

**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 COMMITTEES ON AGRICULTURE AND ENERGY &**  
**ENVIRONMENTAL PROTECTION**

**FEBRUARY 6, 2019**  
**9:45 A.M.**  
**CONFERENCE ROOM 312**

**HOUSE BILL NO. 452**  
**RELATING TO PREFERENTIAL ELECTRICITY RATES FOR PROTECTED**  
**AGRICULTURE**

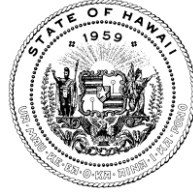
Chairpersons Creagan and Lowen and Members of the Committees:

Thank you for the opportunity to testify on House Bill 452 that authorizes the Public Utilities Commission to establish preferential electricity rates for agricultural activities that utilize "protected agriculture" to produce fruits and vegetable for distribution. The Department supports the intent of this bill and offers a comment.

The Department of Agriculture supports fair and reasonable incentives for all forms of agricultural production including urban vertical farming. Proponents of HB 452 may want to consider an alternative approach found in a bill introduced in the 2016 session (HB 1995, Relating to Public Utilities) that sought to reduce the cost of energy used for all types of agricultural production by lowering energy rates and incentivizing farmers to acquire energy storage technology. The high energy requirement of urban indoor farming may benefit from the integration of energy storage technology with their operations, and all farming operations, not just indoor farming, can benefit from preferential rates for the energy consumed for agricultural activities.

Thank you for the opportunity to testify on this measure.





DAVID Y. IGE  
GOVERNOR

JOSH GREEN  
LT. GOVERNOR

**STATE OF HAWAII  
OFFICE OF THE DIRECTOR  
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS**

335 MERCHANT STREET, ROOM 310

P.O. BOX 541

HONOLULU, HAWAII 96809

Phone Number: 586-2850

Fax Number: 586-2856

cca.hawaii.gov

CATHERINE P. AWAKUNI COLÓN  
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI  
DEPUTY DIRECTOR

**Testimony of the Department of Commerce and Consumer Affairs**

**Before the  
House Committee on Agriculture  
and  
House Committee on Energy and Environmental Protection  
Wednesday, February 6, 2019  
9:45 a.m.  
State Capitol, Conference Room 312**

**On the following measure:  
H.B. 452, RELATING TO PREFERENTIAL ELECTRICITY RATES  
FOR PROTECTED AGRICULTURE.**

Chairs Creagan and Lowen and Members of the Committees:

My name is Dean Nishina, and I am the Executive Director of the Department of Commerce and Consumer Affairs' (Department) Division of Consumer Advocacy. The Department appreciates the intent of this measure and offers comments on this bill.

The purpose of this bill is to authorize the Public Utilities Commission (Commission) to establish preferential electricity rates for agricultural activities that utilize protected agriculture to produce fruits or vegetables for distribution.

In 2008 and 2009, the Legislature passed H.B. 2810 H.D.1, S.D.1, C.D.1, and H.B. 591 H.D.1, S.D.2, respectively, which authorized the Commission to establish preferential water rates for potable water service (H.B. 2810) and electricity rates for the purchase of renewable energy from energy producers connected with agricultural activities (H.B. 591) to support agricultural undertakings in the State.

In 2008 and 2009, the Department offered comments on both bills noting that the Legislature should be mindful that the authority to establish preferential rates to benefit certain agricultural users and/or producers may come at the expense of other public utility ratepayers, who may be required to subsidize the preferential rates as part of the public utility rate setting process.

Similarly, the Department reiterates that the authorization to establish preferential rates to benefit the producers of agricultural products that utilize the techniques and technologies of protected agriculture will come at the expense of other public utility ratepayers, who will be required to subsidize the preferential rates as part of the public utility rate setting process. In other words, the rates and bills of other customers, such as residents and small business owners, will increase because they are subsidizing preferential rates for the targeted beneficiaries.

Furthermore, similar to the Department's comments on H.B. 2810, the Department respectfully suggests that the Legislature revise and clarify the definition of "protected agriculture" to explain what activities, techniques, and technologies are included within that definition. While the Department understands this measure is intended to promote and support the use of protected agricultural techniques and technologies in the State, further clarification to the bill would facilitate the Commission's ability to establish procedures by which the Commission and/or the State Department of Agriculture can review and approve the agricultural users seeking to take advantage of these preferential electricity rates. In addition, other public utility ratepayers can be assured the preferential electricity rates are directed toward the activities that satisfy the Legislature's intent under this measure.

Finally, to reduce the impact on other customers' utility bills, the Department respectfully suggests the Committees consider the reasonableness of offering alternative forms of assistance, such as tax credits, or limiting the discount to a certain percentage and/or allowing the discount to apply for a finite period.

Thank you for the opportunity to testify on this bill.

TESTIMONY OF  
JAMES P. GRIFFIN, Ph.D.  
CHAIR, PUBLIC UTILITIES COMMISSION  
STATE OF HAWAII

TO THE  
HOUSE COMMITTEES ON  
AGRICULTURE  
AND  
ENERGY AND ENVIRONMENTAL PROTECTION

February 6, 2019  
9:45 a.m.

Chairs Creagan and Lowen and Members of the Committees:

**MEASURE:** H.B. No. 452

**TITLE:** RELATING TO PREFERENTIAL ELECTRICITY RATES FOR  
PROTECTED AGRICULTURE.

**DESCRIPTION:** Authorizes the Public Utilities Commission to establish preferential electricity rates for agricultural activities that utilize protected agriculture to produce fruits or vegetables for distribution.

**POSITION:**

The Public Utilities Commission offers the following comments for consideration.

**COMMENTS:**

The Public Utilities Commission (“Commission”) is appreciative of receiving additional authorization from the Legislature with respect to establishment of preferential electricity rates for certain agricultural activities. The Legislature has previously allowed the Commission to set preferential potable water rates for agricultural customers, preferential transportation rates for agricultural customers, and preferential electricity rates for renewable energy produced in conjunction with agricultural activities (see Hawaii Revised Statutes §§ 269-26.5, 269-26.6, and 269-27.3). However, the Commission observes that providing preferential rates for agricultural customers would require a subsidy from other customers to make up for the shortfall in revenues.

Thank you for the opportunity to testify on this measure.



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

February 6, 2019

HEARING BEFORE THE  
HOUSE COMMITTEE ON AGRICULTURE  
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

**TESTIMONY ON HB 452**  
RELATING TO PREFERENTIAL ELECTRICITY RATES FOR PROTECTED  
AGRICULTURE

Room 312  
8:30 AM

Aloha Chairs Creagan and Lowen, Vice Chairs DeCoite and Wildberger, and Members of the Committees:

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 supports the intent of HB 452**, which provides preferential electricity rates for "protected agriculture" but believes that the benefit should be provided to all commercial agricultural producers.

State policy supports increased levels of self-sufficiency. Numerous studies have shown that consistent agricultural production in Hawaii to move the needle on import replacement will require significant production levels that can weather storms, insect outbreaks and other natural occurrences beyond the control of the farmer. To achieve such a goal diversity of agriculture is needed. The intent of "protected agriculture" is unclear. However, if it refers to greenhouses, this assumption that such a class of agricultural production should only be provided to this category is unreasonable. Ranches and affordable fruits cannot be grown in greenhouses. Why should they be required to pay higher rates for electricity?

Preferential rates should be part of the State's policy to support increased agricultural production. It will be reasonable to set parameters for qualification. This authorization should provide PUC with the ability to provide such rates and the conditions determined during the rate discussions.

We respectfully request support of this measure, clarifying that the support is for all types of agriculture as defined by the PUC.



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

HOUSE COMMITTEES ON AGRICULTURE AND ENERGY & ENVIRONMENTAL PROTECTION  
Wednesday, February 6, 2019 — 9:45 a.m. — Room 312

**Ulupono Initiative Supports HB 452, Relating to Preferential Electricity Rates for Protected Agriculture**

Dear Chair Creagan, Vice Chair DeCoite, Chair Lowen, Vice Chair Wildberger, and Members of the Committees:

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 supports HB 452**, which authorizes the Hawai'i Public Utilities Commission (PUC) to establish preferential electricity rates for protected agricultural activities that produce fruits and vegetables, because it aligns with our goal to increase local food production.

This bill retains the PUC's regulatory flexibility, while proposing the PUC looks at a specific subset of agriculture – micro-climate controlled agriculture. The goal of the PUC is to establish fair prices for electricity while simultaneously ensuring grid stability. Most greenhouse electricity use occurs during the daytime for fans to cool the plants. Solar energy, a key renewable energy producer, requires daytime electricity demand as most energy storage is currently uneconomical. Providing a lower electricity rate for farmers that grow indoors would encourage local food production and an increased demand for solar energy.

In Hawai'i, a lot of renewable energy is currently lost due to utility curtailment or restriction of wind and solar producers. This energy source, which is currently wasted, could be used instead to climate control greenhouses that grow fruits and vegetables.

Further, by lowering demand during peak hours around dinnertime, we can avoid using the most expensive generation units on the system, which would lower rates for everyone. This is just an example of how preferential rates for agriculture can benefit the entire system.

*Investing in a Sustainable Hawai'i*



Rates to all customers would decline because of a combination of lower renewable energy prices to the utility and greater utility system utilization. Better still, by supporting the integration of renewable energy and agriculture, this will help to lower food costs for all residents.

According to the 2012 Census of Agriculture, there were about 100 greenhouse farms in Hawai'i with a value of sales over \$9 million.

As Hawai'i's local food issues become increasingly complex and challenging, organizations need additional resources and support to address and overcome them. We appreciate these committees' efforts to look at policies that support local food production.

We believe that through collaboration, we can help produce more local food and support an economically robust homegrown agriculture industry, which strengthens our community with fresh, healthy food. Thank you for this opportunity to testify.

Thank you for this opportunity to testify.

Respectfully,

Murray Clay  
Managing Partner

**TESTIMONY BEFORE THE HOUSE COMMITTEE ON  
ENERGY & ENVIRONMENTAL PROTECTION**

**H.B. No. 452**

**Relating to Preferential Electricity Rates for Protected Agriculture**

Wednesday, February 6, 2019  
9:45 am, Agenda Item #1  
State Capitol, Conference Room 312

Kevin M. Katsura  
Director, Regulatory Non-Rate Proceedings  
Hawaiian Electric Company, Inc.

Chair Lowen, Vice Chair Wildberger and Members of the Committee,

My name is Kevin Katsura and I am testifying on behalf of Hawaiian Electric Company and its subsidiary utilities Maui Electric Company and Hawai'i Electric Light Company. The Hawaiian Electric Companies support the intent of this bill, and offer comments for consideration.

The Companies support the need for Hawaii to become more sustainable through local agriculture in a way that benefits all Hawaii residents. Preferential electric rates, however, have the potential to create subsidies that other customers may pay for. Such subsidies may be minimized if other tools, such as tax credits or time based economic development rates were also included in the evaluation of this cause.

The Hawaii Public Utilities Commission already has the authority to consider other mechanisms such as time of use rates, renewable-only rates and green tariff rates that encourage energy use that benefits the grid and customers as a whole. Finding ways to use renewable energy as a solution also helps the State achieve 100% clean energy.



Finally, we note that the definition of “protected agriculture” is somewhat vague and could include a wide range of agricultural activities. As an example, one might read this to include agricultural operations done under a simple shade screen, all the way up to agriculture done in advanced greenhouses. If this bill advances, we suggest that further clarity be provided to aid the utility in determining what constitutes a bonafide request for a preferential energy rate for protected agriculture.

Thank you for this opportunity to testify.



February 2, 2019

Members of the House Committee on Agriculture and the Committee on Energy & Environmental Protection,

Thank you for the introduction of HB 452 to authorize preferential electricity rates for protected agriculture. I am the owner and president of MetroGrow Hawaii, the first indoor hydroponic vegetable farm in Hawaii and am in full support of this measure. Also known as vertical farms, indoor hydroponic farms are able to produce vegetables in a fraction of the space and with approximately 5 - 10% of the water required for traditional agriculture. The enclosed environment of vertical farms allows them to control light, temperature, humidity and other variables to optimize the growing conditions for crops and thereby maximize productivity and quality. The controlled environment also negates unpredictable weather conditions, minimizes pest and disease problems, and prevents contamination from chemical or biological agents.

Vertical farms do require substantial technology and equipment to operate and are energy intensive. Electricity for lighting and climate control are major expenses. For MetroGrow Hawaii, the high relative cost of electricity in Hawaii is a deterrent to profitability. While we are able to reduce labor, transportation, water, fertilizer and pesticide costs in relation to traditional farms, electricity usage is higher so any reduction in that cost will be a major benefit. We are currently expanding our growing space and are planning to add renewable energy systems, but a substantial amount of grid-supplied electricity will still be required and represents a significant expense. Savings that we derive from a reduced electricity rate will allow us to grow greater amounts of produce at competitive prices.

A decrease in arable land, along with climate change and reduction in fresh water availability will put pressure on agricultural systems globally. Increased investment in vertical farming and greenhouse growing ventures is recognition that new paradigms for agriculture will be necessary to meet the demand for fresh produce. In Hawaii, food self-sufficiency is a major concern and the current administration has focused on doubling local food production in the short term. Research and development of vertical farming in Hawaii should be encouraged to augment our produce supply. Preferred electricity rates in Hawaii will assist farms like MetroGrow Hawaii to become an integral part of the local agricultural community. Thank you for considering this measure to help our farmers.

Kerry Kakazu, Ph. D.

A handwritten signature in black ink that reads "Kerry Kakazu".

MetroGrow Hawaii

350 Ward Ave. Suite 106-13  
Honolulu, HI 96814  
<http://metrogrowthawaii.com>



**SanHi**

GOVERNMENT STRATEGIES  
A LIMITED LIABILITY LAW PARTNERSHIP

DATE: February 5, 2019

TO: Representative Richard P. Creagan  
Chair, House Committee on Agriculture

Representative Nicole E. Lowen  
Chair, House Committee on Energy and Environmental Protection  
*Submitted Via Capitol Website*

FR: Luis P. Salaveria

RE: **HB 452 – Relating to Preferential Electricity Rates for Protected Agriculture**  
**Hearing Date: Wednesday, February 6, 2019 at 9:45 a.m.**  
**Conference Room: 312**

---

Dear Chair Creagan, Chair Lowen and Members of the Joint Committees:

We submit this testimony **in support of HB 452 – Relating to Preferential Electricity Rates for Protected Agriculture** that would authorize the Public Utilities Commission to establish preferential electricity rates for agricultural activities that utilize protected agriculture to produce fruits or vegetables for distribution.

Hawaii's goal to increase local food production would be significantly boosted by the increased use of protected agriculture. Modern agriculture practices are moving towards protected and controlled growing environments. This method of agriculture allows for higher crop yields, more efficient and effective operations, smaller land requirements, less need for pesticides, lower utilization of water, and less impact on the environment. This method becomes significantly important when factoring in climate and weather changes due to global warming.

In addition, Hawaii continues to import most of its food requirements. Support for protected agriculture would allow for a significant increase in local food production and help reduce the state's reliance on imports. This will result in lower food costs, longer shelf life, and increased jobs for Hawaii's residents.

This bill would allow for any farmer to make a request to the Public Utilities Commission for preferential rates on electricity if that farmer is engaged in protected agriculture. The State currently provides for preferential water rates for agricultural activities (HRS 269-26.5), and this measure would provide another level of financial support for the agricultural community.

Thank you for the opportunity to provide testimony on this measure.

**HB-452**

Submitted on: 2/5/2019 9:28:26 AM

Testimony for AGR on 2/6/2019 9:45:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Melodie Aduja	O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:

**HB-452**

Submitted on: 2/4/2019 4:53:36 PM

Testimony for AGR on 2/6/2019 9:45:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
John R. Gordines	Individual	Support	No

Comments:

## AGRtestimony

---

**From:** Bob Starke <robert.starke.007@gmail.com>  
**Sent:** Tuesday, February 5, 2019 2:38 PM  
**To:** AGRtestimony  
**Subject:** Regarding HB 872 - Relating to Environmental Protection (Oppose)

HOUSE COMMITTEES ON AGRICULTURE AND ENERGY & ENVIRONMENTAL PROTECTION February 6, 2019, 9:45 a.m.  
Conference Room 312  
Regarding HB 872 – Relating to Environmental Protection

I oppose HB 872. Why is the State trying to implement arbitrary buffer zones on a product that has been deemed safe through more than 800 scientific studies and reviews? It is concerning to me that the authors of this bill cite the finding of the World Health Organization's IARC in erring on the side of caution in using glyphosate on school grounds. The IARC's classification system does not reflect real-world exposure levels and puts common every day substances like red meat and hot beverages in the same category as glyphosate. The largest and most recent study, the National Cancer Institute-supported 2018 Agricultural Health Study, followed over 50,000 licensed pesticide applicators over more than 20 years and found no association between glyphosate-based herbicides and the cancer identified in IARC's opinion. Now, that's real-world exposure and reason for erring on the side of glyphosate.

**LATE**

**HB-452**

Submitted on: 2/5/2019 10:36:51 PM

Testimony for AGR on 2/6/2019 9:45:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jennifer Bojanowski	Individual	Support	No

Comments:

Dear Rep. Creagan, Rep. Lowen, Rep. DeCoite, Rep. Wildberger, and other Committee Members,

I am writing in support of HB452 relating to reduced elected for protected agriculture, as trained farmer (via GoFarm Hawaii).

Respectfully,

Jennifer Bojanowski  
Haleiwa, Hawaii 96712

**LATE**

**HB-452**

Submitted on: 2/6/2019 2:47:32 AM

Testimony for AGR on 2/6/2019 9:45:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Simon Russell	Farm Maui LLC	Support	No

Comments: