



## Energy Efficiency Feasibility Study of a University Auditorium

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Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | The increasing costs of fossil fuels and the environmental problems associated with its exploration and use is a global concern. Worldwide, one of the major consumers of fossil-fueled energy are buildings - their lighting, heating or cooling and hot water supply systems. The focus of this work is on the possible energy savings in a University auditorium, which is highly dependent on grid supply or diesel generators, as there is no natural lighting and ventilation in the main seating areas of the building. It seeks to identify the energy use patterns, and highlight recommendations which would reduce the energy consumption and electricity bills. It also proposes a design for a solar photovoltaic system which can power the lighting loads. The results of this work highlights a lighting retrofit project with a payback period of 2.787 years and possible power savings of 88.18% in the lighting loads. The possible savings in the HVAC loads is 71.36%. This work is useful for those seeking to understand energy efficiency retrofits in buildings, energy managers proposing energy projects or those who want to seek more knowledge on energy use in buildings. | Format: Paperback | Language/Sprache:...



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