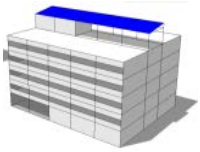
(1) Patras Science Park (Ministry of Finance, AEIPLOUS), Greece

Building data

Location:	Platani, Patras, Greece
Ownership:	Ministry of Finance
Use:	Offices & Laboratories
Building surface:	4,684 m²
Electricity consumption:	484,594 kWh/y (2015)
Electricity cost: *(without VAT)*	0.15 €/kWh

Solar Energy System

Solar system main characteristics



System application:	Building integrated PV, Car shelter & Skylight
Substructure system:	Aluminium (secondary) and steel (primary)
PV module technology:	Semi-transparent glass laminated crystalline
Nº of PV modules:	88 u (1850 x 1200 mm)
Estimated surface:	200 m²
Installed power:	21 kWp
Electricity production:	28,000 kWh/year *(estimated)*

Costs and savings

Total intervention cost *(1)*:	103,105 €	
Net PV system cost *(2)*:	76,755 € (3.65 €/Wp)	
Op. & Maintenance cost:	350 €/y	
Cost €/kWh:	0.17 €/kWh *(3)*	0.16 €/kWh *(4)*
Cost energy savings *(5)*:	105,000 € (25 years)	
CO_2 emissions savings:	18.5 t CO_2 / year	

(1) All the intervention costs included: engineering, legalization, substructure, installation, PV system, monitoring
(2) Costs excluding: 1. structural / constructive elements with other functions. 2. Services not directly linked to the PV system
(3) Considering the Net Pv system cost (2) and 25 years operating life, inverters replacement every 10 years, Operation & Maintenance , financial costs (see economic analysis)
(4) Considering (3) assumptions, excluding Monitoring costs
(5) Considering an annual Energy performance depreciation of -1% and Electricity cost inflation of +5%

Stake-holders involved

Promoter:	AEIPLOUS	PV modules:	ONYX
Engineering:	AEIPLOUS	Inverters:	SMA
Installer company:	ECO-PROGRESS	Manag. & Monitoring:	CIRCUTOR

Objectives & Opportunities

The building has an excellent public visibility due to the constant flow of visitors: students, scientists and businessmen.

The roof terrace already has a public use that might be stimulated with the new shadowed area. The installation may improve thermal comfort in summer time providing a pleasant level of natural light.

Solar parking lots are expected to draw enormous attention by the visitors due to the appearance and the utility of the application. It is expected to drive into the implementation of numerous similar applications.

Local authorities will be familiarized with dealing and licensing similar applications facilitating the expansion of the sector.

(1) Patras Science Park (Ministry of Finance, AEIPLOUS), Greece

Pictures