



Cactus Moon Education, LLC.
Understanding Green Technologies

Solar Prediction Exercise

www.cactusmooneducation.com









Objective:









1. To correlate predicted and actual weather conditions.
2. To correlate a solar power system performance to actual weather conditions.
3. To use the information from 1 and 2 above to predict the performance of the solar system within calculated confidence limits.









Method:









1. For a period of 2 weeks students read the local weather forecast for the next day and log the actual weather that happens on the next day.
2. They match the predicted and actual weather conditions and produce an evaluation of the accuracy of the local weather forecasting system.
3. Using access to data from a locally positioned solar power system – in Arizona this could be via internet access such as <http://cms3.tucsonaz.gov/parkwise/city-solar> – students track the daily output from the solar power system.
4. The output from the solar power system is correlated to the actual weather conditions for that day.
5. Using the data from steps 1 and 2, and the weather forecast for the next day, the students predict the performance of the solar system.
6. There is no right or wrong answer to this exercise – the goal is for the student to be able to defend his/her prediction.









Solar Prediction Worksheet









Date: _____									
Forecast									
Actual									
Temperature					Power Output				









Date: _____									
Forecast									
Actual									
Temperature					Power Output				

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