

PV WIND ENERGY GENERATOR

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ABSTRACT

PV Wind Energy Generator (PVWG) is a project that works to use natural resources as energy for the project where the main energy source is wind to produce electricity. Building this project, aims to generate electricity for charging low electrical appliances such as mobile phones and also be able to turn on electrical appliances or electronic low voltage anywhere in the area having a strong wind resource to generate wind generator. These devices have a PV solar module to help improve the electricity during the day. The systems may be supplied by a wind generator or a PV solar module alone, or by a combination of both. For this project, the solar system used to increase the electricity to be produced in the day. Autonomous systems on the basis of PV solar and wind generators in combination with battery storage are an option for the supply of small electrical loads at remote locations. This project needs combination of OP-Amp, relay and voltage regulator circuit to storage battery bank. After battery fully charge, the combination of 3 circuits will supply electric current to a load. The data of voltage and current was analyzed by using statistical analysis. The results show that the different rating of wind and solar energy will affect the voltage and current produced. To decide on the system configuration that should be applied in a certain case it is necessary to identify all possible configurations that satisfy the desired level of reliability.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

PV Wind Energy Generator is a functional project to use natural resources as energy which the project was its main energy source is wind and solar. Renewable energy is clean, affordable, domestic, and effectively infinite. It produces no emissions and results in cleaner air and water for all. Renewable power creates jobs and generates revenue for local communities.

Sources of energy from the wind will use rotate motor to produce electricity. Wind power resources of this we are able to reduce the burden of the use of other natural resources depleting, increased material costs and with this we can take advantage of this natural energy source as long as it can be carried out safely. This device is to produce a low electricity to charge electrical equipment such as mobile phones and are also able to turn on the electrical equipment or electronic low-voltage anywhere areas with strong wind resources to generate this PV Wind Generator. For this device was added with a solar panel to help increase the production of electricity during the day.