

PBCC Goal: The College will establish an energy institute responsive to emerging green force industries and supportive of retrofitting existing programs.

PBCC Objective: The college will practice sustainability in all areas and be a leader in energy education in Florida.

Strategy to Address the Objective: The conceptual model for development and implementation of a progressive but rationale and responsible campus wide sustainability initiative is based on the integration of four key institutional effectiveness components: Curriculum & Instruction (i.e. course offerings, degrees, and certificates); Community & Workforce Development (corporate & continuing education; Trades & Industry certificates); Applied & Partner Research (2+2+2 articulation agreements; Business research & development incubator projects; applied learning for students with industry partners); and Coordinated Campuses Green Sustainability projects (Student Affairs working collaboratively with Green campus and community citizens to achieve Green Economy initiatives - "Green Panthers Going Green"). PBCC's strongest asset is its curricular offerings which in collaboration with industry partners can be immediately retrofitted to meet community and workforce needs for the New Green Economy.

Desired Outcome of the Strategy: 1.) Creation of an inventory of curriculum that embeds energy projects and awareness, problem-based learning and social consciousness. Encouragement of faculty and academic areas to include information or learning connected to energy consciousness and green issues. 2.) Community and Workforce Development: Provide the community with education on climate change and energy awareness. 3.) Applied and Partner Research: Based on classrom efforts and grant sponsored projects that yield interesting and compelling work, write and publish research for expansion of knowledge in the field of energy education 4.) Campus' Green Projects: Encourage each campus to establish green commitees and clubs for campus action and awareness. Produce qualified energy workforce by developing New Green Economy Education track aligned with Next Generation Sunshine State Standards (for postsecondary education and to improve college readiness goals for secondary students seeking dual-enrollment and advanced placement for college credit and green energy/environmental certificates) and CCE Trade & Industrial board standards (i.e. Hybrid-Power Plant Technician; Smart Grid Energy IT; Renewable Energy Technologist) corresponding to and supported by existing tracks of study (i.e. retrofitting and enhancing Biotechnology, Environmental Sciences, Information Technology, BAS Supervision & Management tracks).

*Establishing national model for Green Economy Education & Training in respect to setting guidelines, criteria and standards/benchmarks for STEM academics (Grades 11-14) and Greenforce T&I certifications; meeting Palm Beach County's community need for sustainable economic and workforce growth and development

Brief Narrative Description of the Strategy and Plan: Phase I: Startup and Initial Development of the Institute for Energy & Environmental Sustainability (IEES): (1) Concentrate on development of a Hybrid-Power Technician and/or Renewable Energy Technologist (with concentration in Biofuels Research Assistant) track to be offered to prospective students of Palm Beach and surrounding counties by Summer of 2010. These Sustainable Energy tracks are designed to provide students with opportunities to achieve mutliple Greenforce energy certifications including focused studies on sustainability planning prior to award of AA, AS, or BAS degrees. Green energy and environmental courses will be designed to allow maximum access by students in and out-of-school to earn certificates and credits with attention to applied learning experiences; (2) create sustainability planning model for development of Green Energy & Environmental demonstration projects (i.e. Palm Beach Gardens Green Energy Bio-incubator Park). Plan will include identification and recruitment of collaborative business & industrial partners in Palm Beach and surrounding

Florida counties to provide intellectual capital and facilities and equipment to produce biomass products; (3) create IEES web site to serve as key portal for informing public and stakeholders about New Green Economy education & training initiatives at PBCC for sustainable energy & environmental practices.		
Team Members: Jean Wihbey, Erin McColskey, Marcia Hardney, Dana Zoravich, Scott MacLachlan, Jay Matteson, others TBD	Submitted by: Dr. Jean A. Wihbey	Date: 10/25/09

Action Steps <i>What will be done?</i>	Responsibilities <i>Who will do it?</i>	Timeline <i>By when?</i> <i>(Day/Month)</i>	Resources <i>A. Resources Available</i> <i>B. Resources Needed (financial, human, political & other)</i>	Potential Barriers <i>A. What individuals or offices may resist?</i> <i>B. How?</i>	Involvement <i>A. What groups are involved?</i> <i>B. How are they involved?</i>
Establish an Institute team/ committee to begin working on vision, mission, objectives and goals, action plans	J. Wihbey E. McColskey	Fall 2009	A. IEES ad hoc committee B. IEES director/SME expert(s) for Renewable Energy (Energy Generation, System Installation and Storage), Biofuels Production and Farming, Water & Waste Management, and Sustainability Planning)	A. B.	A. Sustainability Committee, Institutional Advancement, IEES ad hoc committee B. Some planning and current activities
Develop a timeline for the Institute's tasks and benchmarks	J. Wihbey E. McColskey J. Matteson -IEES Director Team members	October- November 2009	A. Establish a working committee, director in place B. Establish academic/workforce subcommittee in collaboration with Green Industry Cluster Partners (Business Development Board of Palm Beach)	A. B.	A. IEES ad hoc committee B. Consultation with the Action plan

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Research what other institutes/programs are doing	J. Wihbey L. Handel J. Matteson -IEES Director	In progress	A. Engaging Advanced Technology Education partners nationwide to acquire “best practices” and “lessons learned” as well as regional South Florida Green Industry partners B. People to do the work and compile the results; Accepting Chair of the Academic/Workforce Subcommittee for Green Industry Cluster partner planning (Business Development Board of Palm Beach)	A. Time Management for faculty and administrators; need for release time to concentrate on implementation of campus wide sustainability practice; recommend: leadership retreat (volunteer) – opportunity to share and discuss with one another about PBCC Going Green B. Produce faculty survey requesting input as to how green sustainable initiatives can be realized based on their professional insights and any recommendations and/or suggestions for removing obstacles to its implementation	A. IEES ad hoc committee B. Reviewing selected research Institutes with attention to determining how and what programs may be adopted to meet PBCC’s Strategic Sustainability plan
Hire an Institute expert to serve as the director	J. Wihbey	Nov 2009	A. Program director position for Power Generation Tech program B. Qualified expert and institutional dollars	A. (N/A until F 2011) B. Financially	A. Administration B. Consultation and facilitation of hire
Develop a Business Partnership Council including green/energy business representatives throughout the county	J. Wihbey E. McColskey J. Matteson -IEES Director	Nov -Dec 2009	A. BDB, University partners, Community partners B. Effort to make contacts and bring the group on board	A. None at this time B.	A. BDB, NPBCC, Education Institutions B. Serving on the council

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Work with the College Foundation and Office of Institutional Advancement, advance IEES goals and objectives by cultivating donor prospects, write and solicit grants on behalf of PBCC	IEES Director J. Wihbey E. McColskey S. Mann	On-going	A. Grant writers; fund raisers B. IEES marketing materials	A. Marketing and Business Services B. No money – request assistance from PBCC Foundation to conduct donor fundraiser to support Grantseeking activities	A. Foundation, Inst. Advancement B. Directly working on the project areas they specialize in
Share the vision and goals with college leadership teams	J. Wihbey E. McColskey	Jan 2009	A. Marketing department, PPT, creating Consumer Informed & Awareness Website showcasing IEES initiatives (successes and opportunities) B. Marketing materials, PPT/ presentation information, staging of events	A. B.	A. IEES Committee, ELC, Academic Teams, Clusters, DBOT B. As a result of being college members/supporters; stimulate understanding and dialogue on the role of community colleges in creating a sustainable future.

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Develop an internal and external marketing strategy regarding the IEES	E. McColskey	Spring 2010	A. Marketing team B. Marketing money and time	A. C. Budget	A. Inst Advancement, Marketing B. Directly
Work with the Grants Office to seek funding for program development	J. Wihbey E. McColskey J. Matteson -IEES Director	Fall/Spring 2009-10 semesters (on-going)	A. Grant writers B. Time	A. B.	A. Inst Advancement B. Directly
Inventory PBCC courses and programs that will become part of the Institute for Energy & Environmental Sustainability	District Academic Affairs	Jan-March 2009	A. deans and associate deans, Director of IEES, Florida Department of Education/Workforce Education B.	A. AA B. Not facilitating the process for the inventory, or not supporting the encouragement of faculty inserting sustainability/ green concepts/ awareness/ problems... in classes	A. Academic Affairs B. Must gather the information from faculty and syllabi

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<p>Enlist experts to assist with the Institute's development and goals</p>	<p>J. Matteson -IEES Director</p>	<p>On-going</p>	<p>A. New IEES director B. Adjuncts, equipment and materials for classes</p>	<p>A. Business Services B. Financial</p>	<p>A. Green Industry Cluster partners, NGOs (environment and energy) B. Collaborative partners participating in fundraising, promotional events, grant partners</p>
<p>Create living /learning laboratories at PBCC campuses that provide the foundation for energy learning, offering opportunities for innovative, interdisciplinary, and hands-on experience.</p>	<p>J. Matteson -IEES Director and IEES partners</p>	<p>F 2009-F 2011</p>	<p>A. Grant writers B. Money for equipment and materials, faculty, lab assistance, appropriate space for the labs</p>	<p>A. Business Services B. Lack of funds</p>	<p>A. IEES, Academic Affairs, Institutional Advancement, Business Services, Marketing, College and University partners, Banner Center, FPL, PSAV, students B. Planning and implementation</p>

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Maintain currency with green job opportunities that prepare workers with the skills and competencies needed for green industries.	J. Matteson -IEES Director	F 2009-F 2011 (On-going)	A. Labor market statistics and projected green job research/info B. Personnel to gather information	A. B.	A. IEES, IRE, Academic Affairs B. assisting with the collection of data and application of the data to projects/ education
Serve as an information resource to the community, i.e. presents useful Web sites and resources for energy information.	IEES Director	F 2009-F 2011	A. Information Technology & Services, academic affairs B. Time commitment, student volunteers (interactive web designers), media & communication support	A. B.	A. B.

Evidence of Success: *(What evidence will be provided that progress is being made? What are the benchmarks of success?)*

- (1) Curriculum is created for Renewable Energy Technology, Hybrid-Power Generation Technician, Smart Energy-Efficiency Technology, Sustainability Planner
- (2) Classes are offered and marketed
- (3) Enrollment exceeds minimum criteria
- (4) 95% of students enrolled in green energy track receive minimum of two T&I green certifications and 50% enroll in academic degree program by year 2
- (5) Bio-incubator Park at Palm Beach Gardens campus successfully tests and publishes results of efficacy of algae and microorganism strands to produce reliable green energy (Biodiesel, Ethanol)
- (6) IEES Website receives recognition as an important educational and communication portal for informing citizens of PBCC's initiatives for Green Sustainable Economy and workforce development as indicated by number of requests for information compared to enrollment in renewable and alternative energy track courses since inception

- (7) Working with Student Affairs Green Campus clubs are created and members broadcast results on IEES website and track number of hits to website requesting information on College campus and community forums, workshops, webinars and conferences
- (8) Class syllabi/overviews that indicate discussions, exercises, and assessments that deal with climate and energy issues are collected resulting in crosswalk maps demonstrating degree of cognitive complexity and meeting of criteria for national standards associated with Green Industry Sectors
- (9) An established Institute with an advisory board and resources meeting a minimum of three times per year
- (10) Acquisition of resources, support curricula, programming, research, external partnerships, and professional development for the IEES and related activities are catalogued and prepared for publication.

**Sustainable campus planning and programming and possess the capacity to discuss climate change.

The college will have sustainable college and campus plans with a variety of programs that address and educate others on climate change and energy sustainability. College students, faculty, staff and community will have opportunities to understand the implications of campus greening, energy operational and maintenance issues, higher education's leadership role, the importance of energy efficiency in climate neutrality, class and program offerings that address climate and energy, and workforce training opportunities.

Assessment Process: *(How will the outcomes of the strategy be measured? What are the specific measures?)*

For assessment purposes, items 1 to 10 above describe the criteria for evaluating successes; the methods & measures to be used to evaluate performance include: Consumer surveys, student/faculty survey reports
 Evidence of campus energy plans
 Clubs established
 Program offerings
 Class syllabi/overviews that indicate discussions, exercises, and assessments that deal with climate and energy issues
 College campus and community forums, workshops, webinars and conferences
 An established Institute with an advisory board and resources
 Acquisition of resources, support curricula, programming, research, external partnerships, and professional development for the IEES and related activities

Request for Funds *(Are funds required to implement the action plan?)*

Describe the need for funds	Type of Funding	Amount Needed	Date Needed
Director position after 2011	<input type="checkbox"/> Materials/Supplies <input checked="" type="checkbox"/> Personnel <input type="checkbox"/> Other	\$80k	F 2011
Marketing support	<input type="checkbox"/> Materials/Supplies <input type="checkbox"/> Personnel <input checked="" type="checkbox"/> Other	\$20k	Feb 2010
	<input type="checkbox"/> Materials/Supplies <input type="checkbox"/> Personnel <input type="checkbox"/> Other		

Progress Report: *(To be completed during the action plan at determined points)*

Date:	Describe Progress:	Barriers to Implementation:	Submitted by:	Current Status:
				<input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Red
				<input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Red
				<input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Red
				<input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Red
				<input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Red
				<input type="checkbox"/> Green <input type="checkbox"/> Yellow <input type="checkbox"/> Red

Green = On schedule
Yellow = Delayed
Red = Very behind schedule