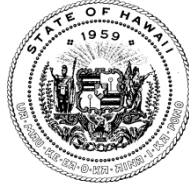


DAVID Y. IGE
GOVERNOR



TESTIMONY BY:

JADE T. BUTAY
DIRECTOR

Deputy Directors
ROSS M. HIGASHI
EDUARDO P. MANGLALLAN
PATRICK H. MCCAIN
EDWIN H. SNIFFEN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

February 25, 2022
1:30 P.M.
State Capitol, Teleconference

H.B. 2423, H.D. 1
RELATING TO CLIMATE CHANGE MITIGATION

House Committee on Finance

H.B. 2423 H.D.1 requires all state building construction projects and state highway projects to use building and construction materials that seek to reduce their carbon footprint, where feasible and cost effective. The Department of Transportation (DOT) **supports** H.B. 2423, H.D. 1

The DOT is always actively looking for technologies to reduce carbon emission in construction.

The DOT Highways Division has been using carbon reduction technology to reduce the embodied carbon footprint of concrete highway infrastructure and requires that all structural concrete placed in highways projects on Oahu use such technology. Our first choice is to utilize carbon dioxide mineralization, a technology that we have successfully and cost effectively employed on a number of projects. However, other options are available within our specifications to ensure we have options should the cost of carbonization increase, or if the locally sourced carbon dioxide is in short supply.

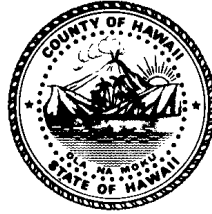
For asphalt roads, the DOT Highways Division has transitioned to use more durable pavements that will extend the anticipated service life of pavement. The use of polymer modified asphalt and stone matrix asphalt mixes are anticipated to increase the life of pavements approximately 10 years. By utilizing longer lasting pavements, DOT can extend the time when major reconstruction is needed and reduce construction emissions by reducing construction activities need to maintain our roads.

The DOT is also looking into new innovations for sustainability in asphalt roads. The DOT will be piloting a recycled plastic asphalt pavement project on Oahu. The pilot project will replace a certain percentage of the asphalt binder with recycled plastic. The carbon impact would be reduced since it would result in less asphalt binder (petroleum product) used in the pavement. The pilot project would also utilize plastic waste that will

be redirected from a landfill or incineration. The pilot project will evaluate and monitor if road performance is impacted, as well as check if any microplastics may leach off the roadway.

Thank you for the opportunity to provide testimony.

REBECCA VILLEGAS
Council Member
District 7, Central Kona



PHONE: (808) 323-4267
FAX: (808) 323-4786
EMAIL: Rebecca.villegas@hawaiicounty.gov

HAWAI'I COUNTY COUNCIL
West Hawai'i Civic Center, Bldg. A
74-5044 Ane Keohokalole Hwy. Kailua-Kona, Hawai'i 96740

February 24, 2022
TESTIMONY OF REBECCA VILLEGAS
COUNCIL MEMBER, HAWAI'I COUNTY COUNCIL
ON HB 2423 HD1, RELATING TO CLIMATE CHANGE MITIGATION
Committee on Finance
Friday, February 25, 2022 at 1:30pm

Aloha Chair Luke and Members of the Committee:

I thank you for the opportunity to testify in support of HB 2423 HD1.

The purpose of this Act is to require all state building construction projects and state highway projects to use building and construction materials that seek to reduce their carbon footprint, where feasible and cost effective.

Heating, ventilation and air conditioning systems (HVAC) regularly maintained and updated can help reduce a buildings carbon footprint by being as efficient as they can be without wasting excess energy. Reduction of carbon emissions in proposed new building and highway plans will be critical to achieving the climate and sustainability goals in our State of Hawai'i 2050 Sustainability Plan.

For the reasons stated above I urge the Committee on Finance to support this measure as well. Should you have any questions, please feel free to contact me at (808) 323-4267.

Mahalo for your consideration.

A handwritten signature in black ink, appearing to read "Rebecca Villegas".

Rebecca Villegas
Council Member, Hawai'i County Council



To: The House Committee on Finance
From: Sherry Pollack, 350Hawaii.org
Date: Friday, February 25, 2022, 1:30pm

In support of HB2423 HD1

Aloha Chair Luke, Vice Chair Yamashita, and members of the Finance committee,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org **supports HB2423 HD1** that requires all state building construction projects and state highway projects to use building and construction materials that seek to reduce their carbon footprint, where feasible and cost effective.

This measure will help reduce greenhouse gases, which is critically needed in our fight against the climate crisis. We encourage that when making decisions for State building designs for new buildings that consideration is made for the potential of plant-based products such as industrial hempcrete and structural bamboo to replace carbon-intensive materials used today such as concrete and steel. Cement, a basic material for all types of construction, is responsible for up to 8% of the world's carbon dioxide emissions. The simple act of switching to a low-carbon concrete can make a huge difference in our efforts to lower carbon emissions. We need to target all emission sources, especially cost-effective low hanging fruit like this.

Scientists have declared that the decade we are in right now is one of the most consequential decades for our climate future. **Children living today will live to see a 1.5°C warmer world because of the failure of adults to take real action when there still was time to do so.** We must consider **these costs** in our decision-making process and take action to reduce our greenhouse gas emissions across all sectors in our efforts to confront the climate crisis. HB2423 HD1 is a step forward in these efforts.

Mahalo for the opportunity to testify on this very important legislation.

Sherry Pollack
Co-Founder, 350Hawaii.org

HB-2423-HD-1

Submitted on: 2/23/2022 11:14:57 PM

Testimony for FIN on 2/25/2022 1:30:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Ted Bohlen	Climate Protectors Hawai'i	Support	No

Comments:

The Honorable Sylvia Luke, Chair and Members of the House Committee on Finance

From: Climate Protectors Hawai'i (by Ted Bohlen)

Re: Hearing **HB2423 HD1 RELATING TO CLIMATE CHANGE MITIGATION.**

Hearing: Friday, February 25, 2022, 1:30 p.m., CR 308 and by videoconference

Aloha Chair Luke and Members of the House Committee on Finance:

The Climate Protectors Hawai'i is a group focused on reversing the climate crisis and encouraging Hawai'i to lead the world towards a safe and sustainable climate and future. **Climate Protectors Hawai'i STRONGLY SUPPORTS HB2423 HD1!**

The purpose of this Act is to require all state building construction projects and state highway projects to use building and construction materials that seek to **reduce their carbon footprint**, where feasible and cost effective.

Reducing a building or highway's carbon footprint is increasingly important in building design. State building designs for **new building and highway projects can avoid copious amounts of greenhouse gas emissions and save taxpayers money if agencies consider how to reduce their carbon footprint.**

Requiring the State to reduce its carbon footprint by using lower carbon technologies in its buildings, highways, and other public works projects, where feasible and cost effective, will also provide an opportunity for the State to achieve its goal of becoming carbon neutral by 2045.

The State should lead by example!

Please pass this excellent bill!

Mahalo!

Climate Protectors Hawai'i (by Ted Bohlen)

HB-2423-HD-1

Submitted on: 2/24/2022 1:16:42 PM

Testimony for FIN on 2/25/2022 1:30:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Ron Reilly	Citizens' Climate Lobby - Hawaii Island Chapter	Support	No

Comments:

Dear Chair Luke, Vice Chair Yamashita, and Members of the Committee on Finance,

Thank you for holding a hearing on this important bill; HB 2423 HD1.

Citizens' Climate Lobby – Hawaii Island Chapter, with over 300 members, supports HB 2423 HD1 which encourages use of building and construction materials that reduce their carbon footprint.

There is much innovation and research becoming available as entrepreneurs and venture capitalists apply their skills to finding climate solutions. This measure will help bring these developments to an economic and scalable reality.

I urge your support for HB 2423 HD1 as part of a suite of positive climate-action legislation that has been introduced in this 2022 Hawaii legislative session.

Thank you for your consideration.

Ron Reilly
Co-Lead, Citizens' Climate Lobby – Hawaii Island Chapter



Environmental Caucus of The Democratic Party of Hawai‘i

Energy & Climate Action Committee

Friday, February 25, 2022, 1:30 pm

House Committee on Finance

HOUSE BILL 2423 – RELATING TO CLIMATE CHANGE MITIGATION

Position: Strong Support

Me ke Aloha, Chair Luke and Members of the Committee on Finance:

The Energy and Climate Change Committee of the Environmental Caucus of the Democratic Party is firmly behind the intent of this bill. The State has been fairly diligent in pursuing building energy efficiencies and lower-emission transportation materials, but new technologies are being developed all the time and it is a constant effort to assure comprehensive retrofits. We also recognize difficulties in achieving optimum performance on its details in the short term, given supply chain issues. The latter are in the process of being addressed, as markets respond to consumer signals, as this bill supports. In addition, of course, Congress is in the process of adopting policies and a budget that will be investing in North American extraction, manufacturing, and a shift from fossil fuels to battery electric power sources.

This bill sets the stage for Hawaii’s full participation in a reindustrialized country to take on climate change. The short term will possibly need to accept inflationary pressure from the shift to more sustainable materials, but the longer term has been studied and promises a deflationary movement to follow. It is also true that Hawaii could invest in recycling, reprocessing, refabrication, and other light industry to facilitate a more circular economy.

Mahalo for the opportunity to address this matter.

/s/ Charley Ice & Ted Bohlen, Co-Chairs, Energy and Climate Action Committee
Environmental Caucus of the Democratic Party

HB-2423-HD-1

Submitted on: 2/23/2022 2:30:56 PM

Testimony for FIN on 2/25/2022 1:30:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Douglas Perrine	Individual	Support	No

Comments:

Reducing our carbon footprint will help us to avert the worst of climate disasters, such as runaway sea level rise. It is also our responsibility to the planet, and the rest of mankind. I support HB2423.

HB-2423-HD-1

Submitted on: 2/23/2022 5:27:43 PM

Testimony for FIN on 2/25/2022 1:30:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Gerard Silva	Individual	Oppose	No

Comments:

There is NO Climat Change this is something made up by the Comunist to Control the People .
This is not going to work Anymore!

HB 2423 HD 1 TESTIMONY

To: House Committee on Finance
Hearing on Feb. 25, 2022 at 1:30 p.m.

From: John Kawamoto

Position: Support

When carbon dioxide is emitted into the atmosphere it stays there for 300 to 1,000 years, according to the National Aeronautics and Space Administration (NASA). Carbon dioxide that has been emitted into the atmosphere since the beginning of the Industrial Revolution is still warming the Earth. Carbon dioxide that is being emitted today will have harmful effects on the climate for hundreds of years. Our efforts to avoid carbon dioxide emissions will benefit many generations.

We must adopt a multi-faceted strategy to reduce carbon emissions. One element of that strategy is to reduce the carbon footprints of buildings and highways. For example, concrete is responsible for large amounts of carbon dioxide emissions. New methods have been developed that reduce these emissions. This bill makes the State a leader in shifting toward more environmentally sustainable buildings and highways.

HB-2423-HD-1

Submitted on: 2/24/2022 6:54:43 AM

Testimony for FIN on 2/25/2022 1:30:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Virginia Tincher	Individual	Support	No

Comments:

While I strongly support the intent of the bill to use low carbon building materials

I recommend the effective date be changed from 7/2/2100 back to the original language -

SECTION 4. This Act shall take effect upon its approval.

Lower carbon concrete products are available now, such as <https://www.carboncure.com/concrete-corner/central-concrete-meets-bay-area-demand-for-low-carbon-concrete/>

among others.

Mahalo,

Virginia Tincher

Aina Haina, Honolulu

HB-2423-HD-1

Submitted on: 2/24/2022 11:35:07 AM

Testimony for FIN on 2/25/2022 1:30:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Matthew Geyer	Individual	Support	Yes

Comments:

Please support this and all measures that help protect our air, earth and water from pollution including greenhouse gas.

HB-2423-HD-1

Submitted on: 2/24/2022 1:23:03 PM

Testimony for FIN on 2/25/2022 1:30:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Michele Mitsumori	Individual	Support	No

Comments:

I support HD2423 HD1, requiring all state building construction projects and state highway projects to use building and construction materials that seek to reduce their carbon footprint, where feasible and cost effective.

Construction, including demolition, is a primary contributor to carbon emissions. By starting with public buildings constructed with public funds, Hawai`i State can lead the way in transitioning to more environmentally sustainable buildings and highways.

HB-2423-HD-1

Submitted on: 2/25/2022 9:47:45 AM

Testimony for FIN on 2/25/2022 1:30:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Jody M Green	Individual	Support	No

Comments:

I fully support this important Bill. mahalo!