A STUDY ON ENERGY SAVING PATTERN FOR AIR CONDITIONING SYSTEM BASED ON GREEN BUILDING CONCEPT

This thesis is presented in partial fulfillment for the award of the **Bachelor Engineering (Hons) in Electrical Engineering UNIVERSITI TEKNOLOGI MARA**

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ABSTRACT

Abstract— The main objectve of this research is to study the pattern of power consumption by air conditioning system at existing building. This research involved the process of collecting energy usage data from Block F Jabatan Kerja Raya (JKR) at Jalan Sultan Salahuddin. The data is taken every month inside the control room. In order to see the clear pattern of the energy usage in JKR Building Energy Index (BEI) was calculated. BEI is parameters that show energy consumption in a building. This parameter can help analysis on energy saving more easily. From the data obtained at JKR it can be used as a reference for us to study the pattern of energy usage due to air conditioning system in an existing building after put into practice a few techniques.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDY

Green Technology application is seen as one of the sensible solutions which are being adopted by many countries around the world to address the issues of energy and environment simultaneously. Green Technology is a technology that allows us to progress more rapidly but at the same time minimizes the negative impact to the environment. However, the world needs to find more efficient and effective ways to adopt Green Technology against other technologies which have been widely used and though cheaper, not necessarily benevolent.

Promoting green design, construction, renovation and operation of buildings has never been more critical than now due to the ever increasing greenhouse gas emissions that are fuelling climate change more quickly. One of the greatest opportunity for achieving significant reductions in climate change emissions lies in how we create a sustainable approach to construction and development to protect and enhance the natural environment.

Green technology innovation to minimize energy demand load, efficient use of fossil fuel via taking into account the environmental concern, the usage of renewable energy but without compromising user comfort.[1]