

Study of The Potential Use of Parabola Solar Type Stores Tested in 500 Gram Water to Support Energy Resilience

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Abstrak

ABSTRAK

Solar energy is a huge and infinite source of energy so that solar energy can support energy resilience. Parabolic solar cell reflectors use mirrors. The purpose of this research is to determine the thermal collector's power and thermal efficiency on solar stoves. This research methodology is by taking data with time parameters that have been determined according to environmental conditions. The subjects of this study were parabolic solar cookers with a diameter of 84 cm to 500 gram water. The results of the average stove power obtained by 141.71 Watt and the thermal efficiency of the stove by 5.45%. The power of the stove is affected by the difference in temperature of the water after it has been heated by the temperature of the water before it is heated. The greater the temperature of the water after heating it will increase the power of the stove. The greater the overall heat transfer Q_m and the smaller the intensity of solar radiation on the reflector using a mirror, the greater the thermal efficiency.