

## ENERGY SAVING TECHNIQUES TO REDUCE THE ELECTRICITY CONSUMPTION: A CASE OF CONSTRUCTION INDUSTRY OF SRI LANKA

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Energy plays a major role in day to day life and it contributes to human, economic and social improvements that are essential for sustainable development. Electricity is a secondary energy source, conversion from primary sources (like coal, natural gas). When considering about the past few decades, the demand for electricity is increasing in every sector (Household, Industrial and commercial Sector) at the same time price for electricity is getting high regularly. This research was conducted mainly to identify methods to reduce cost pay for overheads .The research was done by using questionnaire, interviews and secondary data. Thirty (30) engineers in all departments were selected as the sample to deliver questionnaire. The secondary data was gathered from energy audits conducted Sustainable Energy Authority (SEA). The data was analyzed using factor analysis, correlation analysis and sample descriptive statistics analysis to assess the mean, maximum and minimum values. The analysis identified the factors that change the electricity consumption, equipment that consumed large portion of electricity. The study also identified that the technological advancement can change the electricity consumption and the comfort level of the building can change the electricity consumption. Electricity consumption of the commercial building varies differently due to table arrangement, equipment for lighting and air conditioning, thermal conductivity and reflection level of the materials.

**Keywords:** Commercial building, Electricity consuming equipments, Energy saving techniques, Technological method