

Renewable Energy Education Program at USF's Patel College of Global Sustainability

Progress Report May 2014

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Project Description

Given the strong international outlook for renewable energy and Florida's rich natural assets of year-round warm weather, sunshine, and biomass (top generator in the US), the State of Florida has a unique opportunity to become a national leader in the development of sustainable power and fuels. A key component of such an undertaking is the specialized education required to prepare a green workforce, a workforce capable of running and managing the green economy. Professionals skilled in sustainable practices and renewable energy are already in high demand by companies in the solar, wind, and biomass sectors and by technology innovators developing the next generation of solar cells, biofuels and green hydrocarbons from biomass and algae, smart grid, energy efficiency, and energy storage. The goal of this project is to establish an education program in renewable energy at USF's Patel College of Global Sustainability (PCGS). We will implement a new, fully online and in-class concentration in Renewable Energy as part of the College's existing M.A. in Global Sustainability. The project will draw on the expertise and resources of three key USF entities to ensure its successful development: the PCGS, the Clean Energy Research Center (CERC), and the Media Innovation Team (MIT). Our goal is to place the State of Florida in a position to educate, train, and prepare students for the green jobs of today and tomorrow.

Budget: \$85,101

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The project started in January 2014. We have initiated the design of the new concentration in renewable energy by starting to develop two graduate courses of 3 credit hours each, which will be mandatory for all students selecting the Energy concentration (in addition to the 4 core requirements of the M.A. degree program).

The courses will address the two constituents of renewable energy: power and fuels. The first course is "Renewable Transportation Fuels" and the second "Renewable Power Portfolio". The Fuels course is intended to educate students in the technology and business aspects of green fuel production, markets, economics, finance, and sustainability for the entire transportation sector. The Power course is intended to

educate students in the technology and business aspects of the various forms of renewable power generation, including solar, wind, biomass, geothermal, and ocean.

An application for the new concentration was submitted to USF and was approved by the University this quarter. In addition, an application for course numbers has been submitted to the State, and issuance of the numbers is expected during summer time. The concentration and the courses are already being included in the marketing material of the MA program inviting applicants interested in Energy. Graduate students are being screened to assist in the development of the courses.

Development of the material for the Fuels course has started and is currently in progress. The Fuels course will be launched in Fall 2014, whereas the Power course will be launched in Spring 2015. The courses will be offered both in class and on line.

In summary, the project is progressing according to schedule.

Financial Report: No expenses were charged to the project during the present quarter, hence no invoice for payment is submitted.