



A new energy efficient environmental education center

Thermi, Greece

IN A NUTSHELL

The project aims at upgrading the energy performance of a building complex which will be used to host the newly established Environmental Education Center in Thermi, in the Eastern Metropolitan Area of Thessaloniki.

Context

Thermi is a rapidly growing zone, which developed as a residential expansion of the Thessaloniki metropolitan area, but also as a pole for the location of industrial plants, tertiary sector activities and highly specialised services, maintaining, at the same time, the characteristics of a developed suburban agricultural economy.

The municipality of Thermi signed the Covenant of Mayors in 2011. The objective is to reach 24% CO₂ reduction by 2020, compared to the base year 2009. Actions of Thermi’s Sustainable Energy Action Plan focus on energy efficiency measures in public buildings & awareness campaigns to public employees, schools and citizens, aiming at increasing the use of public transportation and bicycles, and at reducing conventional energy consumption.

Environmental education is provided in Greece by public bodies and by environmental organisations. The main bodies of environmental education policy implementation are the Environmental Education Centres supervised and operated under the umbrella of the Ministry of Education. The ministry is considered one of the most important institutions of education outside the school. It has recognised that due to the increased student population on the eastern side of the prefecture of Thessaloniki, another Environmental Education Centre should be established in the region. The role of the Environmental Education Centres is multidimensional and important because they: (a) design and implement environmental education programmes for primary and secondary schools, and also offer special programs of environmental education to groups of students, (b) organise training and informative meetings for educators and other interested population groups; and (c) collaborate with universities and other educational institutions, both in Greece and abroad, to exchange information, experiences, educational material and programme support.



One of the two buildings of the Environmental Education Centre

THERMI

<p>Population: 53,201</p>	<p>Area 382 km²</p>
<p>Signatory to the Covenant of Mayors since: 2011</p>	<p>CO₂ emission reduction target: 24% by 2020</p>

How it works in detail

Environmental Education Centres are established in areas where there is a natural environment but also infrastructure that can support the operation of the centre. Thermi chose the settlement of Livadi, a community with a rich biodiversity of great ecotourist, educational and scientific interest, as well as existing old buildings belonging to the municipality of Thermi that had not been used until now. Renovations and energy upgrades included the energy upgrade of the water, heating and electrical systems, the replacement of the oil boiler with an air-cooled heat pump, the installation of a solar thermal system for the production of hot water, the replacement of the street lights with high efficiency LED and the installation of an autonomous photovoltaic system for the electrification of the centre's premises. It is also planned to collect storm water, store it in an underground reservoir and re-use it in the centre's networks after proper treatment. Environmental education can contribute to both individual and collective actions to solve immediate problems and to prevent the emergence of future environmental issues.

Estimated benefits

The Environmental Education Centre opened in September 2018. Acting in cooperation with the Ministry of Education will be an excellent opportunity to promote the environmental wealth of the region and will serve the environmental education needs of schools and visitors in eastern Thessaloniki. Energy-saving measures in the buildings will also reduce air pollution and reduce emissions of climate change-causing gases. Based on those achievements, the centre will raise awareness about energy consumption and energy savings. In addition, these interventions will result in the exploitation and enhancement of the tourist capital of the area and at the same time the strengthening of the local economy and employment.



393.43 MWh/year of energy savings

109.18 t/year of CO₂ reduction

5,000 visitors/year (estimate) will attend environmental education programmes



FINANCING THE PROJECT

- + **Financing source(s):**
European Regional Development Fund and national funds in the frame of Transport Infrastructure, Environment and Sustainable Development Operational Programme 2014-2020
- + **Total amount:**
€622,000, 85% is funded by the EU (ERDF) and 15% by national funds

USEFUL LINKS

- ▶ www.thermi.gov.gr
- ▶ www.oreinavasilika.gr



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