



LAND USE COMMISSION

Komikina Ho'ohana 'Āina

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
Ka 'Oihana Ho'omōhala Pā'oihana, 'Imi Wai wai a Ho'omāka'ika'i

JOSH GREEN, MD
GOVERNOR

DANIEL ORODENKER
EXECUTIVE OFFICER

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March 20, 2023

Statement of
Daniel E. Orodenker
Executive Officer
State Land Use Commission

Before the
**House Committees on
Water and Land
and
Agriculture and Food Systems**

Wednesday March 22, 2023
11:15 AM
State Capitol, Room 325

In consideration of
SB 1521 SD2
RELATING TO SUSTAINABLE DEVELOPMENT

Chairs Ichiyama and Gates; Vice Chairs Poepoe and Kahaloa; and members of the House Committees on Water and Land; and Agriculture and Food Systems:

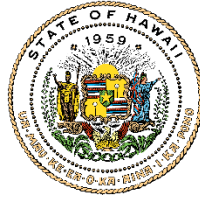
The Land Use Commission ("LUC") strongly supports SB 1521 SD2 which appropriates funds and requests that the State Office of Planning and Sustainable Development ("OPSD") create an integrated land use plan for the use of the State Agricultural district in collaboration with other state agencies and the counties.

The LUC has long been concerned that competing land uses for critical and essential activities such as food sustainability, climate resilience, alternative energy production and housing have not been reconciled. It is critical that the LUC have some basis for understanding whether or not petitions concerning these critical land uses do not compromise one another. Undertaking this study will provide the LUC with the critical data it needs to assess and protect the State's long-term interests and goals.

Thank you for the opportunity to testify on this matter.

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

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Testimony of
DAWN N. S. CHANG
Chairperson

Before the House Committees on
WATER & LAND
and
AGRICULTURE & FOOD SYSTEMS

Wednesday, March 22, 2023
11:15 a.m.

State Capitol, Conference Room 325 & Videoconference

In consideration of
SENATE BILL 1521, SENATE DRAFT 2
RELATING TO SUSTAINABLE LAND USE

Senate Bill 1521, Senate Draft 2 proposes to have the Office of Planning and Sustainable Development (OPSD) develop an Integrated Land Use Plan (Plan) for agriculture districts, and appropriate funds. **The Department of Land and Natural Resources (Department) supports this measure.**

An integrated land use plan will address many of the challenging issues facing our State, including increasing food production, developing renewable energy resources, and sequestering atmospheric carbon and greenhouse gasses.

The development of the Plan will require OPSD to gather existing data from various departments in the state regarding current uses of agricultural lands. While the Department's primary focus is on conservation, we will work closely with OPSD to ensure that they have any data they need on the agriculture-zoned lands under our jurisdiction.

Mahalo for the opportunity to present testimony in support of this measure.

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

LAURA H.E. KAAKUA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES
ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

JOSH GREEN, M.D.
Governor

SYLVIA LUKE
Lt. Governor



SHARON HURD
Chairperson, Board of Agriculture

MORRIS M. ATTA
Deputy to the Chairperson

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**TESTIMONY OF SHARON HURD
CHAIRPERSON, BOARD OF AGRICULTURE**

**BEFORE THE HOUSE COMMITTEES ON WATER AND LAND
AND
AGRICULTURE AND FOOD SYSTEMS**

**WEDNESDAY, MARCH 22, 2023
ROOM 325
11:15 A.M.**

**SENATE BILL NO. 1521, SENATE DRAFT 2
RELATING TO SUSTAINABLE LAND USE**

Chairpersons Ichiyama and Gates and Members of the Committees:

Thank you for the opportunity to testify on Senate Bill No. 1521, SD2 that amends the Hawaii State Plan by adding a new part for an “integrated land use study for agricultural districts” (Study) to be created by the Office of Planning and Sustainable Development (OPSD). The purpose of the Study is “to develop land use data that can be used for planning and decision-making for the competing uses of land within an agricultural district” (page 3, lines 1-3). The Department of Agriculture (Department) is concerned how the proposed Study will impact agricultural producers and agricultural land and water resources throughout the State. The Department has summarized the major portions of this measure and provides comments.

This Study is to incorporate recommendations from the Hawaii sea level rise and vulnerability and adaptation report, the managed retreat strategies for vulnerable coastal areas report, the Hawaii 2050 Sustainability Plan, and other climate, sustainability, housing statutory targets, and other OPSD reviews and studies (page 3, lines 10-20). The Department believes the sources of recommendations and their prioritization should be thoroughly vetted.



The Study will also include recommendations from the counties (page 4, lines 1-2) but it is not clear at what point during the Study's development the counties will be making their recommendations.

OPSD is to "develop definitive data on the amount of land required to meet the goals of identifying competing uses by compiling and analyzing data existing data" (page 4, lines 7-15) from a number of State departments, agencies, the Public Utilities Commission, and the counties. "Secondary" input will be sought from other organizations (page 4, lines 15-18). The Department is very concerned about calculating the acreage of agricultural land needed to achieve certain goals. Increasing local food self-sufficiency and non-edible agricultural production is among the State's most important goals. Hawaii's diverse agricultural activities range from intensive uses on small acreage and extensive land uses such as cattle grazing and biomass production for conversion into fuel. From a strictly monetary value perspective, these agricultural activities stand little chance when directly compared to higher valued land uses such as residential development and utility-scale renewable energy.

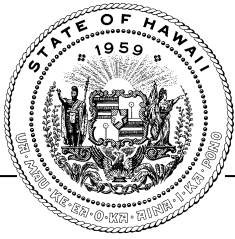
Separately, the State Functional Plans for energy, agriculture, transportation, and tourism are to be updated by the subject departments with specific emphasis on repealing outdated agricultural economic language, align plans with 21st century climate and sustainability statutory targets, and the Hawaii 2050 sustainability plan and its update (page 4, line 19 to page 5, line 19). The existing Agriculture Functional Plan, while very dated (1991) was very comprehensive and defensible, and the actions proposed were thoroughly vetted and with budgets proposed.

Outreach activities for the Study are required, however, the Department comments that it is not clear at what point during the Study's development the outreach will be done (page 6, lines 4-5). The "definitive data" to be collected by OPSD on the amount of land required to meet the goals of "identifying competing uses" (page 4, lines 6-8) is to be analyzed with the "available acreage of [agricultural] land in each county along with the impacts for the proposed changes" (page 6, lines 7-8).

There are multiple appropriations to OPSD and the four Functional Plan agencies (page 6, line 19 to page 8, line 15).

The Department of Agriculture has concerns about the complex process described above and the manner in which agricultural lands may be redistributed to other competing uses. The Department is very concerned how this measure will eventually affect Hawaii agricultural producers and the land and water resources they require to support their businesses and contribute to the State's priority in increasing local food self-sufficiency and exports.

Thank you for the opportunity to present our testimony.



**STATE OF HAWAI'I
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT**

JOSH GREEN, M.D.
GOVERNOR

SCOTT J. GLENN
DIRECTOR

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Statement of
SCOTT GLENN, Director

before the
**HOUSE COMMITTEES ON WATER AND LAND AND
AGRICULTURE AND FOOD SYSTEMS**

Wednesday, March 22, 2023, 11:15 AM
State Capitol, Conference Room 325

in consideration of
**SB 1521, SD2
RELATING TO SUSTAINABLE LAND USE**

Chair Ichiyama, Chair Gates, Vice Chair Poepoe, Vice Chair Kahaloa, and Members of the House Committees on Water and Land and Agriculture and Food Systems.

The Office of Planning and Sustainable Development (OPSD) **strongly supports** SB 1521, SD 2, which requires the OPSD to create an integrated land use plan for the use the Agricultural District. Requires the Hawai'i State Energy Office, Department of Agriculture, Department of Transportation, and Hawai'i Tourism Authority to update various state functional plans. Establishes six full-time positions and appropriates moneys.

The OPSD understands the need for such legislation. Hawai'i is challenged by the need to address the scarcity of land and the issue of competing uses and needs for development, production, and preservation within Hawai'i's Agricultural District. OPSD agrees that land use should incorporate the recommendations of the State's climate adaptation and sustainability strategic action plan (the [Hawai'i 2050 Sustainability Plan](#)), the Hawai'i State Planning Act established in Hawai'i Revised Statutes Chapter 226, the [Hawai'i Sea Level Rise Vulnerability and Adaptation Report](#),² and the [Feasibility and Implications of Managed Retreat Strategies for Vulnerable Coastal Areas](#).³

OPSD agrees that a comprehensive land use analysis is also needed to review and incorporate the State's outstanding 21 climate and sustainability statutory targets and the State's affordable rental housing target into future land use proposals as codified in law, which is aggregated for reference in the attached appendix.⁴

The OPSD agrees that the State Functional Plans identified on Pages 4 -5 of SB 1521, SD2, need updating to meet the State of Hawai'i's 21st century economic development, energy, transportation, agriculture, and tourism issues as identified in this bill. OPSD notes that the [Hawai'i State Plan Update: Phase 1](#),⁵ published in 2018, identified the need to update these Functional Plans along with others not identified by this bill that were published between 1984-1991, with the exception of the [Housing State Functional Plan](#),⁶ which was recently updated in 2017. In accordance

SB 1521, SD2, RELATING TO SUSTAINABLE LAND USE - SUPPORT
State Office of Planning and Sustainable Development
March 22, 2023

with Hawai'i Revised Statutes §226-55 through -57, the OPSD will work collaboratively with the appropriate state agencies primarily responsible for the given functional areas identified by the SD2.

The appropriations to the functional agencies and the timeline to report progress on these Functional Plans to the Governor and Legislature 20 days prior to the 2025 Regular Session, in Section 2 (e), Section 3, and Section 5 of SB 1521, seem reasonable, however OPSD defers to the functional lead agencies on their fiscal and implementation requirements.

Thank you for the opportunity to testify on this measure.

SB 1521: Appendix

An Aggregation of the State of Hawai‘i’s mandated climate, sustainability, and housing statutory targets

By 2025:	1. Farm-to-State Target: By 01/01/2025 requires the DOE, DOH, PSD, DOD, and UH to purchase 10% of the fresh local agricultural products and local value-added, processed, agricultural, or food products of the total food purchased during each calendar year, as measured by the per cent of total food cost.	1. HRS §27-8
By 2026:	1. Affordable Rental Housing Target: Establishes a goal for the State Government to develop or vest the development of at least 22,500 affordable rental housing units ready for occupancy between 01/01/2017-12/31/2026.	1. Act 127, SLH 2016
By 2030:	<p>1. Farm-to-State Target: By 01/01/2030 requires the DOE, DOH, PSD, DOD, and UH to purchase 18% of the fresh local agricultural products and local value-added, processed, agricultural, or food products of the total food purchased during each calendar year, as measured by the per cent of total food cost.</p> <p>2. Farm-to-School Target: Requires the DOE to serve 30% of food served in public schools to consist of locally sourced products by 2030.</p> <p>3. Doubling Local Food Target: Directing the State Department of Agriculture to develop a strategic plan to double local food production and increase food exports out of the State by 2030.</p> <p>4. EEPS Target: Requiring the PUC to establish the Energy-Efficiency Portfolio Standards (EEPS) target requiring that 4,300 gigawatt hours (GWh) of electricity use statewide be reduced by 2030.</p> <p>5. RPS Target: Requires each electric utility company that sells electricity to establish a renewable portfolio standard (RPS) of 40% of its net electricity generation by 12/31/2030.</p>	<p>1. HRS §27-8</p> <p>2. HRS §302A-405.6</p> <p>3. Act 151, SLH 2019</p> <p>4. HRS §269-96</p> <p>5. HRS §269-92</p> <p>6. Act 238, SLH 2022, codified as HRS 225P-5, as amended.</p> <p>7. Act 74, SLH 2021, codified as HRS §§ 225P-7, 264-20.7, and 196-9 (c) (11), as amended.</p>

	<p>6. GHG Emission Limit: Establishing a statewide Greenhouse Gas Emissions Limit target to be 50% below the level of statewide greenhouse gas emissions in 2005.</p> <p>7. State Fleet ZEV Transition: Requires the State to transition all light-duty motor vehicles that are passenger cars in the State’s fleet to be zero-emission vehicles by 12/31/2030.</p>	
By 2035:	<p>1. DOE Net-Zero Energy Target: Requires the DOE to become net-zero in energy use, producing as much renewable energy as it consumes across all public schools by 01/01/2035.</p> <p>2. UH Net-Zero Energy Target: Requires the UH to become net-zero in energy use, producing as much renewable energy as it consumes across all campuses by 01/01/2035.</p> <p>3. State Fleet ZEV Transition: Requires the State to transition all light-duty motor vehicles in the State’s fleet to be zero-emission vehicles by 12/31/2035.</p> <p>4. Farm-to-State Target: By 01/01/2035 requiring the DOE, DOH, PSD, DOD, and UH to purchase 26% of the fresh local agricultural products and local value-added, processed, agricultural, or food products of the total food purchased during each calendar year, as measured by the per cent of total food cost.</p>	<p>1. HRS §320A-1510</p> <p>2. HRS §304A-119</p> <p>3. Act 74, SLH 2021, codified as HRS §§ 225P-7, 264-20.7, and 196-9 (c) (11), as amended.</p> <p>4. HRS §27-8</p>
By 2040:	<p>1. RPS Target: Requires each electric utility company that sells electricity to establish a renewable portfolio standard (RPS) of 70% of its net electricity generation by 12/31/2030.</p> <p>2. Farm-to-State Target: By 01/01/2040 requires the DOE, DOH, PSD, DOD, and UH to purchase 34% of the fresh local agricultural products and local value-added, processed, agricultural, or food products of the total food purchased during each calendar year, as measured by the per cent of total food cost.</p>	<p>1. HRS §269-92</p> <p>2. HRS §27-8</p>

<p>By 2045:</p>	<ol style="list-style-type: none"> 1. Reclaimed Water in All State and County Facilities: Requires the use of reclaimed water in 100% of State and County facilities, except for drinking and potable water uses, by 12/31/2045. 2. Zero Emissions Clean Economy Target: Requires the State to sequester more atmospheric carbon and greenhouse gases than emitted within the state as quickly as practicable, but no later than 2045. 3. RPS Target: Requires each electric utility company that sells electricity to establish a renewable portfolio standard (RPS) of 100% of its net electricity generation by 12/31/2045. 4. Farm-to-State Target: By 01/01/2045 requires the DOE, DOH, PSD, DOD, and UH to purchase 42% of the fresh local agricultural products and local value-added, processed, agricultural, or food products of the total food purchased during each calendar year, as measured by the per cent of total food cost. 	<ol style="list-style-type: none"> 1. HRS §174C-31 (g) (6) 2. HRS §225P-5 3. HRS §269-92 4. HRS §27-8
<p>By 2050:</p>	<ol style="list-style-type: none"> 1. Statewide Cesspool Conversion: Requires the mandatory upgrade, conversion, or connection of all cesspools statewide by 01/01/2050. 2. Farm-to-State Target: By 01/01/2050 requires the DOE, DOH, PSD, DOD, and UH to purchase 50% of the fresh local agricultural products and local value-added, processed, agricultural, or food products of the total food purchased during each calendar year, as measured by the per cent of total food cost. 	<ol style="list-style-type: none"> 1. HRS §342D-72 2. HRS §27-8



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

JOSH GREEN, M.D.
GOVERNOR

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CHIEF ENERGY OFFICER

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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
**HOUSE COMMITTEES ON WATER & LAND
AND
AGRICULTURE & FOOD SYSTEMS**

Wednesday, March 22, 2023
11:15 AM
State Capitol, Conference Room 325 and Videoconference

In SUPPORT of
SB 1521, SD2

RELATING TO SUSTAINABLE LAND USE.

Chairs Ichiyama and Gates, Vice Chairs Poepoe and Kahaloa, and Members of the Committees, the Hawai'i State Energy Office (HSEO) supports SB 1521, SD2, which requires the Office of Planning and Sustainable Development (OPSD) to create an integrated land use plan for the use of agricultural districts. The measure also requires HSEO, Department of Agriculture, Department of Transportation, and Hawai'i Tourism Authority to update various state functional plans.

HSEO agrees that there is a need to coordinate and plan for the many state and county level goals and stands ready to collaborate with state and county agencies, the private sector, and other stakeholders to support the effort. HRS 225P-5 (a) sets a target "...to sequester more atmospheric carbon and greenhouse gases than emitted within the State as quickly as practicable, but no later than 2045." Per HRS 196-72 (d)(1), the Chief Energy Officer shall formulate, analyze, recommend, and implement specific policies, strategies, and plans, in coordination with public and private sector stakeholders, to cost-effectively and equitably achieve the State's energy goals.

Thank you for the opportunity to testify.

SB-1521-SD-2

Submitted on: 3/14/2023 3:23:58 PM

Testimony for WAL on 3/22/2023 11:15:00 AM

Submitted By	Organization	Testifier Position	Testify
Nancy Redfeather	Ka Ohana O Na Pua	Comments	Written Testimony Only

Comments:

This is an important bill, but haven't we been here before? Wasn't this part of the work that Jeff Melrose did over many years? Obviously the price of land and it's market scarcity is a challenge for all beginning farmers and ranchers in the state of Hawai'i. IF land were identified for future agriculture or ranching then what? Would this be only State lands that would be identified? Seems like that would be the place to begin. But from my watching our State Agriculture Parks over many many years, that doesn't seem to be a good working model for the future. Young farmers need to live on their land, Parcels need to be farmable, meaning they have enough soil to begin building fertility. Parcels need roads and water access. So identification is only step one, what you do after that is very important. The Legislature would need to appropriate funding for the development of these pieces that could be overseen by HDOA IF they have enough staffing and funds. So doesn't this project need a longer term vision, than just identification? Like I said didn't Jeff Melrose already do that? Mahalo, Nancy Redfeather Kawanui Farm, Honalo

Director Ka Ohana O Na Pua



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Kona, Hawai'i

Fawn Helekahi-Burns
Hana, Maui

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Maui

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Rufina Kaauwai
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Negus Manna
Lāna'i

Brynn Foster
North Shore, O'ahu

Christian Zuckerman
Wai'anae, O'ahu

Ted Radovich
Waimanalo, O'ahu

Vincent Kimura
Honolulu, O'ahu

Ray Maki
Kauai

Aloha Chairs Ichiyama and Gates, Vice Chairs Poepoe and Kahaloea, and Members of the House Water & Land and Agriculture & Food Systems Committees,

The Hawaii Farmers Union United (HFUU) is a 501(c)(5) agricultural advocacy nonprofit representing a network of over 2,500 family farmers and their supporters across the Hawaiian Islands. **HFUU supports SB1521.**

An integrated land use plan for the Agricultural District of Hawaii is essential to protecting our agricultural lands and the food system as a whole in Hawaii.

The integrated land use plan has the potential of deterring unnecessary turnover of cultivated lands, which, in turn, protects Hawaii's farmers and promotes good land stewardship. Requiring the counties to update their general plans provides an extra layer of protection, ensuring that county decisions related to land use adhere to the state-wide plan.

Mahalo for the opportunity to testify.

Kaipo Kekona, President HFUU/HFUF



**Testimony to
The Committee on Water & Land and the Committee on Agriculture & Food Systems**

Wednesday, March 22, 2023

11:15 AM

**Conference Room 325 & VIA videoconference
Hawaii State Capitol**

SB 1521 SD2

Chair Ichiyama , Vice Chair Poepoe, Chair Gates, Vice Chair Kahaloa and members of the committees,

Hawaii Gas **supports SB 1521 SD2**, which requires the Office of Planning and Sustainable Development to create an integrated land use plan for the use of the agricultural district; requires the Hawaii State Energy Office, Department of Agriculture, Department of Land & Natural Resources, Department of Transportation, Hawaii Tourism Authority to update various state functional plans; appropriates moneys.

Established in 1904, Hawaii Gas serves over 70,000 customers on all islands through its pipeline and delivery services, all of whom depend on the company for sustainable, reliable, and affordable gas for water heating, cooking, drying, and other commercial and industrial applications. The company employs some 350 professionals, over 75% of whom are members of the Teamsters Union, and provides both regulated and unregulated utility operations.

Hawaii Gas distributes a blend of gas that ranges from low-carbon to zero-carbon to negative carbon emissions through approximately 1,100 miles of mostly underground utility pipeline statewide. Our main utility system includes a blend of gas that includes Synthetic Natural Gas (SNG), Renewable Natural Gas (RNG), and Hydrogen. Despite representing less than 1% of the greenhouse gases emitted into Hawaii's atmosphere, we are working diligently to reduce our greenhouse gas emissions by pursuing cost-effective, local, renewable energy projects.

Hawaii Gas is currently in the midst of an Integrated Resource Plan (IRP) regulatory docket, which is an action plan to determine how a utility will meet energy objectives and customer energy needs consistent with state energy policies and goals, while providing safe and reliable utility service at reasonable cost through the development of Resource Plans and Scenarios of possible futures that provide a broader long-term perspective. This process engages a full array of stakeholders, Through the process, it has become clear that an integral requirement to produce renewable gas and hydrogen is land for growing energy crops and renewable project siting. Often, the same land has the attributes required to advance the states equally important priorities of increasing food production and affordable housing. The proposed integrated and comprehensive plan will assist the state as well as utilities' efforts in providing realistic solutions for these goals, the pathways to achieve them and possible multi-faceted use of lands. As a



public utility we look forward to participating in these studies and being a key stakeholder because it will affect our ability and responsibility achieve low to zero-carbon emissions while providing reliable and affordable energy to the citizens of Hawaii.

We ask the committee to pass this bill.



**Hawaiian
Electric**

**TESTIMONY BEFORE THE HOUSE COMMITTEES ON
WATER & LAND AND AGRICULTURE & FOOD SYSTEMS**

S.B. 1521 SD2

Relating to Sustainable Land Use

Wednesday, March 22, 2023

11:10 am, Agenda Item #1

State Capitol, Conference Room 325 & Videoconference

Marc Asano

Director, Integrated Grid Planning

Hawaiian Electric

Chairs Ichiyama and Gates, Vice Chairs Poepoe and Kahaloa, and Members of the Committees:

My name is Marc Asano and I am testifying on behalf of Hawaiian Electric in **support of S.B. 1521 S.D. 2**, Relating to Sustainable Land Use.

S.B. 1521 S.D. 2 requires the Office of Planning and Sustainable Development to develop an integrated land use study to serve as a guide for planning and decision making on the use of agricultural lands, and requires the Hawaii State Energy Office, Department of Agriculture, Department of Transportation, and Hawaii Tourism Authority to update various state functional plans.

Hawaiian Electric is committed to reducing carbon emissions in 2030 by as much as 70% below 2005 levels within the electric sector. Our ambitious Climate Change Action Plan for the next seven years anticipates a steady pace of cost-effective renewable energy resources coming online to reduce the use of fossil fuels to generate electricity. Key elements of the Company's 2030 plan include:

- Shutting down the state's last coal plant in 2022;

- Adding nearly 50,000 rooftop solar systems to the 97,000 now online;
- Retiring at least 6 fossil-fueled generating units and significantly reducing the use of others as new renewable resources come online;
- Adding renewable energy projects capable of generating a total of at least 1 gigawatt, including shared solar (community-based renewable energy);
- Using more grid-scale and customer-owned energy storage;
- Expanding geothermal resources; and
- Creating innovative programs that provide customers incentives for using clean, lower-cost energy at certain times of the day and using less fossil-fueled energy at night.

By 2030, Hawaiian Electric's renewable portfolio standard is targeted to exceed 70%, with renewable resources available to provide close to 100% of the electricity generated on Hawaii Island and in Maui County.

Our highest priority is to build a sustainable Hawaii, and that includes supporting the state in achieving its goals of clean energy, affordable housing, and food sustainability. Achieving the 70% carbon reduction target cost-effectively could require up to 10,000 acres of land to site solar and battery energy storage projects after accounting for growth in private rooftop solar, energy efficiency, and renewable firm generation.

One of the potential barriers to achieving the state's sustainability goals is the amount of land that will be available for clean energy development on each island; whether for solar, wind, hydrogen production, biofuel crops or other clean technologies. If land that is available for clean energy can be identified, then we will be able to better plan grid infrastructure needs, which will streamline the project development and

interconnection process and result in more cost-efficient investments for the residents of Hawaii.

We have conducted technical potential studies for siting future renewable energy projects and evaluated different pathways to achieve the state's economywide net negative carbon reduction goal. We could provide relevant data and information from our own studies that would greatly enhance the value of the integrated land use study and update to the state's functional plan on energy.

We welcome the opportunity to work with the state to identify the optimal and balanced use of land for clean energy in Hawaii and look forward to further discussions on this very important topic as it will truly take a statewide effort of collaboration.

Accordingly, Hawaiian Electric supports S.B. 1521 S.D. 2. Thank you for this opportunity to testify.



Email: communications@ulupono.com

HOUSE COMMITTEES ON WATER & LAND AND AGRICULTURE & FOOD SYSTEMS
Wednesday, March 22, 2023 — 11:15 a.m.

Ulupono Initiative supports the intent of SB 1521 SD2, Relating to Sustainable Land Use.

Dear Chair Ichiyama, Chair Gates, and Members of the Committees:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food, renewable energy and clean transportation choices, and better management of freshwater resources.

Ulupono supports the intent of SB 1521 SD2, which requires the Office of Planning and Sustainable Development (OPSD) to create an integrated land use study for the use of the agricultural district; and requires the Hawai'i State Energy Office, Department of Agriculture, Department of Transportation, and Hawai'i Tourism Authority to update various state functional plans.

Ulupono believes that this measure is sorely needed to address the many admirable, ambitious goals and mandates established in our state and counties. While our goals continue to chart us on a path toward greater sustainability and resiliency, Hawai'i is a geographically isolated "sea-locked" state with finite resources. As such, strategic, data-based planning will be essential for our state and counties.

We ask the committee to reconsider that this measure be an integrated land use "plan" as identified in the original draft, and not just a "study" as is currently stated in the SD1. We will need to ensure that this strategic plan can help to guide well-grounded land use policies across all state agencies with appropriate transparency and accountability.

Through the passage of Act 189, SLH 2022, OPSD will be studying the soil classifications systems and the use of such systems across state agricultural lands, with a report expected to the Legislature by the next legislative session. This study should support the greater land use effort described in this measure.

Investing in a Sustainable Hawai'i

In October 2021, Ulupono decided to research the potential balance that can exist between our agricultural and energy goals, to double local food production by 2030 and reach a 100% renewable portfolio standard by 2045. In the white paper titled “SWITCHing the Paradigm,” we discuss how using an electricity system planning model called SWITCH (Solar and Wind Energy Integrated with Transmission and Conventional Sources) showcases how different land use scenarios can affect our overall land availability.¹ The analysis showed that there are scenarios where there is relatively low impact on customer energy costs even when protecting the most productive lands on O’ahu.² The findings in this paper highlight the important decisions on land use policy that must be considered when determining which state or county goal or effort should receive preference, and also when a feasible balance can be struck.

We appreciate the Legislature’s efforts to support sound land use policy with data-based planning. We hope that this measure will develop an integrated land use plan that will retain a holistic approach to include all state lands as we attempt to meet Hawai‘i’s many land-intensive, sustainability goals.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

¹ <https://ulupono.com/media/5eclolht/switching-the-paradigm-12-06-21.pdf>

² The electricity production cost for the unlimited use of Class B and Class C agricultural lands at 20% slope is 11.7 cents per kWh. The electricity production cost when restricting Class B lands to 1.8% and Class C lands to 1.1% at 20% slope is 12.3 cents per kWh.



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March 22, 2023

HEARING BEFORE THE
HOUSE COMMITTEE ON WATER & LAND
HOUSE COMMITTEE ON AGRICULTURE & FOOD SYSTEMS

TESTIMONY ON SB 1521. SD2
RELATING TO SUSTAINABLE LAND USE

Conference Room 325 & Via Videoconference
11:15 AM

Aloha Chairs Ichiyama and Gates, Vice Chairs Poepoe and Kahaloa, and Members of the Committees:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawai'i Farm Bureau supports SB 1521, SD2, which requires the Office of Planning and Sustainable Development to create an integrated land study for the use of land in the agricultural district and requires the Hawaii State Energy Office, Department of Agriculture, Department of Transportation, Hawaii Tourism Authority to update various state functional plans.

HFB recognizes and supports the need for affordable housing, renewable energy, and waste management. We also recognize that in the land category system used today, agriculture was originally the catchall land classification and that some lands included within the agricultural district were not necessarily considered optimal for agriculture.

However, agriculture has significantly evolved. Soil classification is no longer the determinant of land good for agriculture. Greenhouses, hydroponics, aquaculture, and aquaponics are just a few of the many types of agriculture that can occur on *all* classes of land (A, B, C, D, E). Some of the best floriculture and hydroponic operations in Hawai'i are on C, D, and E lands. The total environment, including rainfall amount and timing, day and night-time temperatures, wind, and humidity each contributes to whether a particular region is suitable for a specific crop. In many cases, the soil type and even the existing terrain are not determinative of whether farming can exist and thrive.

Hawai'i Farm Bureau has serious concerns about the pressure to allow non-agriculture uses on agricultural lands; allowing residential developments to be interspersed with farming operations often causes problems that can result in the failure of farms. This

cannot be allowed. Because of the pandemic, everyone better understands now the importance of agriculture in our isolated and vulnerable state. We must protect agricultural lands from well-known threats and avoid simplistic solutions to Hawai'i's housing problems.

The urgency to address Hawai'i's need for affordable housing, renewable energy, and new landfills should not be allowed to eliminate Hawai'i's use of productive agricultural land.

Thank you for your consideration of our concerns.