

US EPA ARCHIVE DOCUMENT

Hawaii Green Business Program

(Submitted to U.S. EPA National Center for Environmental Innovation- State Innovation Grants Program)

A. Contact Information

Project Name: *Hawaii Green Business Program*

Project Location: *State of Hawaii*

Project Period: *April 1, 2006 to March 31, 2008*

Name of EPA Employee & Office Sponsoring Project including mail code: *N. A.*

Recipient of Funds (Organization), if Funds Requested: *State of Hawaii, Department of Health (DOH), Solid and Hazardous Waste Branch*

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Cooperative Partners, if any: *Department of Business, Economic Development and Tourism (DBEDT), the Chamber of Commerce of Hawaii Foundation (Chamber), and the Hawaii Electric Company (HECO)*

B. Summary Statement – The Hawaii Green Business Program is a partnership between DBEDT, the DOH, the Chamber, and HECO. The Program has been in existence for three (3) years and has made great strides in promoting “green” conservation measures for water, energy, and waste. In 2004, the Partnership completed a water conservation card project for hotels. Eighty hotels ordered over 52,000 conservation cards. This has led to an estimated savings of 100 million gallons of water, 250 tons of detergent and energy to power 1,500 homes. Estimated energy savings alone are on the order of \$1.5 million from reduced energy costs. *The continued success of the program is the result of the unique partnership and cooperation in the Hawaii Green Business Program, which is composed of businesses and business organizations working with local and state governments to advance conservation and efficiency goals.* Promotion of EPA’s National Environmental Performance Track Program to industry and business entities in Hawaii would be a natural “next step” in the development of our program. It is a good match in that it is also a voluntary recognition program that rewards leaders in environmental stewardship.

Our proposal is to build on our present success by implementing a targeted seven (7)-point conservation and efficiency program, which will influence many businesses. This project will expand the Green Business Program to achieve the following Goals: 1) Conduct six green business forums, 2) Implement a project similar to the water conservation card project, focusing on pre-rinse nozzles for food services facilities in hotels and restaurants, 3) Develop specific implementation strategies for four and five star hotels (the majority of the conservation cards ordered were from one to three star hotels), 4) Work with hotels to implement conservation measures on a nationwide basis by selecting a few candidate hotels in Hawaii that share their success stories with national headquarters, 5) Document the implementation strategies utilized for the Hawaii Green Business Program with a report and figures that can serve as a possible model for green business implementation nationwide, the Pacific Territories, and other hotel chains with international affiliates, 6) Expand the Green Business Program to the Commercial Office Building Setting, and 7) Provide outreach/education in support of and encourage/assist interested facilities in participating in U.S. EPA's National Environmental Performance Track Program

C. Problem Statement & Project Overview

1. **Problem Statement** - Hawaii’s natural resources are limited and our ecosystem is fragile. In 2002 and 2003 there were drought conditions on Oahu, Maui, and Hawaii. Disposal space has become critical with much controversy over the location of additional landfills. Energy costs are high nationwide, and especially in Hawaii; due to the associated transportation costs and our heavy reliance on imported fossil fuels. The Hawaii Green Business Program can make a difference in cultivating a conservation ethic statewide.
2. **Project Overview** - The goals and objectives of this Program are to expand the Green Business Program through the seven-point proposal outlined in Section B. It is hoped to transform Hawaii’s hotel industry to Green Businesses, which cultivate a conservation ethic. Through the assistance and support of our existing, strong partnerships, and through innovative strategies, we will continue and build on our success in the Hawaii

Green Business Program.

3. **Benefits** - The Program already has been successful in promoting and facilitating the implementation of conservation measures that have saved considerable energy and water resources while reducing waste generation (see Section B). The Green Business Program has made a difference because it embraces a wide range of companies in an industry. In addition, because the Program is an active partnership, numerous agencies and organizations will donate significant in kind support. Using the water card project as an example, the Honolulu Board of Water Supply, Hawaiian Electric Company and the Maui Department of Water paid for printing of the cards, while the Sheraton and Hilton Hotels donated the use of their graphic designs so that the cards for the Hawaii Green Business Program could be easily produced. The end result was a significant savings in resources. Similar partnerships in future projects will be created, with the two key partners being the DOH, the Chamber and the Hawaiian Electric Company.
4. **Program's Consistency with Existing DOH Policies and Mandates** - The Department of Health's (DOH) continued involvement and support of the Hawaii Green Business Program and DOH's current application for innovation grant funding is consistent with existing DOH policies and mandates. DOH's mission "is to protect and improve the health and environment for all people in Hawaii." Pursuant to this mission, a stated goal of the department is to prevent pollution and promote and preserve a clean, health and natural environment by promoting resource conservation (recycling) and protecting and enhancing air and water quality. As stated in Part B (Summary Statement), the Hawaii Green Business Program (Program) promotes "green" conservation measures for water, energy and waste in the business sector, which is a major consumer of water and energy as well as a primary and secondary generator of waste and hence, pollution, in the State.

The Program goals and objectives are consistent with and supportive of the mission of the Solid and Hazardous Waste Branch of DOH (SHWB). SHWB mission, in part, is "to protect Hawaii's lands from pollutants that endanger people and the environment. . . ." To that end, SHWB is tasked with insuring the environmentally sound and economically cost effective management of solid and hazardous waste generated within the State through the promotion of pollution prevention and waste minimization activities and the development of proactive partnerships with both generators and the regulated community. . . ." Although, as previously stated, resource conservation recognition and implementation assistance is a major part of the Program, pollution prevention outreach and assistance is also emphasized. The Green Business Program is dedicated to promoting and facilitating the implementation of resource conservation and pollution prevention measures in the business community. The Waste Minimization and Pollution Prevention Coordinator (Coordinator) is the DOH's representative within the Green Business Program. The Coordinator is intrinsically involved in the planning and coordination of Program activities/forums and ensures the incorporation of pollution prevention/waste minimization education, as well as technical assistance into the Program.

As a condition of SHWB's 2006 Pollution Prevention and Waste Minimization Resource Conservation and Recovery Act (RCRA) 3011 Grant Agreement/Work Plan, DOH has agreed to "improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices" The involvement of SHWB's Waste Minimization and Pollution Prevention Coordinator and the incorporation of pollution prevention outreach and technical assistance in the Green Business Program supports and makes the Program consistent with the aforementioned federal grant objective. Further, the Coordinator has instituted RCRA compliance assistance to forum facilities as an adjunct to pollution prevention and waste minimization outreach. Compliance assistance is also required task under the DOH federal pollution prevention and waste minimization grant.

Linkage to EPA Strategic Plan. The Hawaii Green Business Program objectives to promote and provide outreach and technical assistance in resource conservation and pollution prevention to Hawaii businesses is also consistent with the EPA Strategic Plan, Goal 5 - Compliance and Environmental Stewardship, which incorporates Objective 5.2 - Improve Environmental Performance through Pollution Prevention and Innovation.

D. **Schedule with Milestones & Reporting**

1. Green Business Forums - Three Green Business Forums will be held per year. To date, ten (10) forums have been held from 2002 to 2005. Summaries of the 2002 and 2004 forums are found at the Hawaii Green Business Website:

www.state.hi.us/dbedt/ert/greenbusiness/index.html. In 2003, work was primarily to develop the website and

implement the water/conservation card project. Forums are scheduled for the following quarters: 2nd Quarter – 2006, 3rd Quarter – 2006, 4th Quarter – 2006, 1st Quarter – 2007, 2nd Quarter – 2007, 3rd Quarter – 2007, 4th Quarter – 2007, and (possibly) 1st Quarter - 2008.

The Green Business Forums have been organized, the agendas developed by DBEDT, DOH and Chamber. Major costs associated with this activity are related to the time in creating the agenda, organizing the forum, new program development, and attending the technical assistance events and trainings. Summaries of the meetings and the project results will be provided in the quarterly and summary reports, fact sheets, and posted on the website.

2. Pre-Rinse Nozzle Project – This project will involve initiation and evaluation of a pilot program, which will distribute 50 to 100 pre-rinse nozzles to 25 to 50 facilities (restaurants, hotels, etc.). Implementation of pre-rinse nozzles for hotel and independent restaurant facilities is expected (based on previous HECO studies) to result in considerable water and energy savings. The Project is expected to generate specific and measurable water and energy conservation outcomes as well as not readily measurable project energy and water savings outcomes via favorable project advertising and voluntary technology transfer. Project development is anticipated in the 2nd Quarter of 2006, with project outreach and implementation in the 3rd and 4th Quarters of 2006 and 1st Quarter of 2007. Project data collection, evaluation, summary and recap will be in the 2nd and 3rd Quarters of 2007. HECO, the Chamber, DBEDT, DOH will play major roles in organizing the project. These four (4) organizations, along with other members of the Chamber such as the Hawaii Hotel and Lodging Association will play roles in outreach and implementation. The Chamber is anticipated to play a major role with regard to contacting and involving restaurants in this project.

3. Green Business Implementation for High End Hotels – While many high-end hotels have been proactive in utilizing environmental conservation measures, they are reluctant to implement certain measures that they perceive could negatively affect hotel ratings, or be viewed as a downgrade in services by the hotel guest. This subtask involves interacting with national organizations rating hotels to develop specific strategies and suggestions for implementing conservation measures without affecting hotel ratings. At least 3 to 5 high-end hotels (the Halekulani and Kahala Mandarin hotels (both 4 star hotels) have already been contacted) in the Green Business Program will be contacted to structure suitable implementation strategies for these conservation measures. Background Project Development – 2nd, 3rd and 4th Quarters 2006. Project outreach – 1st Quarter 2007 – 2nd Quarter 2007. Project write-up along with Green Business Report – 3rd and 4th Quarters 2007 and 1st Quarter of 2008. Major Project Participants will be the Chamber of Commerce of Hawaii and the Hawaii Hotel & Lodging Association.

4. Green Business Implementation for National Chains – This subtask entails working with currently active national-chain hotels in the Hawaii Green Business Program (Sheraton, Hilton, Best Western, Fairmont, Marriott, Hawaii Prince, etc.). to determine how to improve the exchange of resource conservation and pollution prevention information and to facilitate the implementation of such environmental programs within other international, national and/or local hotel/resort chain in Hawaii. The goal of this project is to develop and implement an environmental information exchange network and implementation scheme that can serve as a model for other chains. Many of the measures conducted in Hawaii are innovative (e.g., solar powered brackish water system, drought resistant landscaping needing no pesticides or herbicides, or cogeneration facilities producing useable electricity and heat, etc.). These measures can be implemented on a nationwide basis based on the success of and feedback provided by the franchised hotel located in Hawaii. The goal is to facilitate conservation and pollution prevention measure information exchange up and down the company corporate chain. Our plan is to use internal corporate communication to facilitate implementation of conservation measures on a nation wide basis. Interviews with participating hotels - 3rd and 4th Quarters 2006. Project outreach – 1st, 2nd and 3rd Quarters 2007. Project Write-up, along with Green Business Report – 4th Quarter 2007 and 1st Quarter 2008.

5. Green Business Implementation - A report that outlines the innovative strategies in the Green Business Program will be generated in the 1st Quarter of 2008. This report will cover strategies initiated as far back as in 2002 and will also summarize the work in items 3 and 4, above. In compliance with EPA Policy Order 5700.7, the Program, via the subject report, will collect information and data, which results from implementation of subtasks 1, 2, 3, 4, 6, and 7 and summarize the data collected in terms of Program outputs and outcomes. The report will include Program outputs, e.g., number of business forums held (7); number of facilities participating in the pre-rinse nozzle project (50 to 100); number of high-end hotels successfully targeted for green implementation (3 to 5); the development of a corporate strategy and manual for hotel resource conservation and pollution prevention information and methods transfer, the number of commercial office building forums (3); etc. The report will also provide Program outcomes, which will be calculated using data provided by both the subject facilities, e.g., hotels, office buildings, restaurants, etc. and via information provided by Hawaii utilities (e.g., HECO has agreed to assist

in collection resource conservation data related to electricity usage, etc.). Further, the Green Business Program has developed and is currently revising its "Business Standards Checklist" form to elicit additional and more accurately calculated outcomes, e.g., energy savings, water conservation, and waste reduction, etc. data from Program facilities.

6. Green Business Implementation – Office Buildings - A Green Business Program with offices will be initiated that will concentrate on Commercial Office Buildings. This sector was selected because almost every business in Hawaii, or nationwide, has an administrative office. By cultivating the conservation concept, the greatest number of businesses can be encouraged to conserve water, energy and reduce solid and hazardous waste. Project development is anticipated in the – 2nd Quarter 2006. Project outreach – 3rd Quarter 2006 to 2nd Quarter 2007 (approximately 3 office buildings). Project Summary and Green Business fact sheets – 3rd Quarter 2007 and 4th Quarter 2007. Major Participants are the DOH, DBEDT, Chamber and HECO.

7. National Environmental Performance Track Program Promotion – Presentations, which include promoting the implementation and testing of Environmental Management Systems (EMS) to improve and maintain regulatory environmental compliance, at forums and other meetings with industries. Project outreach – 1st Quarter 2006 – 4th Quarter 2007. Project Write up along with Green Business Report – 3rd and 4th Quarters 2006 and 2007.

E. Response to Threshold Criteria

#1 A project must consist of activities authorized under one or more of six EPA grant authorities cited in Section 1.2 The Hawaii Green Business Program consists of activities authorized under Solid Waste Disposal Act, Section 8001 (42 U.S.C. §6981). The Program compiles and transfers information and technical assistance regarding pollution prevention and resource conservation to the Hawaii business community.

#2 A project's focus generally must be included among the ones that are specified in the statutes cited in Section 1.2. The Hawaii Green Business Program promotes and provides education and technical assistance in support of pollution prevention and resource conservation measures in Hawaii business sector.

#3 Applications must request funding within the Grant's specified funding limits. The instant grant application requests funding within the Grant's specified funding limits.

#4 Other Eligibility Information: The applicant, DOH, is the State of Hawaii's principal environmental regulatory agency, and this is the sole pre-proposal submitted by DOH for the subject grant solicitation.

#5 Appropriate use of limited EPA funding. The Hawaii Green Business Program is very cost effective because it builds on partnerships and in kind contributions from businesses. Due to the many in kind contributions for the water card project, the total hard cost expenditures were on the order of \$**** for the printing of the cards. The projected energy savings alone are estimated to be approximately \$****. Extensive in kind contributions are possible by working with businesses and professional organizations. When forums are held, participating hotels donate conference rooms and AV equipment. The Chamber and the Hotel Association enthusiastically provide mail outs and notices. More valuable time and resources are available to dedicate to developing presentations, the program, and the implementation of conservation measures. By working together, the environment, the community, government and businesses would all benefit from the Green Business Program.

Program sustainability - As stated above, the Hawaii Green Business Program (Program) effectively builds on partnerships and contributions from state/local agencies and businesses. The year 2006 represents a major turning point for the Program. In 2006, the Program will grow itself by venturing out into other types of businesses and provide more and different levels of outreach, education and assistance. The Program will require seed money to expand itself and its reach, which is the impetus for the instant innovation grant application. As demonstrated in the past, once the Program has overcome its initial metamorphosis, it is almost certain that the Program will be able to sustain and support itself by continuing to attract and build on its partnerships and associated in-kind and monetary contributions. For example, in 2006 the Hawaiian Electric Company has already agreed to partner with the Program and provide, not only personnel time and effort but also \$5,000 to cover some of the cost of the planned Pre-Rinse Nozzle Pilot Project.

Cost sharing - In addition to expected monetary and in-kind contributions from businesses and non-profit companies, such as the Chamber, discussed above, the Program will continue to receive in-kind contributions, including staff time and effort, from DBEDT and DOH (DOH will provide Coordinator in-kind funding via its EPA Pollution Prevention and Waste Minimization RCRA 3011 Grant).

F. Pre-Proposal evaluation criteria (Section 5.2)

5.2.1.1 Target National Priority Environmental Issues (25 Points). The Project's primary priority is to foster

“green” consumer and business decisions in Hawaii and promote their efforts through the Hawaii Green Business Program. This priority is consistent with EPA's innovation in environmental permitting or alternatives in permitting because implementation of “green” conservation and pollution prevention measures either obviates the need for or reduces the level of regulatory oversight. From a hazardous waste (HW) perspective, hotels/resorts are usually generators of HW. One of the goals of the Green Business Program is to reduce the quantity of solid waste as well as HW generated by these facilities. Reduction of the HW generated will allow the hotels to either not generate any HW and therefore become or remain a non-generator or remain as or become a conditionally exempt small quantity generator of HW (CESQG). A hotel that has either non-generator or CESQG status benefits because, HW regulation is unnecessary or minimized, respectively. Further, the environmental benefits include less HW generation, storage and disposal and, from a pollution prevention standpoint, reduced HW generation reduces the potential for releases to the environment and media transfers.

The Program addresses EPA's environmental protection improvement priorities via promoting and facilitating resource conservation (i.e., water, energy conservation and waste reduction/recycling), which assists in the reduction of greenhouse gases (less energy uses which reduces reliance on petroleum-based electricity production); restoration and maintenance of water quality (via pollution prevention measures and reduced contaminant media transfer); and reduction of the cost of water and wastewater infrastructure (via resource [water] conservation measures and pollution prevention/waste reduction resulting in reduced wastewater generation).

The Green Business Program's goals are consistent with EPA Strategic Plan goals for Clean Air (less energy usage/petroleum-based energy production reduction); Clean and Safe Water (less water consumption and pollution prevention to reduce water contamination via media transfer), land preservation (pollution prevention measures, which reduce environmental releases); and improved environmental performance through pollution prevention and program innovation

5.2.1.2 Building On Our Existing Knowledge Of Innovative Approaches and Expanding the Testing of Priority Innovations (20 points). The Green Business Program advocates the Environmental Results Program model, which represents an alternative to permitting. The Program is innovative as it relies heavily on strong and balanced participation from both business and government agencies. Furthermore, it concentrates in an industry that is not heavily regulated, in which small measures can make a significant difference. Therefore, it is relatively easy for business members to go above compliance and implement measures and activities that would probably never be required. Most importantly, it expands the Green Business concept to another region Hawaii, with the potential to go beyond.

The Program continues to grow itself. This year the Program will expand its outreach to test the resource conservation and pollution prevention potential of pre-rinse nozzles in restaurants and other facilities. Positive project results are expected, and the Program will apply those outcomes on a wider scale. Further, this year, the Program will promote and provide education and technical assistance for EPA's National Performance Track Program, through which the Program will also provide outreach regarding the benefits of EMSs, which could reduce the need for specific environmental regulation, e.g., permitting, etc.

5.2.1.3 Measured Improvement in Program Results from Project Implementation (20 points). Program success has been measured in the number of businesses participating in the program as well as resource and cost savings in water, energy and reduction in waste. For example, for the water card project, 80 hotels ordered 52,000 cards and saved an estimated 100 million gallons of water, 250 tons of detergent and energy to run 1,500 houses. This year, the Program will emphasize the collection of additional and more accurate data from its various projects. Data that will be collected will be clearer and more easily used to calculate resource savings, cost benefits and waste reduction. For example, the Program's business standards checklist is being revised to more prodigiously and accurately extract resource conservation and pollution prevention data from facilities. This data will be supplemented by data generated from affected utilities. Further, Program information and data will be compiled, evaluated and summarized in quarterly and final Program reports. Analysis of these summary reports are expected to increase transferability of the Program benefits while serving as a basis for Program efficiency improvements.

5.2.1.4 Transferring Innovation (20 points). An important goal of the Green Business Program is to transfer technology and innovation to other companies, whether they be in Hawaii or nationwide. Transferability to other regions is assisted by the fact that many of the local hotels are members of a nationwide chain (see Section D.4). Furthermore, an important requirement for the Green Business Award Ceremony (for 2002 and 2004 winners) is that conservation measures and results be shared within the industry. We feel this is a unique and important component of the Hawaii Program. Three hotels were awarded in 2002; four received awards for 2004, and 2 hotels are nominated for awards for 2005. Program information and performance data are readily available to

stakeholders and the public through DBEDT's Hawaii Green Business website. Further, documentation and publication of Program outcomes and innovation methods are accomplished both via the Website and through press releases resulting from the annual Green Business Awards Ceremony, which takes place in the Governor's Office. Two of the projects planned for this year identified the need to expand Program resource conservation and P2 innovations via hotel/resort corporate structures and to include commercial office buildings, which would allow these innovations to fill a more expansive need and serve a wider application. (See, D.4 & D.6). The Program will incorporate organizational change via two (2) planned projects - promoting and facilitation the adoption of a Green Business culture in and the implementation of environmental innovations in high-end, status-conscious hotels (see D.3) and by providing outreach, education and technical assistance regarding the adoption and implementation of EMSs by targeted Hawaii businesses. Further, Hawaii is committed to providing consultation and technical assistance to other States as well as nations regarding the Green Business. Although no specific commitments have been made, Program information is widely circulated and available via its Website, which lists Program contacts who are enthusiastically available for technical consultation and are always networking with other Green programs.

5.2.1.5 Project Cost (5 points). Please see Section E. #5 - Appropriate use of limited EPA funding for an explanation of reasonableness and efficiency of Program costs and budget.

5.2.1.6 Project Feasibility (15 points). The Program is beginning its 5th successful year. Program technical feasibility is measured by the growing number of participants as well as the stability of and increase in Program partners (DOH, DBEDT and the Chamber continue their support and involvement since the Program's outset, and HECO has recently joined in as an active partner). The success of the Program is also demonstrated by the continued ease in which participation in the Program is engendered, e.g., number of hotels agreeing to hold Green Forums and the request by hotels to hold as second Green Forum, etc. Requests for Program participation often are generated by hotel staff attendance at previous Green Forums.

5.2.1.7 Team Proposals (10 points). The Hawaii Green Business Program has relies on extensive Partnerships with other organizations. Very active members in the Program include the Chamber, Hawaii Hotel and Lodging Association, DBEDT, DOH, the water departments for all four counties in the State, the utility companies for the different islands, and numerous other organizations. Continued participation by many of these organizations will strengthen existing relationships. Letters of support from partners as well as key participating organizations will be provided upon request.

5.2.2 Evaluation by Regional Panels

5.2.2.1 Addressing Other EPA Regional-State Priorities (25 points). As previously stated, the Program's mission, goals and objectives are consistent with requirements of DOH's U.S. EPA Region 9 2006 RCRA Pollution Prevention (P2) and Waste Minimization Resource Conservation and Recovery Act (RCRA) 3011 Grant Agreement/Work plan, in which DOH has agreed to "improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices" EPA Region 9's P2 Grant Work plan requires DOH's involvement in the Green Business Program and designates SHWB's Waste Minimization and Pollution Prevention Coordinator as the Program's point of contact/Department representative. Further, the Coordinator has instituted RCRA compliance assistance to Green Business Forum facilities as an adjunct to pollution prevention and waste minimization outreach. Compliance assistance is also priority and required task under the EPA Region 9 P2 Grant Work plan for DOH.

5.2.2.2 Institutional Readiness and Commitment (25 points). The Program has been in existence for 4 years. Sufficient existing capacity and infrastructure exists in DOH as well as the major partners. Key personnel with the DOH, i.e., the Solid and Hazardous Waste Minimization and Pollution Prevention Coordinator and DBEDT, an energy analyst, have proven experience and expertise in coordinating the Program. Those positions continued to be dedicated by their respective agencies for purposes of ensuring the success of the Program. The principal Program partners, i.e., HECO and the Chamber, have dedicated staff (an energy manager and attorney, respectively) and, in the case of HECO, monetary contributions to the Program. All principle representatives have worked with the Program for a minimum 2 years. The combination of staff experience and supportive infrastructure reflect the necessary skills, resources and management capacity to ensure Program success.

5.2.2.3 Inclusion of a Public Involvement Processes (20 points). As state agencies, DOH and DBEDT are committed to ensure public knowledge of and participation in the Program. The Green Business Website is a public access website and can be accessed via DBEDT's general government/public website. Participation in the Program, which includes admission to Green Forums (free), is welcome and encouraged. The Program attempts to utilize a variety of speakers from all segments of society to present on green/environmental topics. The Program's high visibility and un-barred access evidence the Program's intent to reach and include public participation and a

wide spectrum of perspectives.

Budget Withheld by EPA