

**SMALL SCALE INTEGRATED RENEWABLE ENERGY SUPPLY FOR
REMOTE OFFICE
EMPLOYING THE USE OF PV SOURCE
(03-01-01-SF0186)**



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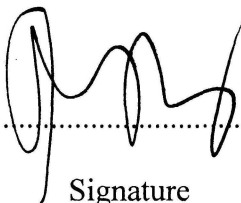
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CHAPTER 1

INTRODUCTION

1.1 Background

In order to overcome the running-out of the non-renewable sources, world has been introduced to the application of renewable energy. Renewable energy is defined as the energy which is generated from natural resources such as wind, sunlight, water, geothermal and many more.

Wind energy is one the way to generate electricity. To utilize wind as energy source, the system need to be installed in the area consist of airflow to run the turbine. Unfortunately, Malaysia is not suitable to implement the wind energy system because lack of strong airflow [1].

Hydropower is also another renewable energy source. Usually, a hydropower is generated from dam. When the dam is constructed, it may generate the electricity at a constant rate and the lake formed from the dam construction can be used for water sports and leisure. However, the drawback of hydropower system is that the dam construction is extremely expensive to build. The dam also invites flooding to the area nearby and will destroy the living in villages and town [2].