

UNIVERSITI TEKNOLOGI MARA

**ENERGY ASSESMENT IN A SINGLE
HOUSEHOLD TO INCREASE
AWARENESS OF ENERGY USAGE**

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ABSTRACT

In this study, student from Mechanical Engineering Course has performed an analysis on energy assessment in a single household to increase awareness of energy usage in residential area that have 3 rooms. As we know, energy is one of the most important sources in our daily lives. If energy sources are used excessively, it can cause increased risk of climate change and can increased carbon footprint. For this assessment, there are several objectives that need to be achieved, which are to determine electrical appliances that make use of energy and to assess the energy consumption for a house, contain 3 rooms. It is expected having an awareness will help in adapting energy usage in their daily life. The methodology used in this study is by doing Preliminary Energy Audit which require to collect data energy usage in 3 different houses with multiple number of household members. After data has been collected, the researcher will calculate the energy usage by using the standard tariff used in Malaysia. For the result, the researcher can analyze the cost for energy consumption in all 3 houses. In house 1, since the number of household members is the highest among the others, the energy consumption in that house is high. This is because there are lot of electrical appliances that has been installed in the house. For house 2, the number of household member is only 1 person and this make this house has lowest energy cost per month while the last house has 3 persons living there. From the result, the main factor that can increase the energy usage in a house is the number of household member. The greater the amount of household members, the more energy usage in a house. Besides that, the factor can also change the cost for energy usage is type of home and their characteristic, the geographic location and climate.

TABLE OF CONTENTS

	Page
CONFIRMATION BY SUPERVISOR	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	ix
CHAPTER ONE : INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	1
1.3 Objectives	2
1.4 Scope of Work	2
1.5 Expected Result	2
CHAPTER TWO : LITERATURE REVIEW	1
2.1 What Is Energy	1
2.2 Methodology in Energy Assessment	4
2.3 Home Appliances	5
2.4 Awareness of Energy Audit	7
CHAPTER THREE : METHODOLOGY	9
3.1 flowchart	11
3.2 description of flowchart methodology	12
3.3 Gantt Chart	13
3.4 Preliminary Results	15

CHAPTER FOUR : RESULTS AND DISCUSSION	16
4.1 Introduction	16
4.2 Energy usage	16
4.3 Total Cost	18
4.4 Comparison Between Cost Per Month	20
CHAPTER FIVE : CONCLUSION AND RECOMMENDATIONS	21
5.1 Conclusions	21
5.2 Recommendations	21
REFERENCES	22