

**SB 155**



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

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

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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**  
Tuesday, February 3, 2009  
2:45pm  
State Capitol, Conference Room 225

in consideration of

**SB155**  
**RELATING TO ENERGY.**

Chair Gabbard, Vice Chair English, and Members of the Committee.

The Department of Business, Economic Development, and Tourism (DBEDT) has concerns regarding SB155, which mandates photovoltaic energy systems for new residential construction and increases incentives for the commercial and residential installation of photovoltaic energy systems. DBEDT concurs that the initial cost of renewable energy systems represents a barrier for homeowners and businesses, and we recognize this bill's mandate offset by increased tax credits. While we support adding photovoltaic energy systems to more households, we are concerned about the cost implications generated by this proposal. We prefer the provisions of the Administration's Hawaii Clean Energy Initiative bill, SB871, which provides incentives in line with the Executive Biennium Budget for Fiscal Years 2009-2010.

We do defer to the Department of Taxation on specific tax matters.

Thank you for the opportunity to offer these comments.

LINDA LINGLE  
GOVERNOR

JAMES R. AIONA, JR.  
LT. GOVERNOR



KURT KAWAFUCHI  
DIRECTOR OF TAXATION

SANDRA L. YAHIRO  
DEPUTY DIRECTOR

STATE OF HAWAII  
DEPARTMENT OF TAXATION  
P.O. BOX 259  
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**SENATE COMMITTEE ON ENERGY & ENVIRONMENT  
TESTIMONY REGARDING SB 155  
RELATING TO ENERGY**

**TESTIFIER: KURT KAWAFUCHI, DIRECTOR OF TAXATION (OR DESIGNEE)**

**DATE: FEBRUARY 3, 2009**

**TIME: 2:45PM**

**ROOM: 225**

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This measure increases the tax credit incentives for the installation of photovoltaic energy systems.

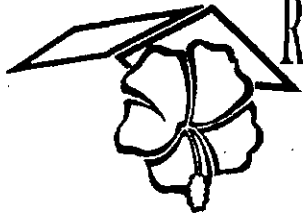
The Department of Taxation supports the intent of incentivizing alternative energy use in the State; however opposes the revenue loss generated by this measure.

**SUPPORT FOR ALTERNATIVE ENERGY**—The Department strongly supports the encouragement and implementation of alternative energy systems in Hawaii in order to lessen the State's dependence on alternative energy. As fossil fuel and petroleum prices become more volatile, Hawaii's ability to generate its own energy from home will make the State more secure and less reliant on others. The Department concurs that photovoltaic and other sun-related energy generation is particularly beneficial given Hawaii's relative location to the sun.

**PREFERENCE FOR ADMINISTRATION'S TAX PACKAGE**—The Department prefers the comprehensive energy-related tax package contained in SB 871, which clarifies the renewable energy systems tax credits, as well as tax incentives for net-zero energy efficient buildings. The Administration's measure has been factored into the biennium budget and the financial plan.

**OPPOSITION TO UNBUDGETED REVENUE LOSS**—The Department cannot support the tax provision in this measure because it is not factored into the budget. The Department must be cognizant of the biennium budget and financial plan. This measure has not been factored into either. Given the forecasted decrease in revenue projections, this measure would add to the budget shortfall.

**REVENUE LOSS**—This legislation will result in a revenue loss of approximately \$77.3 million per year starting in FY11.



# ROOFING CONTRACTORS ASSOCIATION OF HAWAII

820 Mililani Street, Ste. 810, Honolulu, Hawaii 96813  
Phone (808) 537-1224 ♦ Facsimile (808) 533-2739

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February 3, 2009

Testimony To: Senate Committee on Energy and Environment  
Senator Mike Gabbard, Chair

Presented By: Tim Lyons, CAE  
Executive Director

Subject: S.B. 155 – Relating to Energy

Chair Gabbard and Members of the Committee:

I am Tim Lyons, Executive Director of the Roofing Contractors Association of Hawaii and we support this bill.

New technology is making photovoltaic roofing materials available for both residential and commercial applications. Unfortunately, based on it being relatively new, it is far more expensive than traditional solar systems and needs an extra boost and incentive to encourage more people to have it installed with their new roof.

Because we believe this bill benefits our consumers, the environment and compliments the solar movement, we recommend your favorable adoption.

Thank you.

**BIA-HAWAII**  
BUILDING INDUSTRY ASSOCIATION

February 3, 2009

Senator Mike Gabbard, Chair  
Committee on Energy and Environment  
Conference Room 225  
State Capitol  
415 South Beretania Street

Senator Gabbard:

Subject: **Senate Bills No. SB 151, SB 155, SB 148, SB 156 and SB 554  
relating to Energy; Renewable Energy and Energy Resources**

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 opposed to all of the bills listed.

Last session the Senate passed SB No. 644 which effectively:

1. Required all new single family residences constructed after January 1, 2010 to include a solar water heater system;
2. Eliminated the Solar thermal energy systems tax credits on all single-family residential properties after 1/1/2010; and
3. Prohibited a single family residential developer from claiming any renewable energy technologies tax credits for systems installed between now and 2010.

Government "Mandates" that attempts to direct the free market system generally result in penalizing one section of the market. For example, in this case, while the arguments that a \$7,000 thermal solar water heating system can easily be incorporated into the mortgage of the average priced home in Hawaii resulting in the homeowner realizing a net savings as energy cost rise over time, the mandate does not recognize or provide a mechanism to assist buyers seeking units priced for residents making less than 80% and less than 120% of the Housing and Urban Development (HUD) median income levels in Hawaii. For Honolulu, the HUD median income for a family of four is \$77,300. Irrespective of costs, developers are required to provide generally 20% of their total units for families making 120% or less of the HUD median income and 10% of their total units for families making 80% or less of the HUD median income.

Adding the cost of a thermal solar water heating unit to these houses effectively means the buyer gets \$7,000 "less" house.

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 solar water heaters as opposed to requiring only new units to have solar (approximately 5,700 units in 2006). Why do you think the focus was on new units as opposed to existing?

No one disagrees with the intended goal of moving the state toward becoming more energy self sufficient. The concern is in the manner our elected leaders are choosing to accomplish this goal. Building on the mandates from last year, the following is a list that attempts to summarize what is being proposed in each of the five (5) bills being heard.

Bill Number	SB 151	SB 155	SB 148	SB 156	SB 554
<b>Mandatory</b>	Yes	PV--Yes	Yes for 6 or more units	Yes Requires 25% of all new construction by 2015; 50% of all new construction by 2020.	No
<b>Tax Credits</b>					
<b>Solar Thermal</b>	Limited to units with permits issued prior to 1/1/2010	Limited to units with permits issued prior to 1/1/2010	Limited to units with permits issued prior to 1/1/2010	Limited to units with permits issued prior to 1/1/2010	Removes tax credit for developers; but reinstates tax credits for individual units
SFR	50% or \$5,000	35% or \$2,250	35% or \$2,250	35% or \$2,250	35% or \$2,250
MFR	50% or \$1,000	35% or \$350	35% or \$350	35% or \$350	35% or \$350
Commercial	50% or \$250,000	35% or \$250,000	35% or \$250,000	35% or \$250,000	35% or \$250,000
<b>Wind Power</b>					
SFR	20% or \$1,500	20% or \$1,500	20% or \$1,500	20% or \$1,500	20% or \$1,500
MFR	20% or \$200	20% or \$200	20% or \$200	20% or \$200	20% or \$200
Commercial	20% or \$500,000	20% or \$500,000	20% or \$500,000	20% or \$500,000	20% or \$500,000
<b>Photovoltaic</b>					
SFR	75% or \$12,500	75% or \$12,500	35% or \$5,000	35% or \$5,000	35% or \$5,000
MFR	75% or \$1,000	75% or \$1,000	35% or \$350	35% or \$350	35% or \$350
Commercial	75% or \$1,000,000	75% or \$1,000,000	35% or \$500,000	35% or \$500,000	35% or \$500,000

In general, we are concerned because the proposed legislation focuses again on "Mandates" with little or no incentives. In addition, as was the case last session, none of the legislation clearly identifies the specific problem or problems that need to be addressed through the proposed legislation. If the underlying intent is to encourage more energy efficient perhaps the proposed legislation should be expanded to include an

assessment and analysis of the various proposed legislation with clearly articulated criteria for outcomes that unintended consequences of the proposed legislation.

Perhaps, as in other Cities or municipalities, government in Hawaii should lead by example. In other Cities, policy makers “mandated” government projects to achieve a certain green or sustainable design standard. In so doing, the design professionals and contractors in these Cities were educated and developed the necessary hands on experience to build a green or sustainable project. AFTER the design professionals and contractors gained this experience, there were incentives created based on their hands on experience, to encourage the private projects to incorporate green or sustainable design.

Finally, we strongly recommend that the Legislature develop a full understanding of the economic impacts created by this type of legislation. Perhaps the Legislature should conduct its own analysis or comparison to determine, at a minimum, the following:

1. What specific outcome or range of outcomes would each of the bills achieve;
2. Discuss the public benefits among the different outcomes and assess whether or not government involvement is necessary;
3. If government involved is desired, assess the pros and cons of providing incentives or mandating compliance to achieve the desired outcomes.

While we see interest in the market moving toward more energy efficiency and sustainable designs, we believe there is much more that needs to be done before public policy makers “Mandate” any more “green or sustainable” legislation.

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



Executive Vice President & Chief Executive Officer  
BIA-Hawaii



February 3, 2009

Senator Mike Gabbard, Chair  
Committee on Energy and Environment  
Conference Room 225  
State Capitol  
415 South Beretania Street

Chair Gabbard and Members of the Committee:

Subject: **Senate Bills No. SB 151, SB 155, SB 148, SB 156 and SB 554  
relating to Energy; Renewable Energy and Energy Resources**

My name is Jim Tollefson, President of the Chamber of Commerce of Hawaii. The Chamber of Commerce of Hawaii works on behalf of its members and the entire business community to:

- Improve the state's economic climate
- Help businesses thrive

The Chamber of Commerce of Hawaii is opposed to all of the bills listed.

Last session the Senate passed SB No. 644 which effectively:

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more energy efficient perhaps the proposed legislation should be expanded to include an assessment and analysis of the various proposed legislation with clearly articulated criteria for outcomes that unintended consequences of the proposed legislation.

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Finally, we strongly recommend that the Legislature develop a full understanding of the economic impacts created by this type of legislation. Perhaps the Legislature should conduct its own analysis or comparison to determine, at a minimum, the following:

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While we see interest in the market moving toward more energy efficiency and sustainable designs, we believe there is much more that needs to be done before public policy makers “Mandate” any more “green or sustainable” legislation.

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

# TAXBILLSERVICE

126 Queen Street, Suite 304

TAX FOUNDATION OF HAWAII

Honolulu, Hawaii 96813 Tel. 536-4587

SUBJECT: INCOME, Photovoltaic energy systems

BILL NUMBER: SB 155

INTRODUCED BY: Sakamoto

**BRIEF SUMMARY:** Amends HRS section 235-12.5 to increase the tax credit for single-family residential property photovoltaic energy systems from 35% to 75% and the dollar amount of the credit from \$5,000 to \$12,500; for multi-family residential property, from 35% to 75% and the dollar amount from \$350 to \$1,000; and for commercial properties, from 35% to 75% and the dollar amount from \$500,000 to \$1,000,000.

Adds a new section to HRS chapter 196 to require that beginning January 1, 2011 photovoltaic energy systems are to be installed on every new residential single-family residence, condominium, and townhouse, unless: (1) installation is impracticable due to building design or location of the building; or (2) installation is cost prohibitive.

The increase in tax credits shall be repealed when the energy resources coordinator: (1) determines that 20% of the households in the state have installed photovoltaic energy systems; and (2) the governor: (a) issues a proclamation and publishes a notice statewide that the credits will be repealed; and (b) notifies the revisor of statutes of the occurrence of the conditions requiring the repeal of the increase in tax credits.

**EFFECTIVE DATE:** Tax years beginning after December 31, 2009

**STAFF COMMENTS:** Hawaii's income tax credit for alternate energy devices was established by the 1976 legislature originally for solar energy systems and was later expanded to include wind energy devices, heat pumps, ice storage systems, and photovoltaic systems. This system of credits was replaced a few years ago with tax credits focused solely on sources of energy that are renewable and not partially dependent on fossil fuel as are heat pumps and ice storage systems.

While some may consider incentives necessary to encourage the use of energy conservation devices, it should be noted that the high cost of these systems limits the benefit to those who have the initial capital to make the purchase. Recent interest in alternate energy is being driven by the high cost of fossil fuel used to generate energy and not by the credits. While the credits, state and federal, help ease the cost, it is the economic forces of the market that are driving consumers to explore alternate energy sources.

If it is the intent of the legislature to encourage a greater use of alternate energy devices, especially photovoltaic energy systems which cost significantly more than other energy technologies, and make a sincere effort to extend the opportunities to those at the lower end of the income scale, consideration should be given to a program of low-interest loans available to all income levels. One such program initiated by Act 240, SLH 2006, would allow consumers to pay-as-you-go, paying for these devices

through the avoided costs of purchasing traditional energy resources. The Public Utilities Commission has been charged with implementing this pilot project.

While this measure would increase the tax credits available for photovoltaic energy systems and also require the installation of solar energy devices in new residential single-family construction, condominiums and townhouses beginning on January 1, 2011, this mandate will merely add to the up-front cost of new residential dwellings, making the purchase for first-time home buyers even more of a challenge. Mandates beyond health and safety issues are unacceptable in a free market economy.

Further, what was learned in prior hearings on solar water heating systems is that because many times the developer of a new tract of homes does not know what the size of the family making that purchase will be, it is more than likely that the smallest and, therefore, the cheapest unit will be installed to meet the mandate. The rule of thumb is 20 gallons of hot water per day are needed for each person living in that residence. Perhaps the developer will assume that the family size will be four, but in the end the grandparents move-in with the family of four, necessitating a 120-gallon tank. This may mean reconstructing the storage area to accommodate the larger tank. As the cost of energy rises, alternate energy devices will, in themselves, become more popular and be viewed as an amenity desired by the prospective home buyer. Instead of a mandate, lawmakers should consider ways to encourage the accommodation of such devices, allowing the home buyer to make the choice of the device and appropriate size to serve the size of the family.

Digested 2/2/09



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

February 1, 2008

**SB155: Testimony in Support of Some Provisions and Opposition to Others**

Dear Chair Gabbard, Vice Chair English, and Members of the Committee:

Hawaii Solar Energy Association (HSEA) is comprised of more than 30 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.

HSEA members manufacture and install the vast majority of solar water heating systems deployed in the State of Hawaii. Our comments on this measure are based on this expertise, and our related experience in other renewable energy technologies.

HSEA would like to begin by noting that there are seven bills in this hearing that attempt to alter, fix, or expand the requirement that new homes use solar water heating systems to heat the water for their homes. Because the seven proposals in many cases overlap and/or implement some of the same changes in different ways, HSEA has decided that it will be most valuable to the committee to provide a comprehensive response to the issues raised in these seven bills, followed by specific testimony on each bill. This comprehensive response unfolds as discussion of the five most important issues raised by these 'solar mandate' bills, followed by a statement of HSEA's position on each issue.

***ISSUE #1: Clarifying that the Trigger for Applicability of the Mandate is the Origination of a Permit to Build a New Single Family Home, Rather than the Origination any New Building Permit.*** Some argue that Act 204 created ambiguity regarding whether the origination of any new building permit (including permits for unrelated activities, such as adding a bathroom) would trigger the requirement that a solar water heater be installed on the dwelling. Others argue that the language is currently

specific enough to avoid this confusion. Several bills attempt to solve the problem definitively by removing any and all ambiguity.

**HSEA Position:** HSEA supports the goal of restricting the applicability of the solar water system mandate to new dwelling units. Although HSEA members, as installers of the majority of solar water heating systems in the state, would likely benefit from a requirement that anyone who wants to do any form of home improvement must also install a solar water heating system, this seems not to have been the intent of the legislation. HSEA sides here with the public interest in maintaining a clear linkage between legislative intent and legislative consequences.

**Bills in this hearing that successfully clarify the issue are:** SB390, SB1198

**ISSUE #2: *Variances Developers May Use to Avoid the Requirement for Solar Hot Water and Incentive Parity across Technologies for Heating water.*** Act 204 established four categories of variances that could be granted to developers that would allow them not to install solar water system on new homes built under building permits originated after the effective date of the mandate. These are: (1) inadequacy of the solar resource; (2) unreasonable payback period; (3) use of wind or solar photovoltaics to heat water instead; (4) use of a tankless gas water heater to heat water.

Variance categories (1) and (2) are standard approaches to the challenge of granting necessary and reasonable exceptions to avoid unintentionally requiring inappropriate/inadequate systems for heating water that could result in the need to buy an additional water heating system or deal with the inconvenience of water that is not hot enough.

Variance (3) is generally seen as either a more costly way to heat water (PV) or has not achieved any meaningful level of market penetration in Hawaii (wind) for single-family residences. Some have argued that these are not appropriate reasons to forbid developers from using them if they so choose. Others have argued that the issue is not the choice of renewable technology but the tax incentive asymmetry that results from a mandate that eliminates tax incentives for one technology (solar hot water) while other technologies (PV and wind) retain their tax incentives.

Variance (4) is something of a loophole in what is widely referred to as the 'solar mandate act.' Some argue that allowing a gas variance is acceptable on the grounds that burning gas to heat water requires less fossil fuel and, hence, emits less carbon than heating water with electricity. This appears, however, to be a matter of dispute, as others argue that this comparison does not take account of the energy used in transforming petroleum into the synthetic gas that is the only kind of gas available in Hawaii. In addition, HSEA notes that the share of grid power produced by burning fossil fuels varies across utilities and over the course of the day. For instance, HELCO recently hit 60% renewables for a brief period and has averaged over 30% for longer periods.

**HSEA Position:**

Variance (3). HSEA is strongly in favor of efforts to lower the use of fossil fuels in the state of Hawaii. To this end, HSEA supports the existence of the wind/PV variance.

However, HSEA prefers that solar water heating not have its subsidy reduced while those of other technologies remain in place. HSEA is indifferent as to whether this is achieved by reinstating the subsidy for solar hot water or by reducing the subsidy for PV and wind by an amount equivalent to that lost by solar hot water under Act 204.

**Bills that close the subsidy gap across technologies by reinstating tax credits for solar hot water: SB554**

**Bills that close the subsidy gap across technologies by reducing the tax credit for PV and wind: SB390**

Variance (4). HSEA strongly opposes the existence of variance 4. HSEA believes that any pathway that allows compliance with a 'solar mandate' by burning fossil fuels is fundamentally flawed and goes directly against the spirit and intent of the legislation. Further, existence of the gas loophole runs in direct opposition to broader initiatives in Hawaii to achieve energy security by weaning the state off of fossil fuels. The existence of the gas variance is especially problematic because the cost of installing a tankless gas water heater is substantially below that of a solar water heating system, which will lead many developers to choose it in order to keep the selling price of their homes as low as possible, particularly during these difficult economic times.

**Bills that eliminate the gas variance: SB390**

**ISSUE #3: *Extending the Mandate to Structure Types besides Single Family Detached Housing.*** If a sound public policy justification exists for requiring solar water heating on single family detached housing it is reasonable to ask why the same justification does not apply to single-family attached housing and other types of non-detached homes. Several bills attempt this extension but do so in various ways (*e.g.*, by requiring adoption of rules in county building codes versus including under existing mandate section of HRS 196-6.5) and with varying project size thresholds for applicability.

**HSEA Position:** As installers of solar water heating and PV systems, HSEA members are extremely well placed to understand variations in the market for solar after heating systems across single family detached homes, condominiums and townhomes. From this perspective, HSEA notes that very few systems are installed on townhomes and condominiums while the market for such systems on single-family detached homes is strong. HSEA believes that this is a result in many cases of differences in the ability to access tax incentives across different structure types. For this reason, a mandate requiring solar to be sited on such homes may serve an important public policy goal assuming (1) the tax code is not changed to make it easier to finance solar projects on condominiums and (2) compliance by installing fossil fuel-based technologies such as tankless gas heaters is not permitted.

**Bills that extend the mandate to townhomes and condos:**

SB151 (blanket expansion via §196-6.5);

SB148 (expansion to 6+ single-family unit projects and all multi-family via county building code requirement §46);

SB156 (expansion to projects 50+ units via §196-6.5)

**Issue #4: Changes to the RETITC Level and/or Cap.** In addition to addressing issues about the applicability and/or implementation of the requirement for solar water heating, several of the bills make changes to the amount of a project's cost that can be recovered under the Renewable Energy Technologies Investment Tax Credit. This occurs either by raising the share of the project that is eligible for state tax credits (*e.g.*, by raising the credit share from 35% to 50%) or by raising the per system caps available to the purchaser/investor of the system (*e.g.*, by raising the cap from \$350 to \$1,000).

**HSEA Position:** HSEA's members are well placed to understand the current market place impediments to the broader penetration of solar. In a commercial context, the most important of these by a significant margin is the inability to monetize the RETITC. That is, the 35% level of the credit is not the problem; the inability to turn the credit into money at any level is the problem. To this end, HSEA notes that increasing the credit level on commercial systems is unlikely to markedly increase penetration of renewable energy, though some benefit would undoubtedly result. HSEA therefore supports these measures to increase the credit amount and cap limit.

For single-family residential systems, increasing the credit would increase penetration of PV if it were paired with an increase in cap levels. HSEA therefore favors increasing the credit levels for residential PV and especially increasing the cap level.

Under current rules, the multi-family credit is useless for PV and of marginal importance for solar hot water (HSEA is not aware of any multi-family wind systems). Increasing the cap level from \$350 to \$1,000 would be an important step in the right direction. Increasing the credit level would have little effect for PV because all systems would run into the cap. Depending on project size/design and scope, it may have an impact for solar hot water. HSEA therefore favors increasing credit level multi-family property and especially favors increasing the multi-family tax credit per system cap.

**Bills that change RETITC levels and caps:** SB151, SB155,

**Issue #5: Expanding the Mandate to PV.** Despite all of the discussion about clean energy in Hawaii, little has been said about the need to require PV on new or existing homes. As a result, there is little background debate to summarize here.

**HSEA Position:** HSEA notes that there are many open dockets and dozens of legislative initiatives that would potentially bear on the need for such a mandate. In addition, there are marketplace developments that may substantially reduce the need for such a mandate, including at least one firm that is working with DBEDT to come to Hawaii in the second quarter of 2009. In addition, HSEA notes that the establishment of such a PV mandate would require a very involved docket for standards and specifications development. (Such a docket was required even for solar water heating where the state has had a standard approach since 1996.) Devising standards and specifications for PV will be far more difficult, and time consuming at a time when most of the relevant expertise in the state, including at the PUC, is fully engaged in related dockets. For all of these reasons, HSEA recommends that this proposal not be examined during this legislative session.

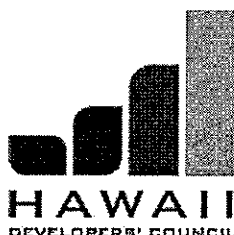


## **Bills that would mandate PV for new single family homes: SB155**

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### **Specific Comments on SB155**

1. HSEA notes that there has been very little discussion of the need for and relative merits of a mandate for PV.
2. HSEA notes that there are many open dockets and dozens of legislative initiatives that would potentially bear on the need for such a mandate.
3. HSEA notes that there are marketplace developments that will reduce or eliminate the up front cost of PV systems and make them more affordable. These could substantially reduce the need for such a mandate. One such firm is working with DBEDT to come to Hawaii in the second quarter of 2009.
4. In addition, HSEA notes that the establishment of such a PV mandate would require a very involved docket for standards and specifications development. (Such a docket was required even for solar water heating where the state has had a standard approach since 1996.) Devising standards and specifications for PV will be far more difficult, and time consuming at a time when most of the relevant expertise in the state, including at the PUC, is fully engaged in related dockets. For all of these reasons,
5. HSEA recommends that this proposal not be examined during this legislative session.



February 3, 2009

Senator Mike Gabbard, Chair  
Committee on Energy and Environment  
Conference Room 225  
State Capitol  
415 South Beretania Street

Senator Gabbard:

Subject: **Senate Bills No. SB 151, SB 155, SB 148, SB 156 and SB 554 relating to Energy; Renewable Energy and Energy Resources**

My name is Dean Uchida, Vice 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.

The HDC opposed to all of the bills listed.

Last session the Senate passed SB No. 644 which effectively:

1. Required all new single family residences constructed after January 1, 2010 to include a solar water heater system;
2. Eliminated the Solar thermal energy systems tax credits on all single-family residential properties after 1/1/2010; and
3. Prohibited a single family residential developer from claiming any renewable energy technologies tax credits for systems installed between now and 2010.

Government "Mandates" that attempts to direct the free market system generally result in penalizing one section of the market. For example, in this case, while the arguments that a \$7,000 thermal solar water heating system can easily be incorporated into the mortgage of the average priced home in Hawaii resulting in the homeowner realizing a net savings as energy cost rise over time, the mandate does not recognize or provide a mechanism to assist buyers seeking units priced for residents making less than 80% and less than 120% of the Housing and Urban Development (HUD) median income levels in Hawaii. For Honolulu, the HUD median income for a family of four is \$77,300. Irrespective of costs, developers are required to provide

generally 20% of their total units for families making 120% or less of the HUD median income and 10% of their total units for families making 80% or less of the HUD median income.

Adding the cost of a thermal solar water heating unit to these houses effectively means the buyer gets \$7,000 "less" house.

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 solar water heaters as opposed to requiring only new units to have solar (approximately 5,700 units in 2006). Why do you think the focus was on new units as opposed to existing?

No one disagrees with the intended goal of moving the state toward becoming more energy self sufficient. The concern is in the manner our elected leaders are choosing to accomplish this goal. Building on the mandates from last year, the following is a list that attempts to summarize what is being proposed in each of the five (5) bills being heard.

Bill Number	SB 151	SB 155	SB 148	SB 156	SB 554
<b>Mandatory</b>	Yes	PV--Yes	Yes for 6 or more units	Yes Requires 25% of all new construction by 2015; 50% of all new construction by 2020.	No
<b>Tax Credits</b>					
<b>Solar Thermal</b>	Limited to units with permits issued prior to 1/1/2010	Limited to units with permits issued prior to 1/1/2010	Limited to units with permits issued prior to 1/1/2010	Limited to units with permits issued prior to 1/1/2010	Removes tax credit for developers; but reinstates tax credits for individual units
SFR	<b>50% or \$5,000</b>	35% or \$2,250	35% or \$2,250	35% or \$2,250	35% or \$2,250
MFR	<b>50% or \$1,000</b>	35% or \$350	35% or \$350	35% or \$350	35% or \$350
Commercial	<b>50% or \$250,000</b>	35% or \$250,000	35% or \$250,000	35% or \$250,000	35% or \$250,000
<b>Wind Power</b>					
SFR	20% or \$1,500	20% or \$1,500	20% or \$1,500	20% or \$1,500	20% or \$1,500
MFR	20% or \$200	20% or \$200	20% or \$200	20% or \$200	20% or \$200
Commercial	20% or \$500,000	20% or \$500,000	20% or \$500,000	20% or \$500,000	20% or \$500,000
<b>Photovoltaic</b>					
SFR	<b>75% or \$12,500</b>	<b>75% or \$12,500</b>	35% or \$5,000	35% or \$5,000	35% or \$5,000
MFR	<b>75% or \$1,000</b>	<b>75% or \$1,000</b>	35% or \$350	35% or \$350	35% or \$350
Commercial	<b>75% or \$1,000,000</b>	<b>75% or \$1,000,000</b>	35% or \$500,000	35% or \$500,000	35% or \$500,000

In general, we are concerned because the proposed legislation focuses again on “Mandates” with little or no incentives. In addition, as was the case last session, none of the legislation clearly identifies the specific problem or problems that need to be addressed through the proposed legislation. If the underlying intent is to encourage more energy efficient perhaps the proposed legislation should be expanded to include an assessment and analysis of the various proposed legislation with clearly articulated criteria for outcomes that unintended consequences of the proposed legislation.

Perhaps, as in other Cities or municipalities, government in Hawaii should lead by example. In other Cities, policy makers “mandated” government projects to achieve a certain green or sustainable design standard. In so doing, the design professionals and contractors in these Cities were educated and developed the necessary hands on experience to build a green or sustainable project. AFTER the design professionals and contractors gained this experience, there were incentives created based on their hands on experience, to encourage the private projects to incorporate green or sustainable design.

Finally, we strongly recommend that the Legislature develop a full understanding of the economic impacts created by this type of legislation. Perhaps the Legislature should conduct its own analysis or comparison to determine, at a minimum, the following:

1. What specific outcome or range of outcomes would each of the bills achieve;
2. Discuss the public benefits among the different outcomes and assess whether or not government involvement is necessary;
3. If government involved is desired, assess the pros and cons of providing incentives or mandating compliance to achieve the desired outcomes.

While we see interest in the market moving toward more energy efficiency and sustainable designs, we believe there is much more that needs to be done before public policy makers “Mandate” any more “green or sustainable” legislation.

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