

Maximizing the Usage of Solar Energy in an Area of Low Peak Sunlight Hours

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Abstract : Source of green energy is becoming a concern in developing countries where most energy source in use emits high level of carbon (IV) oxide which contributes to global warming. More so, even with the generation of energy from fossil fuel, the electricity supply is still very inadequate. Therefore, this paper examines different ways of designing and installing photovoltaic (PV) system in terms of optimal sizing of PV array and battery storage in an area of very low peak sunlight hours (PSH) and inadequate supply of electricity from utility companies. Different sample of Peak sunlight hour for selected areas in Nigeria are considered and the lowest of it all is taken. Some means of ensuring that the available solar energy is harnessed properly and converted into electrical energy are discussed for usage in such areas as mentioned above.

Keywords : green energy, fossil fuel, peak sunlight hour, photovoltaic

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