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Towards Nearly Zero Energy Hotels

Lighthouse Examples

Hotel L'Avenc, Barcelona - Spain



PROMOTING A RESPONSIBLE FORM OF TOURISM

We have invested in renewable energies such as; solar tubes, solar panels, a wind turbine and a biomass boiler. We have built our new accommodation under bioclimatic criteria, equipped our facilities with low consuming appliances, amongst many other little details.

Our objective is to use natural resources in a more rational manner and minimise our environmental impact. We are here to contribute and look after the environment, improve the well-being of all and respect all life, not only our own. A hotel as a business has a corporate responsibility to the local community and environment.

Belinda Parris - Hotel Owner

The story of the L'Avenc Hotel

L'Avenc, 100kms. north of Barcelona, is situated on a cliff with astonishing views over the Valley of the River Ter. Originally, L'Avenc was a fortified masia from the 13th century with an impressive 16th century extension. The managers bought the terrain fifteen years ago and started to refurbish the main house and the cottages.

As the hotel was grid isolated, a mixed isolated photovoltaic-wind system was applied. The whole refurbishment has been conducted under high energy efficiency and bioclimatic criteria, using low consuming appliances and renewable energies such as a biomass boiler, solar thermal heat tubes and an isolated vertical wind turbine.

Additionally, the owners have chosen to use traditional building materials and local workers when restoring the house and became engrossed in sustainable management of water and electricity. The products they use must be ecologically certified, local and/or fair trade.

Facts

Location

Period of construction

Number of guest rooms

No of beds

Type of package offered

Hotel official rating [stars]

Occupancy rate

Offered facilities

In a rural, mountain area

2000 - 2006

18

40

B&B and self - catering

2**

Approximately 75%

Lounge, bar, laundry, spa and heated indoor swimming pool

Best Medium/Large Responsible Tourism

Accommodation in 2013

European Ecolabel, 2010

Qualitat Turística SICTED Certificate, in 2008, 2009, 2010

Environmental labels - awards



Towards neZEH

ENERGY EFFICIENCY & ENVIRONMENTAL MEASURES

- **RES Electricity:** Solar photovoltaic electricity (isolated) and wind power
- **RES Heating:** Biomass boiler, solar thermal tubes for domestic hot water and swimming pool; hot water heated at point of use
- **Efficient Cooling:** Night cooling through ventilation
- **Efficient Lighting:** 100% of low energy lights (LED and CFL); automatic lighting controls in public spaces
- **Efficient controls:** Energy saving key cards for hotel guestrooms; HVAC terminal element is through underground heating.

Additional measures:

- Double glazed windows with thermal bridge breakage
- Façade / Roof insulation
- Occupancy detectors with natural light sensors in bathrooms, corridors and common rooms.
- Automatic shading devices

Lessons learned from Hotel L'Avenc

IMPROVE COMPETITIVENESS

Hotel L'Avenc is maintaining a high room rate and consistent occupancy rate (77% after refurbishment). • **Fidelity index** (customer loyalty) **doubled** after refurbishment.

SOCIO-ECONOMIC BENEFITS

Positive effects on employment: • number of staff increased from 2 to 7 after refurbishment

USE OF LOCAL RESOURCES

Hotel owners have chosen traditional building materials and local workers when restoring the house. They exploit local energy sources (renewables) for heating, hot water and electricity and they use local organic products for the catering services. The hotel promotes the local area's culture and has created important synergies with local stakeholders.

A WORKING EXAMPLE OF RESPONSIBLE TOURISM

Hotel L'Avenc took an active interest in fair trade. It uses only ecologically certified products and avoids all products tested on animals. Apart from recycling, the hotel invested in renewable energies. The owners are engaged in sustainable management of water and electricity and are determined to use natural resources in a more rational manner in order to minimise their environmental impact.

WHY BECOME A neZEH?



ENERGY

- Reduce your operational & maintenance costs.
- Increase independence from energy suppliers.
- Improve your energy efficiency; take advantage of funding opportunities.



BRANDING

- Attach the green concept to your brand image.
- Gain visibility in a new market segment: the "sustainability market".
- Increase your competitive advantage.



ADD VALUE

- Reduce your carbon footprint.
- Meet your corporate and social responsibility targets.
- Increase living comfort and innovate in guests' experience.
- Increase your customers' loyalty.

WHAT IS A NEARLY ZERO ENERGY BUILDING

A nearly Zero-Energy Building (nZEB) is a building that has a very high energy performance. The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby.

EPBD recast, Article 2

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The neZEH Consortium



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