

CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

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Project Number

J0816

Project Title

Solar vs. Wind

Abstract

Objectives/Goals

The objective was to compare the differences between solar and wind energy, to see which one is more efficient.

Methods/Materials

A solar generator and a wind generator were made. The solar generator was easily produced. The first wind generator used a motor and did not work, so another one was made using wires and magnets. They were then each tested seperatly. How much energy they were producing was measured with a volt meter. How easy they were to work with was also considered.

Results

The solar generator produced enough energy to light a 3 watt light bulb. However the wind generator had some difficulties with the experiment. First the motor was found to not be able to spin freely with wind. When the new model was made it produced some energy; but still did not produce enough energy to light a light bulb.

Conclusions/Discussion

Due to the observations made of the solar generator and wind generator, it is thought that the solar generator is more efficient. This is due to the problems with the wind generator and how much torque it takes to produce energy. It was also difficult because the volt meter did not read anything and because the wind generator kept falling apart.

For a better and more accurate experiment the two generators could have been bigger, and needed to be able to produce the same amount of voltage so they could have been more accurately tested and compared.

Summary Statement

This experiment compared the efficiency of solar energy and wind energy.

Help Received

Dad help cut boards.