

2021SteevesNathaniel-abstract

Abstract

This thesis is an attempt to create a working database that can theorize and simulate the net benefit that a solar farm could generate in a specific city or location. It analyzes the current technology and scope of the solar farm as well as desired results, displaying them after doing 2000 simulations, showing the varying levels of success and the likelihood of having a positive benefit. This project aims to not only cover the monetary aspects but also the environmental benefits generated by renewable energy, using a monetary basis. The results of this project successfully affirm the decision to build this solar farm in the Muncie area as it generates a positive net benefit in over 90% of simulations. As our society begins to see the benefits of using cleaner energy, having methods like this that city planners or developers can use can attempt to speed up the clean energy revolution.

Honors College
Ball State University
Muncie, IN 47306