

SB 2554

LINDA LINGLE  
GOVERNOR



RUSS K. SAITO  
Comptroller

SANDRA L. YAHIRO  
Deputy Comptroller

**STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING  
AND GENERAL SERVICES**  
P.O. BOX 119  
HONOLULU, HAWAII 96810-0119

TESTIMONY  
OF  
RUSS K. SAITO, COMPTROLLER  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
TO THE  
SENATE COMMITTEES  
ON  
ENERGY AND ENVIRONMENT  
AND  
EDUCATION AND HOUSING  
ON  
February 17, 2010

S.B. 2554

RELATING TO NET ZERO ENERGY BUILDING PERMITTING

Chair Gabbard, Chair Sakamoto, and members of the Committees, thank you for the opportunity to testify on S.B. 2554.

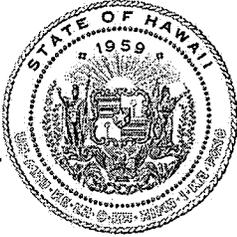
The Department of Accounting and General Services (DAGS) opposes this bill because it is premature. Requiring the State Building Code Council to determine the “net zero capable” energy efficiency building standards for single-family residential construction by December 31, 2010 is impractical.

The State Building Code Council is required to amend and adopt applicable national and international building codes for use in Hawai‘i within 18 months after they are published. The energy code that the Council has selected is the International Energy Conservation Code (IECC). The 2006 version, with Hawai‘i amendments has been

approved by the Council following public hearings and will be put into administrative rules as soon as it is published and posted. The State Building Code Council is now reviewing the 2009 IECC for adoption, which it hopes to do within 18 months of the release date. Because the IECC is updated every three years, the 2012 version will be released before the net zero capable construction of new single-family residential construction begins on January 1, 2015. Thus, requiring the State Building Code council to determine the “Net zero capable” energy efficiency building standards for single-family residential construction by December 31, 2010 is impractical and will not take advantage of planned improvements in the IECC.

DAGS recommends that if the intent is to promote the implementation of net zero energy design buildings, S.B. 2674 be heard and advanced. This administration bill proposes to have all new single-family residential construction be designed to be a “net zero energy capable design” starting January 1, 2015 and allows for the State Building Code Council to take advantage of all improvements in the IECC up to the implementation date in determining the required net zero capable energy efficiency building standards.

Thank you for the opportunity to testify on this matter.



**DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM**

LINDA LINGLE  
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THEODORE E. LIU  
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PEARL IMADA IBOSHI  
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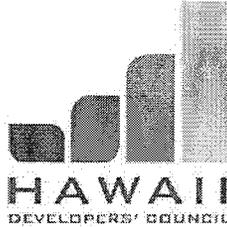
Statement of  
**THEODORE E. LIU**  
Director  
Department of Business, Economic Development, and Tourism  
before the  
**SENATE COMMITTEES**  
ON  
**ENERGY AND ENVIRONMENT**  
and  
**EDUCATION AND HOUSING**  
Wednesday, February 17, 2010  
1:20 pm  
State Capitol, Conference Room 225

in consideration of  
**SB2554**  
**RELATING TO NET ZERO ENERGY CAPABLE NEW HOMES.**

Chairs Gabbard and Sakamoto, Vice Chairs English and Kidani, and Members of the Committees. The Department of Business, Economic Development, and Tourism (DBEDT) does not support SB2554. We support SB2674, the Administration bill, which requires that homes built in 2015 and thereafter be designed to be "net zero capable." SB 2554 also provides that the Energy Resources Coordinator grant exemptions to the requirement. We do not support the assignment of granting exemptions to this requirement to the Energy Resources Coordinator. SB2674 reaches the goal of net zero capable homes via the state building code; it is not appropriate for DBEDT to grant exemptions to the state or county building codes. We support the concept of net zero energy capable homes which are maximized for energy efficiency so that the installation of on-site generation renewable energy systems is less expensive to install than further energy efficiency improvements. A

net zero home will significantly reduce the cost to operate a home at the onset of occupation of the home and through subsequent years. With the high cost of imported oil and our high dependence on imported oil, we support this measure which will bring us closer to our Hawaii Clean Energy Initiative goal of 70 percent clean energy by 2030. We strongly recommend your support for SB2674 or similar language.

Thank you for the opportunity to provide these comments.



February 17, 2010

The Honorable Mike Gabbard, Chair  
Committee on Energy and Environment  
The Honorable Norman Sakamoto, Chair  
Committee on Education and Housing  
State Senate  
State Capitol, Room 225  
Honolulu, Hawaii 96813

Dear Chairs Gabbard and Sakamoto and Members:

**Subject: Senate Bill No. SB 2554 Relating to Net Zero Energy Capable New Homes**

My name is Lance Wilhelm, President of the Hawaii Developers' Council (HDC). We represent over 200 members and associates in development-related industries. The mission of Hawaii Developers' Council (HDC) is to educate developers and the public regarding land, construction and development issues through public forums, seminars and publications. It is also the goal of HDC to promote high ethics and community responsibility in real estate development and related trades and professions.

**HDC is strongly opposed to S.B. No. 2554.**

The bill proposes to amend Chapter 196 HRS to require all new single-family residential construction, after January 1, 2015, be "net zero capable."

In this bill, "Net zero capable" means the energy efficiency building standards for single-family residential construction as determined by the state building code council by December 31, 2010. In essence, the definition is going to be developed after the legislation is passed.

The intent of this legislation is that by initiating a net zero energy policy by 2015 it will encourage the incorporation of on-site residential renewable energy systems in the near term as well as encourage a reduction in cost of these systems in the future. Further, a net zero energy policy promotes growth in the capacities for energy efficiency and renewable energy in the development and construction industries.

We are strongly opposed to “government mandates” that are not related to “public health and safety” issues. Also, why is it that these “government mandates” are always portrayed as having significant long-term social gains (i.e. As a result of instituting a net zero energy policy, the legislature anticipates reduced projected energy demand and lower greenhouse gas emissions with minimal cost to the State for developing the policy and ensuring compliance), but shift the cost on one segment of the community (i.e. new home buyers).

If the goal was really to significantly reduce our 90% dependency on imported oil, wouldn't it have made more of an impact on our energy dependency to require all existing housing units (approximately 491,000 as of July 2005) to convert to net zero capability, as opposed to placing this requirement on only new units (approximately 5,700 new units were constructed in 2006)? Why do you think the focus was on new units as opposed to existing?

We believe that the choices, not mandates should be the role of government especially when the government intervention goes beyond its basic role of providing for our public health, safety or welfare. We do not support government interference in the free market system. Compliance with these types of regulations will increase the cost of any “new” home in Hawaii, significantly impact the delivery of affordable housing units, and exclude the largest segment of the market, the existing residential units.

Thank you for the opportunity to share our views with you.

**BIA-HAWAII**  
BUILDING INDUSTRY ASSOCIATION

February 17, 2010

The Honorable Mike Gabbard, Chair  
Committee on Energy and Environment  
The Honorable Norman Sakamoto, Chair  
Committee on Education and Housing  
State Senate  
State Capitol, Room 225  
Honolulu, Hawaii 96813

Dear Chairs Gabbard and Sakamoto and Members:

**Subject: Senate Bill No. SB 2554 Relating to Net Zero Energy Capable New Homes**

I am Karen Nakamura, Chief Executive Officer of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii.

**BIA-HAWAII is strongly opposed to S.B. No. 2554.**

The bill proposes to amend Chapter 196 HRS to require all new single-family residential construction, after January 1, 2015, be “net zero capable.”

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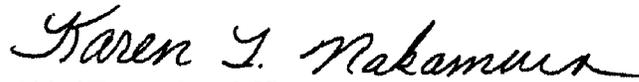
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and ensuring compliance), but shift the cost on one segment of the community (i.e. new home buyers).

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Thank you for the opportunity to share our views with you.



Chief Executive Officer  
BIA-Hawaii



**Testimony to the Senate Committees on Energy and  
Environment and Education and Housing  
Wednesday, February 17, 2010; 1:20 p.m.  
Conference Room 225**

**Subject: Senate Bill No. SB 2554 Relating to Net Zero Energy Capable New Homes**

Dear Chairs Gabbard and Sakamoto and Members of the Committee:

My name is Jim Tollefson and I am the President and CEO of The Chamber of Commerce of Hawaii ("The Chamber"). I am here to state The Chamber's opposition to Senate Bill No. 2554, relating to Net Zero Energy Capable New Homes.

The Chamber is the largest business organization in Hawaii, representing more than 1,000 businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of its members, which employ more than 200,000 individuals, to improve the state's economic climate and to foster positive action on issues of common concern.

The bill proposes to amend Chapter 196 HRS to require all new single-family residential construction, after January 1, 2015, be "net zero capable."

In this bill, "Net zero capable" means the energy efficiency building standards for single-family residential construction as determined by the state building code council by December 31, 2010. In essence, the definition is going to be developed after the legislation is passed.

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We are strongly opposed to "government mandates" that are not related to "public health and safety" issues. Also, why is it that these "government mandates" are always portrayed as having significant long-term social gains (i.e. As a result of instituting a net zero energy policy, the legislature anticipates reduced projected energy demand and lower greenhouse gas emissions with minimal cost to the State for developing the policy

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If the goal was really to significantly reduce our 90% dependency on imported oil, wouldn't it have made more of an impact on our energy dependency to require all existing housing units (approximately 491,000 as of July 2005) to convert to net zero capability, as opposed to placing this requirement on only new units (approximately 5,700 new units were constructed in 2006)? Why do you think the focus was on new units as opposed to existing?

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Thank you for the opportunity to share our views with you.



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Harry S. Saunders  
President

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Testimony by Harry Saunders  
President, Castle & Cooke Hawai'i  
February 11, 2010

Before the Senate Committees on  
**ENERGY and ENVIRONMENT**  
and  
**EDUCATION and HOUSING**

February 17, 2010  
1:20 P.m.  
Room 225

**Opposition to SB 2554**  
RELATING TO NET ZERO ENERGY CAPABLE NEW HOMES

Chair Gabbard, Vice Chair English, Chair Sakamoto, Vice Chair Kidani and Members of the Energy and Environment and Education and Housing Committees.

I am Harry Saunders, President of Castle & Cooke Hawai'i. While we support efforts to reduce our reliance on foreign oil, we are opposed to SB 2554 as it is an unfunded or non-incentivized mandate and it is not a fair and reasonable approach to achieving an intended purpose.

SB 2554 proposes that all new single-family residential home construction shall be net zero capable by 2015. This energy efficiency mandate is not equitable and unfairly targets a limited group of new single family home buyers who will be burdened with increased design and housing costs. We feel that the results will be a limited scale of home energy efficiencies at the cost of driving up the cost of new single family homes, and creating dis-incentives to a new home construction.

Castle & Cooke is involved in various renewable energy initiatives and believes that net zero home application will have merit and need to be considered at some point in the future; especially if new technology is available and can be reasonably incorporated into new single family homes. But at this time, when we are hoping for measures that stimulate home construction to create jobs and create new housing inventory, SB 2554 will increase construction costs and create additional burdens on construction.

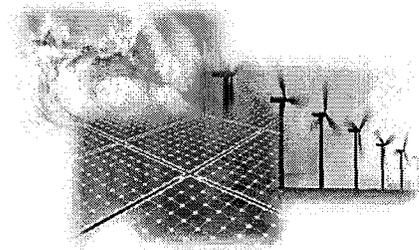
Government mandates and policies must be balanced to ensure that they do not negatively impact other critical issues. While energy efficiency programs are important to reduce our reliance on foreign oil, we must also address the lack of new housing stock and provide homeownership opportunities for Hawai'i families.

On behalf of Castle & Cooke, thank you for your consideration of our testimony. If you have questions, please feel free to contact us:

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**SENATE COMMITTEE ON ENERGY AND ENVIRONMENT  
SENATE COMMITTEE ON EDUCATION AND HOUSING**

February 17, 2010, 1:20 P.M.  
Room 225

**(Testimony is 2 pages long)**

**TESTIMONY IN SUPPORT OF SB 2554**

Chairs Gabbard and Sakamoto and members of the committees:

The Blue Planet Foundation supports Senate Bill 2554, a measure requiring the adoption of “net zero energy capable design” in new single-family residential construction. A net zero energy home is one that—on balance—generates as much energy as it uses.

An aggressive building code reduces the cost of living for future homeowners and renters in Hawai'i. Strong building energy code standards foster the development of high performance buildings in Hawai'i—performance that would result in much lower energy bills over the life of the home or building. We simply will not be able to meet our clean energy goals without dramatic increases in building efficiency, as buildings are the largest consumer of electricity and the building stock turns over very slowly.

Energy efficiency—insulation, smart design, efficient lights, appliances, electronics, etc.—is the largest, cheapest, safest, and fastest energy option that Hawai'i can implement. Consider:

- Energy efficiency is the fastest-growing U.S. “energy source” (growth of ~3% annually)
- National energy efficiency programs save energy at an average cost of about 3 cents/kWh -- *about 1/10 the average electricity cost in Hawaii*
- Energy efficiency provides major local economic benefits: energy efficiency is 100% obtained from investment in local homes and businesses

Efficiency investments pay back to Hawaii's economy and residents in numerous ways. First, the investment in efficiency pays back in savings during the home or building's occupancy and use. Second, building high performance buildings is typically more labor and material intensive

than structures that are inefficient, resulting in more job creation—the tradeoff being money is directed toward local jobs and contractors instead of going overseas to purchase fossil fuel.

Some homes in Hawai'i are already net zero energy homes. Blue Planet's Hawai'i Home Energy Makeover TV special demonstrated how simple changes could reduce a Nanakuli family's \$600 monthly energy bill by 50% and demonstrated how to make a Kalihi home net zero energy. The Kalihi home uses LED lighting and photovoltaic energy system. More and more homes will be moving toward net zero energy as the clean energy technology improves and the price of fossil-based electricity increases.

The net zero energy capable home policy essentially sets out a requirement that future homes be built about 45% to 55% more efficient than today's efficient models. That way, the rest of the energy demand can be handled with on-site renewable generation, such as a photovoltaic (PV), in the near-future as system prices become more affordable. While this policy would result in higher new home construction costs, the energy savings over the life of the mortgage would more than repay the initial investment—while providing the option of eliminating the monthly bill altogether.

Through this policy, Hawai'i will benefit from a reduction in the projected energy demand with minimal additional costs to the state. Further, this policy leads to the growth of local energy efficiency and renewable energy capacities in the development and construction industries.

Thank you for the opportunity to testify.



LAND USE RESEARCH  
 FOUNDATION OF HAWAII  
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Via: ENETestimony@Capitol.hawaii.gov

February 17, 2010

**OPPOSITION TO SB 2554 RELATING TO NET ZERO ENERGY CAPABLE HOMES**  
**(Requires all new single-family residential construction be designed to be "net zero energy capable" as of January 1, 2015.)**

Honorable Chair Senator Mike Gabbard, Vice Chair Senator J. Kalani English and Members of the Senate Committee on Energy & Environment, Honorable Senator Chair Norman Sakamoto, Vice Chair Senator Michelle Kidani and Members of the Senate Committee on Education and Housing,

My name is Dave Arakawa, and I am the Executive Director of the Land Use Research Foundation of Hawaii (LURF), a private, non-profit research and trade association whose members include major Hawaii landowners, developers and a utility company. One of LURF's missions is to advocate for reasonable, rational and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources and public health and safety.

While LURF and its members support and employ solar energy or comparable renewable energy devices and support the general intent of this bill, we must testify **in strong opposition to the current version of SB 2554**. While LURF agrees that we, as a community, should work to conserve more energy and encourage the use of various renewable energy sources and technology, we believe that the choice of renewable energy devices should be governed by market forces and government incentives, rather than by government regulations. The grounds for our objections include, among other things, the following:

- **“DBEDT should make up their mind!” Mandate SOLAR? Mandate COOL ROOFS? Mandate PHOTOVOLTAIC? Mandate NET ZERO ENERGY? What will DBEDT ask you to mandate next year? A new law just went into effect in January 2010, which mandates costly solar systems all new homes; last year, bills were proposed last year to mandate “Cool Roofs;” this session there are bills to mandate additional construction costs and loan amounts to require all new homes to be photovoltaic ready and bills to require all single-family residential construction be designed to be “net zero energy capable.” **Represent your constituents. Make sure you aren't being used as part of a political agenda”****

- **“How much will this actually cost (net-zero energy capable design, increasing the roof’s structural load-bearing capacity)?” Legislators should rely on hard evidence and include that in the bill.** Does the Legislature even know how much this will actually cost? There is no cost information provided in the bill, and while the Sierra Club’s testimony states that the photovoltaic-ready construction cost is estimated to be \$100 (for conduits and increasing the structural load-bearing capacity). A possible serious impact of this bill is that the added net-zero design work and any structural changes for the roofs of new homes could increase the sales price and up-front costs of new housing for homebuyers; the higher sales prices will detrimentally affect the ability to qualify for a mortgage loan – or could result in the use of materials of less quality or the loss of a bedroom or other floor area of the home. We would respectfully recommend that **before passing a bill which could mandate substantial costs on new home owners, the legislature should demand confirmation of the increased net zero design costs, any construction costs and the up-front and overall financial impact of this bill.**
- **“If it ain’t broken, don’t try to fix it.”** The previous system of solar rebates and incentives were working – over the past few years, representatives of Hawaii’s energy and solar industry have repeatedly testified that the system of rebates and incentives were working; and that Hawaii had the highest per capita installation of solar devices – so there is no need for any additional regulation or increased costs to be imposed on new homeowners. The new 2010 solar mandate law caused the elimination of HECO’s \$1,000 utility rebate for homeowners and the elimination and reduction of solar tax credits.
- **In these hard economic times, give Hawaii’s new homebuyers freedom of choice.** Individual homeowner choices such as installing a costly solar energy device should be left to each individual homeowner, rather than mandated by the government.
- **Why is the proposed bill limited to targeting only new single-family residential homes? Why does the proposed bill ignore the 400,000-plus existing single-family homes and other existing structures?** If the purported intent and purpose of the bill is to significantly reduce the State’s dependence on imported oil over time, it is curious that this bill does not require net zero energy capable design on all new and existing state and county buildings, single-family homes, multi-family residential condominiums and townhouses, commercial, industrial, or resort properties. Instead, it only focuses on government requirements which would increase the costs and sales price of a new home. If the purpose of the bill is to mandate net zero energy capability, government should first impose the same requirements upon itself.
- **Regulatory Problems.** There is no regulatory process established by this bill, thus it is likely that the process will be subjective, confusing and unenforceable.
- **Lack of exceptions.** There are no criteria for granting exceptions (“impracticable due to poor solar resource;” or “cost prohibitive”).

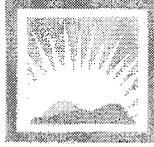
- **Delegation to County – Adequate Staff and Training? Unfunded mandate?** The proposed bill delegates the establishment of procedures, expedited permit review and enforcement to the counties. There is no confirmation that the counties are adequately staffed or trained to implement this proposed bill – and there is no estimate of the additional costs this proposal will impose on the budgets of the counties. If the state mandates such a financial burden on the counties, it will be an illegal unfunded mandate.
- **DBEDT should do its job. Instead of allowing DBEDT to propose costly mandates every year, DBEDT should be required to prepare a report to the legislature, based on working with renewable energy experts and stakeholders, which will provide information regarding the best renewable energy alternatives, incentives and regulatory process.** Proposing a hodge-podge of bills every session is likely to result in a system that is subjective, confusing, unenforceable and of questionable legality.

**LURF’s Position.** Instead of mandatory legislation, LURF respectfully recommends that the legislature should encourage making “net zero energy capable design” and comparable renewable energy devices cost-neutral to new homebuyers and developers, by providing credits and incentives to developers and homebuyers to counteract the increased costs of such devices and the resulting increased prices of new homes.

Philosophically, this is the classic “Carrot versus the Stick” approach to influence peoples’ behavior. We prefer the “carrot” approach and would recommend that incentives be created for developers and home owners of new residential projects who install energy conservation or renewable energy devices, rather than mandate compliance through legislation. If the legislature grants sufficient incentives and tax credits to developers and home buyers of new residential development projects, then the up-front cost impact of this legislation could be cost-neutral for new home buyers.

Based on the above concerns, we respectfully urge this Committee to file this bill, and instead propose a concurrent resolution to **request DBEDT to prepare a report to the legislature, based on working with renewable energy experts and stakeholders, which will provide information regarding the best renewable energy alternatives, incentives and regulatory process.** LURF would be willing to serve on such a Working Group.

Thank you for the opportunity to express our concerns on this matter.



**Hawaii Solar Energy Association**  
*Serving Hawaii Since 1977*

**February 17, 2010**  
**1:20 P.M.**

**SENATE**  
**COMITTEEE ON ENERGY AND ENVIRONMENT**  
**AND**  
**COMMITTEE ON EDUCATION AND HOUSING**

**Mark Duda**  
**President**

**SB2554**

**TESTIMONY IN SUPPORT**

Aloha Chair Gabbard and Chair Sakamoto and Members of the Committees:

HSEA supports this bill as a common sense measure that will generate considerable savings for Hawaii homeowners at no cost to the general fund, while advancing the state's energy goals. The proposal is, in essence, to require developers to design the most cost effective energy efficiency measures into new home construction. These will complement mandatory solar water heating systems and leave homeowners that wish to become net zero energy down the line with a limited challenge to meet in getting there.

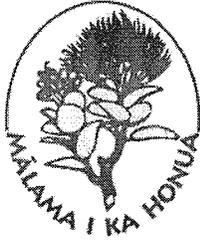
The homeowner will benefit both from a much lower electric utility bill immediately and, if they later choose a renewable energy system, will benefit further by reducing the cost of this system. Meanwhile, the state benefits by making Energy Efficiency Portfolio Standards more attainable and by reducing the need to rely on imported fuel sources that leave Hawaii vulnerable to disruptions in supply. In sum, HSEA believes that his bill accurately splits the difference between adding modest cost to a new home and delivering substantial benefit to the future occupant of that home.

Thank you for the opportunity to testify on this measure.

Mark Duda  
President, Hawaii Solar Energy Association

**About Hawaii Solar Energy Association**

*Hawaii Solar Energy Association (HSEA) is comprised of installers, distributors, manufacturers and financiers of solar energy systems, both hot water and PV, most of which are Hawaii based, owned and operated. Our primary goals are: (1) to further solar energy and related arts, sciences and technologies with concern for the ecologic, social and economic fabric of the area; (2) to encourage the widespread utilization of solar equipment as a means of lowering the cost of energy to the American public, to help stabilize our economy, to develop independence from fossil fuel and thereby reduce carbon emissions that contribute to climate change; (3) to establish, foster and advance the usefulness of the members, and their various products and services related to the economic applications of the conversion of solar energy for various useful purposes; and (4) to cooperate in, and contribute toward, the enhancement of widespread understanding of the various applications of solar energy conversion in order to increase their usefulness to society.*



# Sierra Club Hawai'i Chapter

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**SENATE COMMITTEE ON ENERGY & ENVIRONMENT  
SENATE COMMITTEE ON EDUCATION AND HOUSING**  
February 17, 2010, 1:20 P.M.

**(Testimony is 2 pages long)**

## **TESTIMONY IN SUPPORT OF SB 2554 WITH A PROPOSED AMENDMENT**

Aloha Chair Gabbard, Chair Sakamoto, and Members of the Committees:

The Hawai'i Chapter of the Sierra Club supports SB 2554, which creates an incentive to build net zero energy capable buildings and requires this construction standard by 2015. We suggest requiring the State building code council to come up with the specific, Hawai'i-focused, building code necessary to implement this measure.

In order to meet Hawai'i's aggressive greenhouse gas reduction and energy security goals, it is necessary to transform the building sector. Buildings account for 72% of electricity use<sup>1</sup> and over 36% of greenhouse gas emissions in the U.S.<sup>2</sup> Improving their energy efficiency lowers energy bills, eliminates the need for new power plants, increases our energy independence, reduces air and water pollution, and cuts the carbon emissions that cause global warming. It also directly improves the future comfort and affordability of these homes.

Buildings have a many-decade lifetime, and today's buildings will continue to be a majority of all buildings in 2050. Without a focused effort to reduce energy demand in existing buildings, it will be virtually impossible to meet even the most modest greenhouse gas reduction targets. Reducing energy demand in buildings includes converting to solar hot water heaters; upgrading lighting; installing more efficient heating and cooling systems; and other improvements.

Energy efficiency, as is required by this measure, is the proverbial "low hanging-fruit" in the range of options necessary to reduce our energy costs and greenhouse gas emissions. Even relatively small improvements required by this measure would collectively add up. For example, if every household in the United States switched to Energy Star light fixtures, we could prevent 50 million tons of global warming pollution per year, the equivalent of taking 10 million cars off

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<sup>1</sup> Buildings Energy Data Book September 2007: 1.1 Buildings Sector Energy Consumption.

<sup>2</sup> EIA 2006: Emissions of Greenhouse Gases in the United States.

the road. In every home, office, and factory we can use energy more efficiently by putting to work currently available products like advanced lighting, better windows, more efficient heating and cooling systems, and new appliances that use far less energy than their older counterparts.

In short, this measure would save future homeowners money through energy efficiency over the life of the building, stimulate the green building industry in Hawai'i, and create models for the building industry to experience and learn from.

Thank you for this opportunity to provide testimony.

**gabbard1 - Carlton**

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**From:** Mitchell Johnson [mitchell@pacificsbs.com]  
**Sent:** Tuesday, February 16, 2010 4:35 PM  
**To:** ENETestimony  
**Subject:** SB2554 "Net Zero" Homes

TO: Senator Mike Gabbard

SUBJECT: Amendment to SB2554 "NET ZERO" Homes

Honorable Senator Gabbard,

My name is Mitchell Johnson. I am the founding Principal of Pacific Sustainable Building Science, in Honolulu. We provide third-party inspection services for Energy Star, LEED, and NAHB Green Homes. We also provide myriad services for commercial applications, but they are not pertinent to this subject.

At Pacific SBS, we've been providing services to builders such as Haseko, Gentry, DR Horton – Schuler Division, and Forest City for nearly 4 years.

SB2554, page 2, line 16-19 (line 18-19 in particular) states that:

"Net zero capable" means the energy efficiency building standards for single-family residential construction as determined by the state building code council by December 31, 2010."

I would like it to read:

"Net zero capable" means the energy efficiency building standards for single-family residential construction as determined by the state building energy code council by December 31, 2010 or the Home Energy Rating System (HERS) standard through a certified HERS Provider."

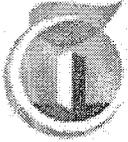
I would like for you to amend this section to utilize the Home Energy Rating Systems (HERS) standard, rather than the state building code.

HERS is a nationally-standardized metric that measures the efficiency of a home. The Home Energy Rating System was developed by the mortgage industry as a means to appraise the value of energy efficiency in homes. We've been using the HERS standard in Hawaii for over 4 years now with our clients with to help them determine the most efficient equipment and building methods for our climate. Along with measuring the efficiency of the homes, the standard software is able to provide recommendations for proper equipment (HVAC) sizing. We've found that a majority of Hawaii's air conditioning systems have been grossly oversized. Thus far, we've saved our clients hundreds of thousands of dollars by properly sizing their air conditioning systems.

If you have any questions or concerns, please call me at your earliest convenience.

Mahalo,

**Mitchell Johnson, LEED-AP Homes, HERS, CGP, CGR, CGV  
Founder, Principal**



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**DOWLING  
COMPANY, INC**

February 16, 2010

Hearing on SB2554, Relating to Net Zero Energy Capable Construction  
Before the Senate Committees on Energy and Environment and Education and  
Housing  
on Wednesday, February 17, 2010 at 1:20 p.m. in Conference Room 225

Dear Chair Gabbard, Chair Sakamoto, and members of the Committees:

I am writing on behalf of Dowling Company in support of House Bill No. 2451. Dowling Company is a Maui-based real estate development company that is committed to green building practices and sustainable development.

As Green Development Manager and LEED Accredited Professional, I support the general provisions of this bill. Net zero energy construction is a design feature that Dowling Company strives to incorporate in all of its projects, including residential and commercial construction. Offering expedited permitting for net-zero energy building projects will serve to increase the design and construction of buildings that produce as much energy as they consume and thus will serve to advance Hawaii's goal of energy independence. I applaud you for taking the initiative on this measure and ask that you vote in favor of its adoption, provided that you include a few clarifying statements described below.

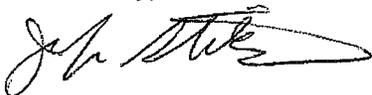
I urge you to insert language that specifies expedited review by **reviewing agencies** in addition to expedited permit issuance by agencies that accept applications and issue permits. Without this added language, HB2451 will prove ineffective in incentivizing and thus increasing the construction of net-zero energy buildings.

Act 96 specifies that the Development Services Administration (DSA), which accepts building permit applications and issues building permits, is required to expedite permitting of LEED registered buildings. However, because DSA is not responsible for the review of building permits, Act 96 has had not been effective in expediting permit processing for LEED registered projects.

In conclusion, I urge you to add language to SB2554 that addresses the cause of slow approvals by specifically including agencies that review building permits, not only those that accept permit applications and issue building permits.

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

Sincerely,



Jennifer Stites