

MedClean Propre Limpio


No. 136

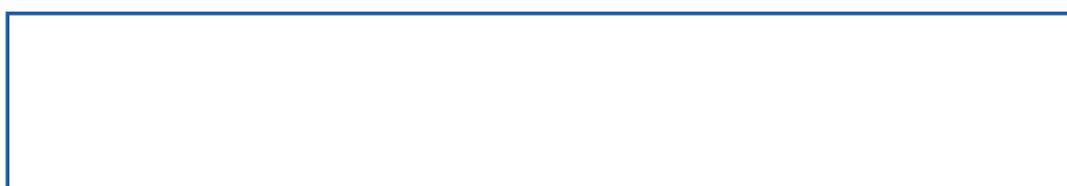
Pollution Prevention Case Studies

Implementation of Energy-Saving Measures at a New Plant

Company	THE GENERAL SOFT DRINKS COMPANY LIMITED
Industrial sector	Manufacture of soft drinks; production of mineral waters and other bottled waters. ISIC Rev. 4 no. 1104 (International Standard Industrial Classification of All Economic Activities)
Environmental considerations	<p>In 2006, The General Soft Drinks Co. Ltd. started planning for and constructing a new factory and distribution centre, built for a specific purpose. Works were completed by the middle of 2008.</p> <p>The new facility has a much larger surface area (32,000 m²) compared to the old plant (7,000 m²), with the resulting increased energy use. Obviously, any opportunity taken to save energy would have significant impact.</p> <p>A number of energy-saving measures were identified and planned for in the design of the new factory. These were installed during construction and implemented once the factory became operational.</p> <p>Another significant energy-saving opportunity was identified in the company's distribution fleet, which consisted of very old trucks (more than 15 years old). In addition to the construction of the new premises, the company invested in 24 new Euro 4-compliant trucks for the distribution of products leaving the new facility.</p>
Background	<p>The General Soft Drinks Co. Ltd. is the authorised manufacturer, importer and distributor of The Coca-Cola Company and Schweppes International products for the Maltese market. It also imports and distributes a range of products from the InBev portfolio.</p> <p>The company operates two PET lines, one one-way-glass line and one keggling line for the bottling of carbonated soft drinks, still and carbonated table water and non-carbonated beverages.</p>

<p>Summary of actions</p>	<p>Potential energy losses were identified in various areas:</p> <ol style="list-style-type: none"> 1. Losses or intake of heat occurred through roofs, walls and windows, especially in air-conditioned areas. 2. Lights were found switched on unnecessarily in common areas. 3. Thermal energy was lost in the flue gases of the boiler. 4. The distribution fleet had become outdated and inefficient. <p>The following measures were implemented to achieve energy savings:</p> <ol style="list-style-type: none"> 1. Insulation of all wall panels, double-glazing of windows and insulation of roofs in air-conditioned areas, both for administration and processing. 2. A building maintenance system was installed. This system is used to control pumps, air conditioning, ventilation, lighting, humidity and water reservoir levels remotely from a personal computer. 3. The new boiler was installed with a flue gas economiser. 4. The distribution fleet was replaced with more fuel-efficient and less polluting vehicles (Euro 4 compliant). 																
<p>Balances</p>	<table border="1"> <thead> <tr> <th>Measure</th> <th>Cost of project</th> <th>Savings</th> <th>Return on investment</th> </tr> </thead> <tbody> <tr> <td>Insulation</td> <td>€11,000</td> <td>€1,700/year</td> <td>6.5 years</td> </tr> <tr> <td>Building maintenance system installation</td> <td>€116,467</td> <td>€42,857/year</td> <td>2.7 years</td> </tr> <tr> <td>Boiler with flue gas economiser</td> <td>€11,500</td> <td>€9,600/year</td> <td>1.2 years</td> </tr> </tbody> </table>	Measure	Cost of project	Savings	Return on investment	Insulation	€11,000	€1,700/year	6.5 years	Building maintenance system installation	€116,467	€42,857/year	2.7 years	Boiler with flue gas economiser	€11,500	€9,600/year	1.2 years
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<p>Conclusions</p>	<p>As can be seen from the above figures, the implemented energy-saving measures have had a significant impact on the company's environmental performance and contributed to significant economic savings.</p>																

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



Regional Activity Centre
for Cleaner Production

Dr. Roux, 80
08017 Barcelona (Spain)
Tel. (+34) 93 553 87 90
Fax. (+34) 93 553 87 95
e-mail: cleanpro@cprac.org
<http://www.cprac.org>