



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

DAVID Y. IGE  
GOVERNOR

MIKE MCCARTNEY  
DIRECTOR

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804  
Web site: [dbedt.hawaii.gov](http://dbedt.hawaii.gov)

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

Statement of  
**MIKE MCCARTNEY**  
Director  
Department of Business, Economic Development and Tourism  
before the  
**HOUSE COMMITTEE ON FINANCE**

Tuesday, February 26, 2019  
12:30 PM  
State Capitol, Conference Room 308

in consideration of  
**HB 593, HD 1**  
**RELATED TO LAND USE.**

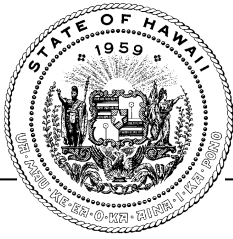
Chair Luke, Vice Chair Cullen, and Members of the Committee.

The Department of Business, Economic Development, and Tourism (DBEDT) has **comments** on HB 593, HD 1, which authorizes the development of utility scale solar development projects in the State Agricultural District with classified A soils subject to certain conditions set forth in this measure.

Achieving 100% renewable energy by 2045 will likely require the development of numerous 'utility-scale' solar energy projects that prefer large areas of flat sunny land. Currently, six large solar projects are being constructed or planned on Oahu on parcels partially or fully within the State Agricultural District. Balanced land use policies in Hawaii can help ensure sufficient land is available for energy, agriculture, and other needs.

Should the Legislature consider allowing the development of large solar farms in the State Agricultural District with classified A soils, the conditions proffered in this bill may offer some reasonable mechanisms to reduce transmission infrastructure needs and allow for such projects to proceed while potentially minimizing negative impacts to Hawaii's agricultural industry. DBEDT defers to the appropriate agencies for comment.

Thank you for the opportunity to offer these comments.



# OFFICE OF PLANNING STATE OF HAWAII

DAVID Y. IGE  
GOVERNOR

DIRECTOR  
OFFICE OF PLANNING

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846  
Fax: (808) 587-2824  
Web: <http://planning.hawaii.gov/>

Statement of  
**RODNEY FUNAKOSHI**  
Planning Program Administrator, Office of Planning  
before the  
**HOUSE COMMITTEE ON FINANCE**  
Tuesday, February 26, 2019  
12:30 PM  
State Capitol, Conference Room 308

in consideration of  
**HB 593, HD 1**  
**RELATING TO LAND USE.**

Chair Luke, Vice Chair Cullen, and Members of the House Committee on Finance.

The Office of Planning (OP) **opposes** HB 593, HD 1, which would amend Hawaii Revised Statutes (HRS) §205-2 to allow solar energy facilities on lands classified by the Land Study Bureau's (LSB) as "A" rated lands. HB 593, HD1 provides that A-rated lands proposed for solar energy facilities are subject to a State Special Permit, with added restrictions including location within two miles of a 138kV transmission line, exclusion from State lands, providing water infrastructure for any agricultural production impacted, and binding contracts for agricultural use including supplying electrical power. HD 1 proposes additional requirements that the Land Use Commission (LUC) find de novo that any agricultural activity on the site will be enhanced or supported by the solar facility, and consider fragmentation, food security and resiliency goals, impacts on surrounding lands, and that the total area of A lands containing solar facilities shall not exceed one (1) percent of total lands within that county.

While recognizing that solar energy facilities provide an important source of renewable clean energy, OP is concerned that their allowance on the most productive agricultural lands in the State could seriously impair the State's long-term agricultural productivity. An ample supply of lands is available elsewhere in the Agricultural District without using A lands.

State agricultural interests are embodied in Article XI of the Hawaii State Constitution and HRS § 205-41 requiring that the State shall conserve and protect agricultural lands and assure the availability of agriculturally suitable lands. Unless planned for urban growth by the county, we believe these highly productive lands should remain available for agricultural production in the interests of agricultural food security and self-sufficiency.

The Land Study Bureau's overall productivity ratings range from "A" (very good) to "E" (very poor/not suitable). Statewide, A-rated lands constitute only three (3) percent, or 55,800

acres, of the 1,885,100 acres of lands within the State Agricultural Land Use District. In 2014, a statutory amendment allowed solar energy facilities on B and C rated lands, previously restricted to 10 percent or 20 acres, to be granted by special use permits regardless of acreage. This leaves A-rated lands, with the most highly productive soils, as the only protected class from the development of utility scale solar facilities.

OP acknowledges the HB 593, HD 1 amendments which include additional requirements to approve a Special Permit for solar facilities. However, by expanding the role of the LUC, the amendments alter the framework of the Special Permit process, which is a county-based approval, with county planning commissions empowered to permit and determine “unusual and reasonable” uses. If more than 15 acres, LUC approval is also required, but the LUC review is limited to the record established at the county level.

Given the limited supply of A-rated lands, the workable solution and available vehicle for permitting solar facilities on these lands is through the State Land Use District Boundary Amendment process, whereby the LUC via a petition for reclassification can determine the uses to which the lands are best suited, balancing energy and agriculture goals, and reclassify the lands to the Urban or Rural District as deemed appropriate.

Thank you for the opportunity to provide testimony.

DAVID Y. IGE  
Governor

JOSH GREEN  
Lt. Governor



PHYLLIS SHIMABUKURO-GEISER  
Acting Chairperson  
Board of Agriculture

State of Hawaii  
**DEPARTMENT OF AGRICULTURE**  
1428 South King Street  
Honolulu, Hawaii 96814-2512  
Phone: (808) 973-9600 FAX: (808) 973-9613

TESTIMONY OF THE DEPARTMENT OF AGRICULTURE  
BEFORE THE HOUSE COMMITTEE ON FINANCE

FEBRUARY 26, 2019  
12:30 P.M.  
CONFERENCE ROOM 308

HOUSE BILL NO. 593 HD1  
RELATING TO LAND USE

Chairperson Luke and Members of the Committee:

Thank you for the opportunity to testify on House Bill 593 HD1 that authorizes the development of utility-scale solar energy projects on “A” rated agricultural land in the Agricultural District. HD1 attempts to reduce the impact of solar energy facilities that displace farmers who are actively cultivating “A” rated agricultural lands. However, given the high crop production capacity and extreme scarcity of ‘A” rated agricultural lands, and our uncertainty as to what the full impact of these facilities will have on these irreplaceable agricultural lands, we remain in strong opposition to allowing solar energy facilities on “A” rated agricultural lands.

DOA has always sought a balance between the State’s initiatives for energy and food self-sufficiency. We have seen fast adoption of and broad support for renewable energy production at the utility-scale to the residential. In our earlier testimony on HB 593, we noted that over the past ten years, piecemeal amendments to Chapter 205 have allowed solar energy facilities to dramatically increase their footprint on Hawaii’s agricultural lands. As this occurred, we argued that solar energy facilities should first be directed to lower-rated “D” and “E” rated lands, which are found in abundance on each island, before using “B” and “C” rated agricultural land.



Now, House Bill 593 HD1 seeks to allow solar energy facilities on “A” rated agricultural land. “A” rated agricultural lands have the highest capacity for intensive, soil-based, agricultural production with the least amount of inputs and preparation. Simply put, it is Hawaii’s best agricultural land. And it is very scarce. In earlier testimony, it was noted that “A” rated ag lands comprise 3% or about 56,000 acres of the 1.83 million acres of agricultural zoned land throughout the State. Oahu has about 15,000 acres of “A” rated ag land, or about 25% of the State total. Nearly all the “A” rated agricultural lands from Wahiawa and Schofield Barracks southward to the residential communities of Royal Kunia and Village Park are in intensive agricultural production and much of it is irrigated.

HD1 asserts it would further the agricultural use of the “A” rated agricultural land occupied by or near to a solar energy facility (page 1, lines 8-9). The bill indicates the following three benefits to agricultural use on or near a solar energy facility on “A” rated agricultural lands. We find these benefits to contain vague language with no guarantees. We offer comments for each.

1. A reduction in land lease rate to 60% from the existing 50% below the fair market lease rate (page 17, line 11-15).

We do not see the significance of the benefit of an additional 10% reduction in land lease rent to a farmer on or near a solar energy facility on “A” rated agricultural land, particularly in the case where the agricultural operation is being largely or totally displaced by the solar energy facility. Farm displacement that results in a reduction in or total loss of production acreage cannot be made up by a reduction in land lease rate.

2. Requiring the solar energy facility operator to “provide water infrastructure to any service area” where agricultural production has been impacted by the solar energy facilities (page 19, lines 11-15).

The provision of “water infrastructure to any service area in which agricultural production has been impacted” needs to be reworded as it lacks clarity. The phrase “agricultural production has been impacted” appears to describe the situation where a farming operation on a parcel of land is being largely, if not entirely, displaced by a solar energy facility and that the farmer is forced to

relocate the farming operation to another portion of the same parcel, or to another parcel. Providing “water infrastructure to any service area” for a farm that is forced to operate on a much smaller land area on the same parcel, or, worse, forced to leave the parcel will not return the farm to its prior crop production capacity anytime soon. As worded, this is a weak benefit.

3. Requiring one or more binding contracts for farmers to undertake agricultural activities on the “A” rated land area used for solar energy facilities, and requires facility operators to “provide for the electrical needs” of these contracted farmers (page 20, lines 5-13). Under this scenario, a solar energy facility operator on “A” rated agricultural land is required to “provide for the electrical needs” of a farmer or farmers who enter into “binding contracts” with the operator. The phrases “binding contracts” and “provide for the electrical needs” need to be reworded as they lack clarity. Are there examples of other solar energy facilities in Hawaii that have established “binding contracts” with farmers to undertake agricultural activities under or alongside the solar energy facility footprint? It is not clear how this “benefit” will relate to the other two.

The bill has three limits on solar energy facilities. One is the 35-year cap on the use of the land, another is the 2-mile capture area on both sides of a 138-kilovolt transmission line right-of-way, and the third is the area of “A” rated agricultural land in a county that may be developed for solar energy facilities is limited to 1% of the total acreage of “A” rated agricultural land in the county. We are not confident these limits will withstand future efforts to benefit solar energy facility development at the cost of agricultural production on “A” rated agricultural land. We are worried about the ‘slippery slope’ effect as the State has seen over the past several years where solar energy facilities were being considered for “D” and “E” lands and today we are considering “A” lands.

The 35-year cap on use of “A” rated agricultural land for a solar energy facility is not fixed and can be extended by the Land Use Commission. Given the far higher income stream possible from leasing agricultural land for solar energy facility development versus agricultural production, we are not convinced that affected “A”

rated agricultural land will ever be returned and restored to its original pre-use condition for agricultural use (page 19, lines 1-7 and 16-21).

The bill establishes a geographic limitation on what “A” rated agricultural land can be taken for solar energy facility development – two miles, either side, of a 138-kilovolt transmission line right-of-way (page 18, lines 17-20). To our knowledge, only Oahu has transmission line right-of-ways that cross over “A” rated agricultural land, one of which crosses the Kunia Road in the midst of agricultural lands almost entirely under agricultural production. We are very concerned that the 138-kilovolt limitation will be subject to amendment in the future, perhaps down to 69-kilovolt, thereby increasing the area where solar energy facilities may be developed, particularly on the neighbor islands.

The bill also limits the total area of “A” rated agricultural lands directly under the footprint of solar energy facilities to 1% of the total acreage of “A” rated agricultural lands in the relevant county (page 22, lines 1-10). For Oahu, 1% of 15,000 acres of “A” rated lands is 150 acres. So, a single utility-scale solar energy facility, built within the 138-kilovolt transmission line right-of-way described in the previous paragraph, will extinguish consideration of other solar energy facility proposals on “A” rated agricultural lands for Oahu. This brings into question who will benefit from this narrowly defined legislation. We are very concerned that this 1% cap will be increased in the future, thereby increasing the amount of “A” rated agricultural land that will be subject to solar energy facility development.

The bill specifies 5 standards and criteria for the Land Use Commission to consider in their review of a special use permit for solar energy facilities on “A” rated agricultural lands. Most of the standards/criteria contain imprecise language that may make measurement of impact difficult (page 20, line 14 to page 21, line 20).

In lieu of this measure, the Department strongly recommends that the development of solar energy facilities on “A” rated Agricultural District land be sought through established land use entitlement and county plan amendment processes under

the purview of the Land Use Commission and the counties. We strongly discourage circumventing these existing processes by amendments to Chapter 205, particularly for the very scarce and valuable “A” rated agricultural land that these laws and ordinances ultimately seek to protect and conserve.

Despite our strong opposition, we are open to further discussion on solar energy facilities on “A” rated agricultural land, provided the utility-scale solar energy facility developer undertakes and completes a “proof of concept” that, to the State’s satisfaction, unequivocally demonstrates that agricultural production activity shall be the primary activity on the parcel of land for which a solar energy facility is proposed; that the amount of agricultural crop production by volume, weight, and value shall be equal to or exceeds what is possible without the solar energy facility; that all crop types shall be tested, including papaya and banana, except livestock; if agricultural-technology production is proposed by the solar energy facility developer, a full cost itemization of the full development of the infrastructure to allow agricultural-technology production in coexistence with solar energy facilities, including greenhouse buildings and vertical agriculture, the cost of operating and maintaining agricultural technology production, the cost to acquire the skills to operate an agricultural technology production system, and other considerations. A successful proof-of-concept would clearly demonstrate the solar energy facilities and intensive and economically viable agricultural production can physically co-exist on the same land area.

Thank you for the opportunity to comment on this bill.





# Hawaii Agriculture Research Center

*Administration: P.O. Box 100, Kunia, HI 96759*

*Ph: 808-621-1350/Fax: 808-621-1399*

## TESTIMONY BEFORE THE HOUSE COMMITTEE ON FINANCE

### HOUSE BILL 593 HD1

### RELATING TO LAND USE

**February 26, 2019**

Chair Sylvia Luke, Vice Chair Ty Cullen and Members of the Committee:

My name is Stephanie Whalen. I am Executive Director of the Hawaii Agriculture Research Center (HARC). I am testifying today on behalf of the center and our research and support staff.

#### **HARC strongly OPPOSES House Bill 593 HD1 Relating to Land Use.**

I am also the President of the Kunia Water Cooperative which is the farmer run organization with respect to the Waiahole Ditch, and the President of the Kunia Water Association which manages a system of wells for six agricultural parcel owners. HARC and myself are committed to the future of agriculture in Hawaii.

Several years ago HARC sponsored a bill that allowed a PhotoVoltaic installation essentially on cane haul roads on A land. Cane haul roads have several feet of base coarse material which would be extremely costly to remove and return to agricultural use and they continue to be needed as access roads. Properly designing PV on these roads would benefit the farm by reducing the erosion from these roads while continuing adequate access to the farm. The following is that existing language:

(20) Solar energy:

(A) Located on a paved or unpaved road in existence as of December 31, 2013, and the parcel of land upon which the paved or unpaved road is located; has a valid county agriculture tax dedication status or a valid agricultural conservation easement;

(B) Placed in a manner that still allows vehicular traffic to use the road; and

(C) Granted a special use permit by the commission pursuant to section 205-6;

HARC is still working through this process with the City and County of Honolulu Department of Permitting and Planning.

HARC feels strongly that there is no other adequate justification to allow any solar installations on land classified as A for other than a farmer's sole use, as there is PLENTY and B,C, etc. lands available. The departure of sugar and pineapple has opened up 100,000s of acres in the state, many of which are not A lands. In addition, there is no justification for taking any existing viable farming operation out of production for PV use no matter what other requirements are made on the supplier.

It needs to be understood that the lease for a farming operation is in the hundreds of dollars, whereas for a solar (PV) installation it is in the thousands. There is a huge economic incentive for land owners to switch even if they have to leave land fallow for several years by not leasing to a farm and waiting to allow a PV installation to be allowed.

If our state's goal is to provide more local produce for its citizenry, then proposals such as this should not even be heard. It seems to be in opposition to the state's own policies for local food production.

Thank you for the opportunity to testify in **STRONG OPPOSITION to HB593 HD1** or any form thereafter utilizing A lands for any other purpose than agriculture.



## COMMITTEE ON FINANCE

Tuesday February 26, 2019 12:30 PM

### HB593 HD1: RELATING TO LAND USE

Chair Luke, Vice Chair Cullen and Members of the Finance Committee

#### TESTIMONY: We **strongly support HB59 HD1**

The Hawaii Clean Power Alliance (HCPA) is a nonprofit association organized to advance the development and sustainability of clean energy in Hawaii. Our mission is to educate the public about the benefits of clean energy, and to support Hawaii's policy goal of 100% renewable portfolio standard by 2045. We support distributed energy on rooftops, but even with all rooftops, Hawaii will fall short of its 100% goal. The benefits of clean, utility scale, grid connected energy projects are numerous, including reducing Hawaii's dependence on fossil fuels, lowering carbon emissions, and providing stable, multi-year long-term rates, which are passed on to rate payers. In addition, grid-connected clean power assists the income-challenged and the over 50% of our population who rent and cannot put solar on their rooftop. Businesses can also benefit, especially farmers, who suffer from a high cost of electricity with their operations. We feel of equal importance is the balance of Hawaii's need to support the goal of providing more locally grown food, in order to wean ourselves of the import of expensive, especially perishable food items.

Hawaii is at a policy crossroad, as we find it increasingly necessary to solve the sometimes seemingly contradictory goals of increasing renewable energy production, increasing food production and increasing affordable housing. Each vie for scarce resources such as land, water and human capital. This bill can help to take away those silos and solve the problem of deciding one over the other by creating a meaningful and symbiotic partnership between two industries.

In the energy sector, there is a real time-bound deadline to get more megawatts developed on the grid because federal tax incentives are scheduled to decrease substantially in 2022. These tax incentives are a pass-through savings to ratepayers and is proposed to provide the lowest cost of energy ever seen in the state. Fortunately, the use of technology has enabled advancements to help increase the production of energy, while decreasing the physical footprint.

The same is occurring with technology in agriculture. With more being done in smart data analysis, vertical farming, innovative greenhouses, warehouse farming, aeroponics, aquaponics and hydroponics, farmers can now increase yields in a sustainable way. There are examples of innovation in farming right here in Hawaii, which help to control environmental and pest risks, but also help to lower the use and therefore cost of water. However, these facilities take more and more energy to run. There are numerous examples across the U.S. such as AeroFarms in New Jersey which delivers up to 30 harvests vs. 3 harvests from a traditional farm in New York State <https://aerofarms.com/>. The Netherlands made a national commitment to sustainable agriculture under the rallying cry "**Twice as much food using half as many resources.**" They lack many of the resources thought to be needed for large-scale agriculture – land, and water, but they do



have great energy resources (geothermal). Utilizing warehouses and greenhouses, this small land-mass country has become a top exporter of food.

We support HB593 HD1 because it helps to solve the competing land use by making sure that solar co-exists with agriculture in a significant way.

Some of the benefits we see for the state and farmers include:

**Lower energy prices, energy security, reliability, decreased carbon footprint**

- By increasing our own production of renewable fuel, we become a more resilient state, without being dependent on external imports, thereby increasing our energy security, and reliability while decreasing our carbon footprint.
- For farmers, as well as businesses and households, the current cost of energy is one of the highest expenses in their monthly expenditures and can make the difference between profitability or loss. Farmers are dependent on energy to power their operations, for example, processing, chillers and wells.
- In fact there are numerous bills this legislative body is proposing to promote special rates for protected agriculture.

**Long term protection of AG land LSB A for years to come (no housing)**

- Solar will protect the use of the land for 35 years, at which point the owner must go to LUC for extension or removal and it will guarantee to return to the same condition and to sole use of agriculture.
- Provides time for the state and counties to create a master plan and policies to insure LSB A lands are not populated with housing, which can be abused today via the CPR and subdivision process, with no oversight or regulation by government entities.
  - In fact there are numerous bills this legislative body is proposing to solve the misuse of condominium property regimes.
- This will enable the state to control the use criteria on private lands.
- The LUC will have oversight and impose conditions on the land use.

**Co-exist with agriculture**

- An applicant must go before LUC no matter what size of project, so the LUC will insure that agriculture is being balanced with the energy project.
- An applicant must provide water infrastructure to the farmer.
- The solar partner will leave any infrastructure that is provided and beneficial to the farmer when PV farm exits.



- The American Farm Bureau Federation has issued a comprehensive U.S. Energy Policy<sup>1</sup> which supports renewable energy for farmers benefit:
  - To help reduce the nation's dependence on foreign energy resources, stimulate energy production within the agricultural sector, and to ensure that farmers and ranchers have access to affordable energy.
  - Farm Bureau advocates policies that will create a diverse, domestic energy supply to fuel America's economic growth and prosperity while strengthening our energy security. Further development and use of renewable energy sources such as ethanol biodiesel, biomass, solar and wind are critical to our nation's energy future and will help further strengthen the overall national security of the United States. Farm Bureau supports a comprehensive approach to fulfilling our energy needs of today and into the future.
- In fact there are numerous bills this legislative body is proposing to promote vertical farming.

### **Food Safety Benefits**

- Of concern to farmers, regulatory bodies and the retailers and restaurateurs who purchase the food are compliance standards . By co-locating with a solar farm, there may be added benefits such as reduced cost of power for farming, wells, expensive chilling and drying operations.

### **Limiting the risks of populating all the LSB A lands in the state**

- The bill limits the partnerships in LSB A designated lands to only 2 miles within a 138 KV line, built prior to January 1, 2016.
- The bill sunsets in 6/30/2025
- We see this as a way to help create an innovative, symbiotic partnership leveraging technology and business partners who bring needed assets to the equation of land, capital and human capital.

We urge you to pass HB593 HD1.

Thank you for the opportunity to testify.

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<sup>1</sup> <https://www.fb.org/issues/energy/comprehensive-us-energy-policy/>



## COMMITTEE ON FINANCE

Tuesday February 26, 2019 12:30 PM

### HB593 HD1: RELATING TO LAND USE

Chair Luke, Vice Chair Cullen and Members of the Finance Committee

#### **TESTIMONY:**

Thank you for the opportunity to testify on **House Bill 593 HD1. I am in support of this bill.**

It authorizes the development of utility scale solar development projects on certain lands by co-existing with agriculture.

I am Dean Okimoto, formerly President of Nalo Farms, Inc., and former president of the Farm Bureau. I was farming for 35 years in Waimanalo, and shut down my farm in October 2018. I began my farm in 1983, and worked with chefs like Roy Yamaguchi, Alan Wong, Russell Siu and a host of others, at one time servicing about 100 restaurants and outlets. In 2003, along with others, started the first Farmer's Market at KCC and it was sponsored by the Hawaii Farm Bureau. I have always been active in the community helping non-profit causes and many schools with donations of product as well as making salads to raise money for these causes.

I shut down my operations because of being hit by 4 storms since April, 2018, which wiped out my crops on four separate occasions. Each time my crops were destroyed and I was left without income and trying to support my work force as well as cover expenses. I lost in excess of \$800,000. The issue is that with climate change, farming needs to be done differently, and we must embrace technology, whether it be greenhouse growing to protect from the weather, or other things which can control input costs. With Food safety rules coming into play by the federal Food Safety Modernization Act, farmers have to deal with the added costs that come with it, and one of the largest is refrigeration on site. This cost was in excess of \$10,000/month for us, so PV and solar solutions, especially on the electric grid for farmers is absolutely critical to keep prices down, and for them to make money. They cannot even afford to get loans for solar on their farms. This is in addition to rising costs for labor, transportation, fighting pests, and more regulations which farmers must follow, the biggest being food safety.

The reason why I am in favor of this bill, is that we must start melding the energy issues with agriculture for the success of agriculture. When it is a scaled solar project like this, there are security measures that must be put in to protect the PV, but this is also a great reason to put agriculture in there also. Since there is security, farmers can benefit, preventing the need to have homes on the land. Their equipment and products are watched over. Farms suffer from thefts of product and equipment, vagrants and vandals. Having access to lower electricity rates because the PV is renewable, which offers a long term stable rate is a huge plus for farmers and the public, as it would be reflected in the cost of the products also.

I also believe that we need to do more greenhouse growing, managing all impacts because of the need to utilize electrical sources to run pumps, lights, and temperature control methods. Greenhouses also help in pest control environmental impacts, and labor. And therefore provide greater yields on less space.

This measure can be a good example of melding energy efficient methods and cost savings with agriculture as a co-existing partner. This is a win-win for agriculture, solar development, and the public in general. We can actually protect LSB A lands with a project of this size because again the farmer does not have to live on the land. We must protect LSB A lands, but we must also protect the farmer, the other asset in creating local food production. This bill provides for protection of both.

Please pass HB593 HD1. Thank you for the opportunity to testify.



**Board of Directors  
2018 - 2020**

TESTIMONY FROM BENNETTE MISALUCHA, EXECUTIVE DIRECTOR

President  
Joshua Uyehara

In Opposition of HB593, HD1  
Relating to Land Use

Vice-President  
Warren Mayberry

HOUSE COMMITTEE ON FINANCE  
February 26, 2019, 12:30 p.m.  
Conference Room 308

Secretary  
Dawn Bicoy

Chair Luke and members of the committee:

Treasurer  
Laurie Yoshida

The Hawaii Crop Improvement Association (HCIA) opposes HB593, HD1, which authorizes the development of utility scale solar development projects on certain lands.

Directors-at-Large  
Alan Takemoto  
Adolf Helm  
Leslie Campaniano  
Dan Clegg  
Joshua Uyehara  
Warren Mayberry

Currently, Hawaii law allows for solar development projects on B, C, D and E classified lands. Extending these developments on A classified land would be devastating to agriculture in Hawaii.

President Emeritus  
Alan Takemoto

When a piece of land is developed for a solar installation, it is unlikely it will ever revert back to agricultural use, even when the solar lease runs out. That's because changes to the land tend to ruin it for future farming. Additionally, increased demand for solar energy could result in acres of farmland being leased to solar developers, as it can be more profitable for farmers than producing any crop.

Executive Director  
Bennette Misalucha

All of this is counterintuitive to the state's goal to double local food production by 2020. As such, HCIA respectfully requests that this committee oppose HB593, HD1 to keep prime agricultural lands in agriculture.

Mahalo for your time and consideration.

Respectfully,

Bennette Misalucha  
Executive Director, Hawaii Crop Improvement Association

*The Hawaii Crop Improvement Association is a Hawaii-based non-profit organization that promotes modern agriculture to help farmers and communities*





# HAWAII CROP IMPROVEMENT ASSOCIATION

*succeed. Through education, collaboration, and advocacy, we work to ensure a safe and sustainable food supply, support responsible farming practices, and build a healthy economy.*

**HB-593-HD-1**

Submitted on: 2/25/2019 10:41:44 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
MAURY KING	Cannabis Voters	Oppose	No

Comments:

Please let's keep moving toward a renewable energy future by doing everything that makes sense to create more wind and solar projects, both large and small scale, and find ways to make our grid smart enough to deal with renewables.

**HB-593-HD-1**

Submitted on: 2/25/2019 12:41:02 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Karen Winslow	Hawaii Farmers Union	Support	No

Comments:

**HB-593-HD-1**

Submitted on: 2/25/2019 12:22:36 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Helmut Klauer	A'a Li'i Farm	Support	No

Comments:



Hawaii Pineapple Company, LLC  
2500 Kalakaua Ave. #2406, Honolulu, Hawaii 96815  
Ph: 808-921-5899  
Fax: 866-542-9741

February 25, 2019

Testimony in **Support of HB593 HD1**

To Whom It May Concern:

As an introduction, my name is Craig Bowden, managing member of Hawaii Pineapple Company. My partners and I have been farming in Hawaii for decades and want to testify in support of the concept of combining smart agricultural/farming operations and smart renewable energy production in a required shared + linked use of select Class A lands here in Hawaii Hawaii Pineapple Company, LLC involved with various agricultural operations in Hawaii, California, and around the world but my roots are here Hawaii.

I want to make it clear that class A lands are a very important resource and something that we must steward but farming and agriculture in our state has challenges that do not exist elsewhere. If the State is serious about providing food security and a viable agricultural industry, it cannot rely only on current or past business models for farming (I personally worked for both the sugar and pineapple industries in Hawaii and unfortunately years after all the plantation closings many acres once productive are now growing weeds). Hawaiian agriculture needs real support from all levels of society and government, new methods and new incentives are also needed.

By implementing farming in conjunction with clean renewable energy we have an opportunity (not a guarantee) to make farming more viable. We may be able to create a future where Hawaii farmers can offset some of their competitive disadvantages and high costs... this could work by linking some of the beneficial economics of renewable energy directly to farmers receiving access to *low cost electricity* (for processing, operations and irrigation) *and low cost adjacent land*, both of which are more expensive in Hawaii than almost anyplace else where successful farming occurs. Some in Hawaii view renewable



Hawaii Pineapple Company, LLC  
2500 Kalakaua Ave. #2406, Honolulu, Hawaii 96815  
Ph: 808-921-5899  
Fax: 866-542-9741

energy as competitive with farming which may or may not be the case. This is a matter of choice, design, and discipline which are highly dependent on how that relationship is defined and shaped in terms of good policies, incentives, and practices.

I don't want this testimony to be misconstrued, preserving Class A lands are very important and something that we need to steward but unless Hawaii learns how to find ways to help make Hawaiian agriculture more profitable and sustainable these prime agricultural lands will eventually grow weeds instead of crops. All of us in the State like to think that we are an island community where we work, live and play together with aloha. Too often this is not the case. It would be very nice if we could actually work together, and find better solutions to assure a more sustainable energy future and a more realistic and viable future for Hawaii's agricultural industry.

In closing: when considering how we farm and Hawaii's land use choices we should always try to think and do what is Pono and we have as a guide the [Hawaii state motto: \*Ua Mau ke Ea o ka 'Āina i ka Pono\*](#) or "The life of the land is perpetuated in righteousness" if we all try to do that more we might come up with some great long term solutions.

Mahalo for taking the time to consider these thoughts.

Sincerely,

R. Craig Bowden

President/Managing Member

Hawaii Pineapple Company LLC

Hawaiian Crown Plantation (Honolulu)

Hawaiian Crown Plantation & Chocolate Factory (Hilo)

Hawaiian Crown LLC

[www.hawaiiancrown.com](http://www.hawaiiancrown.com)

**COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

**COMMITTEE ON WATER, LAND, & HAWAIIAN AFFAIRS**

**HB593 RELATING TO LAND USE**

DATE: Tuesday, February 12, 2019  
TIME: 8:55 AM  
PLACE: Conference Room 325

**TESTIMONY OF Kerry Kakazu, MetroGrow Hawaii**

Chairs Lowen, Yamane, Vice Chairs Wildberger, Todd and members of the Committees:

POSITION:

Thank you for the opportunity to testify on House Bill 593.

**I submit this testimony in strong support**

DESCRIPTION:

Authorizes the development of utility scale solar development projects on certain lands with agricultural farming

TESTIMONY

My name is Kerry Kakazu and I am the owner and President of MetroGrow Hawaii, the first vertical farm in the state. Founded in 2013, I have combined my degrees in plant science along with my experiences with technology to create a vegetable farming system that is productive, sustainable and safe. We utilize aeroponic and hydroponic methods along with high efficiency LED lighting in a climate-controlled warehouse to grow quality produce for many of our local restaurants and Foodland Farms stores.

There is a need for protected agriculture as a supplement to traditional growing in order to meet the demand for local vegetable production and to move the state toward food self-sufficiency. Decreases in arable land, increasing weather unpredictability, reduction of fresh water availability and the tremendous pest pressures in Hawai'i necessitate research and development of alternative forms of agriculture. While our operation is able to reduce land, labor, transportation, water, fertilizer and pesticide usage in relation to traditional farms, electricity usage for environmental control is higher. In order to become more economically sustainable we will need to reduce our electricity costs by the incorporation of renewable energy.

The high relative cost of electricity in Hawai'i is a deterrent to profitability for all farms, not just protected agriculture. In addition to environmental control, electricity is needed for other farm equipment, crop processing and post-harvest storage. The co-location of utility scale solar systems with agricultural operations is a sensible, cost-effective means of reducing the energy expenses and increasing the revenue potential of local farms with only a small impact on land usage. In addition, an increase in community solar energy production will be a benefit to all electricity users in the state, not just farmers.

Today's farming industry must work toward utilizing technology and partnerships to be able to have sustainable growth and longevity. By allowing farming and solar energy generation to coexist on LSB A lands, the chances of agriculture thriving in Hawai'i will improve.

Please pass HB593.

## COMMITTEE ON FINANCE

Tuesday February 26, 2019 12:30 PM

### HB593 HD1: RELATING TO LAND USE

Chair Luke, Vice Chair Cullen and Members of the Finance Committee

#### **DESCRIPTION:**

Authorizes the development of utility scale solar development projects on certain lands with agricultural farming

#### **TESTIMONY: I support HB593 HD1.**

Thank you for the opportunity to testify on **HB593 HD1**. I **submit this testimony in strong support**

#### **DESCRIPTION:**

Authorizes the development of utility scale solar development projects on certain lands by coexisting with agriculture.

#### **TESTIMONY**

#### **I support the entirety of HB593 HD1.**

I am Vincent Kimura, CEO of Smart Yields founded in 2015. Our mission is to help small to medium-sized farmers grow more with less by providing access to intelligence through smart record-keeping and data-monitoring. We are spreading our technology throughout the islands, and the world, with great success. We have found that farmers face challenges in predicting and dealing with the unpredictability of the environment, and adjusting their management practices and harvest accordingly. Monitoring and recording of data makes plant management easier and predictable.

Farmers are subject to many external challenges to produce safe, reliable and continuous agricultural products to Hawaii at cost competitive prices.

The uncontrollable weather, temperature, lack of labor, cost of infrastructure, cost of water, cost of electricity, fighting pests, food safety standards, and security all contribute to the viability or nonprofitability of a farming operation. Farms utilizing agritechnology here and around the world such as greenhouses and data monitoring can provide for much better yields.

This is a way to protect LSB A lands for the long term future, much of which sits fallow, today. Providing farming infrastructure to farmers is very helpful.

This is a way to support farmers and all of the local community.

Thank you for the opportunity to submit my testimony.



**HB-593-HD-1**

Submitted on: 2/25/2019 10:40:52 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Keith Ranney	Individual	Support	No

Comments:

**HB-593-HD-1**

Submitted on: 2/25/2019 10:46:43 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jo Kimm	Individual	Support	No

Comments:

**HB-593-HD-1**

Submitted on: 2/25/2019 10:50:57 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Lois Crozer	Individual	Support	No

Comments:

**HB-593-HD-1**

Submitted on: 2/25/2019 10:51:22 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Dennis F Lokmer	Individual	Support	No

Comments:

**HB-593-HD-1**

Submitted on: 2/25/2019 10:52:33 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Thomas Craig	Individual	Support	No

Comments:

Utility scale solar projects are needed for Maui County to bring down the cost of electricity and to wean the utility off greenhouse gas producing fossile fuels which burden present and future generations with health and climate detriments.

**HB-593-HD-1**

Submitted on: 2/25/2019 10:53:49 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jonathan E. Biel	Individual	Support	No

Comments:

**HB-593-HD-1**

Submitted on: 2/25/2019 11:24:54 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Scott Crawford	Individual	Support	No

Comments:

## COMMITTEE ON FINANCE

Tuesday February 26, 2019 12:30 PM

### HB593 HD1: RELATING TO LAND USE

Chair Luke, Vice Chair Cullen and Members of the Finance Committee

#### **DESCRIPTION:**

Authorizes the development of utility scale solar development projects on certain lands with agricultural farming

#### **TESTIMONY: I support HB593 HD1.**

I am Jon Wallenstrom and I have spent my career building renewable energy systems and affordable and market-rate housing. I have been very cautious about supporting this bill as I believe that Hawaii needs a farming future. As my involvement in the effort matured and I heard about the problems that farmers have, I have come to learn how easy it is for a renewable energy project to make a meaningful difference in a farmer's ability to succeed and feed our population. I feel wonderfully justified in supporting this bill and I am absolutely certain that we are working to the benefit of the State of Hawaii's short and long-term interests. It took meeting and talking with Dean Okimoto and Richard Ha for me realize that as a society we are protecting land without protecting farmers and without thinking about food yields. Because I am a business-person I understood that we have a competitive disadvantage with California, the Philippines, Chile, etc. but I didn't understand that farming at a scale that is meaningful for our State can happen with simple cooperation and discussion. We can compete with the world and achieve food security we have simply set up a system that impedes our success. I am really encouraged by how this Bill has opened up lines of communication that had not previously existed and I know that we are doing the right thing.

Please pass HB593 HD1 and allow Hawaii to have a future of cooperation and progress.

Thank you for the opportunity to testify.



## COMMITTEE ON FINANCE

Tuesday February 26, 2019 12:30 PM

### HB593 HD1: RELATING TO LAND USE

Chair Luke, Vice Chair Cullen and Members of the Finance Committee

#### **DESCRIPTION:**

Authorizes the development of utility scale solar development projects on certain lands with agricultural farming

#### **TESTIMONY: I strongly support HB593 HD1.**

I am Richard Ha. I am a Vietnam Veteran officer, I have a BS in Accounting, Shidler College Hall of Honor, Distinguished Alumni, University of Hawaii, First chair of Hawaii Island Native Hawaiian Chamber of Commerce. And, I serve on various other non-profit positions. I represent the voice of farmers who are struggling to survive because of the costs of energy, amongst other rising cost inputs.

I have farmed on the Big Island for nearly 40 years, primarily bananas and hydroponic tomatoes in greenhouses where I achieved 10 times the production over traditional farming. We produced nearly 6 million pounds of bananas and 1 million pounds of hydroponic tomatoes annually. Most recently I was the CEO of Medical Cannabis Company Lau Ola. The growing facility was a completely controlled environment. Lights, temperature and humidity were precisely controlled. Several years ago, we installed a 100 KW hydro electric generator on Waia'ama River on our 500 fee simple acre farm, which reduced our cost of energy by 40%. Without this, I would have had a difficult time staying profitable.

Around 2007 we noticed our input costs- plastic, chemicals and fertilizer starting to rise. Since they were petroleum based products, I went to the first of five Association for the Study of Peak Oil conferences. There I learned that the world had been using twice as much oil as it had been finding, for the previous 20 years. By 2009, the new shale oil, horizontal drilling and fracking started increasing production in the US. The characteristic of shale oil was that the wells are small and 90% comes out by four years. Ten years and 70,000 wells later we are about to reach the peak of shale production and prices will start to rise.

Since the 2008 oil spiked to \$147 per barrel, farming became harder. We found it necessary to stop our profit sharing program. Today Hawaii imports 85% of what we eat, petroleum prices will soon start rising again and we need to think about food and energy security in a different way. Greenhouse farming results in a smaller footprint compared to the volume produced.

This way of helping farmers does not require state funds or a tax hike. That's why I like the idea of energy and agriculture helping each other out. I see this measure as both having a symbiotic relationship with each other. Every opportunity to reduce energy costs for the farmer is beneficial.

Please pass HB593 HD1. Thank you for the opportunity to testify.

**HB-593-HD-1**

Submitted on: 2/25/2019 1:41:16 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Steven Forman	Individual	Support	No

Comments:

**HB-593-HD-1**

Submitted on: 2/25/2019 2:09:02 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Ken Stover	Individual	Support	No

Comments:



**LATE**

Email: [communications@ulupono.com](mailto:communications@ulupono.com)

HOUSE COMMITTEE ON FINANCE  
Tuesday, February 26, 2019 — 12:30 p.m. — Room 308

**Ulupono Initiative has Comments on HB 593 HD 1, Relating to Land Use**

Dear Chair Luke, Vice Chair Cullen, and Members of the Committee:

My name is Murray Clay and I am Managing Partner of Ulupono Initiative, a Hawai'i-based impact investment firm that strives to improve the quality of life for the people of Hawai'i by working toward solutions that create more locally produced food; increase affordable, clean, renewable energy; and better manage waste and fresh water resources. Ulupono believes that self-sufficiency is essential to our future prosperity and will help shape a future where economic progress and mission-focused impact can work hand in hand.

**Ulupono has comments on HB 593 HD 1**, which authorizes the development of utility-scale solar development on certain lands.

Ulupono actively supports both the agriculture and renewable energy industries in Hawai'i, but sometimes those industries come into conflict. This bill authorizes utility-scale solar development on prime agricultural lands. However, we have concerns over using prime agricultural lands for non-agricultural uses. Although this bill is written to favor of a particular project on a limited geographic area for a finite timeframe, its passage could encourage other solar developers to push for development on prime agricultural lands.

Ulupono would be open to supporting solar development on Class A lands if a significant portion of the power output were being sold to, discounted for, or donated to an agricultural enterprise. We would also want the agricultural enterprise to actually use the power (or services that use the power such as water pumping). We would want the solar developer to be required to actively partner with local farmers/producers in a meaningful way.

As Hawai'i's issues become increasingly complex and challenging, we appreciate this committee's efforts to look at policies that improve the quality of life for the people of Hawai'i. Thank you for this opportunity to testify.

Respectfully,

Murray Clay  
Managing Partner

*Investing in a Sustainable Hawai'i*

**LATE**

**HB-593-HD-1**

Submitted on: 2/25/2019 5:55:27 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Nate Hix	Individual	Oppose	No

Comments:

Is there not sufficient ag land that's not the most useful that can be made available for solar?

**LATE**

**HB-593-HD-1**

Submitted on: 2/25/2019 7:21:54 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Harriet Witt	Individual	Support	No

Comments:

We need this if we want to become energy self-sufficient.

**LATE**

**HB-593-HD-1**

Submitted on: 2/25/2019 8:25:02 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Patrick Harley Simmons	Individual	Support	No

Comments:



Eric S. Tanouye  
President  
Green Point Nurseries, Inc  
P.O. Box 4400  
Hilo, HI 96720  
Telephone: 808-959-3535  
Fax: 808-959-7780

HOUSE OF REPRESENTATIVES  
THE THIRTIETH LEGISLATURE  
REGULAR SESSION OF 2019

COMMITTEE ON FINANCE

Rep. Sylvia Luke, Chair  
Rep. Ty J.K. Cullen, Vice Chair  
NOTICE OF HEARING

**LATE**

Tuesday, February 26, 2019, 12:30 P.M.  
Conference Room 308  
State Capitol  
415 South Beretania Street

My name is Eric Tanouye and I am the President of Green Point Nurseries. Green Point Nurseries is a third-generation agribusiness, a business that produces Hawaii's cut flowers and foliage and tropical blooming plants. Our products are distributed and exported locally, nationally, and internationally.

**We are in support of HB593 HD1: Relating to Land Use**

Nurserymen and women understand the importance of using new available techniques to better be able to produce and grow products. This bill helps farmers harness the power of Solar and become less dependent on fossil fuel. This is important for Hawaii's agriculture to compete in a modern market.

If you have any questions at this time, I would be happy to discuss them and can be reached by phone at 808-959-3535 ext 22, cell 960-1433 and email [eric@greenpointnursery.com](mailto:eric@greenpointnursery.com).

Mahalo nui loa

Eric S. Tanouye  
President  
Green Point Nurseries, Inc





Hawaii Cattlemen's Council, Inc.

**LATE**

**COMMITTEE ON FINANCE**  
**Rep. Sylvia Luke, Chair**  
**Rep. Ty J.K. Cullen, Vice Chair**

DATE: Tuesday, February 26, 2019  
TIME: 12:30 P.M.  
PLACE: Conference Room 308

**HB 593, HD1 – RELATING TO LAND USE**

Appropriates funds to the Department of Land and Natural Resources to study and combat rapid ohia death.

Chair Luke, Vice Chair Cullen, and Members of the Committee:

My name is Dale Sandlin, and I am Managing Director of the Hawaii Cattlemen's Council. The Hawaii Cattlemen's Council, Inc. (HCC) is the Statewide umbrella organization comprised of the four county level Cattlemen's Associations. Our 150+ member ranchers represent over 60,000 head of beef cows; more than 75% of all the beef cows in the State. Ranchers are the stewards of approximately 25% of the State's total land mass.

The Hawaii Cattlemen's Council **opposes** HB 593, as this measure could lead to the loss of agricultural lands.

While the ranching industry in Hawaii has few Class A ag lands, this measure would cause the potential loss of available agricultural land for active production. The shift of the use of these lands to allow for solar power may help our state's energy production, but will hinder our state's food security.

Agricultural land has become the easy target for development due to it's low-cost potential for construction. These lands have been cleared of dense vegetation, rocks and often already have extensive infrastructure for water already installed. Solar power development, usually limits the viability of the land and specific restrictions are placed on the land for livestock use. Utilizing ag lands for an ag production is best as these lands can be used for multiple crops, including grazing for livestock, each year. Once solar is installed, it's a single-use proposition.

Losing these productive lands to development, even solar power, is not the direction we should go if we expect to meet the Governor's goal of doubling food production. We respectfully ask for this committee to oppose this measure and we appreciate the opportunity to provide testimony in this matter.



**LATE**

**HB-593-HD-1**

Submitted on: 2/25/2019 9:01:05 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jon Wallenstrom	Individual	Support	No

Comments:

**COMMITTEE ON FINANCE**

Tuesday February 26, 2019 12:30 PM

**HB593 HD1: RELATING TO LAND USE**

Chair Luke, Vice Chair Cullen and Members of the Finance Committee

**DESCRIPTION:**

Authorizes the development of utility scale solar development projects on certain lands with agricultural farming

**TESTIMONY: I support HB593 HD1.**

I am Jon Wallenstrom and I have spent my career building renewable energy systems and affordable and market-rate housing. I have been very cautious about supporting this bill as I believe that Hawaii needs a farming future. As my involvement in the effort matured and I heard about the problems that farmers have, I have come to learn how easy it is for a renewable energy project to make a meaningful difference in a farmer's ability to succeed and feed our population. I feel wonderfully justified in supporting this bill and I am absolutely certain that we are working to the benefit of the State of Hawaii's short and long-term interests. It took meeting and talking with Dean Okimoto and Richard Ha for me realize that as a society we are protecting land without protecting farmers and without thinking about food yields. Because I am a business-person I understood that we have a competitive disadvantage with California, the Philippines, Chile, etc. but I didn't understand that farming at a scale that is meaningful for our State can happen with simple cooperation and discussion. We can compete with the world and achieve food security we have simply set up a system that impedes our success. I am really encouraged by how this Bill has opened up lines of communication that had not previously existed and I know that we are doing the right thing.

Please pass HB593 HD1 and allow Hawaii to have a future of cooperation and progress.

Thank you for the opportunity to testify.

**LATE**

From: Chase Livingston <chase2@hawaii.edu>  
Sent: Monday, February 25, 2019 8:43 PM  
To: FINtestimony  
Subject: Testimony in opposition to HB593 HD1

Aloha Esteemed Representatives of the Finance Committee,

My name is Chase Livingston and I am a law student at Richardson. I am a firm believer in renewable energy and am myself working towards the state's goal of 100% renewable energy.

While I support the goal of making it easier for solar farms to be permitted, I DO NOT believe that we should allow their construction on prime agricultural lands. This is why I urge you to oppose HB593's attempt at opening up our prime agricultural lands for solar energy development. Before we consider developing our prime ag lands, we MUST have already covered all rooftops, warehouses, irrigation systems, reservoirs, parking lots, and even roads. Solar is allowed on all lands zoned B, C, D, and E, but NOT on our prime agricultural lands.

It is crucial that we increase our local food production. We do this by protecting our ag lands and encouraging local FOOD production. We have a five-day food supply. That five day supply countdown starts two days before a hurricane approaches. If it is a major hurricane it can knock out Honolulu Harbor. Then we have another 2 week supply of packaged MREs. The closest port is five days away by boat.

Thank you for the opportunity to be heard.

Mahalo,  
Chase

--

Chase Livingston  
William S. Richardson School of Law  
University of Hawai'i at Manoa

P (808) 927-2465 | E [chase2@hawaii.edu](mailto:chase2@hawaii.edu)

**LATE**

**HB-593-HD-1**

Submitted on: 2/26/2019 7:24:02 AM  
Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Henry Curtis	Life of the Land	Oppose	Yes

Comments:

Aloha

It is critical that we protect and preserve ALISH lands for agriculture.

Please hold this bill.

Mahalo



**LATE**

P.O. Box 253, Kunia, Hawai'i 96759  
Phone: (808) 848-2074; Fax: (808) 848-1921  
e-mail info@hfbf.org; www.hfbf.org

February 26, 2019

HEARING BEFORE THE  
HOUSE COMMITTEE ON FINANCE

**TESTIMONY ON HB 593, HD1**  
RELATING TO LAND USE

Room 308  
1:30 PM

Aloha Chair Luke, Vice Chair Cullen, and Members of the Committee:

I am Brian Miyamoto, Executive Director of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,900 farm family members statewide and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic and educational interests of our diverse agricultural community.

**The Hawaii Farm Bureau strongly opposes HB 593, HD1 with comments. We are concerned about the loss of Hawaii's farmland.** This bill will allow the development of utility-scale solar projects on lands classified as having the highest productivity soil in the State. This is in conflict with our state's goal of food sustainability.

Nationwide, there is an ongoing struggle between solar developers and farmers. Land that is best for solar installations are often lands needed to grow crops or raise animals. The ideal tract of land for solar development is flat, dry, unshaded, close to transmission infrastructure and customers, accessible to installers and maintenance, and in an area with plenty of sunshine. All of these characteristics are associated with farmland. Prime farmland may be particularly attractive for solar development.

When a piece of land is developed for a solar installation, it is very unlikely to be reverted back to agricultural land, even when the lease to a solar company eventually runs out. Flattening and compacting the land, as well as other changes, tend to ruin the land for future farming. Rising demand for solar energy could swallow up huge swaths of farmland as struggling farmers may be coerced into selling or leasing to these developments. This is because leasing land for solar development can be more profitable, per acre, than producing any crop. Furthermore, the consistent revenue stream from solar leases may be an attractive alternative to the typical risks that farmers take to produce food; i.e. insects, diseases, floods, drought, fickle market, transportation costs, etc.

Acknowledging this potential crisis, some states and counties have banned new solar developments on agricultural lands. Others have implemented strict policies such as tax penalties and permit hurdles to ensure no, or minimal impact to farmland. In some states, the state Department of Agriculture must certify that the project will not materially affect the status of any prime farmland. California, the national leader in both solar production and crop sales, imposes an expensive conversion penalty for converting farmland to solar. California policy is to favor solar development on “land that is not valuable habitat, open space, or farmland.”

Currently, Hawaii law allows solar development on B, C, D, or E classified land. The Hawaii Farm Bureau believes that allowing solar energy facility development on A classified lands, as proposed in HB 593, HD1 may be harmful to agriculture in Hawaii.

Despite our strong opposition, we are open to further discussion on solar energy facilities on "A" rated agricultural land.

Thank you for the opportunity to testify on this measure.

**LATE**

**HB-593-HD-1**

Submitted on: 2/25/2019 10:45:24 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Janet Pappas	Individual	Support	No

Comments:



**HB-593-HD-1**

Submitted on: 2/25/2019 10:55:16 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

**LATE**

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Ronald Yasuda	Individual	Support	No

Comments:

**LATE**

**HB-593-HD-1**

Submitted on: 2/26/2019 1:31:37 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jacqueline S. Ambrose	Individual	Support	No

Comments: