

MedClean Propre Limpio

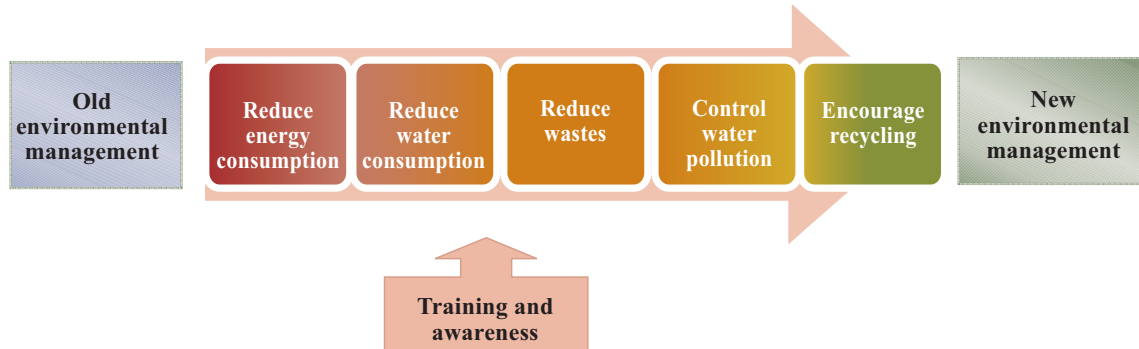

No. 121
Pollution prevention case studies
Energy, water and waste minimization

Company	Hotel Barceló Cabo de Gata - Barceló Group in Retamar (Almería, Spain)
Industrial sector	Short term accommodation activities ISIC Rev 4 n. 5510 (<i>International Standard Industrial Classification of All Economic Activities</i>)
Environmental considerations	The Barceló Cabo de Gata Hotel is located in Retamar (Almería), in southeastern Spain. In a region that is one of the driest areas in Europe, with an average of less than 200-400 mm of precipitation and a large number of days of sunshine per year. Such conditions, sun and warm temperatures, are the reason it receives more than 830,000 tourists every year.
Background	<p>One of the main objectives of Barceló Group's Ethical Code is the development of the tourism activity under the principles of environmental sustainability, as well as its commitment to the study of project viability considering the preservation of the surroundings and its effects on the area where they are carried out.</p> <p>The Group has also taken on the recommendations made in the United Nations Global Compact, of which it is a signatory company.</p> <p>The actions that Barceló Group takes to fulfil its commitment to sustainability and respect for the environment cover 6 spheres of activity: waste management; power saving; sustainable design and construction; training; information; and restoration of the native ecosystem.</p> <p>Following these principles, the Barceló Cabo de Gata Hotel decided to implement an Environmental Management System (EMS) in order to reduce the activity's environmental impact.</p>
Summary of actions	<p>The main actions conducted by The Barceló Cabo de Gata Hotel under their EMS are the following:</p> <p>Action 1 – Staff awareness: In order to increase awareness among staff regarding energy saving and waste management, a series of training sessions have been implemented. During those training sessions, staff are educated on the different actions needed to achieve the Hotel's sustainability goals. Those sessions are also oriented to provide quality information to customers on environmental policy and environmental conservation at the Hotel.</p> <p>Action 2 – Energy efficiency:</p> <ul style="list-style-type: none"> • Turn off lights and fluorescent lights in all areas of the hotel. • Information and awareness raising of energy saving through posters. • Control of operating hours of air conditioning/heating. • Hotel lighting control. <p>Action 3 – Water reduction:</p> <ul style="list-style-type: none"> • The garden is watered at night. • Information and awareness raising of water saving through posters. • Reuse of towels when possible. <p>Action 4 – Waste minimization:</p> <ul style="list-style-type: none"> • Shampoo and soap bulk dispensers were installed in every room.

Summary of actions (cont.)

- Action 5 – Water pollution:
- Wastewater analytical measurement for the parameters and they will follow up every three years.
- Action 6 – Recycling:
- Segregation at origin is encouraged among customers and staff. Different coloured bins, containers and bags are located in specific areas around the hotel to facilitate proper waste segregation.

Diagrams



Balances

Vector	Old process	New process	Savings
Electricity consumption* kWh	2,528,685.01	2,128,581.97	400,103.04
Water consumption* m ³	56,136.18	45,970.99	10,165.19
Gas consumption* kWh	797,500.68	797,071.60	429.09
CO ₂ emissions reduction			143 t
Cost saving (7 months)			€47,095
Investment			€3,831
Payback period			Immediate

(*). These data do not correspond to real meter readings, because they have been modified according to the occupancy rate of the hotel in different months of the years 2009 and 2010 in order to calculate the savings equally.

Conclusions

The experience of the Barceló Cabo de Gata Hotel is proof that performing small actions, which do not require significant investment, can represent significant environmental improvements.

The balance shows that implementation of such actions could represent a cost saving twelve times larger than the cost of investment, with an immediate payback period and a significant reduction of CO₂ emissions.

NOTE: This case study seeks only to illustrate a pollution prevention example and should not be taken as a general recommendation.



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