SEAP actions is the development of a **Public Awareness Plan (PAP)**, outlining in detail the public awareness strategy that should be held to establish and promote energy savings and Renewable Energy Sources. To achieve this goal, Municipality of Ilioupolis carried out a thorough survey on the energy behaviour of the residential and the tertiary sector. Results show that citizens and companies of the Municipality of Ilioupolis are aware of energy saving measures and zero cost measures that can bring about considerable financial savings on their energy bills but the application of these measures (in the meaning of energy behaviour) is found rather deficient, indicating that there is still considerable room for improvement in relation to energy savings and the CO₂ abatement potential.

Therefore, in the concept of its PAP, Municipality of Ilioupolis will undertake fourteen (14) organisational informational and educational public awareness actions, which can independently and flexibly combine to each other to form different PAP projects. These actions consist of:

- PAP 1 Internet communication channels
- PAP 2 Printed material (production and distribution)
- PAP 3 Press releases
- PAP 4 A Public Campaign named "Bike day"
- PAP 5 Travelling school exhibitions
- PAP 6 Energy efficiency seminars
- PAP 7 A local market campaign named "Business Meetings"
- PAP 8 A local forum named "Energy Savings and Environmental Protection"
- PAP 9 A public campaign named "Energy Days"
- PAP 10 Information kiosks
- PAP 11 Energy savings competitions

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- PAP 12 Collaborative and Benchmarking programmes
- PAP 13 Voluntary Agreements with the tertiary sector
- PAP 14 A Public Campaign named "Energy Ambassadors"

Through the implementation of these fourteen specific actions the PAP of the Municipality of Ilioupolis aims:

- To emerge itself as a coordinative, informative and disseminative pole about energy and environmental issues
- To improve the environmental profile of the Municipality and meet the CoM objectives
- To instil energy efficiency behaviour as a basic value among the citizens and civil servants with particular emphasis on children
- To promote the use of Renewable Energy Technologies, taking advantage of the Green-Twinning agreement with the Municipality of Maracena in Spain
- To motivate people to change their energy behaviour, reduce their energy bills and limit their climate change contribution

The PAP established by the Municipality of Ilioupolis is ambitious yet realistic and is in line with all CoM commitments. It is crucial as it bridges the gap between the current framework and the future vision of the Municipality; therefore it is a working, dynamic document and will be updated continuously up to 2020, which is the time horizon for the Covenant of Mayors initiative.

Flexibility is the key issue to successfully implement the PAP of the Municipality of Ilioupoli. Therefore, design and implementation of each PAP project/action requires interdepartmental cooperation as it affects a wide range of municipal functions (buildings, transportation, supplies, urban development, etc).

All PAP projects are supported by the Municipality's Energy Manager and by an organizational structure (PAP Support Group) whose synthesis specifically depends on the content of each PAP project/action under consideration. Representation of different municipal Departments in this group (e.g. Programming Dept., Financial Dept., etc), provides the flexibility and knowledge needed. PAP Support Group members cooperate with the organizational structure established in the framework of the implementation of the SEAP of the Municipality (a five-member SEAP Working Group). They also co-work with all projects' designated supervisor and acceptance committees, in accordance with the Greek and the European legal framework and may collaborate with the energy managers of all contractors involved. In the same time, the Energy Agency of the Municipality informs all stakeholders such as citizens, environmental & energy scientists, investors in the renewable energy sector, members of the Public Administration and Local Authorities etc.

In order to follow the progress during the implementation phases of all PAP projects/actions in a timely manner, Municipality of Ilioupolis is using project management tools, based on the tracking Gantt methodology and the PAP organizational structure (eg projects, phases, actions, activities etc) taking into account time and budget constraints and resources' availabilities. The "Earned Value Analysis" management methodology is implemented to track and assess the performance of all PAP projects/actions. In this way, we can use standard cost and time performance indicators along with the CO₂ abatement estimates, to simultaneously measure their environmental performance.

Strategic plan of the Municipality of Ilioupolis is the funding of all PAP actions using any financial tool available. In this framework, the working group is implementing (relatively to SEAP actions No. 3, 4, 7 and 8) a pilot PAP project named "Information and networking for municipal Employees - Changing public awareness on Energy consumption" in accordance with the PAP actions No. 1 up to No. 6.

This pilot PAP project (approved by the city council on 16/02/2014) is submitted to the national programme/ financing instrument entitled "Eksikonomo" (EE for public sector) and is elaborated by Ilioupolis Municipality in the framework of the [GREEN TWINNING](#) (an [Intelligent Energy Europe](#) programme project that aims at strengthening the capacity of public authorities in institutionalizing sustainable energy policies into their operations). Public procurement process is an open invitation to tender under the EU and Greek legislation framework.

PAP project under consideration is planned to finish by the year 2015 in accordance with the following PAP actions:

1. Internet communication channels

Target group: General public. Estimated cost: 3.000 €. Deliverables: website (micro-site), group on Facebook and Twitter, posts to social media, thematic blogs and youtube, newsletters, e-mail messages, sms sending.

Phase 1. Duration: 153d. Start: May 1, 2014. Finish: September 30, 2014. Deliverables:

- 1 Website (micro-site) containing all municipal energy saving actions and their resulting abatement of CO₂ data (photos, texts, diagrams) and links to informative material on the national programme "Exoikonomo" and other relative national bodies (CRES, ministries)
- 1 Tab (banner) containing information on the project "Information and networking for municipal Employees - Changing public awareness on Energy consumption" and on the national programme "Exoikonomo" website
- 1 database (Recipient Companies/Business Associations/Organizations/Unions etc) aiming to exchange information and enforce cooperation
- Groups on Facebook and Twitter

- Posting for the travelling school exhibition
- Proof of delivery

Phase 2. Duration: 303d. Start: September 1, 2014. Finish: June 30, 2015. Deliverables:

- Updating the website (micro-site)
- Updating all groups on Facebook and Twitter
- Proof of sending updates for the bike-day
- List of recipients

Phase 3. Duration: 245d. Start: May 1, 2015. Finish: December 31, 2015. Deliverables:

- Proof of website's update (micro-site)
- Proof of Facebook and Twitter groups' update
- List of recipients

2. Printed material (production and distribution)

Target Group: Municipal professional drivers, municipal employees and engineers, teachers and general public. Design and communication language depends on the target group. Estimated cost: 20.080 €. Deliverables: Posters, notices and brochures that will inform about all project tasks, energy efficiency results and eco-driving principles in Braille and in simple form.

Phase 1. Duration: 153d. Start: May 1, 2014. Finish: September 30, 2014. Deliverables:

- Posters 50x70cm promoting energy saving actions, 100 copies
- Notices about 3 "eco -driving" seminars (distribution at selected points), 20 copies
- 3-folded page brochures for the Technical Dept., 5,000 copies
- 3-folded page brochures for the general public about the project, energy efficiency and eco-driving, 25,000 copies
- 3-folded page brochures for the bike-day, 1,000 copies
- Educational material (6- page brochure) for "eco -driving" seminars, 100 copies
- Posters (32x48cm)for the bike day, 50 copies
- Notices (distribution at selected points) about the bike day, 100 copies

Phase 2. Duration: Duration: 303d. Start: September 1, 2014. Finish: June 30, 2015. Deliverables:

- Notices about 2 "energy saving" seminars (distribution at schools), 50 copies.

- Notices about 2 "energy saving" seminars (distribution at municipal buildings and selected points), 20 copies
- Educational material (6 -page brochure) for "energy saving" seminars (school), 100 copies
- Educational material (6 -page brochure) for "energy saving" seminars (municipal buildings and selected points), 50 copies
- Informative material (16- pages) for "energy saving" seminars in Braille form, 45 copies
- Posters (32x48cm) for the travelling school exhibition, 30 copies
- Thematic banners (200x150cm) for the travelling school exhibition, 8 copies
- 3-folded page brochures for the travelling school exhibition, 4,000 copies (2,000 for primary school and 2,000 for high school) and an awareness questionnaire (2-pages) to be filled in by the students and their parents, 2,000 copies
- Notices (distribution at selected points) for the travelling school exhibition, 50 copies
- Informative material (9-pages) about the travelling school exhibition in Braille form, 50 copies
- Phase 3. Duration: 245d. Start: May 1, 2015. Finish: December 31, 2015.
Deliverables:
 - 3-folded page brochures disseminating the project results, 35,000 copies

3. Press release

Target Group: General public. Estimated cost: 7.200 € Deliverables: Informative press releases concerning the PAP project.

Phase 1. Duration: 60d. Start: June 1, 2014. Finish: July 30, 2014. Deliverables:

- Two (2) articles about the project, energy efficiency and eco-driving in one (1) weekly newspaper (local press)
- Phase 3. Duration: 50d. Start: November 1, 2015. Finish: December 20, 2015.
Deliverables:

- Two (2) articles about project's results in two (2) weekly newspapers (local press)

4. "Bike Day" Campaign

Target Group: General public with only one requirement: to bring a bicycle. Sponsoring is accepted. Estimated cost: 2.300 €. The event involves Traffic Police, Red Cross Organization, Civil protection and volunteers).

Phase 1. Duration: 60d. Start: July 15, 2014. Finish: September 12, 2014. Deliverables:

- Budgeted notices (see PAP action No. 2)
- Budgeted posters (see PAP No. 2)
- T - shirt (size M-L-XL, with logo messages relative to the project), 300 pieces in total

5. Traveling school exhibition

Target Group: Schools. Estimated cost: 9.020 €. Deliverables: Banners Information about energy savings and Renewable Energy Sources:

Phase 1. Duration: 303d. Start: September 1, 2014. Finish: June 30, 2015. Deliverables:

- Budgeted posters and notices for the travelling school exhibition (see PAP action No. 2)
- Budgeted 3-folded page brochures and thematic banners for the travelling school exhibition (see PAP action No. 2)
- Gifts (pencil , pen , ruler with logo)
- Laptop with internet connection
- Transportation and installation expenses of (5 schools)
- Scientific support - to the traveling exhibition (5 schools)
- Photograph printing

6. Seminars

Target group: Selected municipal employees, teachers (open to the general public). Estimated cost: 8.400 €. Deliverables: 3 eco-driving seminars, 2 energy efficiency seminars.

Phase 1. Duration: 111d Start: June 1, 2014. Finish: September 19, 2015. Deliverables:

- Budgeted posters and notices for the eco -driving seminars (see PAP action No. 2)
- Budgeted educational material for the eco -driving seminars (see PAP action No. 2)
- List of Participants - Photograph printing

Phase 2. Duration: 84d. Start: January 10, 2015. Finish: April 3, 2015. Deliverables:

- Budgeted posters, notices for "energy saving" seminars (see PAP action No. 2)
- Budgeted educational material for "energy saving" seminars (see PAP action No. 2)
- Interpreter for deaf persons during the two seminars implementation
- List of Participants - Photograph printing

The pilot PAP project under consideration generates indirect financial revenues. Following SEAP documented figures and assuming 100% successful implementation of PAP actions, operating cost savings regarding municipal fleet (35,131€) and municipal buildings (809,213)

are estimated at 844,365€ (final prices: $kWh_{\text{diesel}}:0.135$, $kWh_{\text{gasol}}:0.180$ $kWh_{\text{electr.}}:0.146$ €, $kWh_{\text{resid.fuelmix}}:0.105$)

In order to take into account the contribution of the pilot PAP project to the social and economic welfare of the Municipality, new "shadow" prices free of VAT and any other indirect taxes are calculated to re-estimated all previous revenues ($kWh_{\text{diesel}}: 0.068$, $kWh_{\text{gasol}}: 0.092$, $Wh_{\text{electr.}}:0.096$ €, $kWh_{\text{resid.fuelmix}}:0.053$ €). A Conversion Factor (CF) is additionally used for Electricity/Fossil fuels (0.96). The social annual profit is now estimated at 532,864€.

Then, all externalities of the PAP project are incorporated concerning its environmental benefits (due to less fossil fuel and electricity used). Prices are calculated using national GDP deflator. These benefits are:

- Less money spent on electric energy and fossil fuel bills, concerning the residential and tertiary sector of the Municipality (794,201€)
- Carbon dioxide abatement. The annual revenue is estimated for the Municipality of Ilioupolis at 152,850€ (CO_2 abatement: 5,134t CO_2) and for the residential and tertiary sector at 196,053€ (CO_2 abatement: 6,585t CO_2).
- Less airborne particulates, nitrogen oxide, ozone, sulfur dioxide and carbon monoxide concentrations. The annual air quality benefit can be summarized in a monetary amount of 456,581€ for the Municipality and of 591,459€ for the residential and tertiary sector.

If all six (6) actions of the pilot PAP project are fully and successfully implemented, the annual primary energy saving potential is estimated at 35,216MWh, the CO_2 abatement is estimated at 11,720 tonnes CO_2 and social cost savings are estimated at 2,724,009€.