

Wofford College Digital Commons @ Wofford

Arthur Vining Davis High Impact Fellows Projects

High Impact Curriculum Fellows

4-30-2014

Renewable Energy Activities: Choices for Tomorrow, AP Environmental Science

Terry A. Ferguson

Wofford College, fergusonta@wofford.edu

Kendra Whitney

Westwood High School

Logan Ress

Wofford College

Follow this and additional works at: <http://digitalcommons.wofford.edu/avdproject>



Part of the [Natural Resources and Conservation Commons](#), and the [Sustainability Commons](#)

Recommended Citation

Ferguson, Terry A.; Whitney, Kendra; and Ress, Logan, "Renewable Energy Activities: Choices for Tomorrow, AP Environmental Science" (2014). *Arthur Vining Davis High Impact Fellows Projects*. Paper 17.

<http://digitalcommons.wofford.edu/avdproject/17>

This Article is brought to you for free and open access by the High Impact Curriculum Fellows at Digital Commons @ Wofford. It has been accepted for inclusion in Arthur Vining Davis High Impact Fellows Projects by an authorized administrator of Digital Commons @ Wofford. For more information, please contact stonerp@wofford.edu.

High Impact Fellows Project Overview

Renewable Energy Activities: Choices for Tomorrow, AP Environmental Science, Grade 12th

Team Members

Student: Logan Ress

High School Teacher: Kendra Whitney

School: Westwood High School

Wofford Faculty: Terry Ferguson

Department: Environmental Studies

Brief Description of Project

This AVD High Impact Fellows Program Team Project developed high school level learning modules on renewable energy. The learning modules focus on the collection, analysis and graphing of real-world data and the making of assessments and projections of the use of renewable energy at the school location. The project focuses primarily on solar energy but all other major alternative energy sources are also briefly addressed. The modules focus on solar energy because it is the only feasible alternative energy source for the region. The ultimate goal of the project is to produce a presentation for the school principal making recommendations for implementation and energy return on investment.

The final form of the instructional material is a lesson plan for a full curriculum unit in an AP Environmental Science. The materials focus on fostering inquiry and technological integration.

List of Materials Required and Cost, if Applicable

Chrome Book with Google Drive and Google Apps	\$350
Vernier LabQuest Pro II	\$350
Pyranometer	\$200
Volt Meter	\$10
Current Probe	\$40
Voltage Probe	\$40
Solar Panel	\$75

Total \$ 1065

Optional: Weather Station (if available) \$1200