AN OVERVIEW OF ENERGY PERFORMANCE AND LOAD APPORTIONING TRENDS IN A SELECTED MALAYSIAN GOVERNMENT HOSPITAL

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ABSTRACT:

Hospitals have unique and intensive energy use requirements. In addition to the need for lighting and heating 24 hours a day, hospitals demand extensive energy for ventilation, equipment, sterilization, and laundry and food preparation. Studies on hospitals abroad have shown that lighting contributes about 25 percent and HVAC contributing almost 45 percent of a typical hospital's energy bill. Those studies also show that energy saving initiatives have the potential to reduce energy cost significantly. Serdang Hospital was selected for this study since it is one of the recently commissioned and operationalized hospital in the Klang Valley. The data was collected over 24 hour electricity utilisation for a one week period by using datalogger tool to map the energy consumption trend. The results have shown that the hospital's energy trend is similar to literature. Energy savings approaches need to be incorporated in future hospitals development because energy cost is rising and the hospital's management need to allocate a higher percentage for it in its annual budget.

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