The Optimal Performance OF PV System

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ABSTRACT

The problem of energy becomes very serious in recent years. Many countries begin to pay attention about this problem. At present the solar generating system utilization is quite widespread, for example solar-powered water heater, street light, expressway signal lamp, and power supply lighting system. In Taiwan, more than 95% of the energy is the fossil energy. We should promote the solar energy utilization, as a result of the sun along with four season changes. However, the sun position is changed during four seasons. If we can displace PV board vertical to sun irradiation. It will receive the most sunshine intensity. Therefore, we measure the power based on different elevation angles of PV array. According to the experiment, we will have best power generating rate for installation angle in different place.

The solar energy is the inexhaustible renewable energy sources which is the first choice. It is one kind of clean energy, has no air pollution, and does not need to take the trouble the mining then direct supply energy. Taiwan is located at the equator nearby, the annual sunshine is sufficient, therefore, it has the very good place to benefit. This research will aim at the reformer construction (house) on the roof establishes the solar energy in best angle system. It enhances the storage electric quantity extension power supply period of revolution as the goal. We analyze various time the fixed angle and the best angle for comparison, to achieve the highest storage efficiency.

Keywords : Fossil energy、best angle system、renewable energy sources、elevation angle

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