

Title: Opportunities for Energy Savings in Commercial Properties and luxury Hotels

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Abstract: An energy conservation study was performed in "Intercontinental Bethlehem Hotel" by the engineering team of PEC (Palestinian Energy and Environment Research Centre) in cooperation with facility engineering department June-2011 . The study aims to obtain an overview of the existing building energy consuming systems that includes lighting, boilers, heating ventilating and air conditioning (HVAC), building control system, motor loads, chillers and refrigeration rooms. The study results and conclusions are examined throughout this study by analysing upcoming actual energy consumption data.

The study is designed to show most cost-effective ways to reduce energy use and costs, in hotel's operation by planning and managing energy programs, employing new technologies, and increasing of energy efficiency. The wide range of energy saving options applicable to commercial properties will be identified. The case study presented will illustrate the effectiveness of planning and managing energy programs.

The study also provides information about the technology options, including key references that will aid interested parties .Also it identifies what has been done so far towards making luxury hotels buildings more sustainable in terms of energy use, and what could be done to improve the buildings. Energy savings opportunities for the major energy consuming systems have been identified. Saving action plan that has a high saving potential was also included.