

## **ELECTRA METROPOLIS**

LEED for New Construction & Major Renovation - Certified (28/2/2017)



The “Electra Metropolis” Hotel, located in central Athens has received the LEED Certificate for New Construction & Major Renovation.

The specifications of its construction materials, its energy study and its operation, as well as its excellent access to public transport, contribute in the best possible way to the convenience of the guests and to the achievement of an exceptional environmental performance which helped the hotel obtain the LEED (Leadership for Energy and Environmental Design) environmental certification of the American Organization US Green Building Council and become the first hotel in Greece with this international environmental recognition.

The LEED system certifies that a building has been designed and built following the principles of sustainable construction that aim at the optimal energy and environmental behavior of the building. LEED examines seven fundamental issues: Sustainable Siting, Water Management, Energy & Atmosphere, Materials, Quality of Indoor Spaces, Innovation, Local Priority.

In the context of the LEED requirements, the energy efficiency of the building has been studied with the method of its energy simulation model. The energy saving that has been achieved by the building is 24% (particularly regarding the air conditioning, cooling was improved by 35% and heating by 75%), compared to a common building without any sophisticated systems and insulations, with the use of energy measures such as: the recovery of heat by the air conditioning for hot water for domestic use, the simultaneous use of air conditioning for cooling and heating in the mid-seasons, the use of inverter systems in the pumps, circulators and ventilators and the use of LEDs in all lighting bulbs and strip and tape lights. Furthermore, the use of the building as a hotel had the advantage of the use of central controller and BMS management systems, that also contributed in energy saving. Regarding its envelope the building has double glazing frames for soundproofing and low-e technology and in all of the superstructure an external thermal insulation system has been applied with an average insulating material thickness of 8 cm.

The LEED certification required the implementation of other environmental measures that regard water consumption saving, with the appropriate types of taps and faucets and watering, the use of local

materials (marble, plasterboards, steel, cement, etc.) and the indirect contribution to the reduction of emissions of CO<sub>2</sub> with the proximity of many public transport services, the availability of bicycle parking spaces and its siting in a high density area.

This certification has been awarded in a period where the positive shift of the real estate market is now a fact. The new conditions put forth the issue of evaluation of commercial buildings with internationally recognized systems of environmental rating. The LEED environmental rating standard is the most internationally recognized system of certification of buildings and has been developed by the U.S. Green Building Council.

Finally, it is remarked that all important new or radically renovated buildings in Greece in the last five years have adopted the LEED system as a means of development and higher added value.