

**COMPARISON OF BUILDING ENERGY INDEX (BEI) AND PROPOSED
ENERGY SAVING FOR FACILITY BUILDING IN UiTM SHAH ALAM**

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ABSTRACT

This report presents the preliminary study about the measurement of Building Energy Index (BEI) of UiTM in the facility area. Nowadays, people are concerned about energy efficiency, energy consumption and conservations in buildings. Energy audit is considered as one of the comprehensive methods in checking the energy usage and wastage in buildings. In this case study, energy audit can be divided into two specifications, namely electrical and mechanical part. From the result obtained, BEI is calculated and compared with Malaysian Standard MS 1525:2007 “Code of practice on Energy Efficiency and use of Renewable Energy for Non-residential buildings”. This project covered only the Facility Building in UiTM.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Universiti Teknologi MARA (UiTM) Shah Alam and other IPTAs are directed by the Ministry of Higher Education Malaysia (MOHE) to establish the plan of Green Technology. Green Technology is the development and application of products, equipment and systems used to conserve the natural environment and resources, which minimize and reduces the negative impact of human activities [1]. Bahagian Khidmat Elektrikal & Telekomunikasi or known as BKET is the department that plays the important role as well as to be the role model to make the plan successful in UiTM Shah Alam.

UiTM consumes a considerable amount of energy, since this institution has large population. The average monthly energy consumption for Facility Building was about 68,524 kWh per year which was RM248, 072.59 as recorded in 2011. Since buildings represent a large portion of energy consumption, the potential for every saving in buildings is significant [2]. There are several factors influencing the total energy consumption of buildings. They are energy consumed by the physical building systems and elements in providing an internally desired environment and also human factors such as quality issues, habits, perception etc. The largest energy consumption for an office is for its cooling, lighting and finally energy used for office equipment i.e. the plug load.