<table>
<thead>
<tr>
<th><strong>Measure Title:</strong></th>
<th>RELATING TO PREFERENTIAL ELECTRICITY RATES FOR PROTECTED AGRICULTURE.</th>
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<tbody>
<tr>
<td><strong>Report Title:</strong></td>
<td>PUC; Preferential Electricity Rates; Protected Agriculture</td>
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<tr>
<td><strong>Description:</strong></td>
<td>Authorizes the Public Utilities Commission to establish preferential electricity rates for agricultural activities that utilize protected agriculture to produce fruits or vegetables for distribution. (HB452 HD1)</td>
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<td><strong>Companion:</strong></td>
<td>None</td>
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<td><strong>Package:</strong></td>
<td>None</td>
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<td><strong>Current Referral:</strong></td>
<td>CPH/AEN/WAM</td>
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<td><strong>Introducer(s):</strong></td>
<td>YAMANE, AQUINO, CULLEN, HAR, LOWEN, TARNAS, TODD</td>
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Chairs Baker, Gabbard, Dela Cruz, and Members of the Committees:

MEASURE:  H.B. No. 452 HD1
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. (HB452 HD1)

POSITION:

The Public Utilities Commission supports the intent of this measure and offers the following comments and a proposed amendment for consideration.

COMMENTS:

The Public Utilities Commission (“Commission”) supports the intent of this measure and 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).

The Commission has conferred with Hawaiian Electric Company (“HECO”) and the Department of Commerce and Consumer Affairs (“DCCA”), and respectfully recommends inserting the following proposed amendment agreed upon by HECO, DCCA, and the Commission, between subsections (a) and (b) in section 2 of HD1:

“In considering preferential rates, the public utilities commission shall ensure that any subsidization being paid by other customers is limited and reasonable and shall periodically review and adjust the rate, if necessary.”

Thank you for the opportunity to testify on this measure.
Testimony of the Department of Commerce and Consumer Affairs

Before the
Senate Committee on Commerce, Consumer Protection, and Health
and
Senate Committee on Agriculture and Environment
and
Senate Committee on Ways and Means
Tuesday, April 2, 2019
10:10 a.m.
State Capitol, Conference Room 211

On the following measure:
H.B. 452, H.D. 1, RELATING TO PREFERENTIAL ELECTRICITY RATES FOR PROTECTED AGRICULTURE

Chairs Baker, Gabbard, and Dela Cruz 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 supports the intent of 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.

The Department recognizes the high prices of electricity in Hawaii and strives to keep electricity rates affordable for all customers. At the same time, the Department understands the Legislature may be interested in providing rate assistance to certain customers with protected agricultural interests.

H.D. 1 clarifies the definition of “protected agriculture” to explain the types of activities, techniques, and technologies included in that definition. This clarification should facilitate the Commission’s ability to establish procedures by which the Commission and/or the State Department of Agriculture can review and approve 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.

In conjunction with other interested stakeholders, including the Commission, the Department respectfully suggests that the Committee consider the reasonableness of including the following amendment to provide the Commission the opportunity to balance the interest of all consumers while considering preferential rates for protected agricultural interests: “In considering preferential rates, the public utilities commission shall ensure that any subsidization being paid by other customers is limited and reasonable and shall periodically review and adjust the rate, if necessary.”

Thank you for the opportunity to testify on this bill.
Chairpersons Baker, Gabbard, and Dela Cruz and Members of the Committees:

Thank you for the opportunity to testify on House Bill 452 HD1 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.
Dear Chair Baker, Chair Gabbard and Chair Dela Cruz, Vice Chair Chang, Vice Chair Ruderman, Vice Chair Keitt-Agaran 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.
Aloha Chairs Baker, Gabbard, and Dela Cruz, Vice Chairs Chang, Ruderman, and Keith-Agaran, 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 HB 452, HD1, 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 or indoor farming, this assumption that such a class of agricultural production should only be provided to this category is unreasonable. Livestock and orchard and some 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.
Ulupono Initiative Supports HB 452 HD 1, Relating to Preferential Electricity Rates for Protected Agriculture

Dear Chair Baker, Vice Chair Chang, Chair Gabbard, Vice Chair Ruderman, Chair Dela Cruz, Vice Chair Keith-Agaran, 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 supports HB 452 HD 1, 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.

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 of
MetroGrow Hawaii
Kerry Kakazu, Ph.D., President

To the
Senate Committee on Commerce, Consumer Protection and Health
Senator Rosalyn H. Baker, Chair
Senator Stanley Chang, Vice Chair

Senate Committee on Agriculture and Environment
Senator Mike Gabbard, Chair
Senator Russell E. Ruderman, Vice Chair

Senate Committee on Ways and Means
Senator Donovan M. Dela Cruz, Chair
Senator Gilbert S.C. Keith-Agaran, Vice Chair

DATE: Tuesday, April 2, 2019
TIME: 10:10 a.m.
PLACE: Conference Room 211
State Capitol
415 South Beretania Street

Chairs Baker, Gabbard, Dela Cruz and Members of the Committees:

Measure: H.B. No. 452 HD1
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: MetroGrow Hawaii is in strong support of this measure.

Testimony: 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.

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Honolulu, HI 96814
http://metrogrowhawaii.com
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.

Decreases in arable land, changing climate, reduction of fresh water availability and the tremendous pest pressures in Hawaiʻi necessitate research and development of alternative forms of agriculture. Vertical farming and other forms of protected agriculture that incorporate technological innovation can supplement traditional growing systems to increase local food production and move the state toward food self-sufficiency. Support for these new agricultural enterprises in the form of lower utility rates, additional tax credits for renewable energy systems, and incentives for energy and resource conservation are all steps that can help our company and others like it to become an integral part of the local agricultural community.

I recognize the concern that preferred electricity rates may increase costs for other rate payers, but I would cite statistics from California where it is estimated that agriculture uses only 4% of the state’s electricity. Since the current bill only applies to protected agriculture that percentage should be even lower and the impact on electricity company revenue will be minimal. I would also argue that the loss of energy revenue will be more than offset by the potential increase in agricultural revenue that can be provided by supporting innovative farming companies.

Thank you for considering this measure to invest in local agriculture and support our farmers.
Dear Chair Baker, Chair Gabbard, Chair Dela Cruz, and Members of the Joint Committees:

Costco Wholesale Corporation **strongly supports HB 452, HD1 – Relating to Preferential Electricity Rates for Protected Agriculture** that would authorize the Public Utilities Commission to consider 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.
To the Honorable Rosalyn H. Baker, Chair; Senator Stanley Chang, Vice Chair; and members of the Committee on Commerce, Consumer Protection, and Health; and

To the Honorable Mike Gabbard, Chair; Senator Russell E. Ruderman, Vice Chair; and members of the Committee on Agriculture and Environment; and

To the Honorable Donovan M. Dela Cruz, Chair; Senator Gilbert S.C. Keith-Agaran, Vice Chair; and members of the Committee on Ways and Means:

My name is Melodie Aduja and I serve as Chair of the O`ahu County Democrats Legislative Priorities Committee of the Democratic Party of Hawai`i (“DPH”). Mahalo for this opportunity to submit testimony on HB 452, HD 1. The O`ahu County Democrats Legislative Priorities Committee (“OCDLPC”) hereby submits its testimony in SUPPORT of HB 452, HD 1, Relating to Preferential Electricity Rates for Protected Agriculture.
HB 452, HD 1, authorizes the Public Utilities Commission to establish preferential electricity rates for agricultural activities that utilize protected agriculture to produce fruits or vegetables for distribution.

DPH believes that agriculture in our state must be preserved and its future strengthened. Sufficient prime agricultural lands must be maintained for the health, economic well-being and sustenance of the people. We believe in an integrated approach to agricultural innovation and sustainability. We encourage the responsible development of ocean resources and aquaculture to achieve sustainability in our State, of our marine resources and ensure and improve the health of our reef and marine life.

This approach includes, but is not limited to, the adoption of the Native Hawaiian concept of ahupua‘a, an integrated approach to land management. This could also include development of economic, land and ocean use policies that foster sustainable crops both for local consumption and for export, policies to foster agriculture-related infrastructure at shipping points, and increased inspection to protect against invasive species and to encourage reduced holding times. We need to ensure food safety, strive towards food security and strive to set the highest standards for food quality and nutrition.

We will promote ethical and safe production of livestock, dairy products, poultry and eggs.

Recognizing the importance of the ocean as a life-sustaining resource, we must protect its ecological balance while promoting the cultivation of ocean resources as a step toward greater self-sufficiency.

Fresh water free of pollutants shall be available to all. To ensure wise use and equitable distribution of our precious water, we must stress water conservation and alternative patterns of water treatment and consumption such as the use of recycled water for irrigation, water storage reservoirs, and the use of rain barrels by the public.

As an island state, securing affordable food for all is a priority. We support healthy, sustainable, and diversified local food production, and “Buy Local” strategies to assure greater food security and food safety.

We recognize the essential link between the availability of adequate and affordable water and low-cost electrical power as essential components of viable agricultural businesses.

We support land use planning and infrastructure development to support sustainable diversified agriculture, including low cost inter-island transportation of agricultural products.
We likewise support publicly funded research and development for agricultural diversification and value-added products.

We support the designation of Important Agricultural Lands as a step towards preserving high-grade productive lands for current and future needs.

We support adequate resources to address the various invasive species on this island beginning at point of entry.

We promote solid waste policies that divert green waste and food scraps for making invasive species-free compost and enhanced mulch available to our farmers, landscapers, and residents.

To support the development of new generations of farmers, we support increased availability of training in agriculture and related business requirements at centers of education around the state. We support making available incentives and low-cost loans to enable new farmers to establish farming operations.

Small farmers are the backbone of Hawaiʻi’s agricultural future. We support the establishment of agricultural parks and clustered farming lots to allow small farmers to share required utilities and utilize fertile land efficiently. We support the establishment of community-supported food hubs for drying, canning, freezing, and distribution of agricultural crops and produce.


For the foregoing reasons, i.e., that agriculture must be preserved and its future strengthened and that sufficient prime agricultural lands must be maintained for the health, economic well-being and sustenance, OCCLP supports HB 452, HD1, and urges its passage out of the Committees on Commerce, Consumer Protection, and Health; Agriculture and Environment; and Ways and Means.

Mahalo nui loa
Me ka `oia`i`o

/s/ Melodie Aduja
Melodie Aduja
Chair, O`ahu County Democrats Legislative Priorities Committee
Ph. (808) 258-8889
Email: legislativepriorities@gmail.com
Aloha Chairman Gabbard, Chairwoman Baker, Chairman Dela Cruz, and Members of the Committees. My name is Laʻakea Maeda and I am a constituent of Kapolei. I am testifying in favor of H.B. No. 452 H.D. 1, a bill for an act relating to preferential electricity rates for protected agriculture.

In Hawaiʻi, 15% of the food supply is grown locally and the remaining 75% arrive on container ships, putting the state in danger every time a shipping strike occurs. According to local and state government reporter Nancy Cook Lauer, in 2012, a California shipping strike resulted in empty store shelves in Hawaiʻi. Studies estimated that there is only a food supply of eleven days in the state at any given time. Support for preferential electricity rates for protected agriculture would increase the local food supply and decrease the state’s reliance on the imported food supply, resulting in an increase in jobs, decrease in food prices, and longer time for food to stay on shelves for Hawaiʻi’s residents.

I urge the Committee on Agriculture and Environment, the Committee on Commerce, Consumer Protection, and Health, and the Committee on Ways and Means to pass H.B. No. 452 H.D. 1.

Thank you for your time and giving me this opportunity to testify.

Laʻakea Maeda

91-1355 Kinoiki St.