

Eckerd College Greenhouse Gas Mitigation Action Plan

In Pursuit of Climate Neutrality

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ECKERD COLLEGE

INTRODUCTION

The primary goal of a greenhouse gas (GHG) mitigation strategy is to reduce emissions of gases that contribute to climate change. There are, however, other objectives that are important, including feasibility (cost-benefit) and visibility. These are difficult objectives for a number of reasons. For example, installing photovoltaic solar panels will reduce greenhouse gas emissions to some extent, incur significant expenses, and have high visibility. Conversely, installing a central chiller unit has a favorable cost-benefit analysis, will reduce greenhouse gas emissions substantially, but have low visibility. The goal is to pick a portfolio of projects that when combined meet all three of the above objectives.

This report is organized into short-term, medium-term, and long-term projects designed to reduce greenhouse gas emissions at Eckerd College. Following this breakdown is a proposed timeline. Due to the changing financial landscape, this action plan should be consistently updated. Each year the action plan will be updated and reviewed by the Environmental Affairs Committee, Climate Change Committee, and the business office.

The American College of University Presidents Climate Commitment asks that Action Plans establish a target date for achieving climate neutrality. At this point, it is very difficult to determine a specific date. Our financial standing and lack of data for GHG emissions make any target date an extremely rough estimate. No target date is identified, but an anticipated project timeline is presented in Appendix II. Since the majority of our emissions come from energy use, specifically electricity, most of the proposed actions target this area. Projects that have already been completed that are helping reduce our GHG emissions are presented in Appendix III. We have attempted to estimate the potential GHG reductions that would result from various mitigation projects. A graph of these potential reductions is presented in Appendix IV.

Eckerd College is a private liberal arts school with approximately 1,800 students, located on the West central coast of Florida (Appendix I). Environmental sustainability has been incorporated into the curriculum and educational programs of Eckerd College for decades. In the Environmental Studies discipline, students can major in a field that emphasizes environmental responsibility. The College has a requirement of an environmental, or E, perspective course: each student must take a class that addresses environmental issues and consequences in order to graduate. There are numerous E perspective courses offered, including Environmental Ethics, Ecosystems of Florida, East Asian Constructions of Nature, and Environmental Film. Eckerd College's senior seminar class, Quest for Meaning, incorporates sustainability through community service and selected teachings and readings dealing directly with climate change and sustainability. The College Program Series lecture program includes speakers discussing environmental issues, such as Angela Leontis of the Chicago Climate Exchange and Lester Brown of the Earth Policy Institute. The annual Environmental Film Festival celebrates local and international filmmakers' ecologically minded pieces.

Eckerd students conduct research on topics related to sustainability and reaching climate neutrality. During *Introduction to Environmental Studies*, all students perform an environmental audit on a sustainability or environmental issue pertaining to Eckerd College. Another source of student involvement in research is during the Economics comprehensive exams, where seniors could evaluate the potential campus use of solar, wind, and other sustainable resources through cost-benefit analyses.

Each year, when annual greenhouse gas emissions are calculated, it is important to examine the per capita usage. Even if total emissions are rising, if per capita emissions decrease, then a positive change has occurred. Our eventual goal is to have zero total GHG emissions, but

the per capita emissions value reflects change. This minimizes the variability of population growth through changes in number of faculty, staff, and students.

This report has been endorsed by a number of campus groups: by the College Master Plan Implementation Advisory Committee on April 1, 2009; by the Climate Commitment Committee on April 15, 2009; by the Environmental Affairs Committee on April 28, 2009; and by the Eckerd College Board of Trustees on May 16, 2009.

POSSIBLE MITIGATION PROJECTS

Short Term Projects (completed within 1-5 years)

<p>Project: Campus-wide, year-round recycling program</p>	<p>Currently, Eckerd College has a student-run recycling program during the academic year that focuses on the dorms. This program cannot be dependent exclusively on student volunteers. It would be attractive to prospective students and the public to reflect our commitment to pursuing climate neutrality by having an effective year-round recycling program. A campus-wide recycling program will have high visibility and is long overdue. It could be contracted to facilities, or facilities could at least manage the academic areas of campus. We could use an electric or biodiesel-powered truck for pickup and transfer of recyclables. This would decrease the amount of waste produced by the Eckerd College community. Pinellas County calculated that 73% of the typical waste stream is recyclable. Therefore, we would have GHG emission reductions through waste stream diversion if we increased our recycling program on campus. (http://www.pinellascounty.org/utilities/recycle-pinellas-faq.htm#faqs12) <u>Cost:</u> Approximately \$75,000 annually</p>
<p>Project: Light Control Motion Sensors (where appropriate)</p>	<p>Light control systems should be installed in all appropriate building spaces. Devices could be placed in our 29 classrooms as well as in offices, hallways and lobbies. Energy savings would range from minor to significant depending on the number of light operating hours, with savings resulting from the devices. This is a highly visible project. For example, installing a light control system in the Fitness Center, which has 440 fluorescent lights, in order to reduce light use from 24 hours to 20 hours</p>

	<p>would conserve 17% of the facility’s energy use. <u>Cost:</u> The cost varies greatly. In a past energy audit for campus, the price of each unit (including labor) was estimated at \$75. But in a later estimate, the cost of retrofitting the entire Seibert building was estimated at \$15,000 (McKenna, pers. com).</p>
<p><u>Project:</u> More efficient climate control</p> <p>Andover software and servers that track building temperatures should be expanded to the whole campus to support all programs in reducing energy consumption (e.g. minimizing over-cooling of empty rooms). The Andover system is already installed for Seibert, Miller, Kappa, and Iota.</p>	<p>Progress Energy estimates that during the cooling season, each degree warmer (over 78F) results in reduced energy use by 10%. But, Eckerd College’s cooling system requires air to be cooled to approximately 55 degrees F (the base “set point”) to remove humidity during the hottest times of the year, and then the air is warmed to the desired room temperature. An energy savings will be captured by increasing or having a dynamic base “set point” temperature. (Note: We know the total energy cost for the College but not the actual percentage used for air conditioning. This project would save in energy through reducing amount of air conditioning used.) <u>Cost:</u> There is no cost to change our temperature settings. There is a cost associated with expanding the Andover system to additional buildings. During the summer 2009 renovations of the Sheen complex, these buildings will be added to the system. The cost is a combination of the system hardware and of training staff how to use it (training alone is estimated to cost \$15,000 per year).</p>
<p><u>Project:</u> Submetering system to measure individual building and dorm energy use</p>	<p>There are plans to eventually install energy monitoring meters in all campus buildings. We will create a website that shows real-time and historical energy consumption of each dormitory. This project would allow us to keep track of where the most electricity is being used. Also, incentive programs for students would encourage the lowering of our GHG emissions. <u>Cost:</u> Approximately \$3,000-\$5,000 per building.</p>
<p><u>Project:</u> Install solar water tanks and thermal panels</p>	<p>For a project with high visibility, a solar water heater system was selected for year one (2009-2010), and should be initiated immediately. The most immediate solar thermal hot water opportunity would be to install panels on the primary dining facility. This would save energy particularly from running the dishwashers. The dining facility is scheduled for near-term refurbishment in the next 1-2 years, and longer term renovation in the next 5 years. <u>Cost:</u> being estimated.</p> <p>The infrastructure on the Iota dorm is in place to support a solar thermal hot water project. The total cost would need to be determined by a qualified contractor. This project would reduce energy usage, thereby saving money. The payback period with</p>

	<p>the new power rates would be between 10 and 15 years (This could be a good project for a performance contract.*) However, since Iota currently uses tankless hot water, the savings from installing solar hot water will not be as large as they would have been when switching from a traditional hot water tank to solar. <u>Cost:</u> \$50,000 per tank or \$175,000 for all of Iota.</p>
<p><u>Project:</u> Carpool and bus pass support program for Eckerd College Community</p>	<p>1) Carpooling. Eckerd College’s ITS department could create an interactive carpool site for the college community, using the template of http://carpoolconnect.com/ or http://www.parking.ufl.edu/pages/alcar.htm We have also spoken with Zipride which provides this service for just \$1,500 for a site customized for Eckerd College. http://www.zipride.com/ We could also designate premium parking spaces for carpools (installing signs would cost approximately \$500-\$2,000). At this point, it is not possible to quantify the reduction in GHG emissions. <u>Cost:</u> \$1,500 for Zipride.</p> <p>2) Bus Passes. Eckerd could provide bus passes at a reduced rate (for example, if PSTA charges \$45 for a monthly pass, Eckerd could charge \$30 for this pass. If the program had 50 participants, this would cost Eckerd \$750 per month and remove 50 cars from campus). <u>Cost:</u> variable depending on amount of subsidy and number of participants.</p>
<p><u>Project:</u> Education and Awareness Campaign</p> <ul style="list-style-type: none"> • Energy Star Program/ Student education • Staff training 	<ul style="list-style-type: none"> • The Energy Star purchasing policy should be enforced for all student appliances, particularly mini-refrigerators. This could be a rolling process first affecting the incoming freshman class until four years have passed. It would be unfair to make this a policy for all students since they may have already bought a refrigerator. The average energy savings per refrigerator is 20%. Information should be printed in each Autumn Term handbook and the RA would do an inspection of the refrigerators in each room. Incentives or rebates to purchase Energy Star could be offered. <u>Cost:</u> None, just marketing efforts/publicizing through Admissions to incoming Freshmen. • Staff training should be made available and supported (ex: National Association for College and University Business Officers’ sustainability conference, www.nacubo.org/x2153.xml and the Florida Association of Higher Education Facilities Officers, http://www.flappa.org/, or the Association for the Advancement of Sustainability in

	<p>Higher Education, AASHE, http://www.aashe.org/). Even if only a few individuals from the Business Office or Facilities attend a sustainability conference, this will still provide important institutional knowledge.</p> <p><u>Cost:</u> Approximately \$1,100 per person to attend one of the conferences.</p>
<p><u>Project:</u> Increased Energy Conservation/Efficiency Measures</p> <p>e.g.:</p> <ol style="list-style-type: none"> 1) VendingMiser - Energy saving devices on vending machines (phased in) 2) Cool Roofing 3) More efficient lighting systems (and “delamping”) 4) Various other ideas 	<p>Various projects could be implemented to keep heat out and cool air in (e.g. window film, window stripping, insulation). Insulation and window tinting helps improve building energy efficiency. For example, devices can be used for conserving energy when people are not around, such as VendingMiser. These projects would reduce energy usage, thereby saving money. The following are just a few examples of possible conservation initiatives that Eckerd should pursue.</p> <ol style="list-style-type: none"> 1) VendingMiser. Each vending machine generates approximately <i>2200 lbs of carbon dioxide per year</i>. Multiply this by all the machines on campus (approximately 40) and it is significant. The cost is \$150-\$180 per VendingMiser (www.vendingmiserstore.com), which could be paid by our vending machine supplier. Each vending machine costs the college from \$200 to \$350 per year in energy use. A VendingMiser conserves 30-45% of the energy used by the machine. The VendingMiser turns the machine off when the infrared sensor detects no occupants in the room. <ul style="list-style-type: none"> <u>Cost:</u> Our contractor, Canteen, could supply the VendingMiser, or we could do a cost share with them. 2) “Cool roofing” insulation. <ul style="list-style-type: none"> <u>Cost:</u> \$425,000 (payback less than 5 years) 3) Transition to LED light use where possible. (It costs approximately \$100 per exit sign to convert to LED.) Finish transition to compact fluorescent (CFL) bulbs. It is not possible to estimate the total cost of transitioning from incandescent to CFL as we currently do not have an inventory of where there are existing/remaining incandescent lights (although it is known that Miller, Brown Hall, the Pub, and all of the student lounges still have incandescent bulbs). One 100 watt incandescent bulb lasts approximately 1,500 hours, whereas one 26 watt CFL (the equivalent lumens as the 100 watt incandescent) lasts 12,000 hours. The CFL bulb costs approximately \$4.40 and the incandescent costs approximately \$1.25. Therefore, just changing this one bulb to CFL over the lifetime of the bulb would save \$5.60 in the price of the bulb, plus the cost of energy needed, which is vastly different.

	<p>In addition, for overhead tube fluorescent lights that have multiple bulbs, it is possible to disconnect or remove one or more bulbs and still have adequate lighting. This is called “delamping” and would result in energy cost savings.</p> <p>Cost: Would depend on the number of bulbs replaced but savings would be immediate.</p> <p>4) Student, staff and faculty suggestions included having “no driving days,” installing clotheslines at the dorms, banning leaf blowers on campus, implementing green roofs, and having all electronics on powerstrips. By having electronics on power strips that users could turn off when not in use, this avoids the energy used when an appliance or electronic is in “standby mode”.</p>
<p>Project: Hire a Sustainability Coordinator</p>	<p>This position could oversee recycling, the yellow bike program, tracking our campus GHG inventory each year, and all other environmentally related initiatives on campus. They could track the energy use per building and organize dorm competitions for energy conservation. This individual would provide continuity from one year to the next and push for the completion of various mitigation goals. See Appendix V for a sample job description.</p> <p>Cost: would range from \$30,000 (recent graduate) to \$70,000 annually.</p>

***Performance Contracting:** Performance contracting is an agreement made with a company to do energy retrofitting projects. The company will cover the entire capital cost of the retrofits. This “loan” will be paid back through the financial savings incurred by the project over the years after implementation. For example, if each window was replaced with a more energy efficient window, the savings in energy each year would be used to pay back the project.

Medium Term Projects (within 5-10 years)

<p>Project: HVAC Chiller Loop</p>	<p>An HVAC chiller loop is planned to be installed that will incorporate several dorms (Epsilon, Delta, Beta, Gamma, Alpha) and the dining facility. In the future, we could expand the system to control all administrative, academic, and residential buildings. This project would reduce energy usage with high GHG reductions, thereby saving money. A chiller loop was installed in 2008-2009 connecting 11 buildings that may achieve a 15% reduction in electric energy consumed to cool these buildings, as well as a transition of our Miller Auditorium to a</p>
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	<p>chilled water cooling system that is also expected to reduce energy use in this building by 10-15%. It is anticipated that this would be a 4-phase project to complete chiller loops for the residential side of campus.</p> <p><u>Cost:</u> \$1 million per phase for the residential side. \$750,000 for the academic side (less than 5 year payback period)</p>
<p><u>Project:</u> Yellow Bike program maintenance and expansion</p>	<p>There is a need to inventory, track and monitor the existing bicycles to determine how often they are broken or lost. In order to reduce car use on campus, we could phase in an increase in the number of bicycles on campus. NOTE: This project is in the medium-term category explicitly because it has very minimal GHG reduction impacts. For example, assuming our program has 50 well-maintained and actively used bikes, the program only offsets 1.7 metric tons (3,783 lbs) of CO2 per year. Therefore, this does not provide nearly the same return on investment as many of the other initiatives proposed in this action plan, but it is highly visible and symbolic of Eckerd.</p> <p><u>Cost:</u> approximately \$30,000 per year for operation (this does not include any additional costs such as a storage area).</p>
<p><u>Project:</u> Air Travel Offsets</p> <p>Offset air travel for Winter Term and Spring Break trips.</p>	<p>Research must be done to choose a reputable carbon offset organization, which will provide templates for various trips run through the Eckerd College Office of International Education. Each student could choose whether to offset their travel. There would be no cost to Eckerd—just the effort of adding this information to Winter Term, Spring Break, and Study Abroad (London, China, Mexico) information packets. This is a low-cost way of reducing our emissions. Air miles add substantially to our overall inventory, so providing options to mitigate these emissions is a good idea. Students on the 2008 Spring Break service trips had the option to offset their travel (through www.renewablechoice.com), and 10 metric tons of GHG were offset.</p> <p>Alternatively, Eckerd might be able to set up our own internal offset program.</p> <p><u>Cost:</u> None to Eckerd College (students opt in and pay for the offset individually).</p>

Long-Term Projects (more than 10 years to complete)

<p><u>Project:</u> Solar photovoltaic (PV panels)</p>	<p>There is a need to implement a highly visible renewable energy project on campus. As of January 1, 2009, Eckerd’s energy rate</p>
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	<p>increased to 10.84 cents/kWh. With Eckerd's increased energy bill, there is now a shorter payback period for solar using photovoltaic (PV) panels. With state rebates and subsidies, the payback period can be even shorter.</p> <p><u>Cost:</u> The estimated cost for a 20 kilowatt array several years ago was \$200,000.</p>
<p><u>Project:</u> LEED Certification</p>	<p>We could either require Leadership in Energy and Environmental Design (LEED) certification or pass a campus policy that states all future construction will comply with LEED certification standards but not necessarily be certified.</p> <p>(http://www.usgbc.org/)</p> <p><u>Cost:</u> Certification ranges from \$50,000 to \$150,000 per building.</p>
<p><u>Project:</u> GHG Offsets**</p>	<p>In order to achieve climate neutrality, we could offset energy use through purchased GHG offsets. To offset the equivalent of 15% of our GHG emissions (14,200 metric tons) would cost \$23,176.80 annually (according to information provided by the company Renewable Choice in 2008). This would give us the ability to quickly reduce our overall emissions. Even if we chose a cheaper plan and reduced emissions by 5% annually through an offset program, we would see positive results in our inventory graph.</p> <p><u>Cost:</u> At least \$24,000 annually.</p>

**** Greenhouse Gas Offsets:** There are various companies that offset greenhouse gases. When Eckerd purchases renewable energy credits, we are actually purchasing physical kilowatt hours of renewable energy (solar, wind, etc). We do not see the energy in our own grid but we are helping small renewable companies grow their operations through demand. Eventually there will be enough demand that the custom fuel mix for our local energy provider (Progress Energy) will contain more renewable sources. At this time, it is not possible to select or designate a percentage of renewable sources in our energy mix from Progress Energy. For all renewable purchases, it is important to work with an accredited agency. There are a lot of companies claiming to offset emissions but not actually taking any action. Renewable Choice Energy (www.renewablechoice.com) has been certified through Green-e Energy.

Appendix II. Eckerd College Climate Commitment Action Plan Timeline

The combination of proposed actions is a launching point. Each action has been proposed in an estimated fiscal year for completion (note: this is just a guideline, not a binding commitment – the actions are pending available financial resources). This Action Plan will be reviewed annually by the Business Office to determine the feasibility of each project. The projects were selected on the basis of feasibility, visibility, and potential GHG emission reductions. Some projects, such as performance contracting, were placed later in the timeline based on Eckerd’s current financial situation. The majority of our emissions come from energy use; therefore, most of the proposed actions target this area.

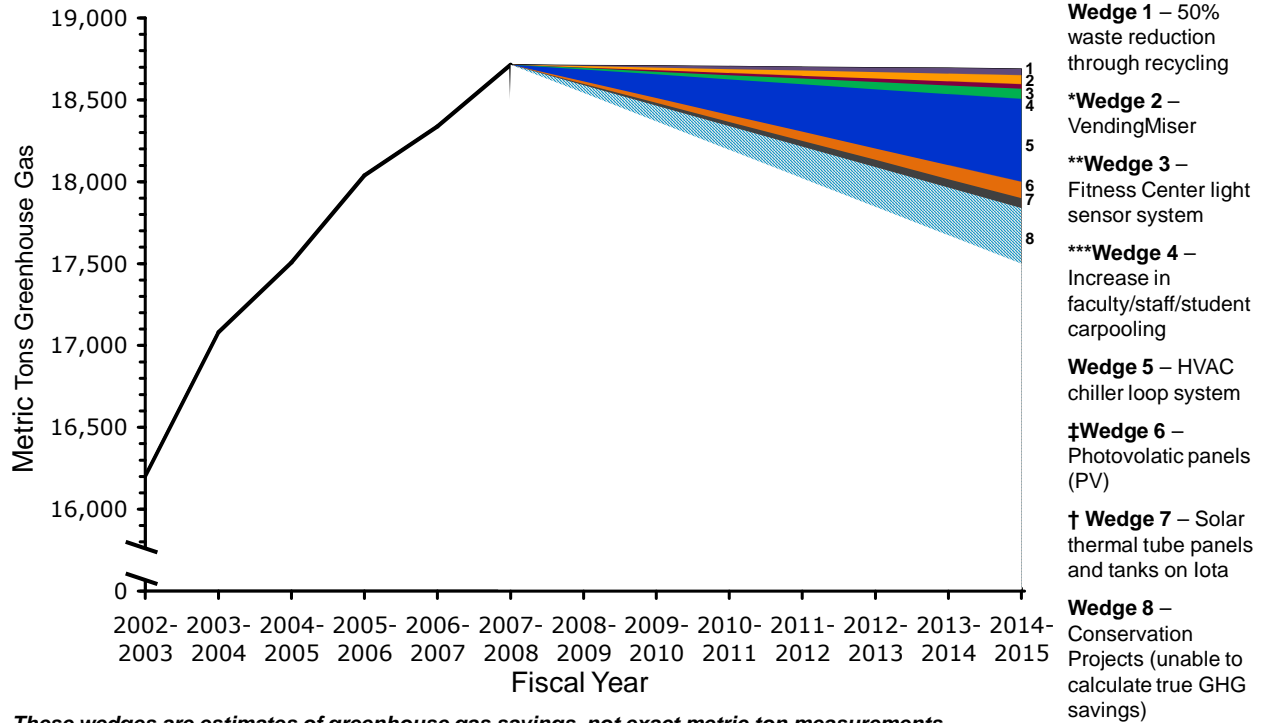
Fiscal Year	Proposed Projects
<p>Year 1: 2009-10</p>	<ul style="list-style-type: none"> ❖ Implement campus-wide recycling program with facilities/student synergy. ❖ Hire Sustainability Coordinator. ❖ Solar water heater installed on the caf or in at least one of the Iota dorm houses. ❖ Andover climate control system expanded to additional buildings. ❖ Submetering added to several buildings to monitor energy use. ❖ 10 Light control sensors installed. ❖ Launch energy conservation education/awareness campaign. ❖ ITS (or Zipride) creates Eckerd Carpool web-based search program. ❖ At least 10 VendingMisers installed. ❖ Staff Training – at least one faculty/staff member sent to a sustainability conference. ❖ Include information about air travel offsets in Winter Term <i>Passport</i> catalog. ❖ Support Yellow Bike program maintenance and possible expansion. ❖ Launching of Green Dorm. ❖ Use of electronic media (accounting forms, manuals, board packets) and multi-function copiers to reduce paper and energy use.
<p>Year 2: 2010-11</p>	<ul style="list-style-type: none"> ❖ Solar water heater installed on a second Iota dorm house (if first installation shows energy savings). ❖ Andover climate control system expanded to additional buildings. ❖ Submetering added to several buildings to monitor energy use. ❖ Additional VendingMisers installed.

	<ul style="list-style-type: none"> ❖ 10 light control sensors installed. ❖ Continue energy conservation education/awareness campaign. ❖ Support Yellow Bike program maintenance and possible expansion.
<p>Year 3: 2011-12</p>	<ul style="list-style-type: none"> ❖ Solar water heater installed on a third Iota dorm house. ❖ Andover climate control system expanded to additional buildings. ❖ Submetering added to several buildings to monitor energy use. ❖ VendingMiser installation completed for all machines on campus. ❖ 10 Light control sensors installed. ❖ Support Yellow Bike program maintenance and possible expansion. ❖ Make sure air travel offsets are widely announced. ❖ Continue energy conservation campaign.
<p>Year 4: 2012-13</p>	<ul style="list-style-type: none"> ❖ Start a performance contract project for energy efficiency. ❖ Solar water heater installed on the forth and final Iota dorm house. ❖ Andover climate control system expanded to additional buildings. ❖ Submetering added to several buildings to monitor energy use. ❖ 10 Light control sensors installed. ❖ Support Yellow Bike program maintenance and possible expansion. ❖ Continue energy conservation campaign.
<p>Year 5: 2013-14 and beyond</p>	<ul style="list-style-type: none"> ❖ Implement solar PV project. ❖ HVAC chiller loop installed incorporating Epsilon, Delta, Beta, Gamma, Alpha and the dining facility. ❖ LEED-certified construction (e.g. for the new sciences building, depending on when construction will take place). ❖ Purchase renewable energy credits if necessary. ❖ Support Yellow Bike program maintenance and expansion.

Appendix III. Eckerd College Green House Gas Mitigation Strategies Already Completed

Strategy	Implemented
<i>Conservation and Community Awareness</i>	<ul style="list-style-type: none"> • Energy efficient light bulbs in use (CFLs) • Yellow bike program (see media coverage: http://www.eckerd.edu/news/index.php?f=bikes) • Energy Star purchasing policy (Spring 2007). All campus vending machines are Energy Star. • Seasonal, student-run recycling program - waste diversion strategy • Environmental Studies major is one of the largest majors on campus; a Climate Change course is offered every 2-3 years • 30% post-consumer paper purchasing policy • Food waste campaign as a waste diversion strategy, Spring 2007 • Eat Local Challenge (for details, see: http://www.eckerd.edu/green/vendors.php) • Campus native plant garden - minimizes the use of fertilizers • CPS event featuring alumna Angela Leontis from the Chicago Climate Exchange – February 2008 • Sustainability at Eckerd Website (www.eckerd.edu/green), launched November 2007 • Participated in the RecycleMania program (Spring 2008) • Eco-clamshell reusable to-go container program • 42 new multi-function energy-efficient copiers installed Spring 2009
<i>Sustainable Design</i>	<ul style="list-style-type: none"> • New library not officially certified but meets LEED certification standards • Newest dorm (Iota) is LEED certified • HVAC chiller loop installed Spring 2009
<i>Energy Procurement and Offset Strategies</i>	<ul style="list-style-type: none"> • Voluntary offsets for spring break service learning travel 2008 • Plant trees on campus (annual Alumni Grove planting events, every fall and spring)
<i>Transportation and Campus Fleet</i>	<ul style="list-style-type: none"> • Electric golf carts for on-campus travel • Familiarize campus with bus routes and destinations, including information on the Green Eckerd website

Appendix IV. Graph of Potential GHG Emissions Avoidance with Various Actions



These wedges are estimates of greenhouse gas savings, not exact metric ton measurements.

*Estimate for reduction of energy use by installing 34 VendingMisers

** Based only on the Fitness Center; light sensors in other locations would realize additional savings

***Estimated increase of carpooling from 5% to 20%

‡ Calculations for four 20kW PV panels

† Calculations for 12 thermal tube panels per Iota building

Appendix V. Proposed Eckerd College *Sustainability Coordinator* Job Description

Primary Purpose:

- Creatively works within existing and new areas to promote innovations and maintain on-going programs that further Eckerd's goal of environmental sustainability.
- Guides Eckerd in its role as a model in environmental leadership and education.

Key Tasks:

- Develops and implements energy savings programs to increase campus energy efficiency.
- Oversees implementation and researches initiatives for the American College and University Presidents Climate Commitment (ACUPCC).
- Each year completes a greenhouse gas inventory for ACUPCC.
- Oversight of the Yellow Bikes program
- Coordinates the campus recycling program on both the residential and academic sides of campus.
- Write grants to state and federal agencies for projects that reduce campus energy consumption.

Campus Outreach:

- Conducts an environmental awareness, energy and recycling orientation session for all new students during Autumn Term.
- Educates the rest of the College community through Eckerd's "Sustainability/Green" website, issues regular email updates, and through appropriate signage across campus.
- Organizes dorm competitions for least energy use.

Campus Sustainability:

- Assists the College in advancing sustainability in current and future operations, as well as academic programs.
- Supports green building initiatives in conjunction with the Master Plan Implementation Advisory Committee.
- Explores technologies and options for reducing or offsetting greenhouse gas emissions generated by the College.
- Track ACUPCC Action Plan progress.
- Monitor energy use by different buildings on campus.
- Document and publicize achievements across the campus related to sustainability actions.

Qualifications Required:

1. A Bachelors degree in an environmental or related field
2. Project and program management experience
3. Grant writing experience preferred
4. Experience with webpage and interpretative materials development
5. Outstanding interpersonal skills and experience coordinating and communicating to different constituents
6. Teaching experience a plus
7. Highly organized
8. Ability to develop and implement new programs within an academic setting
9. Excellent oral and written communication skills, comfort with public speaking