

Sharon Sagayadoro

From: Alan Murakami [almurak67@gmail.com]
Sent: Monday, March 17, 2008 6:53 PM
To: EDBtestimony
Subject: Fwd: Mandatory solar water heating on new construction

LATE TESTIMONY

COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS CONCERNS
Rep. Kyle T. Yamashita, Chair
Rep. Glenn Wakai, Vice Chair

Tuesday March 18, 2008
8:45am
Room 325

Testimony in SUPPORT (Alan T. Murakami)
RE: SB644 SD3 HD 1, Relating to Renewable Energy

Aloha Chairs Yamashita and Vice Chair Wakai, and Members of the Committee,

I **support** SB 644 SD3, HD 1, but wish it could be amended to accelerate its effects. It would require the installation of solar thermal or comparable renewable energy devices to heat water in single-family residences constructed after 1/1/2010, and restricts renewable energy income tax credit for solar thermal energy systems installed and placed in service in single-family residential properties to those constructed prior to 1/1/2010. Please see if there is a way to it can accelerate our conversion from oil to more renewable resources.

This is a critical bill that needs to be passed. Solar water heaters are the simplest, easiest and most cost-effective way to decrease the use of fossil fuels. There should be no excuse for Hawai'i to require solar heating, when the consequences of not doing so are so apparent. We import 90% of our energy resources; that figure hasn't changed for decades. How long are we going to waste the resources of the sunniest state in the nation? This should be a no brainer.

Currently most new homes are built without solar water heaters, and the members of the Hawaii Solar Energy Association are then able to convince a small percentage of these new homeowners to install solar water heater systems. This results in most new homes going bare and requiring unneeded electrical energy. This wasteful practice must be stopped if we are to be responsible stewards for the world's climate and oceans. Besides, we have a self interest as an island state with already limited land that could be eaten up by higher sea levels within our lifetime, if not our children's.

If businesses are fearful of losing their niches, either provide for them somehow so its members get a piece of the action or make it get out of the way. We need a Manhattan project to get off oil and boost our renewable resources in a big way. No time for impacts on business to get in the way of a truly global solution to our problems.

Please pass this bill like there's no tomorrow.

3/18/2008

Sharon Sagayadoro

From: Elizabeth McDermott [BMcD50@hawaiiintel.net]
Sent: Monday, March 17, 2008 5:45 PM
To: EDBtestimony
Cc: Elizabeth McDermott
Subject: Testimony in support of SB644

LATE TESTIMONY

HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS CONCERNS

Tuesday, March 18th, 8:45am
Testimony in Support of SB 644 SD3 HD1

Chair Yamashita and members of the Committee,

I strongly support SB 644 SD3 HD1 requiring that all the new homes in Hawaii be built with solar hot water heaters, exempting those homes where solar would not be practical or beneficial.

*Incentives introduced over the years to compel installation of solar hot water heating in new and existing homes have helped but are still barely moving us along toward widespread adoption. **We don't have the luxury of these incremental steps** anymore with energy costs financially straining Hawaii's homeowners as never before, and global warming accelerating each year.*

*Hawaii's leaders were praised last year for setting ambitious and exemplary goals for reducing Hawaii's contribution to global warming and making our state a model of sustainability. **Approving this measure, more than almost any other single act this session, will demonstrate that you are serious about that.***

Will you take action today, proving that Hawaii can lead the nation by building the homes of the future? Or will we again be left playing catch up, forcing Hawaii's homeowners to retrofit their homes after the fact, and cursing the shortsightedness of our policy makers?

***The argument that this will increase the cost of homes and homeowner's mortgages is false.** Today, homeowners installing solar can obtain "green mortgages" which qualify buyers for higher loan amounts by calculating the long term utility savings they are expected to enjoy as income, among other strategies. Bank of America, Citigroup and JP Morgan Chase are among the banks now offering borrowers credit and rebates when purchasing an energy-efficient home.*

And the increased buildings costs will become negligible when solar installation begins to happen at this scale.

*This measure will improve Hawaii's economy and expand business for Hawaii's solar providers, not threaten it. **The only difference is that the vast majority of rate payers, most of whom are renters, who have been subsidizing the rebates for installation of solar hot water heaters on new homes will no longer be asked to carry that burden.** And, as I understand it, HECO will also no longer be rewarded by making a tidy profit on this. (They will still make money off the rebate program for existing homes installing solar)*

I ask you to vote for this measure which will broadly expand economic development in our state, and dramatically move Hawaii toward true sustainability. Hawaii should be leading, building the homes of the future.

Mahalo for voting with integrity,

Beth McDermott
2739 Terrace Drive
Honolulu HI 96822
Ph. 808-988-6004

3/18/2008

Cell 808-782-7502

3/18/2008



Hawaii Solar Energy Association
Serving Hawaii Since 1977

LATE TESTIMONY

**TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION
IN REGARD TO SB 644, SD 3, H.D. 1 RELATING TO ENERGY RESOURCES
BEFORE THE
JOINT HOUSE COMMITTEES ON HUMAN SERVICES & HOUSING
AND
ENERGY & ENVIRONMENTAL PROTECTION
ON
MONDAY, MARCH 13, 2008**

Chair Yamashita, Vice-Chair Wakai and members of the committee, my name is Richard Reed and I represent the Hawaii Solar Energy Assn. (HSEA). HSEA is a professional trade association established in 1977, and affiliated with the Solar Energy Industries Association (SEIA). HSEA represents manufacturers, distributors, contractors, financial entities and utility companies active in the solar energy industry.

S.B. 644 mandates the installation of solar water heating systems on new residential construction. What S.B. 644 does not do is mandate high quality systems that perform as well or better, and last as long, as those systems now required by HECO, MECO and HELCO for their very successful demand-side management (DMS) programs.

Over many years, our electric utility companies have developed thorough performance, quality and inspection standards for DSM solar water heating installations. These rigorous requirements are a kind of "quality mandate" that ensures each installation performs well and that the energy savings and capacity deferral benefits persist for no less than 15 years. The assurance of overall system quality allows the electric utilities to count the energy and capacity savings provided by each system against their Renewable Portfolio Standard requirements and DSM obligations. No guesswork is involved or required. S.B. 644 provides no such guarantee that significant DSM benefits will continue to accrue.

HSEA strongly supports the quality mandate now provided by rigorous third party standards, specifications, and inspections. This quality mandate ensures that each ratepayer participating in an electric utility DSM program receives a properly sized and designed system, that only durable materials and components are allowed, that the system is expertly installed and that an experienced third-party will provide a 100 point post-installation inspection. S.B. 644 provides no such guarantees.

From the foregoing it is clear that HSEA supports a continuing quality mandate administered by a competent third-party. This bill is deficient to the extent that it provides for no such overall quality assurance, and that it, effectively and literally, mandates nothing. S.B 644, SD 3, HD 1 is moot or vague on all the key issues that will determine the real world impact and effectiveness of this bill.

The following is a brief summary of the bills remaining deficiencies:

1) There is no definition of what constitutes a solar water heating system. There is a reference to proper size and design in the purpose clause, but not in the bill language per se. What **exactly** is proper size and design? Who makes that determination? The bill only mentions "suitable" sizing as attested to by a licensed contractor? Builders will have many differing opinions regarding the definition of "suitable". Suitable may easily mean the least common denominator. HSEA would much rather continue to have a qualified third party make this determination.

2) What is a substitute renewable energy device? This exemption is unacceptable. Either mandate solar or don't, but do not allow slippery exemptions. A builder bent on circumventing the intent of this bill will drive a MAC truck through this hole.

3) Solar water heating works everywhere in Hawaii. Compared to the rest of the world there is no "poor solar resource". This language should be eliminated. The "cost prohibitive" exclusion is pointless. The entire thesis of this bill is that residential solar in new construction is cost effective. Furthermore, who is the referee that makes this call? Isn't it the builder that may not like construction mandates in the first place?

4) This bill shifts the entire cost of the system to the homebuilder. Consider carefully in advance that both the State tax credits and third-party DSM rebates will end. The price to the builder on a \$5,000 DSM quality system will increase approximately \$2,400. Builders presently are eligible to take both the State tax credit and DSM rebate. In the absence of any solid performance and prescriptive criteria, the builder temptation may be to install the least expensive system he can lay his hands on regardless of performance, quality, and durability.

5) There are no guidelines or quality standards for system components and materials. The quality, durability and reliability of system components in this very tough climate is an extremely important industry concern. S.B. 644 does nothing to assure us that material standards will be maintained and or enhanced. Who will ensure that builders adhere to the quality mandate that we are used to and strongly support?

6) A final note of context. Any way you slice it, the net cost of a residential solar water heating system in new construction is going up. Builders will consider this an additional business expense and add margin accordingly. Through the eventual elimination of the State of Hawaii tax credits and DSM rebates, this mandate will raise prices to consumers.

The future of solar water heating in Hawaii is in a state of flux. Countervailing forces are currently at work. The positive force remains the excellent incentive regime now in place that includes both State tax credits and utility company DSM rebates. These incentives have motivated most builders to offer solar water heating systems as a standard feature or as an option. **The Department of Taxation recently clarified that homebuilders who offer solar as a standard feature may claim the renewable energy technologies tax credit.** HSEA believes this simple clarification will entice **all** production builders to offer solar as a standard feature in the near future.

The potentially negative forces at work are the impending transition of the DSM rebate programs to an as yet-to-be-selected non-utility administrator beginning in January, 2009. In addition, the federal residential tax credit is scheduled to expire at the end of this year. These forces are already creating uncertainty in the marketplace and remain of great concern to HSEA member companies.

Hawaii currently enjoys the most vibrant and successful solar water heating market in the nation. More solar water heaters are installed in Hawaii on a per capita basis than in any other state. Over 5,500 utility quality solar water heating systems were installed in Hawaii in 2007 alone, with 37% on new homes. In short, the current compact is working very well indeed. In your deliberations the HSEA urges this committee to carefully consider the unintended real world consequences of this vague and deficient bill.

Unless this committee is fully committed to redressing the problem areas still found in the fourth draft of this bill, HSEA respectfully requests that you hold S.B. 644, S.D. 3, H.D. 1.

Thank you for the opportunity to present this testimony.

Sharon Sagayadoro

From: Jay Scharf [scharfjscharf@yahoo.com]
Sent: Monday, March 17, 2008 7:26 PM
To: EDBtestimony
Subject: Testimony in support of SB644

LATE TESTIMONY

TO: The Chair and Committee Members

Please pass this bill.

Putting a solar water heater on all new homes is the easiest thing the state can do to cut our oil imports and honor Hawaii's commitment to cutting global warming greenhouse gases.

No one has to change their lifestyle or make any kind of sacrifice. Actually, any new homeowner with a solar system ends up making a profit.

Some local solar companies might object because of their greed that their potential customers will already have a system so no sale for them, and our Public Utility Commission regulated utilities might object because of their greed that customers will use less of their product.

Please do not fall prey to phony reasons for opposing this bill. It is the easiest and most obvious of steps for a responsible government.

Mahalo, Jay Scharf

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Sharon Sagayadoro

From: Judie Hilke Lundborg [judie@aloha.net]
Sent: Monday, March 17, 2008 7:25 PM
To: EDBtestimony
Cc: Judie Hilke Lundborg
Subject: Testimony SB 644 SD 3

LATE TESTIMONY

Aloha Rep Yamashita,

I'm writing to add more voice in favor of SB 644, SD 3. This is probably one of the most important actions we can take to decrease our dependence on imported oil and also to lessen the effects of global climate change. As you are no doubt aware, the price of a barrel of oil went OVER \$110/barrel yesterday. Especially on Kauai, where our electrical charges are the highest in the nation, with even a minimal increase in demand, we will be faced with expanding our generating plants. A substantial decrease in demand could be achieved by mandating solar hot water heating on all new residences, thereby eliminating or putting off the need for more generation. I have heard concerns on how this will affect the cost of a new home, however, this is small in comparison to the cost of electricity, especially given that the cost of oil is only going to continue to go up. I urge you and members of your committee to pass this legislation forward for a vote.

Mahalo for considering my comments.

Aloha, Judie Hilke Lundborg
Lihue, Hawaii
639-0212

Sharon Sagayadoro

From: Michael Winneguth [whizzer002001@yahoo.com]
Sent: Monday, March 17, 2008 9:29 PM
To: EDBtestimony
Subject: Testimony in support of SB644

LATE TESTIMONY

HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS CONCERNS

Tuesday, March 18th, 8:45am

Testimony in Support of SB 644 SD3 HD1

Chair Yamashita and members of the Committee:

I strongly support SB 644 SD3 HD1, mandating that new homes come equipped with solar water heaters where practical. This measure is a critical step in securing Hawaii's energy future, reducing our contribution to global climate change, and improving the affordability of housing in Hawai'i.

Sincerely, Mike Winneguth, Princeville

3/18/2008

Sharon Sagayadoro

From: crozer [crozer@hawaii.rr.com]
Sent: Monday, March 17, 2008 10:32 PM
To: EDBtestimony
Subject: Testimony in support of SB644

LATE TESTIMONY

Every new house on Oahu should have solar-heated hot water if it is in a sunny place. There are places such as Kaneohe and Olomana that rain often, so in these places, they shouldn't be forced. I also think it should be mandated by the end of 2008. Why wait? The cost to our environment of not acting now to cut down on our consumption of oil is too great.

Please pass this bill and continue to help Hawaii cut its reliance on oil.

Lois Crozer

Sharon Sagayadoro

From: Wayne C Tanaka [wctanaka@hawaii.edu]
Sent: Tuesday, March 18, 2008 1:02 AM
To: EDBtestimony
Subject: SB 644 In SUPPORT

LATE TESTIMONY

SB 644 SD3 Relating to Renewable Energy in SUPPORT

COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS

Chair: Representative Kyle T. Yamashita Vice Chair: Representative Glenn Wakai

Aloha Chair Yamashita, Vice Chair Wakai, and Members of the Committee:

My name is Wayne Tanaka and I am writing as an engineering graduate from Harvey Mudd College, with clinical experience in electrical engineering, mechanical engineering, and systems engineering/analysis. I am also writing as a law student who has researched extensively the applicability of a Hawai`i solar hot water mandate similar to the one at issue today. Finally, I am writing as a citizen of Hawai`i intimately concerned, as we all are, for the future of our State and its residents.

Much of my research and understanding of the issues behind this bill have been encapsulated in some of the written testimony already submitted to the Committee on Human Services & Housing and the Committee on Energy & Environmental Protection. Thus I would only like to address the argument made by developers and other such stakeholders that the average installation cost of a solar water heating system would create substantially adverse financial conditions for new home-builders, and potentially prevent many from building a home.

The point I would like to make is that such short-term costs should be considered in conjunction with long-term benefits. Both law and psychology have recognized how uncertainty, coupled with a known present cost, can severely and irrationally inhibit otherwise logical and beneficial action. The basic premise of this phenomenon is that individuals will make irrational decisions when faced with a certain present cost, no matter how small, despite a future benefit that is even marginally uncertain and potentially very great. In other words, long-term benefits are foregone due to the psychological aversion to short-term costs.

Some testimony today may focus on the immediate short-term costs of an extra few thousand dollars for new-home buyers (presumably amortized over a thirty-year mortgage), and overlook the potential benefit of having up to a third or more of the energy bill of almost every new single-family residence written off by one of this state's most abundant renewable resource. Some testimony may also focus on the uncertainty of new development, to undermine the perceived beneficial impact of a solar mandate. History, however, has taught us the costs of underestimating the magnitude and impact of future development in Hawai`i.

Given the almost certain rise in development, energy costs, and the substantial energy displacement of solar water heater technology (which has been developed and refined for over fifty years), I urge those involved in passing this bill to consider not the short-term marginal costs of passing it, but the long-term costs of not doing so.

Thank you for your time and consideration in accepting this testimony.

Aloha,

Wayne Tanaka
46-271 Kahuhipa St. #E107
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wctanaka@hawaii.edu

**DOWLING
COMPANY, INC**

LATE TESTIMONY

March 18, 2008

Hearing on SB644, SD3, HD1, Relating to Energy Resources
Before the House Committee on Economic Development & Business Concerns
on Tuesday, March 18, 2008 at 8:45 a.m. in Conference Room 325

Dear Chair Yamashita and members of the Committee:

My name is Jennifer Stites and I am the Green Development Manager for Dowling Company, Inc. ("DCI"). DCI is a Maui-based real estate development company that is committed to sustainable development. To guide this effort and determine our performance metrics, we have adopted the nationally recognized U.S. Green Building Council's ("USGBC") Leadership in Energy and Environmental Design ("LEED") rating system. As the land owner of 1800 acres in Makena, including the Maui Prince Hotel and Makena North and South Golf Courses, we have set the very ambitious goal of developing a net-zero energy community. Through energy reduction and renewable energy production on-site, we hope to develop a model sustainable community for Hawaii.

Therefore, we support the intent of this bill, but would recommend that it be amended to broaden the use of a "substitute renewable energy device" to include all renewable energy devices. For example at our project we are planning to install photovoltaic systems on the rooftops of all the houses and multi-family dwelling to meet all the electrical needs, including hot water. We believe that it is important that the public has the option of what type of renewable energy devices its installs, based on personal preferences.

Thank you for the opportunity to testify on this important measure.

Sharon Sagayadoro

From: Brian Shiro [brian.shiro@gmail.com]
Sent: Tuesday, March 18, 2008 8:20 AM
To: EDBtestimony
Subject: testimony for SB644 SD3 HD1

LATE TESTIMONY

COMMITTEE ON ECONOMIC DEVELOPMENT AND BUSINESS
Chair: Rep. Kyle Yamashita
Vice Chair: Rep. Glenn Wakai

Hearing on Tuesday, March 18, 2008
8:45 a.m. in room 325

SB644 SD3 HD1 - Relating to Renewable Energy SUPPORT

Aloha Chair Yamashita, Vice Chair Wakai, and Members of the Committee,

I support SB644 SD3 HD1, which would require solar water heaters for all newly constructed residential properties. This is a critical bill that needs to be passed. Solar water heaters are the simplest, easiest and most cost-effective way to decrease the use of fossil fuels.

Currently most new homes are built without solar water heaters, and the members of the Hawaii Solar Energy Association are then able to convince a small percentage of these new homeowners to install solar water heater systems. This results in most new homes going bare and requiring unneeded electrical energy. This wasteful practice must be stopped.

Please pass SB644 SD3 HD1. Mahalo.

Brian Shiro
91-1031 Kaimalie St Apt 4R3
Ewa Beach, HI 96706
808-265-1415