



The Clean Energy Fund Grants - Application

Please thoroughly read the call for applications prior to submitting your proposal. We will not consider incomplete applications. **In order to be reviewed by the committee, applicants must first submit their proposal to the campus area responsible for oversight in order to receive preliminary approval.** Applications receiving preliminary approval or questions regarding the application process should be e-mailed to the coordinator at cleanenergy@evergreen.edu before the deadline.

Project Title

Office of Sustainability
Environmental Monitoring System
Data Mining & Analysis Program

Project Lead

Grant Gilmore

A NUMBER

PHONE

E-MAIL

Student, Staff or Faculty Group

Office of Sustainability

STUDENTS

Sophomore/Junior Status

FACULTY OR STAFF

Scott Morgan

Faculty or Staff Sponsor

morgans@evergreen.edu

Campus Location

Various selected locations

Primary Affected Area

NA

Requested Budget

\$6,500.00

Academic Term

Spring/Summer 2013

Date

Submission date: May 3rd

Project completion: Ongoing

Project Scope: The intent of this project is to make available to students, faculty and staff a field based portable monitoring system capable of recording various environmental conditions where placed. The Office of Sustainability is looking at this type of portable system as a means to allow students, faculty and staff involved in clean energy projects, land use projects and indoor and outdoor climate studies to utilize such equipment to enhance their projects by providing sound data representing surrounding conditions. These types of devices will allow better planning and greater understanding of the surrounding environment. Data can be retrieved in many forms, depending on configuration. The initial intent is to have at least one unit that measures solar radiance, wind speed, water flow, soil moisture, temperature, relative humidity, rainfall, light intensity, leaf wetness, barometric pressure, UV levels, and light sensitivity in relationship to the photosynthesis process.

Systems measurement capabilities:

Weather: Barometric Pressure, Leaf Wetness, Light Intensity, PAR, Pulse Input, Rainfall, Relative Humidity, Soil Moisture, Solar Radiation, Temperature, Wind Speed & Direction, 4-20mA, Voltage Input See less

Energy: AC Current, AC Voltage, Air Velocity, Amp Hour (Ah), Carbon Dioxide, Compressed Air Flow, DC Current, DC Voltage, Differential Pressure, Gauge Pressure, kW, kWh, Power Factor (PF), Pulse Input, Temperature, Volatile Organic Compound (VOC), Volt-Amp Reactive (VAR), Volt-Amp Reactive Hour (VARh), Volt-Amps (VA), Volts (V), Water Flow, Watt Hours (Wh), Watts (W), 4-20mA, Amps (A), Relative Humidity See less

Timeline:

The Office of Sustainability would like to have all equipment in hand before end of Spring 2013 quarter. Summer 2013 Quarter will allow staff and students to become familiar with the systems hardware and software capabilities. Measurements will begin during Summer Quarter 2013 and continue indefinitely. The intended purpose will be to start a monitoring program that lives within the Office of Sustainability, allowing specialized focused monitoring of various subjects and locations both indoor and outdoor across campus to take place throughout the years.

Metrics

The outcome of having this equipment will be to provide relevant data for various projects among students, faculty and staff in coordination with Program studies, CEC, CLUC and the Office of Sustainability. Types of measurements are listed above. The system while not in use for requested project support will be utilized by the Office of Sustainability to enhance data collection currently not available. This will enhance the mission and vision of the 2020 sustainability initiative currently underway.



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Other Participants

First and last name, Phone and
 E-mail

CEC Notes (for office use)

Areas affected by proposed project

Prior to a full review by the Clean Energy Committee, all grants must receive preliminary approval from the campus area to be responsible for the administration and oversight of the grant. Please refer to the call for applications for help identifying the area of best suited for oversight of your project. If you have further questions regarding areas affected by your project please contact the coordinator at cleanenergy@evergreen.edu. Be sure to allow yourself enough time to communicate with staff and faculty before the deadline. When preliminary approval is received, please have the affected area submit an e-mail of support for your proposal.

Affected Area – Non destructive campus wide studies		Approval Required	Approval Received
Faculty / Staff Sponsor	Scott Morgan	Always	YES
Associate Vice President for Academic Budget and Financial Planning			NA
Advising			NA
Athletics and Recreation			NA
Campus Land Use Committee			NA
Director of Facilities			NA
Director of Student Activities			NA
Environmental Health & Safety Officer			NA
Residential and Dining Services			NA
Science Operations Manager			YES
Tacoma			NA
Visual Arts Operations Manager			NA

Greener Categories (Please select all that apply):

	Research	Implementation	Education
Renewable Energy	YES	2013/2014 Academic Year	Environmental Science
Resource Conservation	YES	2013/2014 Academic Year	Environmental Science
Sustainability Strategies	YES	2013/2014 Academic Year	Environmental Science



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Sustainability (140 words or less)

The Office of Sustainability is continuing its focus on supporting students, faculty and staff at Evergreen who are pursuing sustainability measures and projects. Equipping the Office of Sustainability with professional data mining and analysis tools geared towards environmental conditions will allow the department to move forward with a special interest project support system. The new program will be developed by Scott Morgan and Grant Gilmore and will help enhance content for student projects and faculty instruction. In addition this equipment can be used before and during large-scale environmental impact type projects. There are many ways in which this equipment will enrich activities taking place across campus. The outcome of such data will help support future student projects geared towards the CEC and CLUC, as well as support faculty program studies. In addition the increased activity from students faculty and staff and their interaction with the Office of Sustainability will help the overall mission and vision of Evergreen's sustainability initiatives. Raised awareness as to the outcomes of the research as well as the practical application of data mining and analysis will lend greater insight in to student projects, further enhancing the rate of success.

Continuity (140 words or less)

By creating a means to collect environmental data through a new program managed by the Office of Sustainability the concept of legacy and consistency can be set and managed by the Director. As Evergreen continues to make the headlines with its strong focus on the Environmental Science programs and 2020 sustainability initiatives, such equipment and programs will continue to be in demand. In addition students that engage with this equipment will learn essential skills currently used in the environmental research fields. Grant Gilmore will be seeking 2013/2014 ILC credits in partnership with the Office of Sustainability to form an environmental data mining and analytics program, aimed at supporting current and future projects. Within this body of working documents; spreadsheets, info graphics and standardized presentations will become standardized, making set procedures and policies within the department easily adoptable for newcomers to the science.