

Developing LeiriaShopping with the Environment in mind

LeiriaShopping in Portugal opened its doors to the public on 25 March 2010, less than two years after the start of the construction and refurbishment work which doubled the GLA of the original retail building and broadened the customer offer to include 116 different shops. The new shopping centre represents a strong revitalisation of the local economy through the creation of 1,489 jobs, the hiring of local companies and the inclusion of local retailers and franchisees to make up around 23% of the centre's tenant mix. The architecture of the shopping centre is inspired by landscapes and culture of the Leiria region: its pine forest, coast and traditional local glass manufacture.

In total, Sonae Sierra invested €42 million in the construction work. One of the key objectives Sonae Sierra set for the project was to ensure that energy consumption would be minimised during both the construction and operations phases in order to reduce operating and maintenance costs which have a direct impact on common charges.

The project team worked together to conceive and implement a range of energy saving measures including heat recovery and free-cooling systems, high efficiency electrical motors, use of variable frequency drives, energy efficient lighting equipments and solutions, use of high level insulation materials to minimise heat losses. These design measures were developed in accordance with Sonae Sierra's SHEDS and represent an annual reduction of 1,785,000 kWh in electricity consumption when compared to the standard solutions in the market. This corresponds to an estimate saving of €125,000. In spite of the difficulties presented by the reduced construction time and pressures to reduce costs in the context of a challenging economic context, an effective combination of mechanical, electrical and thermal solutions were pursued with excellent results: the completed shopping centre was classified as a class 'a' building in terms of energy performance according to the European building energy performance certification.

This represents an annual reduction of 1,931 tonnes of CO₂ in the GHG emissions when compared to the standard building.



The challenge also involved the implementation of measures to save water. Such measures result in the reutilization of rainwater and groundwater, efficient irrigation system and usage of water efficient equipments such as waterless urinals and efficient flushes. The usage of these equipments can represent a reduction of 13,500 m³ of water consumption which represents an estimate saving of €26,000 when comparing to the usage of standard equipments.

Besides its energy and water efficiency features, the completed shopping centre is equipped with solutions to separate all waste produced and enable real time monitoring of environmental aspects, including indoor air quality, lighting levels and utilities consumption. a low cost minibus provides easy access for shopping centre visitors, thanks to efforts made by Sonae Sierra's development team to change one of the local bus routes.

Furthermore, the Sonae Sierra team learned that the implementation of best practices in energy performance can lead to significant savings in common charges. Good team work involving all stakeholders is vital in making such endeavours successful.

