

DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

GLORIA CHANG  
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM  
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND  
OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII  
DEPARTMENT OF BUDGET AND FINANCE**

P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION  
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

**WRITTEN ONLY**

TESTIMONY BY CRAIG K. HIRAI  
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE  
TO THE SENATE COMMITTEE ON WAYS AND MEANS  
ON  
SENATE BILL NO. 2865, S.D. 1

**February 23, 2022  
10:05 A.M.  
Via Videoconference**

RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS TO ASSIST DIBSHAWAII LLC.

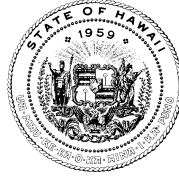
The Department of Budget and Finance (the "Department") offers the following comments on Senate Bill No. 2865, S.D. 1, which authorizes the issuance of Special Purpose Revenue Bonds (SPRB) to assist DIBSHawaii LLC, a Hawaii limited liability company, to build a net zero carbon capture storage utilization platform that will recover vented carbon dioxide emissions and scrub and liquify them into food grade liquid carbon dioxide that can be placed in pressurized storage tanks creating a virtual terminal for food grade carbon dioxide to be utilized across the State pursuant to Part V, Chapter 39A, Hawaii Revised Statutes.

The Department would like to inform the Legislature and prospective SPRB parties that should the legislation be approved, approval of the SPRB issuance and conduit loan will require further review of the financing proposal to ensure compliance with all federal, state and credit underwriting requirements. Additionally, the Department would like to note that Senate Bill No. 2812 specifies that the State's allocation of the bond ceiling cap and all returned bond ceiling cap from the counties,

shall be entirely used for housing related projects. Should the legislation be approved, all SPRBs subject to the bond ceiling cap will be prohibited from issuance by the Department for the next five years. Furthermore, House Bill No. 1829, H.D. 1 specifies that the entire allocation of the state bond ceiling cap shall be used for housing related projects for the next six years provided that the allocations authorized, but not issued before July 1, 2022 shall not be affected. For additional information, please consult our FAQ located at the following link: <http://budget.hawaii.gov/wp-content/uploads/2012/11/SPRB-FAQ.pdf>.

Thank you for your consideration of our comments.

DAVID Y. IGE  
GOVERNOR  
STATE OF HAWAII



WILLIAM J. AILA, JR.  
CHAIRMAN  
HAWAIIAN HOMES COMMISSION

JOSH GREEN  
LT. GOVERNOR  
STATE OF HAWAII

TYLER I. GOMES  
DEPUTY TO THE CHAIRMAN

**STATE OF HAWAII  
DEPARTMENT OF HAWAIIAN HOME LANDS**

P. O. BOX 1879  
HONOLULU, HAWAII 96805

**WRITTEN ONLY**

TESTIMONY BY TYLER I. GOMES  
DEPUTY TO THE CHAIRMAN, DEPARTMENT OF HAWAIIAN HOME LANDS  
TO THE SENATE COMMITTEE ON WAYS AND MEANS

TUESDAY, FEBRUARY 23, 2022  
10:05 AM  
STATE CAPITOL, CONFERENCE ROOM 211 AND VIDEOCONFERENCE

IN SUPPORT

SENATE BILL NO. 2865, SD1  
RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS TO ASSIST  
DIBSHAWAII LLC.

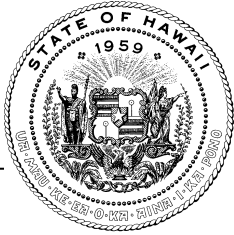
Chair Dela Cruz, Vice Chair Keith-Agaran and members of the Committee,

The Department of Hawaiian Home Lands (DHHL) supports SB 2865, SD1, which authorizes the issuance of special revenue bonds to assist DIBS Hawai'i, LLC in construction of a net zero carbon capture storage utilization platform that will recover vented carbon dioxide (CO<sub>2</sub>) emissions and scrub them into food grade liquid carbon dioxide.

DHHL supports partnerships and alliances that can improve the success of our agriculture/farming homesteads. Hawaii currently imports one hundred percent of the CO<sub>2</sub> utilized in the State. The sourcing of this commodity from mainland sources has made it more costly for local businesses due to transportation cost and global supply chain issues. Very little of the State's CO<sub>2</sub> makes it to the agriculture sector due to the high cost of importing and limited State supply. It is DHHL's understanding that 75% of the recovered CO<sub>2</sub> is intended for agriculture and energy. The use of CO<sub>2</sub> recovered from the net zero carbon capture-storage-utilization platform in agriculture is beneficial to DHHL and the State as it both sequesters CO<sub>2</sub> that would otherwise be released into the atmosphere and is expected to reduce the cost of CO<sub>2</sub> use in agriculture through in-state production and greater supply.

DHHL is governed by the Hawaiian Homes Commission Act (HHCA) of 1920, enacted by the U.S. Congress to protect and improve the lives of native Hawaiians. The intent of the HCCA is, *“to enable native Hawaiians to return to their lands in order to fully support self-sufficiency for native Hawaiians and the self-determination of native Hawaiians . . . and the preservation of the values, traditions, and culture of native Hawaiians.”* DHHL supports the use of the recovered food grade liquid carbon dioxide product for agriculture, energy and carbon storage as this will advance not only the State’s goals of food security and resilience but also DHHL’s mission to improve the lives of native Hawaiians.

Mahalo for your consideration of this testimony.



# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE  
GOVERNOR

SCOTT J. GLENN  
CHIEF ENERGY OFFICER

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Testimony of  
**SCOTT J. GLENN, Chief Energy Officer**

before the  
**SENATE COMMITTEE ON WAYS AND MEANS**

Wednesday, February 23, 2022, 10:05 AM  
State Capitol, Conference Room 211 & Videoconference

**SUPPORT  
SB 2865 SD1  
RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS TO  
ASSIST DIBSHAWAII LLC.**

Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Committee, the Hawai'i State Energy Office (HSEO) supports SB 2865, SD1, which authorizes the issuance of special purpose revenue bonds to assist DIBSHawaii LLC in the construction of a net-zero carbon capture storage utilization platform that will recover vented carbon dioxide emissions and scrub and liquify them into food grade liquid carbon dioxide.

HSEO believes that the project is in the public interest and supports the use of Special Purpose Revenue Bonds for this purpose.<sup>1</sup>

Due to global supply chain issues as a result of the pandemic, Hawai'i is experiencing a carbon dioxide shortage for economic activity, much like the rest of the nation, but more acutely as there is only one facility in Hawai'i that produces carbon dioxide. Sourcing it from the continental US is more difficult due to the shortage and more costly due to the transportation distances. Carbon dioxide in Hawai'i has many commercial uses, including carbonated beverages, agricultural technology, water treatment, waterless surface cleaning, dry ice for maintaining freshness of cold items during transport, and others.

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<sup>1</sup> Special Purpose Revenue Bonds provide loan financing to assist qualifying capital improvement projects in the public interest. The bonds do not constitute a general obligation of the State and are not State monies.

It is HSEO's understanding that DIBS Hawaii is a native Hawaiian-owned company and is planning to build a net-zero carbon capture storage utilization platform. This is consistent with Hawaii's interests, as it captures carbon dioxide that would otherwise be released into the atmosphere; uses already-available rather than imported material for local applications; and supports a locally-owned business in promoting import substitution and economic diversification.

Capturing emissions from the atmosphere for economic activity and long-term sequestration is an important feature in Hawaii's clean energy, decarbonized economy transition and statutory commitment to the Paris Agreement. Furthermore, beginning this helps build the knowledge and expertise for Hawaii to source carbon dioxide from renewable sources in the future as fossil energy is phased out and Hawaii transitions to a net-negative, resilient clean energy economy.

Thank you for the opportunity to testify.

**SB-2865-SD-1**

Submitted on: 2/19/2022 5:40:23 PM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Scott Wong	Testifying for Ohana Hui Ventures	Support	No

Comments:

Ohana Hui Ventures, Inc is a Hawaiian owned company focused on Kanaka ideas and supporting new technologies that benefit Hawaii in food production, sustainable energy, workforce development and new technologies that will interest Hawaii's youth in future careers.

OHV fully supports this bill to create jobs, reduce the carbon footprint, create netzero energy, Co2 capture, storage and Utilization to NOT be dependent on imports.

We SUPPORT.



## Senate Committee on Ways and Means

Chairman DelaCruz,

Vice Chair Keith-Agaran and Senate committee members

Aloha kakou,

Mahalo Senators for the opportunity to provide testimony on SB2865 we show our full support

*RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS TO ASSIST DIBSHAWAII LLC.*

Dibshawaii LLC business model was built upon using carbon dioxide from a carbon neutral stance. To be able to clean without creating any secondary waste stream. The result of the dry ice cleaning platform is mitigating our carbon footprint and being able to provide accolade level environmental cleaning without adding any additional waste streams and the burning of fossil fuels and consumption of other products that would then need to be disposed of. That was the premise of why I started this so we could clean at a higher level with integrity to our consumption and the mindfulness of protecting the environment.

Through this process of using dry ice to clean we could be more consistent, and we could ultimately support better practices, for the federal government, the state of Hawaii and private industry. By using these actions and performances using carbon dioxide to clean with no secondary waste stream, we could demonstrate to other small business trying to achieve those goals that there are advanced tooling and proven processes within reach.

As a small business we are dependent on carbon dioxide in its liquid state. Stored liquid carbon dioxide can be utilized to create dry ice. The Dry ice would then be used to supplement sand for sandblasting and water for pressure washing. So instead of using sand and water with chemicals we are using carbon dioxide to clean. Eliminating the costly steps to dispose of contaminated spent media and water greatly reducing the projects carbon emissions.

Our local supply chain issues with carbon dioxide in the state of Hawaii and our availability of carbon dioxide has put us at a disadvantage for the last decade meaning it inhibited us from truly reaching our potential. It did not allow for us to expand our operations because of the unreliability, unavailability and ultimately the high cost of the carbon dioxide. Hawaii is the most expensive place in the world to buy carbon dioxide as a small business or individual.

Dibshawaii LLC, a native Hawaiian Veteran owned company. Along with a consortium of Hawaiian owned businesses we are teaming together to construct a Net Zero Carbon Capture Storage Utilization (CCSU) platform.



This third-party CO2 infrastructure will recover large volumes of vented carbon dioxide emissions from industrial oil & gas refining, biomass to energy production, and geothermal operations. This repurposed carbon dioxide will be sequestered into the soil to produce an abundance of healthy and nutritious agricultural products for local consumption. It will also be applied in the development of locally sourced building materials such as hempcrete and concrete mineralization. CO2 will also be available to support locally emerging sustainable jet fuel production platforms.

Hawaii and other island communities will be the first to experience climate change through rising sea levels, and we must act now to mitigate our carbon emissions by capturing the co2 stream one source at a time.

This is an excellent opportunity for farmers, small business, and investors whom are pivoting to advanced farming practices vertical farming, protected farming, glass house agriculture all which will require dissolved co2 for irrigation systems to increase yields and food production by 30% and mitigate disease and pathogens on crops. Locally grown nutrient dense food and revitalization of carbon rich soil systems is a requirement that needs our states attention.

The benefits of these actions help to offset our import on food and the direct application of carbon dioxide being absorbed into the soil systems building carbon rich soil systems to combat 100 years of plantation agriculture.

SB2865 will allow for a natural progression towards education and awareness and the connection between food, energy, our ability utilize and sequester carbon dioxide. Learner programs will demonstrate our ability to mitigate our carbon footprint at commercial scale through mindful and innovative actions.

Dibshawaii LLC is in full support of SB2865 and has much appreciation to this committee for hearing this bill one that can open doors on climate change locally, carbon credits and incentives, technical assistance, and a platform to grow people to grow our food locally in support of our Hawaiian lifestyle.

Sincerely,



Keoni Ford,

**SB-2865-SD-1**

Submitted on: 2/22/2022 1:24:21 AM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Nancy & Zeb Jones	Testifying for Hydroponics Alternatives LLC	Support	No

Comments:

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran and Honorable Senate Ways & Means Committee Members:

We submit this testimony in **STRONG SUPPORT** of SB2865, SD1, and its authorization of special purpose revenue bonds to assist DIBSHawaii LLC in constructing a net-zero carbon capture storage platform. Such a facility would recover carbon dioxide emissions and scrub them into food grade liquid carbon dioxide (CO2). While carbon dioxide has many commercial uses, Hawai`i currently has only one carbon dioxide production facility. Constructing a third-party CO2 capture facility will allow for the rapid developments of a virtual terminal to store, transport, utilize and sequester large volumes of CO2 to combat climate change. Key benefits of such a facility would include, but not be limited to import substitutions, economic diversification, long-term carbon sequestration, soil revitalization, increased production of nutrient dense foods AND an ability to reduce pathogens in Hawai`i's produce.

For all of the above reasons, we urge your honorable committee to please pass SB2865, SD1 out of your committee. Mahalo again for this opportunity to present this testimony supporting SB2865, SD1.

Warm aloha,

*Nancy & Zeb Jones*

Hydroponics Alternatives LLC

**SB-2865-SD-1**

Submitted on: 2/22/2022 9:10:40 AM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Susan B Roberts Emery	Testifying for Green Party Hawai'i	Support	No

Comments:

SB2865

The Senate Ways and Means Committee,

The Green Party of Hawai'i asks you to support SB2865 relating to the issuance of special purpose revenue bonds to assist DIBSHawaii LLC. We support the plans to build a net-0 carbon capture storage utilization (CCSU) platform that will recover vented carbon dioxide emissions and scrub and liquify them into food grade liquid carbon dioxide. Please support SB2865.

Mahalo,

Green Party of Hawai'i

Co-Chair GPH Susan Roberts Emery

February 20, 2022

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

Testimony in Support of SB 2865, Relating to the Issuance of Special Purpose Revenue Bonds to Assist DIBSHawaii LLC

Aloha Chair Dela Cruz and Vice Chair Keith-Agaran:

I support SB 2865.

The Special Purpose Revenue Bonds will assist DIBSHawaii in reducing carbon emissions and climate change while developing a carbon use industry in the State of Hawaii.

Why import CO<sub>2</sub> or produce it from fossil fuels? Let's keep the local dollars in the local economy! And better yet, let's use renewable, clean, 24/7 power sources to make it happen!!

  
Warren Lee

**SB-2865-SD-1**

Submitted on: 2/20/2022 1:53:42 PM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Noel Morin	Individual	Support	No

Comments:

Dear Chair Del Cruz, Vice-Chair Keith-Agaran, and members of the Ways and Means Committee,

I am in **support of SB2865 SD1** which authorizes the "issuance of special purpose revenue bonds to assist Dibshawai'i LLC in building, a net zero carbon capture storage utilization (CCSU) platform that will recover vented carbon dioxide emissions and scrub and liquify them into food grade liquid carbon dioxide."

This will enable the creation of local capacity and jobs necessary to meet a critical local need. This will reduce our dependence on imports and a fragile supply chain.

Thank you for this opportunity.

Noel Morin

**SB-2865-SD-1**

Submitted on: 2/20/2022 3:14:58 PM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Peter Sternlicht	Individual	Support	No

Comments:

I support this legislation to fully address the supply chain issues around carbon dioxide and stabilize the cost and storage capacity for local industry without competing for supply with the Soft drink industry ie coca cola and Pepsi.

**SB-2865-SD-1**

Submitted on: 2/20/2022 4:14:46 PM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Deborah Umiamaka	Individual	Support	No

Comments:

**I strongly support SB2865.**

**Sincerely, Deborah Umiamaka.**

**SB-2865-SD-1**

Submitted on: 2/20/2022 4:18:43 PM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Ken Stover	Individual	Support	No

Comments:

recapture!



**SB-2865-SD-1**

Submitted on: 2/20/2022 10:30:31 PM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Sidney Higa	Individual	Support	No

Comments:

Senate Bill 2865 SPRB to support Carbon Capture Storage Utilization

Supporter Key Messages

My Name is Sidney Higa and I live in Kapolei

I am a 40 year resident of Makakilo, a 24 year Military Veteran and I was born in the Ewa district when Hawaii was still a territory.

My father's family were farmers and had a Poi factory and Taro farm in Kahaluu Valley and my father worked for the sugar plantation in Ewa after returning from serving in the USMC during the Korean War.

My uncle Thomas "Taro" Higa served in the 442nd 100th battalion Military Intelligence and was a part of the group who restocked Okinawa with Pigs and other livestock after WWII left the Island barren.

Farming is not easy as referenced in Hawaii Business Magazine and my family can attest to that. The bottom line is that farming is very labor intensive, energy intensive, and water intensive and unless you can increase yields, Hawaii will not become food independent.

There are new technologies and methods that make it possible for regular farms and small urban gardens to be very productive. One of these is to increase CO2 in the water which the plants thrive on. This increases growth and maturity thus increasing yields.

So I support Senate Bill 2865 because:

CO2 is being vented and is a source of climate change and global warming and needs to be captured.

CO2 is what plants use as food to grow. The more food we grow the closer to self-sufficiency for our food production. This in turn feeds myself, my children, my grandchildren and my great grandchildren.

CO2 has industrial uses such as dry ice for cold storage and transportation.

CO2 is a future source for aviation fuel and will help to offset imported oil.

CO2 will create many opportunities including job opportunities, which in turn creates housing opportunities and choices.

Sidney Higa

**SB-2865-SD-1**

Submitted on: 2/21/2022 6:46:42 AM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Barbara Barry	Individual	Support	No

Comments:

Aloha,

I strongly support SB 2865 SD1.

Mahalo,

**SB-2865-SD-1**

Submitted on: 2/21/2022 7:46:18 PM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Shannon Lush	Individual	Support	No

Comments:

In Support

**SB-2865-SD-1**

Submitted on: 2/22/2022 8:29:02 AM

Testimony for WAM on 2/23/2022 10:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Dennis F Lokmer	Individual	Support	No

Comments:

i urge strong support for this bill.

**SB-2865-SD-1**

Submitted on: 2/22/2022 5:30:00 PM

Testimony for WAM on 2/23/2022 10:05:00 AM



<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Remote Testimony Requested</b>
Dr. Saleh Azizi Fardkhales	Individual	Support	No

Comments:

Aloha members of the WAM committee,

As a members of the Hawaii Farmers Union United, I'd like to offer my strong support for SB2865 SD1 which "authorizes the issuance of special purpose revenue bonds to assist DIBSHawaii LLC in the construction of a net zero carbon capture storage utilization platform that will recover vented carbon dioxide emissions and scrub them into food grade liquid carbon dioxide."

The heart of the request is to fully address the supply chain issues around carbon dioxide and stabilize the cost and storage capacity for local industry without competing for supply with the Soft drink industry. A local 3rd party co2 infrastructure allows for the rapid development of a virtual terminal to store, transport, utilize and sequester large volumes of carbon dioxide to combat climate change. Making available large volumes of carbon dioxide to made available to support soil revitalization increased production of nutrient dense foods and the ability to mitigate pathogens on our local produce.

DIBSHAWAII LLC is an industry leader in providng these Co2 solutions that Hawaii needs so urgently to address and adapt our own self-sufficiency needs and climate change challenges.

Mahalo nui for the opportunity to testify

Me ke Aloha

Dr. Saleh Azizi Fardkhales

Member

Hawaii Farmers Union United- Wai'anae Chapter