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THE IMPLEMENTATION OF SOLAR FARMS AND ITS BENEFITS IN MALAYSIA

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ABSTRACT

In recent years, the developed country has increased the implementation of green technology especially for electrical generation sources. Malaysia also on the track to reduce dependency on the non – renewable energy sources and move toward the renewable energy as the pollution index from the uses of non – renewable energy is increased rapidly. The generation of electricity from the non–renewable sources has contributed to air pollution, water pollution and also land pollution. Besides, the non–renewable energy sources decreased rapidly from the rise of people population has become a serious problem. Hence, the implementation of solar farm which is a renewable electrical energy sources is a key to solve the problem of dependency on non – renewable energy sources. Thus the aim of this study is to increase the implementation of solar farms in Malaysia. In specific the objectives of this research is to identify the requirements to implement the solar farms, to identify the benefits of solar farms, to identify the barriers in implementing the solar farms and also to find the best methods to increase the solar farms implementation. This scope of research involve three solar farms which are in Pahang, Perak and Selangor. In order to achieve the aim of this study, questionnaires will be used to collect data from the people that involve with the solar farms generation and implementation. This research is conducted based on the literature review and the method used is quantitative method. The respondents are chosen by using stratified sampling method. This is analysed by using the Statistical Package for the Social Sciences (SPSS) software. This study found that land used requirement is the most significant. Besides, the most important benefit of solar farm is the continuity of electric supply.

Keywords: Solar farms, renewable – energy, pollutions, implementation.

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TABLE OF CONTENTS

CONTENTS		Page No
ABSTRACT		i
ACKNOWLEDGEMENT		ii
TABLE OF CONTENTS		iv-viii
LIST OF FIGURES		ix-x
LIST OF TABLES		xii-xiv
LIST OF ABBREVIATIONS		xv
CHAPTER 1: INTRODUCTION		
1.1	INTRODUCTION	1-2
1.2	PROBLEM STATEMENT	2-3
1.3	AIM OF RESEARCH	4
1.4	RESEARCH OBJECTIVES	4
1.5	RESEARCH QUESTION	4
1.6	SCOPE OF RESEARCH	5
1.7	RESEARCH METHODOLOGY	6-7
1.8	SUMMARY OF CHAPTERS	8-9

CHAPTER 1

INTRODUCTION

1.1 THE OVERVIEWS OF TITLE

The people's life needs electrical energy as their basic needs, and is vital not only for people but for various sectors, like construction and as well as for industrial activities that are essential to the growth of economic and also for the people social life The uses of electrical energy will increase from 540 Exajoules(EJ) in 2009 to 820 EJ in 2030, a notable growth of 50% as stated in the International Energy Outlook project 2010 as stated by Sukki,(2012).

The electrical energy is needed for daily life uses such as air conditioning, lighting and other electrical appliances. The increasing of total electrical use in Malaysia has become a major problem as the reduces of the electrical resources day by day. As stated by Sukki (2012), the reduction of energy sources in the main area of Malaysia has taken the attention from the government. As stated in the Malaysia Energy Statististics Handbook 2016, it stated that half of the sources of energy in Malaysia was generated by gas whereas the 45% is generated by coal (Shamsuddin, 2012a).

Solangi, (2017) mentioned that the government of Malaysia has to be careful and find the substitute sources of energy which are green sources as the increase of petroleum price, and air pollution index keep arising. As stated by Carolyn, Roos, (2009), for the replacement of those non – renewable energy such as petroleum and coal, the sun energy is the answer. There are a few project in Malaysia that used solar energy as their electric generation source (Kementerian Kerja Raya Malaysia,2010). This is because the solar energy are free from pollution. The solar energy also did not harmful to the surrounding as it is clean and release no