



GLEE's 2nd Annual Green Living Awards

Agency/Organization Category

For Cumulative Efforts leading up to January 1st 2009

Name of Agency/Organization: Alternative Energy Center, Key West High School Key West
City/Island

Name of Applicant and relation to Agency/Org: Josh Clearman Teacher

Summary

We have made great progress in Green Living! From most aspects, we work towards making a positive difference in lives of youth, and in turn, works towards a better society. The youth are dismayed when they are inheriting an intractable, overwhelming planet. However, by giving them the tools that allow them to make a difference, they are consumed with uncharacteristic optimism. That is combined with the fearlessness of youth, who are not concerned with the notion that something hasn't been done before. This robust perspective sallies forth with the enormous energy that radiates from students.

Instead of discouragement, these students are encouraged by our island community who support us with their donations, time, and energy. It's great being here!

Part 1: The Keyswide Sustain-Ability Project

GLEE's Goal: Involve all major policy makers in the Keys in systematic emissions reductions & conservation actions. Involving all 6 municipalities, 3 utilities, federal, state and local agencies, non-profits, mentor governments from the mainland, and other national resources, the Keyswide Sustain-Ability Project (KSAP) aims to meet quarterly, researching and convening experts on subjects requested by its participants. The projects strengths include economy of scale, cross pollination of ideas and collaboration on new projects and funding opportunities.

- My Ag/Org is not currently a KSAP member, but we do intend to and can check off some KSAP tenets.
- My Ag/Org is not currently a KSAP member, and will probably not become one.
- I am a KSAP member, but I do intend to become one

The KSAP checklist:

- Adopt [Mayors Climate Protection Agreement tenets](#) (date signed): _____
- Establish a Green Team, & Staff liaison: Liaison & Team Names: Scott Douthit, Randy Acevedo
- Hold monthly Green Team meetings: # of Meetings Held: participated via email discussion
- Develop a baseline of emissions: Date Began, Completed: _____
- Create an action plan: Date Began, Completed, Acted on: Began March 2008, Ongoing
- Participate in quarterly KSAP meetings: # Mtgs Attended: _____

Part 2: Accomplishments

<u>Renewable Energy</u>	Demonstrated use and/or promotion of appropriate solar, wind and bio generated sources of renewable energy.
<p>At the Alternative Energy Center, we teach students the scientific principles associated with Green Technology. We build the foundation in theory and stabilize the learning with "hands-on" activities. Biodiesel is based in a sophisticated concepts of organic chemistry, but can also be modeled with cheap supplies, and even created with 2L soda bottles. The students are offered the opportunity from a seamless connection between theory and practice. As a final tenet, the entrepreneurial aspects are also stressed, as some of the largest and successful American companies are engineering - IBM, GE, Intel, etc. who capitalized on a new, innovative technology.</p>	
<u>Clean Transportation</u>	Demonstrated use and/or promotion of smart, clean and economically efficient uses of biodiesel, fuel cells, and hybrid vehicles. Or no vehicles at all!
<p>We are running the 1985 Mercedes 300D sedan on biodiesel created at the Alternative Energy Center, from used vegetable oil (UVO) from local restaurants on the island of Key West. With the support of the superintendent, we intend to run one local school bus on biodiesel that we produce, reducing emissions by up to 78% and fostering a clean ride to and from school. We are also partners with Toppino's, as they are providing the logistics to run a student-directed experiment on the feasibility of using UVO on the generators in the area, specifically hospital generators in a post-hurricane setting.</p>	
<u>Clean Boating</u>	Demonstrated adherence and/or promotion of eco-friendly actions whilst on the water, including cleaning products, propulsion, water conservation, fisheries conservation, catch and release techniques, and use of Florida Clean Marinas, Boatyards, and Retailers .
<p>Biodiesel is promoted as an excellent alternative for boats as it is better for our fragile environment and passengers, who suffer less from sea-sickness and other health problems.</p>	
<u>Energy Conservation</u>	Demonstrated use and/or promotion of energy-efficient appliances, energy audits, and retrofits for financial savings and pollution reduction.
<p>We are working to reduce the amount of power used at the Alternative Energy Center through conservation and other aspects.</p>	
<u>Green Building</u>	Demonstrated use and/or promotion of green techniques and technologies during retrofits on existing buildings and efficient designs for new buildings.
<p>We have put together a proposal for a \$2.5M biodiesel plant that is currently in review at the Florida Dept. of Environmental Protection. We have intended to build a very energy efficient building that can be used as a model for other classrooms and ideally will secure LEED certification.</p>	

<u>Green Financing</u>	Demonstrated use and/or promotion of tax credits, rebates, and other incentive programs that help finance, sustainability projects. Also includes Socially Responsible Investing.
<p>Our students have completed significant tax analysis as they apply to the public sector when we analyzed the cost of our district's fuel. The students (research group) gained solid knowledge of road taxes, pollutant taxes, and other financial incentives that can serve as an advantage in whatever fields they intend to follow.</p>	
<u>Healthy Living</u>	Demonstrated adherence and/or promotion of green procurement, green consumerism and healthy choices through buying organic foods and other non-toxic, healthy and sustainable products.
<u>Land Conservation</u>	Demonstrated adherence and/or promotion of conservation of natural habitats by using Keys-Friendly landscaping practices and use of GreenThumb Certified Nurseries .
<u>R4 #1: Reduce</u>	Demonstrated reduction of waste through bulk buying, refillable products, double-sided printing, avoiding over-packaged products, closing the loop by purchasing products made of recycled, post consumer content; implementation of policies which encourage and/or mandate waste reduction.
<p>We use organic degreaser from Shakelee as a cleaner and make conscious decisions to keep to the spirit of reduction.</p>	
<u>R4 #2: Reuse</u>	Demonstrated reuse of products, buy second hand, donate unneeded items, and avoid disposables, and share magazines /other publications before recycling them.
<p>We always print 2 sided and we are reusing the oil from the islands.</p>	

<u>R4 #3: Rot (Compost)</u>	Demonstrated waste diversion through composting of food scraps and yard trimmings
<u>R4 #4: Recycle</u>	Demonstrated recycling of items accepted by local waste hauler and/or other items which may be recycled elsewhere (e.g., electronics, CFL light bulbs, cell phones, printer cartridges); implementation of policies which encourage and/or mandate recycling practices
Biodiesel is recycling!	
<u>Water Conservation</u>	Demonstrated use and/or promotion of water use reduction through efficient irrigation, xeriscaping, cisterns, rain barrels, water audits and/or use of reclaimed water.
We have a plan to collect the water from the Alternative Energy Center through cisterns that will water the playing fields and landscaping at KWHS.	
Water Quality	Demonstrated use and/or promotion of wastewater treatment, storm water retention, phosphorus free products, slow release fertilizers, animal waste reduction, etc.
Youth Leadership	Involve local students in projects and research for healthy long-term choices in any of the above for the future of all.
In addition to the class, we also participate in the Taste of Key West, Biodiesel RallyGovernment Going Green Symposium, and preparing our workforce for high quality, green collar jobs.	

GLEE Participation	Actively involved with GLEE via ideas, time and/or membership to help further GLEE's Mission and Goals .
Participated in GLEE's biodiesel summit, and will serve as a speaker on propulsion technology.	
Other Factors	Have you done something else not included in the scope of this application? Let us know!
I'm proud of our association with GLEE! The GLEE has been a wonderful help and great supporter of our program from the earliest onset, from grant writing, showing our film, and to work with the Expo.	

Part 3: Other Agency/Organization Factors

Team Commitment	List staff or other supportive people on your "Green Team"
Scott Douthit, Lorianne Oxley, Amy Jones, Lisa Clearman, John Welsh, Dave Perkins, Christina McPherson, Chris Valdez, Randy Acevedo, local restaurants, GLEE, Dori Collins, Jeff Sawyer, etc.	
Communications	How are your environmental efforts visibly communicated to staff, locals, tourists, shareholders, customers and/or vendors?
My students have started two blogs that detail the daily workings of the class. We've just started and we'll keep you posted.	
Certifications/Memberships	Do you currently hold any green certifications or memberships?

Part 4: Green Pledge

I certify that the above information is correct to the best of my knowledge.

