

## May 2015 Progress Report

### *Florida Advanced Technological Education Center (FLATE)*

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**FLATE External Collaborators:** Brevard Community College; Tallahassee Community College; Daytona State College; Central Florida Community College; Polk State College; Florida State College at Jacksonville; Valencia Community College; Palm Beach State College; School District Hillsborough County; Florida Department of Education – Division of Adult and Career Education; West Side Technical School; USF College of Engineering; Madison Area Technical College ATE project for Alternative Energy certifications; Milwaukee Area Technical College Energy Conservation and Advanced Manufacturing Center (ECAM); Florida Energy Workforce Consortium (FEWC); TECO; Progress Energy; ISTE (Ibero Science and Technology Education Consortium), Usurbil GLBHI (Spain); TKNKA - Innovation Institute for Vocational Training (Spain); Center for Energy workforce Consortium (CEWD); UF Industrial Assessment Center; CREATE NSF Center for Alternative Energy; EST2 NSF ATE Grant project; DOE's Office of Energy Efficiency & Renewable Energy; Gulf Coast State College; Palm Beach State College; University of South Florida's College of Engineering; University of Miami; University of Alabama; Rutgers University; Energy Reduction Solution, SMC Corporation of America, Energy Conservation Group; Florida Solar Energy Consortium; Tampa Bay Regional Business Plan Energy Efficiency and Conservation Sub-Committee.

#### **Summary**

FESC partnered with Florida Advanced Technological Education Center (FLATE) to develop statewide curriculum frameworks for technical A.S./A.A.S. degree programs supporting existing and new energy business sectors.

FLATE develops and processes through the FLDOE the industry-validated student competencies of the frameworks. FLATE also develops new courses required for each new program of study. Additionally FLATE helps state and community colleges implement the new frameworks in their institutions. To support the new curriculum, FLATE works closely with the FESC Public Outreach and Industry Partnership programs to provide professional development opportunities for teachers and faculty to upgrade and update their knowledge base.

#### **Project Activities, Results and Accomplishments**

##### ***Fourth Annual FESC State College Energy Workshop***

This year's event is scheduled for May 22<sup>nd</sup>, 2015 from 9 a.m. to 4 p.m. at Hillsborough Community College (HCC) Brandon Campus. Presenters include Jay Matteson – Director of Institute for Energy & Environmental Sustainability (Palm Beach State College), April Harley – Supplier Diversity, Business Development (Duke Energy) and Kathryn Frederick Wheeler – State Supervisor of Architecture & Construction / Energy, Florida Department of Education. The afternoon session will include a panel of individuals who work with sustainability at their colleges and tour of HCC. Lunch and refreshments will be provided. A registration fee is not charged for the workshops, but pre-registration is required.

##### ***Annual FESC Workshop/Forum Participation***

FLATE's abstract "Matching Training to Industry Needs: FLATE-FESC Grant Accomplishments 2008-2015" was accepted and staff will present their work as a poster and orally at the annual FESC Workshop in the Education and Workforce sessions in Orlando on May 20<sup>th</sup>, 2015.

### ***Expansion of Colleges' Sustainability Efforts***

FLATE conducted extensive research to find out which colleges are currently engaged in college-wide sustainability programs and of these, which have staff dedicated to sustainability on their campus. The resulting article, "Sustainability in Florida Colleges", was published in the FLATE FOCUS newsletter and on the FESC website. In addition, findings will be shared at the Florida Colleges Energy Education Forum in May, during the sustainability panel comprising individuals directly involved in sustainability on their campuses.

### ***Additional Course Development***

FLATE will be supporting new courses expected to be required for both the Smart Grid Technician program and the Relay Technician program at Lake Sumter State College. Skills definitions are just now being outlined from industry and work will begin mid-late summer.

### ***College Program Implementation Assistance***

FLATE has been working with Lake Sumter State College on development of the Electrical Relay Specialization for the Engineering Technology Degree that will start this Fall, 2015. New curriculum frameworks are being developed and new courses added to the program. FLATE has also worked with Palm Beach State College on their **Alternative Energy Engineering Technology certificate program and on the** development of a Smart Grid Certificate attached to their Electrical Power Technology, A.S. degree program. FLATE has been a mentor for both colleges providing guidance and review of programs and courses. Both colleges now regularly attend the Engineering technology Forum and the annual FESC Florida Colleges Energy Education Forum.

### ***FLDOE Framework and Course Reviews***

FLATE assisted the Florida Department of Education in the review of the curriculum framework and content for the 'Fundamentals of Energy' and 'Introduction to Energy and Career Planning' courses. This effort is preliminary to the work for articulation development in #9 below, which will begin early this summer.

### ***Smart Grid Technologies Feasibility and Workforce Needs***

FLATE coordinated an occupational analysis workshop for the Smart Grid Technician program in Florida, April 23-24 at Palm Beach State College. The workshop was facilitated by the Advanced Technology Environmental and Energy Center (ATEEC) and sponsored by the National Science Foundation (NSF). This is one of many Job Task Analysis (JTA) workshops being held across the country to better inform and guide our educational communities as they attempt to meet the emerging technician-level workforce demands in the area of energy technology.

Participants included 12 smart grid content experts from the education and industry realms as well as individuals who have an understanding of how existing courses for secondary students connect to students enrolling in Electrical Power Technology and Engineering Technology

programs at the postsecondary level. The workshop will take place over two days with the goal of gathering input on the real-world tasks and functions of the Smart Grid Technician job. The report generated will be published and available for download in June 2015.

***Articulation Development for Fundamentals of Energy Certification***

***Florida Energy Workforce Consortium Planning Meeting, Orlando - (January, 2015)***

The meeting was held by FEWC and hosted by Siemens to solicit outside input in shaping the future of the consortium. FLATE highlighted the FESC/EST2 Summer Camps and Camp-in-a-Box resources, which are now posted on the FETN site. **FETN Meeting (June 2015)**

FLATE will be presenting at the Florida Energy Teachers Network (FETN) Workshop in Longwood, June 17-18 and is working to develop an articulation for the Fundamentals of Energy Certification to the existing A.S. Engineering Technology / ET Core and Energy specializations.

***Dissemination at Community College Workforce Venues***

**Florida Energy Teachers Network Meeting (June 2015)** - FLATE highlighted the FESC/EST2 Summer Camps and Camp-in-a-Box resources, which are now posted on the FETN site.

**FESC Research Workshop** – May, 2015 - “Matching Training to Industry Needs: FLATE-FESC Grant Accomplishments 2008-2015”

**Florida Colleges Energy Education Forum** – May, 2015 - Sustainability in Florida Colleges

**Engineering Technology Forum** – April, 2015 – Partnered with Lake Sumter State College to present on their A.S. Engineering Technology Degree with Relay/Substation Tech Specialization Degree. RCNET also presented on the ongoing work at their center, particularly in Florida.

***Newsletter Articles***

FLATE submitted an article for the Fall FESC Newsletter, “Sustainability Staffing in Florida Colleges” and will be submitting an article about outcomes of the recent Job Task analysis Workshop for the Smart Grid Technician program for the Spring/Summer newsletter.