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In reply, please refer to:  
File:

**Testimony in SUPPORT of HB0179  
RELATING TO DEPOSIT BEVERAGE CONTAINER MATERIALS**

REPRESENTATIVE NICOLE E. LOWEN, CHAIR  
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION  
Hearing Date: 2/7/2023 Room Number: 325

1 **Fiscal Implications:** This measure will not impact the priorities identified in the Governor's  
2 Executive Budget Request for the Department of Health's (Department) appropriations and  
3 personnel priorities.

4 **Department Testimony:** The Department supports HB0179 to amend Hawaii Revised Statutes  
5 (HRS) Section 342G to require deposit beverage container distributors to incorporate minimum  
6 postconsumer recycled content in beverage containers imported into, or manufactured within, the  
7 State. The Department also respectfully offers comments on the measure's option to allow  
8 distributors to incorporate a percentage of minimum non-petroleum materials in lieu of  
9 postconsumer recycled content.

10 Glass beverage containers are 100% recyclable and may contain up to 95% recycled  
11 glass. The average aluminum beverage container contains more than 50% recycled aluminum.  
12 As a matter of economics, the cost to manufacture plastic beverage containers using virgin  
13 polyethylene terephthalate (PET) is cheaper than the cost to manufacture plastic beverage  
14 containers using recycled PET. The commercial effect is that most plastic beverage containers  
15 contain no recycled content.

16 A minimum postconsumer recycled content requirement can offer a good intermediary  
17 step to transition away from virgin plastic beverage containers. The Department supports  
18 implementing a targeted market intervention that will increase the demand for recycled plastic  
19 and create additional incentives to redirect deposit beverage containers away from landfills and  
20 towards recycling. This proposed solution is not novel, as states like California and Washington

1 State have already passed similar measures. Furthermore, some beverage distributors are already  
2 demonstrating that these requirements can be implemented: iced tea manufacturer Pure Leaf  
3 packages many of their products in plastic bottles containing 50% recycled content.

4 Beverage container manufacturing technologies that can safely incorporate the non-  
5 petroleum materials identified in this bill can also help to reduce the overall demand for plastic.  
6 However, the Department is concerned that a beverage container manufactured with 15% non-  
7 petroleum materials combined with 85% aluminum, glass, PET, or high-density polyethylene  
8 (HDPE) would be eligible for inclusion in the deposit beverage container program and assessed  
9 fees at purchase, meet the requirements of HB0179, but might not be recyclable and not accepted  
10 for redemption at certified redemption centers.

11 In fiscal year 2022 approximately 225,300,000 plastic beverage container bottles were  
12 redeemed for recycling. This is a significant number of high-quality plastic containers that can  
13 provide food-grade feedstock to meet a modest goal of 15% of postconsumer recycled content  
14 within five years.

15 Thank you for the opportunity to testify.

16 **Offered Amendments:** None.



To:  
Committee on Energy & Environmental Protection  
Rep. Nicole E. Lowen, Chair  
Rep. Elle Cochran, Vice Chair

DATE: Tuesday, February 7, 2023  
TIME: 8:45 am  
PLACE: VIA VIDEOCONFERENCE  
Conference Room 325

From: Bruce Iverson, Director of Marketing and Development,  
Reynolds Recycling, Inc.

Support for HB 179 Relating to Deposit Beverage Container Materials

Aloha Honorable Chair, Vice Chair, and Members of the Committee:

Reynolds Recycling, as Hawaii's largest HI-5 Deposit Beverage Container recycler, **strongly supports this measure.**

While portions of the Beverage Industry is already working to increase postconsumer recycled content adding a state requirement to do so will show Hawaii's commitment to "do better", and encourage beverage container manufacturers that this is the direction that they need to take.

This should also cause those recyclable materials to become more desirable, and more valuable, which will support the recycling community, who are doing the actual work of bringing used container back to be recycled.

Encouraging recycling and reuse of materials is the most environmentally responsible way to utilize all materials.

Because of these reasons, we strongly support this measure.

Thank you for the opportunity to submit testimony.

**HAWAII LIQUOR WHOLESALERS ASSOCIATION  
FIVE WATERFRONT PLAZA  
500 ALA MOANA BLVD STE 400  
HONOLULU, Hawaii 96813**

February 6, 2023

House Committee on Energy & Environmental Protection  
Representative Nicole E. Lowen, Chair  
Representative Elle Cochran, Vice Chair  
State Capitol, Conference Room 325  
415 S. Beretania St.  
Honolulu, HI 96813

Re: HB 179 - RELATING TO DEPOSIT BEVERAGE CONTAINER MATERIALS  
Hearing Date: Feb. 7, 2023, 8:45 AM

Dear Chair Lowen, Vice Chair Cochran, and Committee Members:

The Hawaii Liquor Wholesalers Association respectfully submits the following written testimony in **opposition** to HB 179 Relating to Deposit Beverage Container Materials.

Section 2 would amend HRS Chapter 342G to require every deposit beverage distributor that sells, offers for sale, or distributes deposit beverage containers in the State to meet annual minimum postconsumer recycled content or minimum non-petroleum materials content requirements for deposit beverage containers sold or distributed.

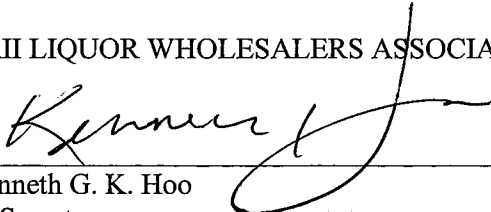
Establishing a minimum postconsumer recycled content requirement or minimum non-petroleum materials content requirement will have adverse consequences on Hawaii businesses and consumers.

Most deposit beverage containers are shipped to Hawaii from out of state manufacturers or suppliers. Hawaii businesses that distribute deposit beverage containers do not have any influence or control of the amount of postconsumer recycled content or nonpetroleum materials content in the packaging. Further, Hawaii distributors are not able to track material content levels to determine compliance. If unable to control or ascertain compliance with the required percentages, distributors will be at risk by bringing in and selling the product to Hawaii consumers. Further, since Hawaii is such a small market, out of state suppliers and manufacturers may choose to not make any changes to its bottling contents, or not sell to Hawaii. This would result in loss of business and jobs in Hawaii and consumers will be deprived of such products.

Based on the above, we respectfully oppose HB 179. Thank you for your consideration of the foregoing.

Very truly yours,

HAWAII LIQUOR WHOLESALERS ASSOCIATION

By:   
Kenneth G. K. Hoo  
Its Secretary



# Environmental Caucus of The Democratic Party of Hawai'i

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Feb.5<sup>th</sup> 20023

**TO: COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

Rep. Nicole E. Lowen, Chair  
Rep. Elle Cochran, Vice Chair

**CONCERNING: HB1326** (Environment), **HB179** (Deposit Beverage Container materials)  
**HB949** (Renewable Energy), **HB1252** (Energy), **HB347** (Electric Vehicle  
Charging Systems), **HB419** (Residential photovoltaic Energy Generating  
Systems), **HB1200** (Conservation and Resources Enforcement)

**POSITION: Strong Support**

The Environmental Caucus enthusiastically supports the bills listed above. Our state has suffered for decades under increasing waste production and paid out a fortune to find places to ship it to or dumping miscellaneous and questionable refuse into landfills without proper concerns for any residual and permanent contamination of the ground or what lies beneath. Recent implementation of rules concerning plastic products, recyclable packaging and collections, together with the public's increasing awareness of their roles in limiting waste have improved the situation, but not enough. We need more action now and the businesses who create waste products should take the lead in remedying the situation. Any bills which help that to happen are overdue and should be passed.

We are also late in providing electric vehicle infrastructure support for which there is no excuse. We have had the technology for many years. Hawaii is a state uniquely suited for electric vehicle use and any bills which promote the purchase and infrastructure development for them will go further to reduce our dependence on gasoline and the air pollution it causes than any other measures currently being discussed.

Finally bills may be passed and laws put on the books but violations and abuses by ignorant or greedy individuals, or corporate entities are prevalent and the responsible enforcement agencies are overwhelmed and short staffed. We are fortunate to have comparatively inexpensive technology available now to help those agencies do their job. Laws protecting fragile resources are useless if we cannot enforce them.

Please pass the bills through this year, because as time passes the results of not passing them now will be more difficult to deal with,

Martha E Randolph  
DPH Environmental Caucus SCC Representative  
Member of DPH Legislative Priorities Committee  
Precinct 2 Rep, District 27 Council

Origin Materials  
930 Riverside Parkway  
Suite 10  
West Sacramento, CA 95605  
P. 916.231.9329  
E. hello@originmaterials.com  
originmaterials.com



FEBRUARY 6, 2023

***Re: Origin Materials's Testimony in Support of HB 179***

Madame Chair and Honorable Members of the Committee on Energy & Environmental Protection:

Thank you for the opportunity to submit this testimony on behalf of Origin Materials, Inc. (Origin) in strong support of House Bill 179.

My name is Dr. Alex Ward and I am the Director of Public & Institutional Partnerships for Origin Materials. I have a technical background, a PhD in Cell Biology and was a cancer prior to my work at Origin. I manage the company's government contribution portfolio, academic and institutional partnerships, and support the government relations team.

Origin's mission is to enable the world's transition to sustainable materials. For over a decade, Origin has developed a platform for turning the carbon found in inexpensive, plentiful, non-food biomass, such as sustainable wood residues (which, generally, would otherwise be left to rot thereby releasing CO2 back into the atmosphere) into useful, renewable materials and chemicals while capturing carbon in the process. Origin's patented technology platform can help revolutionize the production of a wide range of end products, including clothing, textiles, plastics, packaging, car parts, tires, carpeting, toys, and more. Most relevant to HB 179, Origin has united with several major consumer packaged goods companies to develop and make 100% bio-based and recyclable packaging available to all.

Origin uses renewable biomass (non-petroleum materials), such as wood waste, which is chipped and then digested in our chemical process. Origin's process subsequently produces chloromethylfurfural (CMF) and several other co-products. CMF can be converted into paraxylene, which is then tolled through an existing PET producer and sent to customers as PET pellets or fibers to make commonly used products. Our products are designed to be seamlessly dropped into existing fossil-based PET supply chains. PET made from Origin's paraxylene is chemically and functionally identical to petroleum-based products, and our customers' downstream processes and equipment do not need to be altered to accommodate Origin's co-product. Additionally, our biobased PET is **fully recyclable** (the same as fossil PET) and can readily use existing recycling infrastructure, without contaminating the recycling streams, which is critical to creating a circular economy with a significantly reduced carbon footprint. Origin's technology is highly flexible in terms of the type of renewable biomass that we use. It can range from wastepaper and cardboard, agricultural waste, scrap wood from other commercial and industrial processes and so on, which do not compete with food.

HB 179 is a critical component in mitigating pollution from plastics production. By incentivizing the use of non-petroleum materials in plastics, Hawaii can lead the United States' shift to eco-friendly biobased products.

Hawaii is rightly apprehensive about the use of non-renewable resources in plastics and elsewhere. Concerns over their contribution to climate change as well as their depletion, the instability in foreign fossil markets, rising energy prices, and more lead to the conclusion that the public and private sector should be incentivizing transitions to renewable resources that the United States can grow and maintain under sustainable practices. By removing fossil resources from the end product, biobased technology can help transition supply chains and petrochemical job-ready talent away from volatile oil markets and toward sustainable markets based on American forestry and agriculture thus achieving domestic energy and materials independence.

Plastic pollution starts with fossil fuel extraction and continues throughout the manufacturing process. Per the International Energy Agency, petrochemicals, the incumbent technology for producing plastics, draw 14% of oil and 8% of natural gas raw materials. The manufacture of four petroleum-based plastic bottles alone releases the equivalent greenhouse gas (GHG) emissions of driving one mile in a car, according to the World Economic Forum. In contrast, by 2030, Origin's non-petroleum material operating plants are expected to annually avoid ~8.3MMT of CO<sub>2</sub> equivalent to approximately ~960,000 homes' electricity use for one year, ~1,800,000 passenger vehicles driven for one year, and ~19,000,000 barrels of oil consumed.<sup>1</sup> Government support of the transition from petroleum-based to non-petroleum-based materials will help make this a reality.

Concerning recycling and recycled plastic (rPET), Origin's non-petroleum materials play an important role in ensuring that PET recycling can be maximally effective. Based on current data, manufacturers and distributors may struggle to meet rPET minimums depending on a variety of global variables.<sup>2</sup> As such, the optionality provided by HB 179 will help to ensure the legislature's sustainability goals are met even when rPET supply fluctuates. A second sustainable option, like the minimum non-petroleum material content provision found in HB 179, will promote the production of more environmentally sound plastics either through rPET or non-petroleum, low-carbon/carbon-negative materials.

Moreover, a steady supply of virgin material into the rPET supply will always be needed to ensure aesthetic quality and structural stability in recycled plastic. Because rPET is not infinitely recyclable, the addition of virgin non-petroleum materials to rPET can help address technical challenges associated with using rPET, such as discoloration. Any aesthetic deficiencies in plastic may lead high-end manufacturers to ignore minimum recycled content-only requirements, thus undermining the positive environmental impact of bills like 2022's House Bill 1642. Origin's non-petroleum-based PET can be blended with rPET to enhance the quality and appearance of recycled plastic. Non-petroleum solutions can complement rPET requirements and limit petroleum in plastics if frontend production of carbon negative, biobased materials is properly incentivized by the State.

In sum, giving deposit beverage distributors the opportunity to choose between two meaningful, eco-friendly production options for plastic beverage containers greatly increases the likelihood of a positive environmental result for the State while allowing industry the ability to choose which route is best for them given a variety of economic, technological, and geopolitical factors. Most importantly, incentivizing the use of non-petroleum materials will help transition Hawaii to a lower carbon future.

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<sup>1</sup> Origin Materials calculations based on 6 commercial scale plants and plant life cycle impact estimates. U.S. Environmental Protection Agency greenhouse gas equivalencies calculation: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator> As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

<sup>2</sup> NAPCOR 2020 PET Recycling Report

Thank you for allowing me the opportunity to submit this testimony in support of HB 179. Please don't hesitate to contact me with any questions or concerns.

Sincerely,

*R. Alejandra Ward*

Dr. Alex Ward (she/her)  
Director of Public & Institutional Partnerships,  
Origin Materials  
email: [award@originmaterials.com](mailto:award@originmaterials.com)





**Written Testimony of  
David Thorp, American Beverage Association  
Before the House Committee Energy & Environmental Protection  
Comments on H.B. 179: Relating to Deposit Beverage Container Materials  
February 7, 2023**

Good morning Chair Lowen, Vice Chair Cochran and members of the committee. Thank you for the opportunity to comment on H.B. 179 – relating to deposit beverage container materials.

I am David Thorp, Vice President, State Government Affairs West for the American Beverage Association (ABA). The American Beverage Association is the trade association representing the non-alcoholic beverage industry across the country and here in Hawaii.

**Beverage industry’s local impact on Hawaii’s economy**

The beverage industry is an important part of Hawaii’s economy – and one of the few remaining industries still manufacturing on the Islands. Unlike most consumer products, many of our beverages, aluminum cans and plastic bottles are manufactured and distributed in Hawaii by local workers.

Non-alcoholic beverage companies in Hawaii provide 1,200 good-paying jobs across the state. The industry helps to support thousands more workers in businesses that rely in part on beverage sales for their livelihoods and, such as grocery stores, restaurants and theaters.

**Increasing Recycled Content**

Increasing the use of post-consumer recycled material in our packages is a top priority for the beverage industry. Our member companies have set their own voluntary recycled content goals in the coming years, which vary depending upon each company’s markets and product portfolios.

Increasing recycled content in plastic bottles is, however, just one aspect of our overall goal to reduce plastic waste; the beverage industry is also actively engaged in policy advocacy and investing in recycling to facilitate the increase of recycled content in its packaging.

**Mandates on Recycled Content Don’t Address Supply Problems**

Several states are or have considered legislation to mandate minimum recycled content in plastic beverage bottles and other packages and products. Mandating these targets is not, by itself, a sufficient response to the significant barriers that stand in the way of achieving a circular U.S. economy. Mandates to use recycled content do not directly address issues of insufficient supply of material, which is the case with recycled PET, for example.

To address this constraint, our companies are investing in programs and policies to increase the supply of recycled plastic, which is the real barrier to increasing the use of recycled material in new bottles. Investments in groups like The Recycling Partnership and Closed Loop Fund represent the commitment of significant resources to upgrade infrastructure, purchase equipment,

and educate consumers. We are also encouraging policy makers to simultaneously adopt policies to increase collection and improve the quality of recyclables that are captured and to include in those policies provisions giving producers preferred access to their materials.

State-specific recycled content standards also conflict with the realities of a diverse and globalized supply chain for consumer goods including beverages. Production occurs regionally or even in one or two national locations for some products, and inventory is not designated for sale in one particular state or group of states. The supply chain from producer to warehouse to distributor to retailer is not structured to serve just one state, or even one country.

Sincerely,

*David Thorp*

David Thorp  
American Beverage Association  
Vice President, State Government Affairs West

**HB-179**

Submitted on: 2/5/2023 1:33:34 PM

Testimony for EEP on 2/7/2023 8:45:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Will Caron	Individual	Support	Written Testimony Only

Comments:

I support HB179.