



Universidad Politécnica de Madrid



Project Profile

UPM is a prestigious university in the Comunidad de Madrid with 20 schools across two sites and is recognised as a Campus of International Excellence. In total its Campus includes 32 buildings in total for the current 18 faculties and governing buildings, which over 35,000 students use annually.

Following directive 2012/27/UE of the European Parliament, in June 2015 UPM invited energy service company (ESCO) to present their proposals to improve the system of heat and water supply across the campus and to reduce CO₂e emissions while switching to a cleaner fuel source. In August 2015, the project was awarded to Enertika – Ingeniería y Servicios de Eficiencia Energética S.L., an engineering company specialising in energy generation, energy efficiency and remote management services.

Within three months of the financial close, Enertika delivered an integrated balanced heat system combining natural gas boilers, distributed valve mesh and solar thermal-heating systems for uniform water and space heating.

The existing 63 gas oil boilers, consuming on average 946,479 litres per year of gas oil, were replaced with 66 natural gas boilers in all 32 buildings of the campus. To ensure uniform

Key figures	
Country	Spain
Sector	Energy efficiency – building retrofit
Type of investment	Forfaiting loan
Total project size (€m)	2.8
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Financial close	18 November 2015
Maturity	9 years
Estimated tCO ₂ e emission savings (p.a.)	1,326

heating of water and space, 6,800 thermal valves were installed, along with 34 thermal solar panels for hot water production. UPM also benefits from the installation of a remote monitoring system to ensure 24 / 7 reporting and control of the new installations, including a total guarantee for these measures and Enertika's corrective and preventive maintenance services for the entire nine years of the project duration.

Estimated annual project savings include primary energy savings of 3,379 MWh per year (35 % in comparison to baseline) and 1,326 tCO₂e per year (51 % in comparison to baseline).