Written Testimony Presented Before the Senate Committee on Energy and Environment and Senate Committee on Education

April 1, 2008 at 2:45 p.m.

by
Virginia S. Hinshaw, Chancellor
University of Hawai'i at Mānoa
and
Gary K. Ostrander
Vice Chancellor for Research and Graduate Education
University of Hawai'i at Mānoa

SCR 227 / SR 134: REQUESTING THE UNIVERSITY OF HAWAII TO CONDUCT A STUDY ON THE MOLUCCA ALBIZIA TREE.

Chair Menor, Chair Sakamoto, and Members of the Committees:

Albizia trees are found throughout Hawai'i and it would be highly desirable to eliminate this invasive species. Unfortunately, the only currently feasible approach to eradication is the sequential elimination of individual trees. This has been previously discussed in a variety of venues since the first studies of Albizia were conducted by the Lyon Arboretum in 1985. This will be a costly endeavor that will run into the millions of dollars. The most reasonable approach would be to begin with the removal of trees that are likely to cause injury to property or persons should they fall. As such, we do not believe that it is necessary to conduct a study on the albizia tree, including a field inventory of these trees in at least the Ala Wai watershed area, as well as other areas throughout the State. Moreover, the University of Hawai'i does not have recourses budgeted for such a significant undertaking. We respectfully recommend against support of this resolution.

Thank you for the opportunity to testify.

Date: 04/01/2008

Committee: Senate Energy and Environment; Senate Education

Department:

Education

Person Testifying:

Patricia Hamamoto, Superintendent of Education

Title of Resolution:

SCR 230 REQUESTING THE ESTABLISHMENT OF A TASK FORCE TO

EVALUATE RECYCLING OPTIONS AVAILABLE TO SCHOOLS,

INCLUDING A FEASIBILITY REPORT RELATED TO THE

ESTABLISHMENT OF A SCHOOL RECYCLING PROGRAM IN THE

STATE.

Purpose of Resolution:

Requesting the establishment of a task force to evaluate recycling options available to schools, including a feasibility report related to the establishment of a school recycling program in the state.

Department's Position:

The Department of Education agrees that recycling is important and all schools should implement recycling programs to the extent possible. SB 2774, SD2, establishes a task force within the University of Hawaii to conduct an evaluation of the recycling options available to schools, including a summary feasibility report relating to the establishment of a school recycling program, the use of reverse vending machines, and the feasibility of providing recycling bins in schools throughout the State. The Department will work with that task force and will support the recommendations from the task force within budget limitations. If that bill is not successful, the Department will establish its own task force to evaluate recycling options available to schools. However, implementing recycling programs at schools may take funds which may not be available.



HAWAII FOOD INDUSTRY ASSOCIATION

820 Mililani St., Suite 810, Honolulu, Hawaii 96813 Phone (808) 533-1292 - Fax (808) 599-2606 - Email LISHawaii@aol.com



April 1, 2008

Senate Committee on Energy & Environment Senator Ron Menor, Chair / Senator Gary L. Hooser, Vice Chair

Senate Committee in Education Senator Norman Sakamoto, Chair / Senator Jill N. Tokuda, Vice Chair

Re: SCR 230 REQUESTING THE ESTABLISHMENT OF A TASK FORCE TO EVALUATE RECYCLING OPTIONS AVAILABLE TO SCHOOLS, INCLUDING A FEASIBILITY REPORT RELATED TO THE ESTABLISHMENT OF A SCHOOL RECYCLING PROGRAM IN THE STATE

Chairs & Committee Members:

We support this resolution as being a critical piece of the entire future of recycling for Hawaii, as the schools can help create the infrastructure that will lead to opportunities for the private sector to follow.

A good example of this is food recycling through composting, and the separation of polystyrene food-ware for recycling. Both will help jump start these programs leading to a change in how waste is handled.

HFIA is now partnering with the Department of Education in the creation of a video contest where high school students will create their own video presentations on what can be done to protect our environment. This may fit in well with this resolution in that it will encourage student participation on protection our environment.

April 1, 2008

To: Senate Committee on Energy & Environment

Senator Ron Menor, Chair / Senator Gary L. Hooser, Vice Chair

Senate Committee on Education

Senator Norman Sakamoto, Chair / Senator Jill N. Tokuda, Vice Chair

By:

Gilbert Yamda

Hawaii Foam Products, LLC.

Re: SCR 230 REQUESTING THE ESTABLISHMENT OF A TASK FORCE TO EVALUATE RECYCLING OPTIONS AVAILABLE TO SCHOOLS, INCLUDING A GEASIBILITY REPORT RELATED TO THE ESTABLISHMENT OF A SCHOOL RECYCLING PROGRAM IN THE STATE

Chairs & Committee Members

We support this resolution as recycling is the answer to Hawaii needs.

Polystyrene is currently being recycled in Massachusettes by a company called EPG. They already have a plant in operation and the owners name in Michael Forrest and he can be reached at (978) 764-4159 or his email address is michaelrecycle@aol.com. He is willing to set up a plant for recycling if we can provide him with the usage of school lunch trays in the State.



MEMORANDUM - March 27, 2008

To: The Honorable Ron Menor, Chair

Senate Energy and Environment Committee

The Honorable Clarence Nishihara, Chair

Senate Tourism and Government Operations Committee

From: Tim Shestek

Director, State Affairs & Grassroots

American Chemistry Council

Re: SCR 142 & SR 74 - OPPOSE

The American Chemistry Council (ACC) must respectfully oppose SCR 142 and SR 74, resolutions requesting state departments and agencies to voluntarily utilize biodegradable or recyclable non-polystyrene food service-ware. The following information is meant to clarify several misstatements and inaccuracies contained in the WHEREAS sections of both resolutions.

Unfortunately, these resolutions fail to consider the resource conserving benefits of polystyrene foam products and make the false assumption that replacement products are somehow manufactured in a vacuum without the use of any raw materials, energy, or water, or fuel to deliver the product. Polystyrene foam foodservice products, when compared to other food service containers, are very efficient in terms of minimizing air emissions, energy used in the manufacturing process and in reducing the amount of waterborne waste generated during the manufacturing process.

STYRENE IN CONTEXT

Polystyrene is made from the chemical styrene. Modern man has known about styrene for centuries. A naturally occurring substance, styrene is present in many foods and beverages, including wheat, beef, strawberries, peanuts and coffee beans. Also found in the spice cinnamon, its chemical structure is similar to cinnamic aldehyde, the chemical component that elicits cinnamon's flavor. It is naturally present to flavor foods, and is used as a flavoring additive to such food as baked goods, frozen dairy products, soft candy, and gelatins and puddings, with permission from the U.S. Food and Drug Administration (FDA). Styrene is not harmful in the very small amounts we sometimes may encounter in air or food.

Most people are exposed to styrene every day in tiny amounts that may be present in the air, or that occur in food (see 1st paragraph.) These generally are trace amounts, which were difficult to detect until recent technological advances occurred. Some people confuse styrene, which is a

liquid, with polystyrene, which is a solid plastic made from polymerized styrene. Styrene and polystyrene are fundamentally different. Polystyrene is inert and has no smell of styrene. As a polymerized form of styrene, polystyrene is not chemically the same substance as styrene. Also, any residual styrene present in a polystyrene foodservice container is so small that it does not cause negative health effects.

CLARIFYING MIS-STATEMENTS ABOUT POLYSTYENE

From a health perspective, there is absolutely no "contamination" of food in polystyrene packaging. Polystyrene foodservice disposables meet stringent U.S. Food and Drug Administration (FDA) standards for use in food-contact packaging and have been in use for over 50 years with a proven safety record. FDA, which regulates plastics used in food contact applications, the National Academy of Sciences (NAS), and other highly regarded federal authorities rely not on opinions, but on the weight of validated scientific evidence. The weight of scientific evidence overwhelmingly supports the safe use of polystyrene in food contact applications.

After an exhaustive assessment of styrene's possible health and environmental effects, an important decision was made in 1994 by the government agencies Health Canada and Environment Canada. These agencies concluded that styrene is "non-toxic" for regulatory purposes. Health Canada found that styrene "does not constitute a danger to human life and health" and "does not constitute a danger to the environment on which human life depends."

Moreover, according to the Harvard Center for Risk Analysis (HCRA) report "A Comprehensive Evaluation of the Potential Health Risks Associated with Occupational and Environmental Exposure to Styrene," which was published in the Journal of Toxicology and Environmental Health, Volume 5, Number 1-2 (Part B: Critical Reviews), January-June 2002, "The margins of exposure estimated for oral exposure to styrene from food, whether naturally occurring or as a result of migration from food packaging or other food contact items, indicate that risks are quite low and of no concern. The comparison dose used to derive the margins of exposure was obtained from a study using newborn rats, so those margins of exposure are expected to be protective of children as well as adults."

ENVIRONMENTAL BENEFITS OF POLYSTYRENE

All foodservice products – regardless of the material from which they are made – require the use of various natural resources (i.e. energy, water, etc.) across their product life cycle in the manufacturing process. A 2006 Life Cycle Inventory (LCI) study by Franklin and Associates showed that polystyrene foam foodservice products, when compared to other food service containers, are very efficient in terms of minimizing air emissions, energy used in the manufacturing process and in reducing the amount of waterborne waste generated during the manufacturing process. Calls to ban one material type without examining or considering the lifecycle impacts of polystyrene manufacturing and makes the false assumption that those products that would replace polystyrene are somehow manufactured in a vacuum without the use of any raw materials, energy, or water, or fuel to deliver the product.

ECONOMIC BENEFITS OF POLYSTYRENE PRODUCTS

Polystyrene foodservice products are generally more economical to use than other disposable foodservice products and reusable food service items. The wholesale price of single-use polystyrene foodservice products is often approximately two to three times less than other single-use containers, and four to five times less than a comparable reusable foodservice item when the costs of equipment, labor, water, electricity, and detergent costs are included. This allows schools, hospitals and other institutions to make better use of their limited budgets.

FACTS ABOUT DEGRADABLE CONTAINERS & MARINE DEBRIS

When considering policies to reduce litter and marine debris, some have suggested that "biobased" or "degradable containers" may be an answer. <u>However, bio-based containers only</u> "degrade" in a controlled composting environment — essentially a large industrial facility where temperatures can exceed 140 degrees for several days. These containers do not degrade if littered along side the road, deposited into a trash can, nor will they degrade if they make their way into a storm drain or other water body.

Furthermore, some recyclers and end-users of recycled plastic material have raised concerns over how bio-based containers pose a real and significant threat to the current plastics recycling stream.

An article written by Elizabeth Royte and published in the Smithsonian Magazine (August, 2006) raised many of these environmental issues associated with using biodegradable packaging. Royte writes "But PLA has considerable drawbacks that haven't been publicized...it turns out that there's no free lunch after all, regardless of what its container is made of..." Royte also writes "the cultivation of corn uses more nitrogen fertilizer, more herbicides and more insecticides than any other U.S. crop; those practices contribute to soil erosion and water pollution when nitrogen runs off fields into streams and rivers." One must acknowledge the environmental trade-offs associated with the use of any packaging material and whether a mandate to use one particular type of container or product will have the desired result of reducing litter and/or marine debris.

WORKING TOGETHER TO ADDRESS MARINE DEBRIS AND LITTER

Though we oppose bans on polystyrene food service products, ACC believes that all stakeholders, including our industry, grocers, retailers, and government agencies can and should play an active role in reducing litter and marine debris. Specific activities that can be undertaken include:

- Continue and expand litter cleanups organized by organizations like Keep America Beautiful.
- Increase the availability of trash, recycling and cigarette butt receptacles at public places, schools, and commercial establishments statewide.
- Promote environmental education and outreach on the impacts of marine debris and litter prevention.

• Direct all state agencies to implement a coordinated and robust statewide anti-litter campaign.

All of these activities must include the active participation of industry stakeholders, packaging manufacturers, retailers, restaurants, and the public sector if we are to be successful in reducing litter and marine debris.

Thank you for the opportunity to provide these comments. Should you have any questions or comments please contact our in-state representatives Red Morris and John Radcliffe at 808-531-4551 or you may contact me at 916-448-2581.



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April 1, 2008

Committee on Energy and Environment
Senator Ron Menor, Chair / Senator Gary L. Hooser, Vice Chair
Committee on Tourism and Government Operations
Senator Clarence K. Nishihara, Chair / Senator Donna Mercado Kim, Vice Chair

By: Lauren Zirbel or Richard C. Botti

Re: SCR 142 / SR 74 REQUESTING STATE DEPARTMENTS AND AGENCIES TO VOLUNTARILY UTILIZE BIODEGRADABLE OR RECYCLABLE NON-POLYSTYRENE FOAM FOOD SERVICE-WARE

Chairs & Committee Members:

Large scale recycling of polystyrene is feasible in Honolulu. However, there is little chance of any venture providing the necessary investment to build such a facility here with continued threats of outright banning the product. Our existing manufacturing facility of polystyrene products is in a situation not much unlike that of Molokai's, in that there are over one hundred jobs that may be eliminated if the Legislature continues to bash a product that provides a superior FDA approved product at a very favorable price made in Hawaii creating jobs locally.

Polystyrene has been the product of choice because of its price being 30% less expensive than the alternatives of compostable or biodegradable, and it is certified and approved for use in food service establishments, including schools. Further, school polystyrene food service-ware are currently being picked up at many schools and hauled to HPOWER to generate energy. This same polystyrene can be recycled into resins and used as a blend to make recycled content food-ware in Hawaii, or with new technology, can be turned into a high grade Diesel fuel.

Biodegradable products are moving forward. It is possible now for additives to be added to polystyrene to make it degrade. However, biodegradable polystyrene products can't be mixed with non-biodegradable polystyrene that is going to be recycled, as it would contaminate the mix rendering it non-recyclable.

Compostable is a warm and fuzzy word that does not necessarily mean what it says. Compostable products such as food service ware or grocery bags will not compose in landfills. They must go to commercial compost facilities. Their cost is substantially more to produce, at least at this time. This could easily change if we had more commercial compostable facilities, which would require food waste as the basic component. Compostable bags and food service ware could then piggyback on the food waste, and be composted.

The bottom line here is that the Legislature has to decide what direction you want these issues to go, understanding that for every action you make, there will be a reaction that includes more challenges, which will include the following:

- Higher cost to government;
- Higher cost to business that will be passed on to consumers;
- Biodegradable or compostable policies will abort recycling programs because a mix of ei-

ther into plastics heading to a recycling, will contaminate the batch, requiring the products to go to HPOWER or landfills as waste;

While compostable products may be the best option for the future, prices will be lowered only if an
adequate number of conveniently located commercial compost facilities are available, and production of compostable products move away from plastic. We could call this building an infrastructure with product flow following.

Plastic should not be thrown out with the bath water. Plastics currently provide the best cost, is a source of energy dropped in our lap as packaging, and the mix of compostable, biodegradable, and plastic is not an issue in a Waste To Energy Plants.

With this information, it is a policy decision that only the Legislature can make. However, if the Legislature did nothing, business innovations will solve the problem without government policy, as consumers would be making the decisions with their buying power. New inventions are entering the market weekly. Retailer's marketing strategies are to capture customers. They will do so with innovative ideas. Environmentally friendly products will grow based on consumer demands, price, and of course environmental desirability.

To give you an idea as to what is happening because of consumer demands and the high cost of energy consider the following:

- New additives are being promoted at this time that will allow plastics to be either compostable or biodegradable.
- Technology is now available to turn plastics into a high grade Diesel oil.

Government should be looking to partner with business in new ventures by providing tax credits for:

- Composting facilities; and
- Plastic to Diesel facilities.

Based on the information we have, the most logical decision would be to go in two directions:

- Build the infrastructure for composting food waste using food service establishments both within
 and outside of government. Then require all compostable products to be a specified color or be
 easily identifiable so they will not be commingled with plastic designated for recycling like the
 plastic bag recycling program being considered by this body.
- Build the infrastructure to turn plastic of all types into fuel by creating a separation of plastic waste and diverting it to energy producing facilities, whether they be the plastic to Diesel technology, or Waste To Energy (WTE).

In conclusion, we have major concerns with the inaccuracies or wrong assumptions with each WHEREAS in this resolution. The following pages expresses our concerns, which should also be your concerns, since your name will be on anything you adopt.

<u>The first WHEREAS</u> is not an accurate statement of fact. While polystyrene is a petroleum by-product, it is also a renewable resource. It is currently being recycled here in Kalihi on a small scale, and is becoming a major recyclable resource in schools on the Mainland.

The second WHEREAS if false, and should be removed as such. The facts are that all plastics are a recoverable resource, and simply do not belong in landfills. They should be either recycled, or utilized for their fuel value in the generation of electrical power or liquid fuel. From a health perspective, there is absolutely no "leaching of the chemical neurotoxin styrene" into food as a result of polystyrene packaging. Polystyrene foodservice disposables meet stringent U.S. Food and Drug Administration (FDA) standards for use in food-contact packaging and have been in use for over 50 years with a proven safety record. FDA, which regulates plastics used in food contact applications, the National Academy of Sciences (NAS), and other highly regarded federal authorities rely not on opinions, but on the weight of validated scientific evidence. The weight of scientific evidence overwhelmingly supports the safe use of polystyrene in food contact applications.

The third WHEREAS is inflammatory and misguided and should be removed as such. When considering policies to reduce litter and marine debris, it is important to remember that, bio-based containers only "degrade" in a controlled composting environment – essentially a large industrial facility where temperatures can exceed 140 degrees for several days. Furthermore, some recyclers and end-users of recycled plastic material have raised concerns over how bio-based containers pose a real and significant threat to the current plastics recycling stream.

An article written by Elizabeth Royte and published in the Smithsonian Magazine (August, 2006) raised many of these environmental issues associated with using biodegradable packaging. Royte writes "PLA has considerable drawbacks that haven't been publicized... the cultivation of corn uses more nitrogen fertilizer, more herbicides and more insecticides than any other U.S. crop; those practices contribute to soil erosion and water pollution when nitrogen runs off fields into streams and rivers." One must acknowledge the environmental trade-offs associated with the use of any packaging material and whether a mandate to use one particular type of container or product will have the desired result of reducing litter and/or marine debris.

All foodservice products – regardless of the material from which they are made – require the use of various natural resources (i.e. energy, water, etc.) across their product life cycle in the manufacturing process. A 2006 Life Cycle Inventory (LCI) study by Franklin and Associates showed that polystyrene foam foodservice products, when compared to other food service containers, are very efficient in terms of minimizing air emissions, energy used in the manufacturing process and in reducing the amount of waterborne waste generated during the manufacturing process. This bill arbitrarily condemns one material type without examining or considering the life-cycle impacts of polystyrene manufacturing and makes the false assumption that those products that would replace polystyrene are somehow manufactured in a vacuum without the use of any raw materials, energy, or water, or fuel to deliver the product. This is especially important considering many bio-degradable options are produced in China where labor, quality and environmental standards are know to be well below the labor, quality and environmental standards practiced in plants which produce polystyrene here on the island of Oahu. Not to mention the carbon footprint shipping supplies from China creates when we have a more economically viable product produced right here in Hawaii.

<u>The fourth WHEARAS</u> is likewise misleading and ignores the fact that landfills are sealed to prevent leakage of any trash. They are located below the water table, and it is an EPA violation for any liquid from such a facility to go into streams or the ocean.

Hawaii Food Industry Association . Testimony on SCR 142/SR74

The fifth WHEREAS which contains the statement, "incineration, it produces a dense, black, irritating smoke containing acidic gases and over ninety different chemical compounds, including carbon monoxide, carbon dioxide, and the known neurotoxin and possible carcinogen, styrene" is misleading to say the least and is referring to an open burn, which has been illegal in the United States for some time now. The technology used at HPOWER is anything but an open burn, in fact their emission standards are well below what is required and thanks to advanced technologies; such as, continuous emissions monitoring systems, electrostatic precipitators and air scrubbers, incinerator generated power is translated into clear emissions. New technologies are constantly being produced to make HPOWER even more environmentally friendly, such as the use of new bag house technology added to HPOWER to reduce the already low amounts of particle left in air byproduct.

<u>The sixth WHEREAS</u>, is a false and unsubstantiated claim. After an exhaustive assessment of styrene's possible health and environmental effects, an important decision was made in 1994 by the government agencies Health Canada and Environment Canada. These agencies concluded that styrene is "non-toxic" for regulatory purposes. Health Canada found that styrene "does not constitute a danger to human life and health" and "does not constitute a danger to the environment on which human life depends."

Moreover, according to the Harvard Center for Risk Analysis (HCRA) report "A Comprehensive Evaluation of the Potential Health Risks Associated with Occupational and Environmental Exposure to Styrene," which was published in the Journal of Toxicology and Environmental Health, Volume 5, Number 1-2 (Part B: Critical Reviews), January-June 2002, "The margins of exposure estimated for oral exposure to styrene from food, whether naturally occurring or as a result of migration from food packaging or other food contact items, indicate that risks are quite low and of no concern. The comparison dose used to derive the margins of exposure was obtained from a study using newborn rats, so those margins of exposure are expected to be protective of children as well as adults."

<u>The seventh, eight and ninth WHEREAS</u>, assume that polystyrene will not be disposed of properly. They also ignore the fact that polystyrene and biodegradable options will meet the same end in a landfill (as landfills are designed to eliminate moisture and air, the elements needed for degradation to occur) or in a waste to energy facility.

April 1, 2008

To: Senate Committee on Energy & Environment

Senator Ron Menor, Chair / Senator Gary L. Hooser, Vice Chair

Committee of Tourism and Government Operations

Senator Clarence K. Nishihara, Chair / Senator Donna Mercado Kim, Vice Chair

By:

Gilbert Yamada

Hawaii Foam Products, LLC.

Re:

SCR 142 SR 74 REQUESTING STATE DEPARTMENTS AND AGENCIES TO

VOLUNTARILY UTILIZE BIODEGRADABLE OR RECYCLABLE NON-POLYSTYRENE

FOAM FOOD SERVICE WARE.

Chairs & Committee Members

Recycling is the answer. The plan to convert expanded polystyrene foam to alternative products is with prejudice. The polystyrene resin that we use at Hawaii Foam Products is a USDA approved resin by the Federal Food and Drug Administration. If there is a dispute that the chemical styrene is a possible human carcinogen, then this problem should be addressed to the Federal Food and Drug Administration. In the earlier bills, benzene was illustrated as the carcinogen, but when we had written testimony from our resin manufacturers that benzene was not in our resin, we find this issue removed.

I have eaten from Styrofoam food containers for over 30 years and find the accusations untrue. Please have the individual introducing this bill to provide proof that individuals who have suffered from illness or died from the use of Styrofoam. The Federal Food and Drug Administration would immediately ban Styrofoam if this happened.

As to the issue of non-biodegradable nature and chemical composition of expanded polystyrene foam, which causes a significant threat to Hawaii's ecosystem and environment, we question the validity of this statement. Polystyrene is recyclable and we do it in our plant in Kalihi. We provide employment to over 100 people in the State of Hawaii. Currently a company called EPG out of Massachusetts is picking up Styrofoam school lunch trays and reprocessing back to pellets or resin. The resin is then sold to the processors that make styrene containers and recycled. Locally here in Hawaii, an island recycler is picking up our school lunch trays and delivering to H Power (Waste to Energy). Finally on the issue of threat to Hawaii's ecosystem and environment , people litter and pollute any items that is made or produced should be collected or recycled based on the reasons I have outlined. Many countries are collecting glass, aluminum cans, plastic bottles and containers and recycling. Hawaii has fallen behind. Recycling is working for these items, why not Styrofoam.

The issue of landfill should not be an issue, as we are running out of landfills in Hawaii and that is why H Power is being expanded. Due to the success of H Power, we find the Big Island of Hawaii going in that direction and hopefully other island's to follow.

On paragraph 4, page 2 of this resolution, pricing increases for biodegradable and environment friendly compostable trays will increase costs by 30% or over \$500,000.00 per year.

In checking with various schools we find usage of compostable school lunch trays being produced in China. We find these trays not very durable, and question the sanitation leve.

Based on the solutions that we have provided, we feel that polystyrene can be used in an environmentally friendly way. People litter and Styrofoam can be recycled in the same fashion as aluminum cans, glass bottles, plastic bottles, rubber tires, etc. With the high cost of luring food cost and commodities escalating, we must find ways to save money for the Department of Education.

From: randy ching [oahurandy@yahoo.com]

Sent: Saturday, March 29, 2008 10:23 AM

To: testimony

Subject: ENE/TSG: in support of SCR142/SR74

Senate Committee on Energy and Environment Chair Menor, Vice Chair Hooser Senate Committee on Tourism and Government Operations Chair Nishihara, Vice Chair Kim

Hearing on Tuesday, April 1 at 2:45 p.m. in conference room 414

In support of SCR142/SR74 -- REQUESTING STATE DEPARTMENTS AND AGENCIES TO VOLUNTARILY UTILIZE BIODEGRADABLE OR RECYCLABLE NON-POLYSTYRENE FOAM FOOD SERVICE-WARE.

Chairs Menor and Nishihara, Vice Chairs Hooser and Kim, and members of the committees,

The Sierra Club, Oahu Group supports SCR142/SR74. Oahu residents generate a tremendous amount of solid waste each year (over 1.2 million tons). We need to reduce that amount.

One way to reduce the amount of solid waste going into Waimanalo Gulch landfill is to not use styrofoam. We need to move away from polystyrene products. There are biodegradable and recyclable alternatives available. Let's use them.

By passing SCR142/SR74, you will be moving Hawaii one small step closer toward sustainability. Mahalo.

Sincerely,

Randy Ching Sierra Club, Oahu Group chair oahurandy@yahoo.com

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3133 Waialae Ave. Ste. 3903 Honolulu, HI 96816 Email: <u>info@styrophobia.com</u> Ph: (808) BE GREEN

March 31, 2008

Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / TOURISM & GOVERNMENT OPERATIONS

Thursday, April 1, 2008 - 2:45 P.M. - State Capitol Room 414

Re: Support for SCR 142 Requesting state departments and agencies to voluntarily utilize biodegradable or recyclable non-polystyrene foam food service-ware.

Aloha ENE Chair Menor, Vice-Chair Hooser TSG Chair Nishihara, Vice Chair Mercado Kim, and Members of the Committees:

I am writing in strong support of this resolution, which is a short-term compromise from the stalled bills banning Styrofoam disposables in the State.

In the event testimony is submitted by industry lobbyists attempting to mark the statements in this resolution as unsubstantiated, we address each of the key issues below confirming the facts and why passing these resolutions is so critical. The birds, seals, turtles, and fish of the Hawaiian Islands are dying, our beaches are polluted with plastic, we pay State and City workers to try and keep up with the loose and tumbling litter that never even makes it to the landfill.

Cities across the mainland such as San Francisco, Oakland, and Toronto and many others have won this environmental battle with powerful plastics lobbies and legislated outright bans on these products. This resolution offers simple encouragement to the public, to business, and to the Counties to change our polluting ways. Let's be an example for the world – the plastic is at our doorstep.

Mahalo for your kokua in supporting this resolution and for your public service,

Mike Elhoff

Marine Ingestion

In June 2006, the United Nations reported that there are, on average, around 46,000 pieces of plastic litter per square mile of ocean worldwide, causing the death of over 100,000 marine mammals and turtles and one million seabirds each year **as a result of eating or getting entangled with plastic debris**.

Polystyrene Spherules in Coastal Waters Edward J. Carpenter 1, Susan J. Anderson 1, George R. Harvey 1, Helen P. Miklas 1, and Bradford B. Peck 1 Woods Hole Oceanographic Institution, Woods Hole, Massachusetts 02543

Polystyrene spherules averaging 0.5 millimeter in diameter (range 0.1 to 2 millimeters) are abundant in the coastal waters of southern New England...White, opaque spherules are selectively consumed by 8 species of fish out of 14 species examined...Ingestion of the plastic may lead to intestinal blockage in smaller fish.

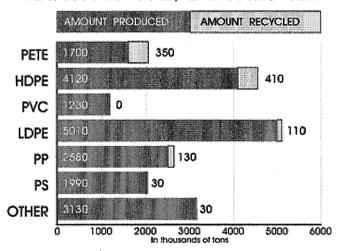
Harmful marine debris such as plastic bags, rubber, balloons and confectionery wrappers is frequently ingested by marine species, which confuse them with prey species. Most marine species feed non-selectively and may consume marine debris, particularly ones accumulated in the vicinity of food items. This debris usually causes a physical blockage in the digestive system, leading to internal injuries and pain. Turtles frequently ingest plastic bags, confusing them with jellyfish which is common prey for all turtles. Research indicates at least 56 species of sea birds confuse fish eggs and crustaceans with polystyrene balls and plastic buoys, and so consume the debris. Eventual starvation may occur. Injury and fatality to vertebrate marine life caused by ingestion of, or entanglement in, harmful marine debris.

Advice to the Australian Minister for Environment and Heritage from the Threatened Species Scientific Committee on a public nomination of a Key Threatening Process under the *Environment Protection and Biodiversity*Conservation Act 1999

Recycling

More than 15 million tons of Polystyrene "PS" (aka Styrofoam) is produced each year, but less than 2% is recycled (see chart). Styrofoam can not be practically recycled, it can not be composted, and it is **never biodegradable**.

PLASTICS PRODUCED/PLASTICS RECYCLED



"In recent years, several plastics recycling companies have closed their doors. They claimed they could not sell their products at a price that would allow them to stay in business. Thanks to the relatively low cost of petroleum today, the price of virgin plastic is so inexpensive that recycled plastic cannot compete. The price of virgin resin is about 40 percent lower than that of recycled resin.

Because recycled plastic is more expensive, people aren't exactly lining up to buy it. Surveys conducted by Procter & Gamble and others show that while most people expect their plastic to be recycled, they won't go out of their way or pay a few cents more to buy a bottle made of recycled plastic."

Source: Hawaii Food Industry Association website - http://www.eia.doe.gov/kids/energyfacts/saving/recycling/solidwaste/plastics.html

Health

1. From the **US Navy** (Sept. 2007): Naval Medical Center San Diego Nutrition Management Department is taking the lead Sept. 20 to protect its patrons and the environment. Balboa Café, the name given to the hospital galley, will systematically replace polystyrene (Styrofoam) take-out containers with more environmentally friendly biodegradable products. The full conversion will include 14 items with plans to phase in the remaining 12 by the end of the year.

The first items to be introduced are a compostable paper cup and a hinged, three compartment container made from sugar cane. These two items were chosen for the initial kick-off due to their high volume use. Hite said studies have shown the use of Styrofoam, which was initially developed during World War II as flexible electrical insulation, can have a long-term impact on health. In a 1986 U.S. Environmental Protection Agency Human Tissue Survey, styrene was found in 100 percent of all human fat tissues sampled.

"Styrofoam containers lose weight as styrene is absorbed into the food and drink held in the containers," said Hite. Styrene is unwittingly consumed and stored in human fatty tissue where it accumulates. Several factors determine the impact of styrene on an individual such as frequency of use and personal physiological factors. Those more sensitive to styrene build up may experience fatigue, nervousness, difficulty sleeping, blood abnormalities and carcinogenic effects. About half of the galley patrons manage their time with take out. That hectic pace motivated Laeske to want to help educate galley customers on the harmful effects of Styrofoam. For example, microwaving food in Styrofoam is particularly dangerous.

- 2. Bottled water may not be safer, or healthier, than tap water. The present studies have proved that styrene and some other aromatic compounds leach continuously from polystyrene (PS) bottles used locally for packaging. Water samples in contact with PS were extracted by a preconcentration technique called as "purge and trap" and analyzed by gas chromatograph-mass spectrometer (GC/MS). Eleven aromatic compounds were identified in these studies. Maximum concentration of styrene in PS bottles was 29.5 microg/L. Apart from styrene, ethyl benzene, toluene and benzene were also quantified but their concentrations were much less than WHO guide line values. All other compounds were in traces. Quality of plastic and storage time were the major factor in leaching of styrene. Concentration of styrene was increased to 69.53 microg/L after one-year storage. In Styrofoam and PS cups studies, hot water was found to be contaminated with styrene and other aromatic compounds. It was observed that temperature played a major role in the leaching of styrene monomer from Styrofoam cups. Paper cups were found to be safe for hot drinks. Environmental Control Department, Directorate General for Royal Commission at Yanbu, P.O. Box 30031 Yanbu Al-Sinaiyah, Kingdom of Saudi Arabia. maqbool_60@yahoo.com
- 3. "What are the Health Effects? Short-term: EPA has found styrene to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: nervous system effects such as depression, loss of concentration, weakness, fatigue and nausea. Long-term: Styrene has the potential to cause the following effects from a lifetime exposure at levels above the MCL: liver and nerve tissue damage; cancer.

How much Styrene is produced and released to the environment? Production of styrene was 10.7 billion lbs in 1993. It is released into the environment by emissions and effluents from its production and its use in polymer manufacture. Consumers may be exposed to styrene through contact with resin products used in fiberglass boat construction and repair, and in auto body fillers. Styrene may also leach from polystyrene containers used for food products."

United States Environmental Protection Agency. Pollution Prevention and Toxics. November 1994 EPA 749-F-95-019. OPPT Chemical Fact Sheets Styrene Fact Sheet (CAS No. 100-42-5) http://www.epa.gov/safewater/dwh/c-voc/styrene.html

Price

Styrofoam vs Paper vs Sugar Cane Bagasse - we took same case weight paper items manufactured by few different companies and compared the prices to bagasse prices. For a 10" plate, that's 1 cent more. Let's put 1 cent for the environment, for tourism, and our health!

	Pactiv Styrofoam	Chinet Paper	Pactiv Paper	World Centric Bagasse
9" Plate, 500 count/ea.	\$28 / .06ea	\$62 / .12ea	\$62 / .12ea	\$45 / .09ea
7" Plate , 1000 count/ea.	\$36 / .04ea	\$91 / .09ea		\$62 / .06ea
10" Plate, 500 count/ea.	\$48 / .10ea		\$87 / .17ea	\$57 / .11ea
10" 3 Compt. Plate 500 ct./ea.	\$48 / .10ea		\$83 / .16ea	\$57 / .11ea
12 oz bowls, 1000 count/ea.	\$36 / .04ea	\$70 / .07ea	\$67 / .06ea	\$68 / .07ea

Fuel Value

The Hawaii Food Industry Association (HFIA) has claimed that styrofoam has a high fuel value for burning at HPower incinerator. The weight of biodegradable (44g) to Styrofoam (10g) plates is 4.4 times. Styrofoam has a energy/weight value of 16,000BTU/lb. and biodegradable at 6,400BTU/lb. or 2.5 times the fuel energy by weight. Thus, biodegradable plant fiber containers offer 4.4/2.5 = 1.8 times the fuel value over their styrofoam counterpart. The styrofoam argument fails at HPower. Biodegradables will produce more BTU energy when burned. As confirmed in a phone interview with HPower officials, in addition to the higher overall fuel value, biodegradables burn at a lower temperature for a longer time, thus producing a more even combustion and higher overall boiler energy. Styrofoam has a high BTU/lb, but very little weight and a lot of volume. On a large scale waste diversion, such as the result of this legislation, converting to biodegradables offers almost twice the power.

Landfill Volume and Commercial Composting

Plastics lobbies claim that styrofoam takes up a very small percentage by weight, of the landfill. We know that styrofoam is light, but takes up a lot of volume. Our landfill is overflowing with volume. Let's report what really matters. Outer-Islands have no incinerator and therefore landfill or commercial composting are the only options. This resolution will encourage commercial composting and landfill diversion. Plastics are the #1 enemy of commercial composting facilities, contaminating product and raising costs. Biodegradable containers and bags help, not hurt composting efforts.

Not Paper vs. Styrofoam: Hawaii-made Sugar cane fiber!

While it is true paper can cost more, sugar cane fiber is very close in price as shown above. By staying with polystyrene, what's the environmental cost we are paying in trash collection, turned off tourists, increased fish prices, and landfill issues? The plastics lobby claims paper is worse than plastic for the environment – they have left out renewable plant fibers, such as Sugar Cane Bagasse – whose production is by far the lowest carbon footprint of all options. Sugar cane absorbs CO2 during growth, is **locally grown**, and is a byproduct, otherwise inefficiently burned due to its initial water content. By making food service ware, we can close the cycle on locally produced, grown, and composted.

Local Agriculture

There presently are two major sugar cane companies remaining in Hawaii. We currently import our biodegradable plates, cups, bowls, and take-out containers. The fact is, these products could all be made in Hawaii, by local companies, using local waste product. These companies will not move to manufacturing without a major shift away from styrofoam. Thus no incentives to change, no local manufacturing. Please encourage local agriculture by passing these resolutions.

Change

Previous testimony by Hawaii Foam Products / K Yamada Distributors was that they might be put out of business by this bill. The fact is KYD offers a vast array of products other than styrofoam, and it is by diversifying that businesses adapt and grow. We believe KYD could easily diversify into sugar cane molded products. We also point out to legislators to what real effort has been made over the decades as a major local producer of styrofoam, at public recycling awareness? This pollutant can not just be mass-produced without taking responsibility for the ecological consequences. McDonald's recognized this 18 years ago by eliminating styrofoam. The resolutions are a compromise that gives time for Hawaii Foam Products to adapt.

Proven Success

The City of San Francisco passed legislation completely banning food service styrofoam in 2007. In less than a year, according to the City agency SFEnvironment, they have an 80% compliance among the 1,440 restaurants and food establishments sampled. This - without one fine being issued. The bill works, and works well. The City had minimal expenditures, just a basic public education notice and vendor notification. Further, compostable service-ware and food scraps are now out of the landfill and being sent to a commercial composting facility. A resolution for the State of Hawaii promoting environmentally-friendly alternatives is a step in the right direction.

From:

JOHN KUNESH [spiritedmassage@msn.com]

Sent:

Monday, March 31, 2008 3:53 PM

To:

testimony

Subject: Testimony SCR 142

March 31, 2008

Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / TOURISM & GOVERNMENT OPERATIONS

Thursday, April 1, 2008 – 2:45 P.M. – State Capitol Room 414 Re: Support for SCR 142

Aloha ENE Chair Menor, Vice-Chair Hooser, TSG Chair Nishihara, Vice Chair Mercado Kim, and Members of the Committees:

I am writing in support of SCR 142

Simply put, many of Kauai's citizens lack the awareness and discipline in caring for our limited Island resource and it's unique vulnerability to trash especially at our beaches which lowers the attraction to our main income, Tourism.

Banning Styrofoam not only protects our beauty it adds a new sustainable business to Kauai in the form of biodegradable products from Sugar Cane fiber now being used increasingly worldwide.

This is not including the health benefits of not using petroleum containers with our hot food or beverage. Care to know about the toxins released with hot fried oily food that melts the foam? Trust the scientists, that well researched expose, alone will close your jaw! Let us not experiment on our children!

Also, I have seen a noticeable increase in business due to word-of-mouth advertising in support of environmentally friendly alternatives. Customers regularly comment on "how great these products are" and "why doesn't everyone use these?" Honored Legislators, that's your cue.

Respectfully,

John Kurtis Kunesh

1000 Friends of Kauai BOD











EcoFriendly Products and Services

To: Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / TOURISM & GOVERNMENT OPERATIONS

Thursday, April 1, 2008 - 2:45 P.M. - State Capitol Room 414

Re: Support for SCR 142 Date: March 31, 2008

Aloha ENE Chair Menor, Vice-Chair Hooser, TSG Chair Nishihara, Vice Chair Mercado Kim, and Members of the Committees:

I am writing in support of SCR 142, which proposes to support the discontinued use of polystyrene foam (styrofoam) food service-ware products in the State of Hawaii.

Our business currently purchases and redistributes biodegradable alternatives to petroleum-based service ware. Although these biodegradable products can cost more than styrofoam, we have found the cost is insignificant relative to the total cost of the product served (typically less than 4%). In addition, we have seen a noticeable increase in business due to word-of-mouth advertising in support of environmentally friendly alternatives. Customers regularly comment on "how great these products are" and "why doesn't everyone use these?"

The quality of these 100% plant-based cups, plates, containers and utensils is fantastic. Our customers can't believe the materials all come from plants and we get lots of smiles and support. Customers don't mind the extra 10-25 cents not to have to eat off Styrofoam, and in a recent comparison to other vendors—we found that many of the **biodegradable alternatives were even cheaper** than what the other vendors are currently offering here on Kauai.

We feel strongly that without a legislative message on these products, the majority of food vendors will not make the conversion on a large scale; for fear that they will be at a competitive disadvantage. Although this had not held true for our business, we believe a clear message from the legislature will encourage consumers, and in turn vendors to offer bio-friendly alternatives.

We believe biodegradables offer equal or superior performance, with no foul taste or odor. Our conversion to biodegradable products has been a winning solution for our business, our product quality, and for our conscience.

Any excuse that these products are not affordable is just not true. We face the same costs of doing business as other establishments, yet these products have had only a positive impact on our sales and in turn, our profitability. The time is long overdue for Hawaii to take better care of its aina — we can have healthy business and environment — but it will take encouragement from our elected officials to change our collective thinking.

Please help stop the possibility of more landfills and shipping trash to the mainland. We need to be an example of sustainability and stewardship. We support a total ban on Styrofoam in our food service establishments. Should you have any questions on how easy it was for us to convert to guilt-free biodegradables, please contact us.

Aloha, We Deliver! (808)631-9138

fast@alohawedeliver.com

From: Jobs at Down to Earth [jobs@downtoearth.org]

Sent: Monday, March 31, 2008 8:58 AM

To: testimony

Subject: support of SCR 142

March 31, 2008

Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / TOURISM & GOVERNMENT OPERATIONS

Thursday, April 1, 2008 - 2:45 P.M. - State Capitol Room 414

Re: Support for SCR 142

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I am writing in support of SCR 142, which proposes to support the discontinued use of polystyrene foam (styrofoam) food service-ware products in the State of Hawaii.

Biodegradable alternatives are important to our islands and make good business sense. I feel that more businesses will convert to biodegradables with the encouragement of the legislature, and that these resolutions are a good step in increasing consumer awareness and ultimately demand.

Please help stop the possibility of more landfills and shipping trash to the mainland. We need to be an example of sustainability and stewardship.

Mahalo.

Michele McKay

From: Lisa Dacalio [kaucoffee@gmail.com]

Sent: Monday, March 31, 2008 8:00 AM

To: testimony **Subject:** SCR142

Aloha, as coffee growers selling coffee, at times it is absurd how many styrofoam products are wasted and building up in our landfills.

We support the use of biodegradeable products and we ourselves have begun using sugar cane by products in using paper products such as cups that will go back into compost.

We support the efforts to keep our landfills minimally impacted and encourage users of biodegradables to get tax benefits and whatever else can make us further our mission to keep Hawaii an active and viable place to live which can sustain growing populations by using conservative/biodegradeable products.

Much Mahalo for any support to rid the landfills of syrofoam.

Lisa and James Dacalio PO Box 393 Pahala, HI 96777 www.kaucoffee.com

From: ginniberries [mail@ginniberries.com]

Sent: Monday, March 31, 2008 7:33 AM

To: testimony

Subject: SCR 142 & SCR 146

It is strongly my opinion as a business owner that we have the solution to ban styrofoam and use a local product to support changes in the future of our environment.

Furthermore, because our economy is so dependant on the tourism that is primarily based on the beauty of our islands, this just makes complete sense and proactive planning our part.

You will no doubt be commended for your forward thinking if you push forward to approve this resolution. Please support this change and make a difference in the years to come.

Sincerely,

S. Michelle Nakaya Owner Ginniberries Catering (808)371-7574 www.ginniberries.com

From: Kelly Buskirk [kellybuskirk@yahoo.com]

Sent: Monday, March 31, 2008 8:22 PM

To: testimony; info@styrophobia.com

Subject: Styrofoam Ban

March 31, 2008

Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / TOURISM & GOVERNMENT OPERATIONS

Thursday, April 1, 2008 - 2:45 P.M. - State Capitol Room 414

Re: Support for SCR 142

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Our restaurant currently purchases biodegradable alternatives to petroleum-based service ware. Although these biodegradable products can cost more than styrofoam, we have found the cost is insignificant relative to the total cost of the product served (typically less than 4%). In addition, we have seen a noticeable increase in business due to word-of-mouth advertising in support of environmentally friendly alternatives. Customers regularly comment on "how great these products are" and "why doesn't everyone use these?"

The quality of these 100% plant-based cups, plates, containers and utensils is great. Our customers can't believe the materials all come from plants and we get lots of smiles and support. Customers don't mind the extra 10-25 cents not to have to eat off Styrofoam.

We feel strongly that without a legislative message on these products, the majority of food vendors will not make the conversion on a large scale; for fear that they will be at a competitive disadvantage. Although this had not held true for our business, we believe a clear message from the legislature will encourage consumers, and in turn vendors to offer bio-friendly alternatives.

We believe biodegradables offer equal or superior performance, with no foul taste or odor. Our conversion to biodegradable products has been a winning solution for our business, our product quality, and for our conscience.

Any excuse that these products are not affordable is just not true. We face the same costs of doing business as other establishments, yet these products have had only a positive impact on our sales and in turn, our profitability. The time is long overdue for Hawaii to take better care of its aina – we can have healthy business and environment – but it will take encouragement from our elected officials to change our collective thinking.

Please help stop the possibility of more landfills and shipping trash to the mainland. We need to be an example of sustainability and stewardship. We support a total ban on Styrofoam in our food service establishments. Should you have any questions on how easy it was for us to convert to guilt-free biodegradables, please contact us.

Mahalo,

Kelly Buskirk, Kauai Resident

March 31, 2008

Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / TOURISM & GOVERNMENT OPERATIONS

Thursday, April 1, 2008 - 2:45 P.M. - State Capitol Room 414

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Mahalo,

Barbara Childers

From:

Thomas Pickett [bluh2o@aloha.net] Tuesday, April 01, 2008 4:24 AM testimony

Sent: To:

Subject:

scr142

Please Pass this bill.

Help put Hawaii on the cutting edge of common sense.

Tom Pickett Kilauea, Kauai



DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813 Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Web site: www.hawaii.gov/dbedt

Telephone: (808) 586-2355 Fax: (808) 586-2377

Statement of

THEODORE E. LIU

Director

Department of Business, Economic Development, and Tourism before the

SENATE COMMITTEES ON ENERGY AND ENVIRONMENT AND

ECONOMIC DEVELOPMENT AND TAXATION

Tuesday, April 1, 2008 2:45 PM State Capitol, Conference Room 414

in consideration of

SCR146-SR78

REQUESTING THE ESTABLISHMENT OF A VOLUNTARY COMPLIANCE PROGRAM TO ENCOURAGE COMMUNITIES AND BUSINESSES TO CONVERT TO EXPANDED POLY-STYRENE FOAM ALTERNATIVE PRODUCTS.

Chairs Menor and Fukunaga, Vice Chairs Hooser and Espero, and Members of the Committees.

Department of Business, Economic Development, and Tourism (DBEDT) agrees that since the environmental and health-related impacts of expanded polystyrene foam can pose a significant threat to the marine environment and wildlife in and around the State of Hawaii, communities and businesses should be encouraged to purchase more environmentally friendly alternatives. While the use of environmentally friendly biodegradable, compostable, or recyclable food service-ware products as an alternative to expanded polystyrene foam has been successfully modeled in Haleiwa Town's "Plastic Free Haleiwa Coalition's" efforts to reduce and ultimately eliminate the use of disposable plastics in their community, having DBEDT develop a

"voluntary compliance program" to do so will involve additional resources, staff time and funding. Having DBEDT also develop a list of alternatives to commonly used expanded polystyrene foam products, make the information known to the public, and submit a report to the legislature, will require resources and funding that are not currently available to enable DBEDT to create and maintain such a program at this time.

Therefore, we respectfully request that this resolution be held until the funding for staffing, program development and implementation is provided to support and develop this effort.

Thank you for the opportunity to offer these comments.





April 1, 2008

To: Senate Committee on Energy & Environment Senator Ron Menor, Chair / Senator Gary L. Hooser, Vice Chair

Senate Committee on Education Sentor Norman Sakamoto, Chair / Senator Jill N. Tokuda, Vice Chair

By: Lauren Zirbel or Richard C. Botti

Re: SCR 146 SR 78 REQUESTING THE ESTABLISHMENT OF A VOLUNTRY COMPLIANCE PROGRAM TO ENCOURAGE COMMUNITIES AND BUSINESSES TO CONVERT TO EXPANDED POLYSTYRENE FOAM ALTERNATIVE PRODUCTS.

Chairs & Committee Members:

While we have no problems with the purpose of this resolution, we strongly oppose the WHEREASES that are inaccurate and false. We question how such information that lacks credible background can be introduce as fact.

We request that the resolution title and content be amended to provide the Legislature with factual information on polystyrene so that the Legislature will have facts that are created by and from the Legislative Reference Bureau (LRB) rather than pulling inaccurate information from unreliable sources.

The Legislature can only make proper decisions based on accurate information. Once we have accurate information, the issue can be better addressed.

We will present the Committee with a DVD on how schools in Massachusetts recycle polystyrene food-ware and food waste at the same time. Polystyrene is not the criminal that this resolutions claims. It is manufactured here in Kalihi, and it is also recycled in Kalihi. It is possible to expand polystyrene recycling in Hawaii, which would allow for greater sustainability with lower prices, while creating local jobs. Is this bad?

From: randy ching [oahurandy@yahoo.com]

Sent: Saturday, March 29, 2008 10:36 AM

To: testimony

Subject: ENE/EDT: In support of SCR146/SR78

Senate Committee on Energy and Environment Chair Menor, Vice Chair Hooser Senate Committee on Economic Development and Taxation Chair Fukunaga, Vice Chair Espero

Hearing on Tuesday, April 1 at 2:45 p.m. in conference room 414

In support of SCR146/SR78 -- REQUESTING THE ESTABLISHMENT OF A VOLUNTARY COMPLIANCE PROGRAM TO ENCOURAGE COMMUNITIES AND BUSINESSES TO CONVERT TO EXPANDED POLYSTYRENE FOAM ALTERNATIVE PRODUCTS.

Chairs Menor and Fukunaga, Vice Chairs Hooser and Espero, and members of the committees,

The Sierra Club, Oahu Group supports SCR146/SR78. Oahu residents generate a tremendous amount of solid waste each year (over 1.2 million tons). We need to reduce that amount.

Plastic Free Haleiwa is a great model of how this could happen. That group has made a tremendous impact on the North Shore, getting businesses and residents to work together to reduce the use of styrofoam. Plastic Free Haleiwa can also advise DBEDT on how to set up a voluntary compliance program.

By passing SCR146/SR78, you will be moving <u>Hawaii</u> one small step closer toward sustainability. Mahalo.

Sincerely,

Randy Ching Sierra Club, Oahu Group chair oahurandy@yahoo.com

Looking for last minute shopping deals? Find them fast with Yahoo! Search.



MEMORANDUM - March 28, 2008

To:

The Honorable Ron Menor, Chair

Senate Energy and Environment Committee

The Honorable Carol Fukunaga, Chair

Senate Economic Development and Taxation Committee

From:

Tim Shestek

Director, State Affairs & Grassroots

American Chemistry Council

Re:

SCR 146 & SR 78 - OPPOSE

The American Chemistry Council (ACC) must respectfully oppose SCR 146 and SR 78, resolutions requesting the establishment of a voluntary compliance program to encourage communities and businesses to convert to expanded polystyrene foam alternative products. The following information is meant to clarify several misstatements and inaccuracies contained in the WHEREAS sections of both resolutions.

Unfortunately, these resolutions fail to consider the resource conserving benefits of polystyrene foam products and make the false assumption that replacement products are somehow manufactured in a vacuum without the use of any raw materials, energy, or water, or fuel to deliver the product. Polystyrene foam foodservice products, when compared to other food service containers, are very efficient in terms of minimizing air emissions, energy used in the manufacturing process and in reducing the amount of waterborne waste generated during the manufacturing process.

STYRENE IN CONTEXT

Polystyrene is made from the chemical styrene. Modern man has known about styrene for centuries. A naturally occurring substance, styrene is present in many foods and beverages, including wheat, beef, strawberries, peanuts and coffee beans. Also found in the spice cinnamon, its chemical structure is similar to cinnamic aldehyde, the chemical component that elicits cinnamon's flavor. It is naturally present to flavor foods, and is used as a flavoring additive to such food as baked goods, frozen dairy products, soft candy, and gelatins and puddings, with permission from the U.S. Food and Drug Administration (FDA). Styrene is not harmful in the very small amounts we sometimes may encounter in air or food.

Most people are exposed to styrene every day in tiny amounts that may be present in the air, or that occur in food (see 1st paragraph.) These generally are trace amounts, which were difficult to

detect until recent technological advances occurred. Some people confuse styrene, which is a liquid, with polystyrene, which is a solid plastic made from polymerized styrene. Styrene and polystyrene are fundamentally different. Polystyrene is inert and has no smell of styrene. As a polymerized form of styrene, polystyrene is not chemically the same substance as styrene. Also, any residual styrene present in a polystyrene foodservice container is so small that it does not cause negative health effects.

CLARIFYING MIS-STATEMENTS ABOUT POLYSTYENE

From a health perspective, there is absolutely no "contamination" of food in polystyrene packaging. Polystyrene foodservice disposables meet stringent U.S. Food and Drug Administration (FDA) standards for use in food-contact packaging and have been in use for over 50 years with a proven safety record. FDA, which regulates plastics used in food contact applications, the National Academy of Sciences (NAS), and other highly regarded federal authorities rely not on opinions, but on the weight of validated scientific evidence. The weight of scientific evidence overwhelmingly supports the safe use of polystyrene in food contact applications.

After an exhaustive assessment of styrene's possible health and environmental effects, an important decision was made in 1994 by the government agencies Health Canada and Environment Canada. These agencies concluded that styrene is "non-toxic" for regulatory purposes. Health Canada found that styrene "does not constitute a danger to human life and health" and "does not constitute a danger to the environment on which human life depends."

Moreover, according to the Harvard Center for Risk Analysis (HCRA) report "A Comprehensive Evaluation of the Potential Health Risks Associated with Occupational and Environmental Exposure to Styrene," which was published in the Journal of Toxicology and Environmental Health, Volume 5, Number 1-2 (Part B: Critical Reviews), January-June 2002, "The margins of exposure estimated for oral exposure to styrene from food, whether naturally occurring or as a result of migration from food packaging or other food contact items, indicate that risks are quite low and of no concern. The comparison dose used to derive the margins of exposure was obtained from a study using newborn rats, so those margins of exposure are expected to be protective of children as well as adults."

ENVIRONMENTAL BENEFITS OF POLYSTYRENE

All foodservice products – regardless of the material from which they are made – require the use of various natural resources (i.e. energy, water, etc.) across their product life cycle in the manufacturing process. A 2006 Life Cycle Inventory (LCI) study by Franklin and Associates showed that polystyrene foam foodservice products, when compared to other food service containers, are very efficient in terms of minimizing air emissions, energy used in the manufacturing process and in reducing the amount of waterborne waste generated during the manufacturing process. Calls to ban one material type without examining or considering the lifecycle impacts of polystyrene manufacturing and makes the false assumption that those products that would replace polystyrene are somehow manufactured in a vacuum without the use of any raw materials, energy, or water, or fuel to deliver the product.

ECONOMIC BENEFITS OF POLYSTYRENE PRODUCTS

Polystyrene foodservice products are generally more economical to use than other disposable foodservice products and reusable food service items. The wholesale price of single-use polystyrene foodservice products is often approximately two to three times less than other single-use containers, and four to five times less than a comparable reusable foodservice item when the costs of equipment, labor, water, electricity, and detergent costs are included. This allows schools, hospitals and other institutions to make better use of their limited budgets.

FACTS ABOUT DEGRADABLE CONTAINERS & MARINE DEBRIS

When considering policies to reduce litter and marine debris, some have suggested that "biobased" or "degradable containers" may be an answer. <u>However, bio-based containers only</u> "degrade" in a controlled composting environment – essentially a large industrial facility where temperatures can exceed 140 degrees for several days. These containers do not degrade if littered along side the road, deposited into a trash can, nor will they degrade if they make their way into a storm drain or other water body.

Furthermore, some recyclers and end-users of recycled plastic material have raised concerns over how bio-based containers pose a real and significant threat to the current plastics recycling stream.

An article written by Elizabeth Royte and published in the Smithsonian Magazine (August, 2006) raised many of these environmental issues associated with using biodegradable packaging. Royte writes "But PLA has considerable drawbacks that haven't been publicized...it turns out that there's no free lunch after all, regardless of what its container is made of..." Royte also writes "the cultivation of corn uses more nitrogen fertilizer, more herbicides and more insecticides than any other U.S. crop; those practices contribute to soil erosion and water pollution when nitrogen runs off fields into streams and rivers." One must acknowledge the environmental trade-offs associated with the use of any packaging material and whether a mandate to use one particular type of container or product will have the desired result of reducing litter and/or marine debris.

WORKING TOGETHER TO ADDRESS MARINE DEBRIS AND LITTER

Though we oppose bans on polystyrene food service products, ACC believes that all stakeholders, including our industry, grocers, retailers, and government agencies can and should play an active role in reducing litter and marine debris. Specific activities that can be undertaken include:

- Continue and expand litter cleanups organized by organizations like Keep America Beautiful.
- Increase the availability of trash, recycling and cigarette butt receptacles at public places, schools, and commercial establishments statewide.
- Promote environmental education and outreach on the impacts of marine debris and litter prevention.

• Direct all state agencies to implement a coordinated and robust statewide anti-litter campaign.

All of these activities must include the active participation of industry stakeholders, packaging manufacturers, retailers, restaurants, and the public sector if we are to be successful in reducing litter and marine debris.

Thank you for the opportunity to provide these comments. Should you have any questions or comments please contact our in-state representatives Red Morris and John Radcliffe at 808-531-4551 or you may contact me at 916-448-2581.



3133 Waialae Ave. Ste. 3903 Honolulu, HI 96816 Email: <u>info@styrophobia.com</u> Ph: (808) BE GREEN

March 31, 2008

Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / ECONOMIC DEVELOPMENT AND TAXATION Thursday, April 1, 2008 – 2:45 P.M. – State Capitol Room 414

Re: Support for SCR 146 Requesting the establishment of a voluntary compliance program to encourage communities and businesses to convert to expanded polystyrene foam alternative products.

Aloha ENE Chair Menor, Vice-Chair Hooser, Chair Fukunaga, Vice Chair Espero, and Members of the Committees:

I am writing in strong support of this resolution, which is a short-term compromise from the stalled bills banning Styrofoam disposables in the State.

In the event testimony is submitted by industry lobbyists attempting to mark the statements in this resolution as unsubstantiated, we address each of the key issues below confirming the facts and why passing these resolutions is so critical. The birds, seals, turtles, and fish of the Hawaiian Islands are dying, our beaches are polluted with plastic, we pay State and City workers to try and keep up with the loose and tumbling litter that never even makes it to the landfill.

Cities across the mainland such as San Francisco, Oakland, and Toronto and many others have won this environmental battle with powerful plastics lobbies and legislated outright bans on these products. This resolution offers simple encouragement to the public, to business, and to the Counties to change our polluting ways. Let's be an example for the world – the plastic is at our doorstep.

Mahalo for your kokua in supporting this resolution and for your public service,

Mike Elhoff

Marine Ingestion

In June 2006, the United Nations reported that there are, on average, around 46,000 pieces of plastic litter per square mile of ocean worldwide, causing the death of over 100,000 marine mammals and turtles and one million seabirds each year **as a result of eating or getting entangled with plastic debris**.

Polystyrene Spherules in Coastal Waters Edward J. Carpenter 1, Susan J. Anderson 1, George R. Harvey 1, Helen P. Miklas 1, and Bradford B. Peck 1 Woods Hole Oceanographic Institution, Woods Hole, Massachusetts 02543

Polystyrene spherules averaging 0.5 millimeter in diameter (range 0.1 to 2 millimeters) are abundant in the coastal waters of southern New England...White, opaque spherules are selectively consumed by 8 species of fish out of 14 species examined...Ingestion of the plastic may lead to intestinal blockage in smaller fish.

Harmful marine debris such as plastic bags, rubber, balloons and confectionery wrappers is frequently ingested by marine species, which confuse them with prey species. Most marine species feed nonselectively and may consume marine debris, particularly ones accumulated in the vicinity of food items. This debris usually causes a physical blockage in the digestive system, leading to internal injuries and pain. Turtles frequently ingest plastic bags, confusing them with jellyfish which is common prey for all turtles. Research indicates at least 56 species of sea birds confuse fish eggs and crustaceans with polystyrene balls and plastic buoys, and so consume the debris. Eventual starvation may occur. Injury and fatality to vertebrate marine life caused by ingestion of, or entanglement in, harmful marine debris.

Advice to the Australian Minister for Environment and Heritage from the Threatened Species Scientific Committee on a public nomination of a Key Threatening Process under the Environment Protection and Biodiversity Conservation Act 1999

Recycling

More than 15 million tons of Polystyrene "PS" (aka Styrofoam) is produced each year, but less than 2% is recycled (see chart). Styrofoam can not be practically recycled, it can not be composted, and it is never biodegradable.

AMOUNT PRODUCED AMOUNT RECYCLED 1700 350 PETE al 20 410 HDPE **PVC** 2.00 0 LDPE 2.580 PP PS 1001 3130 **OTHER** 2000 3000 4i In thousands of tons

1000

PLASTICS PRODUCED/PLASTICS RECYCLED

"In recent years, several plastics recycling companies have closed their doors. They claimed they could not sell their products at a price that would allow them to stay in business. Thanks to the relatively low cost of petroleum today, the price of virgin plastic is so inexpensive that recycled plastic cannot compete. The price of virgin resin is about 40 percent lower than that of recycled resin.

ക്കവ

5000

4000

Because recycled plastic is more expensive, people aren't exactly lining up to buy it. Surveys conducted by Procter & Gamble and others show that while most people expect their plastic to be recycled, they won't go out of their way or pay a few cents more to buy a bottle made of recycled plastic."

Source: Hawaii Food Industry Association website link - http://www.eia.doe.gov/kids/energyfacts/saving/recycling/solidwaste/plastics.html

Health

1. From the **US Navy** (Sept. 2007): Naval Medical Center San Diego Nutrition Management Department is taking the lead Sept. 20 to protect its patrons and the environment. Balboa Café, the name given to the hospital galley, will systematically replace polystyrene (Styrofoam) take-out containers with more environmentally friendly biodegradable products. The full conversion will include 14 items with plans to phase in the remaining 12 by the end of the year.

The first items to be introduced are a compostable paper cup and a hinged, three compartment container made from sugar cane. These two items were chosen for the initial kick-off due to their high volume use. Hite said studies have shown the use of Styrofoam, which was initially developed during World War II as flexible electrical insulation, can have a long-term impact on health. In a 1986 U.S. Environmental Protection Agency Human Tissue Survey, styrene was found in 100 percent of all human fat tissues sampled.

- "Styrofoam containers lose weight as styrene is absorbed into the food and drink held in the containers," said Hite. Styrene is unwittingly consumed and stored in human fatty tissue where it accumulates. Several factors determine the impact of styrene on an individual such as frequency of use and personal physiological factors. Those more sensitive to styrene build up may experience fatigue, nervousness, difficulty sleeping, blood abnormalities and carcinogenic effects. About half of the galley patrons manage their time with take out. That hectic pace motivated Laeske to want to help educate galley customers on the harmful effects of Styrofoam. For example, microwaving food in Styrofoam is particularly dangerous.
- 2. Bottled water may not be safer, or healthier, than tap water. The present studies have proved that styrene and some other aromatic compounds leach continuously from polystyrene (PS) bottles used locally for packaging. Water samples in contact with PS were extracted by a preconcentration technique called as "purge and trap" and analyzed by gas chromatograph-mass spectrometer (GC/MS). Eleven aromatic compounds were identified in these studies. Maximum concentration of styrene in PS bottles was 29.5 microg/L. Apart from styrene, ethyl benzene, toluene and benzene were also quantified but their concentrations were much less than WHO guide line values. All other compounds were in traces. Quality of plastic and storage time were the major factor in leaching of styrene. Concentration of styrene was increased to 69.53 microg/L after one-year storage. In Styrofoam and PS cups studies, hot water was found to be contaminated with styrene and other aromatic compounds. It was observed that temperature played a major role in the leaching of styrene monomer from Styrofoam cups. Paper cups were found to be safe for hot drinks. Environmental Control Department, Directorate General for Royal Commission at Yanbu, P.O. Box 30031 Yanbu Al-Sinaiyah, Kingdom of Saudi Arabia. magbool 60@yahoo.com
- 3. "What are the Health Effects? Short-term: EPA has found styrene to potentially cause the following health effects when people are exposed to it at levels above the MCL for relatively short periods of time: nervous system effects such as depression, loss of concentration, weakness, fatigue and nausea. Long-term: Styrene has the potential to cause the following effects from a lifetime exposure at levels above the MCL: liver and nerve tissue damage; cancer.

How much Styrene is produced and released to the environment? Production of styrene was 10.7 billion lbs in 1993. It is released into the environment by emissions and effluents from its production and its use in polymer manufacture. Consumers may be exposed to styrene through contact with resin products used in fiberglass boat construction and repair, and in auto body fillers. Styrene may also leach from polystyrene containers used for food products."

United States Environmental Protection Agency. Pollution Prevention and Toxics. November 1994 EPA 749-F-95-019. OPPT Chemical Fact Sheets Styrene Fact Sheet (CAS No. 100-42-5) http://www.epa.gov/safewater/dwh/c-voc/styrene.html

Price

Styrofoam vs Paper vs Sugar Cane Bagasse - we took same case weight paper items manufactured by few different companies and compared the prices to bagasse prices. For a 10" plate, that's 1 cent more. Let's put 1 cent for the environment, for tourism, and our health!

	Pactiv Styrofoam	Chinet Paper	Pactiv Paper	World Centric Bagasse
9" Plate, 500 count/ea.	\$28 / .06ea	\$62 / .12ea	\$62 / .12ea	\$45 / .09ea
7" Plate , 1000 count/ea.	\$36 / .04ea	\$91 / .09ea		\$62 / .06ea
10" Plate, 500 count/ea.	\$48 / .10ea		\$87 / .17ea	\$57 / .11ea
10" 3 Compt. Plate 500 ct./ea.	\$48 / .10ea		\$83 / .16ea	\$57 / .11ea
12 oz bowis, 1000 count/ea.	\$36 / .04ea	\$70 / .07ea	\$67 / .06ea	\$68 / .07ea

Fuel Value

The Hawaii Food Industry Association (HFIA) has claimed that styrofoam has a high fuel value for burning at HPower incinerator. The weight of biodegradable (44g) to Styrofoam (10g) plates is 4.4 times. Styrofoam has a energy/weight value of 16,000BTU/lb. and biodegradable at 6,400BTU/lb. or 2.5 times the fuel energy by weight. Thus, biodegradable plant fiber containers offer 4.4/2.5 = **1.8 times the fuel value over their styrofoam counterpart**. The styrofoam argument **fails** at HPower. Biodegradables will produce more BTU energy when burned. As confirmed in a phone interview with HPower officials, in addition to the higher overall fuel value, biodegradables burn at a lower temperature for a longer time, thus producing a more even combustion and higher overall boiler energy. Styrofoam has a high BTU/lb, but very little weight and a lot of volume. On a large scale waste diversion, such as the result of this legislation, converting to biodegradables offers almost twice the power.

Landfill Volume and Commercial Composting

Plastics lobbies claim that styrofoam takes up a very small percentage by weight, of the landfill. We know that styrofoam is light, but takes up a lot of volume. Our landfill is overflowing with volume. Let's report what really matters. Outer-Islands have no incinerator and therefore landfill or commercial composting are the only options. This resolution will encourage commercial composting and landfill diversion. Plastics are the #1 enemy of commercial composting facilities, contaminating product and raising costs. Biodegradable containers and bags help, not hurt composting efforts.

Not Paper vs. Styrofoam: Hawaii-made Sugar cane fiber!

While it is true paper can cost more, sugar cane fiber is very close in price as shown above. By staying with polystyrene, what's the environmental cost we are paying in trash collection, turned off tourists, increased fish prices, and landfill issues? The plastics lobby claims paper is worse than plastic for the environment – they have left out renewable plant fibers, such as Sugar Cane Bagasse – whose production is by far the lowest carbon footprint of all options. Sugar cane absorbs CO2 during growth, is

locally grown, and is a byproduct, otherwise inefficiently burned due to its initial water content. By making food service ware, we can close the cycle on locally produced, grown, and composted.

Local Agriculture

There presently are two major sugar cane companies remaining in Hawaii. We currently import our biodegradable plates, cups, bowls, and take-out containers. The fact is, these products could all be made in Hawaii, by local companies, using local waste product. These companies will not move to manufacturing without a major shift away from styrofoam. Thus no incentives to change, no local manufacturing. Please encourage local agriculture by passing these resolutions.

Change

Previous testimony by Hawaii Foam Products / K Yamada Distributors was that they might be put out of business by this bill. The fact is KYD offers a vast array of products other than styrofoam, and it is by diversifying that businesses adapt and grow. We believe KYD could easily diversify into sugar cane molded products. We also point out to legislators to what real effort has been made over the decades as a major local producer of styrofoam, at public recycling awareness? This pollutant can not just be mass-produced without taking responsibility for the ecological consequences. McDonald's recognized this 18 years ago by eliminating styrofoam. The resolutions are a compromise that gives time for Hawaii Foam Products to adapt.

Proven Success

The City of San Francisco passed legislation completely banning food service styrofoam in 2007. In less than a year, according to the City agency SFEnvironment, they have an 80% compliance among the 1,440 restaurants and food establishments sampled. This - without one fine being issued. The bill works, and works well. The City had minimal expenditures, just a basic public education notice and vendor notification. Further, compostable service-ware and food scraps are now out of the landfill and being sent to a commercial composting facility. A resolution for the State of Hawaii promoting environmentally-friendly alternatives is a step in the right direction.











EcoFriendly Products and Services

To: Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / ECONOMIC DEVELOPMENT AND TAXATION

Thursday, April 1, 2008 - 2:45 P.M. - State Capitol Room 414

Re: Support for SCR 146 Date: March 31, 2008

Aloha ENE Chair Menor, Vice-Chair Hooser, EDT Chair Fukunaga, Vice Chair Espero, and Members of the Committees:

I am writing in support of SCR 146, which proposes to support the discontinued use of polystyrene foam (styrofoam) food service-ware products in the State of Hawaii.

Our business currently purchases and redistributes biodegradable alternatives to petroleum-based service ware. Although these biodegradable products can cost more than styrofoam, we have found the cost is insignificant relative to the total cost of the product served (typically less than 4%). In addition, we have seen a noticeable increase in business due to word-of-mouth advertising in support of environmentally friendly alternatives. Customers regularly comment on "how great these products are" and "why doesn't everyone use these?"

The quality of these 100% plant-based cups, plates, containers and utensils is fantastic. Our customers can't believe the materials all come from plants and we get lots of smiles and support. Customers don't mind the extra 10-25 cents not to have to eat off Styrofoam. In fact, in a recent price comparison to other vendors—many of the **biodegradable products are even cheaper** than what is offered here on our island of Kauai.

We feel strongly that without a legislative message on these products, the majority of food vendors will not make the conversion on a large scale; for fear that they will be at a competitive disadvantage. Although this had not held true for our business or our clients, we believe a clear message from the legislature will encourage consumers, and in turn vendors to offer bio-friendly alternatives.

We believe biodegradables offer equal or superior performance, with no foul taste or odor. Our conversion to biodegradable products has been a winning solution for our business, our product quality, and for our conscience.

Any excuse that these products are not affordable is just not true. We face the same costs of doing business as other establishments, yet these products have had only a positive impact on our sales and in turn, our profitability. The time is long overdue for Hawaii to take better care of its aina – we can have healthy business and environment – but it will take encouragement from our elected officials to change our collective thinking.

Please help stop the possibility of more landfills and shipping trash to the mainland. We need to be an example of sustainability and stewardship. We support a total ban on Styrofoam in our food service establishments. Should you have any questions on how easy it was for us to convert to guilt-free biodegradables, please contact us.

Aíoha, We Deliver! (808)631-9138

fast@alohawedeliver.com http://alohawedeliver.com

From:

ginniberries [mail@ginniberries.com]

Sent:

Monday, March 31, 2008 7:33 AM

To:

testimony

Subject: SCR 142 & SCR 146

It is strongly my opinion as a business owner that we have the solution to ban styrofoam and use a local product to support changes in the future of our environment.

Furthermore, because our economy is so dependant on the tourism that is primarily based on the beauty of our islands, this just makes complete sense and proactive planning our part.

You will no doubt be commended for your forward thinking if you push forward to approve this resolution. Please support this change and make a difference in the years to come.

Sincerely,

S. Michelle Nakaya Owner Ginniberries Catering (808)371-7574 www.ginniberries.com

From: Kelly Buskirk [kellybuskirk@yahoo.com]

Sent: Monday, March 31, 2008 8:27 PM

To: testimony; info@styrophobia.com

Subject: SCR 146

March 31, 2008

Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / ECONOMIC DEVELOPMENT AND TAXATION

Thursday, April 1, 2008 – 2:45 P.M. – State Capitol Room 414

Re: Support for SCR 146

Aloha ENE Chair Menor, Vice-Chair Hooser, EDT Chair Fukunaga, Vice Chair Espero, and Members of the Committees:

I am writing in support of **SCR 146**, which proposes to support the discontinued use of polystyrene foam (styrofoam) food service-ware products in the State of Hawaii.

The business I manage on Kauai, recently purchased petroleum alternative, biodegradable bags, cups and cutlery. We are so happy to no longer use plastic bags and styrofoam and we get a wonderful response from our customers. We would never go back. Its time for a change!

Mahalo, Kelly Buskirk

From: Barb Childers [kekahabarb@msn.com]
Sent: Monday, March 31, 2008 4:11 PM
To: testimony; info@styrophobia.com

March 31, 2008

Testimony before the: SENATE COMMITTEES ON ENERGY & ENVIRONMENT / ECONOMIC DEVELOPMENT AND TAXATION

Thursday, April 1, 2008 - 2:45 P.M. - State Capitol Room 414

Re: Support for SCR 146

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Mahalo,

Barbara Childers



DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR

STRATEGIC INDUSTRIES DIVISION
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Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
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Statement of
THEODORE E. LIU
Director

Department of Business, Economic Development, and Tourism before the

SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

State Capitol, Conference Room 414
Tuesday, April 1, 2008
2:45 p.m.
in consideration of
HB647 HD2

RELATING TO ENERGY.

The Department of Business, Economic Development, and Tourism (DBEDT) supports HB647, HD2, which repeals Section 196-18, Hawaii Revised Statutes, the energy resources public-private Advisory Committee.

Chair Menor, Vice Chair Hooser, and Members of the Committee.

The Advisory Committee's State Facilities Energy Management Advisory Committee

2008 Report to the Legislature contained twenty-five key recommendations in the areas of
reducing energy use, enhancing the use of renewable forms of energy, and improving building
design, among others. Recognizing that these recommendations would take some time to
implement, the Advisory Committee agreed to include a recommendation that this provision be
sunsetted. The Advisory Committee noted that DBEDT could continue to advocate for and
evaluate the progress of recommendations as well as evaluate any issues and concerns. Advisory
Committee members felt that the complexity and scope of recommendations -- most of which are
not currently part of energy management for the State, and some of which necessitated further
HB647HD2_BED_04-01-08_ENE_test.doc

study, analysis or funding -- offers an abundance of potential initiatives and policy measures, and members expressed hope that they be fully funded to ensure implementation.

The following is a quotation from the Advisory Committee's report:

The State Facilities Energy Management Advisory Committee strongly recommends that this provision be sunsetted. We believe that the recommendations made by this Committee will serve as a framework for future years to come. In addition to this Committee's recommendations, the various departments have their legislative and administrative directives to guide them. The Department of Business, Economic, Development, and Tourism already has authority to convene ad hoc discussion groups and committees to discuss and evaluate issues and concerns.

Noting the recommendations of the Advisory Committee, DBEDT supports the repeal of Section 196-18, HRS.

Thank you for the opportunity to offer these comments.

John T. Harrison, PhD 3232 Kaohinani Drive Honolulu, HI 97817

Testimony on HB 647 HD2 before the Senate Committee on Energy and Environment Tuesday, April 1, 2008; 2:45 PM; Capitol Room 414

From: John T Harrison, PhD

Chair Menor, Vice Chair Hooser, and Members of the Committee:

HB 647 HD2 proposes to repeal §196-18, Hawai'i Revised Statutes thereby removing a requirement for annually convening the public advisory committee originally invoked under this section. As Chair of the 2007 Public Advisory Committee, and reflecting the unanimous view of the Committee as a whole, <u>I strongly support HB 647 HD2 as proposed</u>.

Hawai'i Revised Statutes (HRS) Section 196-1 recognizes both challenges and opportunities related to the State energy economy, calling for "strategic comprehensive planning in the effort towards achieving full utilization of Hawai'i's energy resources programs and the most effective allocation of energy resources throughout the State" (§196-1(2), HRS). Part II of HRS 196 directly addressed energy efficiency and planning in State facilities, calling in §196-18 for establishment of a public-private advisory committee to provide input to the State Energy Resources Coordinator. In 2007, I served as Chair of the State Facilities Energy Management Advisory Committee, presiding over extensive Committee deliberations on each of the 8 categories itemized in §196-18(b) HRS. Over many hours of discussion and mutual enlightenment, the Committee consistently blended wisdom and insight with candid analyses of both the advantages and challenges facing Hawai'i's energy future. Pursuant to provisions of §196-18(b)(8) HRS, findings and unanimous recommendations of the Committee were drafted, edited, and revised between October and early December 2007, reviewed by the Director of the Department of Business, Economic Development and Tourism and by the Governor, and presented in final form to the Legislature 20 days prior to the convening of the regular session of 2008.

As noted in testimony of the Director of DBEDT, the Advisory Committee Report included the strong recommendation that the statutory provision for an annual report to the legislature be repealed. As the legislature reviews the other detailed and far reaching recommendations of the Advisory Committee, you will note provisions for design and implementation of monitoring, audits, identification of various funding needs, policy development, incentive programs for energy conservation, purchasing and energy-savings contract specifications, and building design specifications to optimize long-term energy efficiency and conservation for State facilities. The Advisory Committee found that the exigency and centrality of energy resource management was of such importance that it would require a degree of prioritization that only could be met through creation and

adequate funding of a new line agency, a Department of Energy. Thus, the Committee's recommendations propose establishment of a new Department in order to fulfill existing Administrative and Legislative mandates, as well as to carry out the Committee's recommendations.

Although creation of a Department of Energy was not advanced in the Executive legislative agenda, its inclusion as the central recommendation of the Advisory Committee emphasizes the Committee's recognition of the importance of energy policy and management in charting a sustainable future for our State. Given the complexities of energy policy and the pathways to long-term energy management implementation, as well as the wide breadth of agencies of whom action is required, the recommendations of the Advisory Committee made specific reference to multi-year timelines and multiple review and reporting requirements from affected departments. For instance, Recommendation 1 calls for the DBEDT to establish agency energy consumption benchmarks and update them every 5 years. As a result, the Advisory Committee found that requiring an annual report, even though most elements of the Committee's recommendations were expected to entail years for implementation, was wasteful, inefficient, and injudicious. Given the far-reaching effects of the recommendations advanced by the Committee, an indefinite suspension of reporting requirements pursuant to §196-18(b)(8) was adopted by the Committee as its final recommendation.

HB 647 HD2 recommends that the reporting requirement for a public Advisory Committee be deleted from Chapter 196. Speaking on behalf of the Advisory Committee, I respectfully urge the Legislature to amend this measure in accordance with the Advisory Committee recommendations. Existing authority for convening fact-finding and discussion mechanisms resides within the DBEDT, and Legislative approval is not needed to establish an advisory mechanism in response to an emergent policy or administrative program need.

Finally, I call the legislature's attention to the rapidly changing global energy environment, which by virtue of its tendency to present rapid and unpredictable challenges and opportunities, requires a capacity for flexibility in administrative response. This capacity exists at present within the DBEDT mission and authority, and it would be better to rely upon the *ad hoc* convening of expert advisors to address policy and fact-finding needs than to assign these responsibilities to the State Facilities Energy Management Advisory Committee.

Thank you for the opportunity to testify.

Respectfully,

John T. Harrison, PhD 3232 Kaohinani Drive Honolulu, HI 96817



DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
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Telephone: (808) 586-2355 Fax: (808) 586-2377

Statement of

THEODORE E. LIU Director

Department of Business, Economic Development, and Tourism before the

SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

Tuesday, April 1, 2008 2:45 PM State Capitol, Conference Room 414

in consideration of

SCR82

REQUESTING THE DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT, AND TOURISM TO STUDY THE FEASIBILITY OF AND NEED FOR THE ESTABLISHMENT OF A GREEN ENERGY COORDINATOR OFFICE.

Chair Menor, Vice Chair Hooser, and Members of the Committee.

While the Department of Business, Economic Development, and Tourism (DBEDT) supports the general intent of the resolution, we respectfully suggest that such action at this time may be premature as we proceed with the Hawaii Clean Energy Initiative (HCEI).

Implementation of Hawaii Clean Energy Initiative (HCEI) will have many impacts and outcomes, as yet unforeseen. We recommend, therefore, that we let the HCEI go forward before any structural or organizational changes are made. HCEI may well clarify what and how a new structure/organizational change should develop to most advantageously support the transition to energy sustainability. The outcome of HCEI will determine the long-term energy structure.

In addition, conducting a study will demand DBEDT staff time and resources. We have limited staff and resources which must focus on implementation of the HCEI while still

supporting existing federal grant programs such as the State Energy Program (SEP) and the Special Projects grants which support the SEP.

The HCEI is major effort which will mightily tax our existing staff and resources, but is essential to collaborate and guide the process of penetrating an oil based economy with 70% renewable energy and accelerating the asset turnover necessary so that it is achieved within a generation.

Moving the HCEI forward will involve the development and support of five Working Groups composed of local, private, State, and federal experts in the areas of 1) Transportation & Fuels, 2) Electricity Generation, 3) Energy Delivery & Transmission 4) End Use Efficiency, and 5) an Integration Committee because we are really talking about a new network of assets and cash flows, together with regulation and policy, necessary to make it all happen.

There will also be Partnership Projects with local and US partners designed to demonstrate and commercialize new technologies and relieve technical barriers. New projects will be brought in with input from the Working Groups as they identify major barriers to penetration, acceleration, investment and stability.

The U.S. Department of Energy, the National Laboratories, and other Federal

Departments such as Department of Defense and U.S. Department of Agriculture, along with

Hawaii State and local officials and many private parties and investors, are and will be involved to participate in this initiative.

Therefore, we respectfully request that this resolution be held until such times as our efforts under the HCEI can clarify future organizational requirements.

Thank you for the opportunity to offer these comments.



March 28, 2008

Testimony before the Hawaii State Legislature on SCR82 Honolulu, Hawaii

My name is Brian Orlopp and I represent Hawai'i BioEnergy, LLC.

Thank you for the opportunity to share our position on SCR82 with the Hawaii State Legislature. As residents of Hawaii and members of the business community, we are deeply concerned with the issues of climate change and energy security and believe that our state can and should become a green energy leader. This senate concurrent resolution will make a significant contribution to reaching that goal.

Green energy represents an opportunity to reduce our heavy dependence on imported oil, to address our unique exposure to the risks of climate change, to revive our agriculture sector and preserve our green space, to create new and better jobs, and to become a leader in tropical bio-energy and an incubator of next-generation technologies. Hawaii has the natural, human, technological and capital resources to achieve green energy leadership.

Our state has already demonstrated its commitment to the development of green energy with its 20% renewable energy target and E10 mandate, but to achieve these goals through local production we need to establish legal, regulatory and political environments which fosters our state's capacity to grow and lead in green energy.

Hawaii has the special opportunity of developing technologies and processes that can be employed productively in our state to achieve security and climate change goals, and be applied to tropical environments around the world that arte ideal for green energy production. We believe that this leadership is not only possible, but necessary for our sustainable future. SCR82 will facilitate a robust program to facilitate and promote our state's unique renewable energy resources. Mainland states are creating similar dedicated departments and agencies to transform and assist private sector initiatives for energy solutions.

Again, we are grateful for the opportunity to voice our support for SCR82 and look forward to contributing to the development of green energy leadership in Hawaii.

Hawai'i BioEnergy, LLC

LINDA LINGLE GOVERNOR OF HAWAII



In reply, please refer to: File:

SENATE COMMITTEE ON ENERGY & ENVIRONMENT

HONOLULU, HAWAII 96801-3378

SCR 126/SR 65, REQUESTING THE DEPARTMENT OF HEALTH TO ESTABLISH A GLOBAL WARMING TASK FORCE

Testimony of Chiyome Leinaala Fukino, M.D. Director of Health

April 1, 2008 2:45 p.m.

- 1 **Department's Position:** The Department of Health appreciates the intent of this resolution to assess
- 2 global warming's impact on Hawaii, but has concerns and respectfully **opposes** the resolution.
- Fiscal Implications: The resolution does not provide funding to support the activities of the new
- 4 global warming task force. It is unknown at this time about the number of personnel that will be needed,
- 5 the personnel costs, or the costs for consultant assistance, but it is likely to be considerable, and it is not
- 6 provided for in the executive supplemental budget proposal.
- 7 **Purpose and Justification:** This resolution directs the Department of Health to establish a global
- 8 warming task force composed of a broad array of representatives from government, military, and
- 9 education as well as affected communities and industries. The purpose of the task force is to assess the
- 10 potential impacts of global warming and rising ocean levels on Hawaii including the people, natural
- resources, economy, visitor industry, air and sea transportation, buildings, public utilities infrastructure,
- shoreline erosion, and public health. In addition, the task force is to provide recommendations for
- addressing or mitigating the near and long-term effects from global warming.
- We are concerned about the increase in task forces, given that there is already a Greenhouse Gas
- 15 Emission Reduction Task Force under Act 234, 2007 Session Laws of Hawaii. Any recommendations

1	for global warming, including one for an additional task force on prevention and mitigation of impacts
2	should come from the work of that task force. Otherwise, there is a tremendous potential for needless
3	duplication of effort or wasteful work done in contradiction with one another.
4	We also think that a large task force, as proposed, will be unwieldy and lead to quorum
5	problems.
6	Moreover, the task force will require staff administration and support. The resolution does not
7	provide the resources (position counts and sufficient general funds) to cover the inevitable personnel,
8	operational, and consultant costs, whether the work is to be done by a new task force or the existing
9	Greenhouse Gas Task Force, or a department. The work will be considerable because the resolution
10	covers many subjects.
11	We also question the task force approach. All agencies, businesses, and organizations should be
12	working now to assess potential impacts of climate change on their operations and the effect of their
13	greenhouse gas emissions. We all need to integrate such concerns into ongoing operations, rather than
14	relying solely on a panel of experts.
15	Thank you for the opportunity to testify on this bill.
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The Nature Conservancy of Hawai'i 923 Nu'uanu Avenue Honolulu, Hawai'i 96817 Tel (808) 537-4508 Fax (808) 545-2019 nature.org/hawaii

Testimony of the The Nature Conservancy of Hawai'i
Supporting S.C.R. 126 and S.R. 65 Requesting the Department of Health to Establish a
Global Warming Task Force to Assess the Impacts of Global Warming on the State
Senate Committee on Energy & Environment
Tuesday, April 1, 2008, 2:45PM, Room 414

The Nature Conservancy of Hawai'i is a private non-profit conservation organization dedicated to the preservation of Hawaii's native plants, animals, and ecosystems. The Conservancy has helped to protect nearly 200,000 acres of natural lands for native species in Hawai'i. Today, we actively manage more than 32,000 acres in 11 nature preserves on O'ahu, Maui, Hawai'i, Moloka'i, Lāna'i, and Kaua'i. We also work closely with government agencies, private parties and communities on cooperative land and marine management projects.

The Nature Conservancy of Hawaii supports S.C.R. 126 and S.R. 65.

While the Legislature passed landmark legislation last year to put Hawai'i on the path to reducing greenhouse gas emissions, that legislation does not provide authority or resources toward assessing, mitigating and adapting to the inevitable effects of climate change. Regardless of the level of reduced emissions, Hawai'i and the world will feel the effects of human-induced climate change for generations to come.

The health of Hawaii's unique but threatened natural resources directly affects our economy and quality of life. Beyond breathtaking beauty, these resources provide essential natural services that make life possible in the middle of the vast Pacific Ocean. From native forests that give us fresh water, erosion control, and cultural treasures, to abundant coral reefs that provide food, recreation, and protection from storms, we all depend daily on nature to sustain us. However, higher temperatures, more intense storm events but overall less rainfall, and ocean acidification threaten to alter the health and function of the natural systems upon which our lives, livelihood and lifestyles depend.

As this resolution points out, we must be prepared to understand and respond to those effects.

From: Windward Ahupua`a Alliance [info@waa-hawaii.org]

Sent: Monday, March 31, 2008 10:00 AM

To: testimony

Subject: SCR 126/SR 65 - 2:45 pm, Tuesday, April 1, 2008

SUBMITTED BY:

Windward Ahupua`a Alliance

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COMMITTEE ON ENERGY AND ENVIRONMENT Sen. Ron Menor, Chair

Sen. Gary Hooser, Vice Chair

PUBLIC HEARING 2:45 pm Tuesday, April 1, 2008 Conference Room 414

SCR 126/SR 65: REQUESTING THE DEPARTMENT OF HEALTH TO ESTABLISH A GLOBAL WARMING TASK OFORCE TO ASSESS THE IMPACTS OF GLOBAL WARMING ON THE STATE

SUPPORT THE INTENT PLUS COMMENTS

TO THE COMMITTEE ON ENERGY AND ENVIRONMENT:

My name is Shannon Wood, speaking on behalf of the *Windward Ahupua`a Alliance*, a <u>501c3</u> Hawai`i non-profit corporation, which was established in July, 2002.

For the past three years, one of **WAA**'s key foci has been on renewable energy issues and the impacts of global warming, climate change and sea level rise. I was one of ten people here in Hawai'i selected to go through an intensive training program in January, 2007, with **The Climate Project**, founded by former *Vice President* Al Gore who, along with the **International Panel on Climate Change**, was awarded the **Nobel Peace Prize** for their global warming/climate change work. All totaled, there are about 1,000 of us from around the world carrying the message to ordinary folks about climate change and global warming.

Growing out of that training, I also now work with a national organization which addressing these issues in *Congress* and with the *Bush Administration* - although I am sorry to say that we were unable to persuade the *Department of the Interior* to place the polar bear on the <u>Endangered Species Act</u> list before opening up its habitat to the sale of oil-drilling leases.

As someone who helped craft the <u>ACT 234</u> last year and who is now tracking the <u>Greenhouse Gas Emissions Reduction Task Force</u>'s work closely, I know that its mandate and mission to focus primarily on energy-related matters here in Hawai'i will restrict its ability to work on other inter-related issues even though they will impact its work product.

What makes this so frustrating to deal with is that the complex nature of global warming/sea level rise covers a whole host of topics which are outside its purview but which will have an enormous impact on the **Task Force**'s work product.

For example, it is highly unlikely that the current <u>Task Force</u> will even take up loss of habitat issues from other areas of the world - perhaps not even looking at the negative impacts of bringing in "renewable" feedstocks to wean Hawai' i off fossil fuel usage.

Unfortunately, <u>SCR 126/SR 65</u> are unfunded which will put the *Department of Health* under extreme pressure to do its regular work, let alone something new such as this.

What is needed is a bill addressing these matters, but the only vehicle in this session - **SB 2016 SD 1** - did not get heard in **Ways & Means**.

Perhaps **DOH** could work with the private sector & **NGO**s such as the **Windward Ahupua`a Alliance** as well as with the federal government to obtain financing to implement the contents of this resolution so that we can get a solid bill passed out during the next couple of years.

Mahalo for the opportunity to present these thoughts.

The Windward Ahupua`a Alliance works to educate & inform residents, visitors, businesses, policymakers, and the media about using Smart Growth planning principles which promote sustainability. These include: Designing long-term waste management systems; improving illegal dumping/derelict vehicle legislation & enforcement; developing & implementing comprehensive curbside recycling programs; providing research & support on public access issues; establishing both state & county-level "legacy lands" funds to support affordable workforce housing initiatives and critical land purchases to protect against inappropriate development; creating alternative energy systems to reduce Hawai`i's dependency on fossil fuels & to mitigate the impacts of global warming; and, setting long-term watershed protection policies based upon ahupua`a concepts & principles.