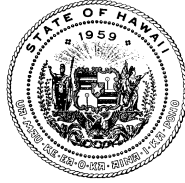


SB 524



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

Testimony in OPPOSITION to S.B. 524
RELATING TO SOLID WASTE

SENATOR MIKE GABBARD, CHAIR
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

SENATOR CLARENCE K. NISHIHARA, CHAIR
SENATE COMMITTEE ON PUBLIC SAFETY, INTERGOVERNMENTAL, AND
MILITARY AFFAIRS

SENATOR LORRAINE R. INOUE, CHAIR
SENATE COMMITTEE ON TRANSPORTATION AND ENERGY

Hearing Date: February 8, 2017
Time: 2:45 p.m.

Room Number: 225

1 **Fiscal Implications:** None

2 **Department Testimony:** This bill seeks to amend the Solid Waste Management Priorities in
3 Hawaii Revised Statutes (HRS) Ch. 342G-2 by adding “waste-to-energy” to the second tier that
4 currently includes recycling and bioconversion. The Department of Health respectfully opposes
5 this bill and offers the following comments.

6 We note that HRS Ch. 342G-2 applies to the solid waste planning process and not to the
7 permitting, building, and operation of solid waste facilities. It does not in any way prohibit the
8 consideration, planning, construction, or operation of a waste-to-energy facility. The H-Power
9 facility is permitted by the Department’s Solid Waste Section and operates legally and in
10 accordance with HRS Ch. 342H, which contains the solid waste permitting authority for the
11 department. While HRS Ch. 342G-2 is not a mandate, it is a statement on the State’s preference
12 in how to manage its waste; it is a statement of values.

13 This means that the proposed amendment has no effect other than to have the state equate
14 waste-to-energy technologies with recycling.

1 The department recognizes the role that the H-Power facility plays in the City and
2 County’s management of solid waste, and that it may be appropriate to modify the hierarchy set
3 in HRS Ch. 342G-2. In our testimony to this bill’s House companion we suggested an
4 alternative – to add “Waste-to-Energy” as a new third tier, instead of adding it to the existing tier
5 two. We believe that this approach properly recognizes the relative costs and benefits of
6 recycling, waste-to-energy, landfilling and incineration in managing Hawaii’s solid waste.

7 Such a change has multiple impacts on other parts of statute. First, “Waste-to-Energy”
8 itself would have to be defined in statute. This is a multi-step process as “waste-to-energy”
9 encompasses more than one technology; each of which will have to also defined as well. The
10 new definition’s impact on other definitions such as “disposal,” “incineration,” and “recycling”
11 will also need to be considered; as well as the potential impact on the Solid Waste Management
12 Surcharge.

13 In summary, this bill proposes a major change to the State’s value statement on preferred
14 waste management approaches, has the potential to impact other parts of statute, and has no
15 impact on the City and County of Honolulu’s ability to manage its waste as it chooses. Thus we
16 respectfully request that this measure be deferred.

17 Thank you for the opportunity to testify on this measure.

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU

1000 ULUOHIA STREET, SUITE 308, KAPOLEI, HAWAII 96707
TELEPHONE: (808) 768-3486 • FAX: (808) 768-3487 • WEBSITE: <http://envhonolulu.org>

KIRK CALDWELL
MAYOR



LORI M.K. KAHIKINA, P.E.
DIRECTOR

TIMOTHY A. HOUGHTON
DEPUTY DIRECTOR

ROSS S. TANIMOTO, P.E.
DEPUTY DIRECTOR

IN REPLY REFER TO:
WAS 17-31

February 2, 2017

The Honorable Mike Gabbard, Chair
and Members of the Committee on
Agriculture and Environment
The Honorable Clarence K. Nishihara, Chair
and Members of the Committee on Safety,
Intergovernmental and Military Affairs
The Honorable Lorraine R. Inouye, Chair
and Members of the Committee on
Transportation and Energy
State Senate
State Capitol
415 South Beretania Street, Room 201
Honolulu, Hawaii 96813

Dear Chair Gabbard, Chair Nishihara, Chair Inouye and Members:

Subject: Senate Bill 524, Relating to Solid Waste

The City and County of Honolulu's (City) Department of Environmental Services strongly supports SB 524, which updates Hawaii Revised Statutes Section 342G-2, Solid Waste Management Priorities, to accurately reflect the solid waste management practices and processing methods that the City has implemented in the 25 years since this section was authored.

H-POWER, the City's innovative waste-to-energy and recycling facility, is at the foundation of the City's solid waste management system and is its principal mechanism for diverting material from the Waimanalo Gulch Sanitary Landfill. H-POWER processes more than 700,000 tons of municipal solid waste annually, safely and cleanly converting this material into enough renewable electricity to fulfill 10% of Oahu's needs – 70 megawatts of electricity, enough to power 60,000 homes. In addition to recycling waste into energy, H-POWER recovers and recycles about 20,000 tons of ferrous and non-ferrous metals from the waste stream every year. The electricity H-POWER produces contributes directly to State's renewable energy portfolio and will continue to be a significant factor in helping the State to achieve its long term goals for energy sustainability.

Testimony for SB 524
February 7, 2017
Page 2

H-POWER began commercial operation in 1990 and has since been expanded twice – once in 2012 with the addition of a third boiler to enable it to receive and process bulky wastes, and again in 2015 with the addition of a first-of-its-kind Sludge Intake Station to enable it to receive and process dewatered sewage sludge. Through robust recycling and waste-to-energy, the City has been able to achieve one of the highest landfill diversion rates in the country.

ENV will be present to testify at the hearing on February, 8, 2017. Thank you for your consideration.

Sincerely,



Lori M.K. Kahikina, P.E.
Director



February 6, 2017

To: The Honorable Mike Gabbard, Chair
The Honorable Gil Riviere, Vice Chair
Members, Senate Committee on Agriculture and Environment

The Honorable Clarence K. Nishihara, Chair
The Honorable Glenn Wakai, Vice Chair
Members, Senate Committee on Public Safety, Intergovernmental and Military Affairs

The Honorable Lorraine R. Inouye, Chair
The Honorable Donovan M. Dela Cruz, Vice Chair
Members, Senate Committee on Transportation and Energy

From: Tim Shestek
Senior Director, State Affairs

Re: SB 524 – SUPPORT

On behalf of the member companies of the American Chemistry Council (ACC), I am writing to express our support for SB 524, legislation that would direct the state and each county to consider “waste-to-energy” as a potential solid waste management practice and process.

ACC has a long history of working to increase recycling rates for plastic products, help identify markets for recovered plastics, and has actively engaged on projects and programs aimed at reducing marine debris and litter. Investments in recycling have paid off as Americans have recycled more pounds of plastics every year since tracking began in 1990.

Plastics that can be recycled should be recycled, but opportunities to recover non-recycled plastics are growing too. An emerging set of technologies is allowing governments and businesses to convert non-recycled plastics into energy, fuels, and feedstocks, or raw materials for new manufacturing.

A range of energy recovery technologies are being used to complement recycling in helping to divert more valuable post-use materials from landfills. Some of the most widely used and rapidly emerging technologies include waste-to-energy, plastics-to-fuels, gasification, and solid recovery fuels.

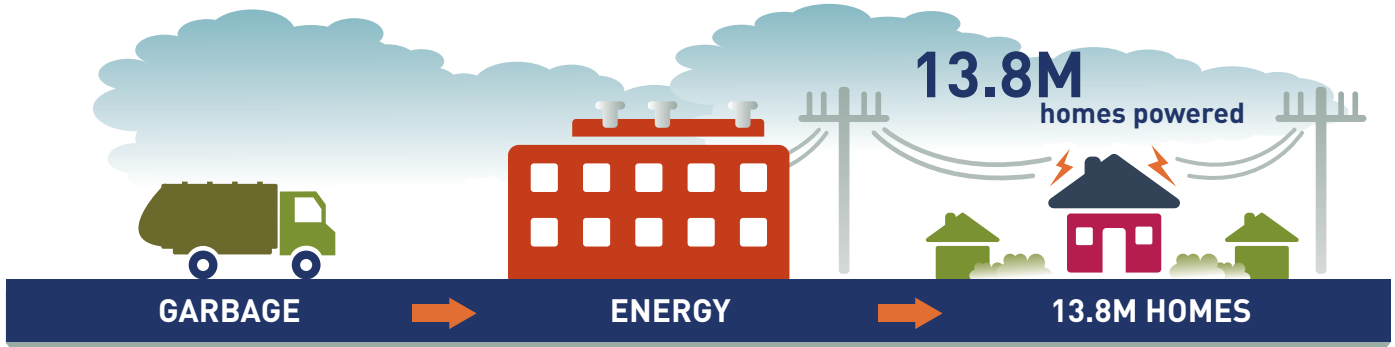
A recent study from the Earth Engineering Center at Columbia University assessed the energy value of municipal solid waste that is currently sent to U.S. landfills. The study concluded that enough electricity to supply 13.8 million homes with power could be generated if the current energy recovery capacity were to be expanded so that all of the non-recycled municipal solid waste that is currently sent to landfills each year was instead converted to energy. A fact sheet on this study is attached.

ACC appreciates the opportunity to share these comments. Should you have any questions, please feel free to contact me at 916-448-2581 or via email at tim_shestek@americanchemistry.com. You may also contact our Hawaii-based representatives Red Morris or Blake Oshiro at (808) 531-4551.

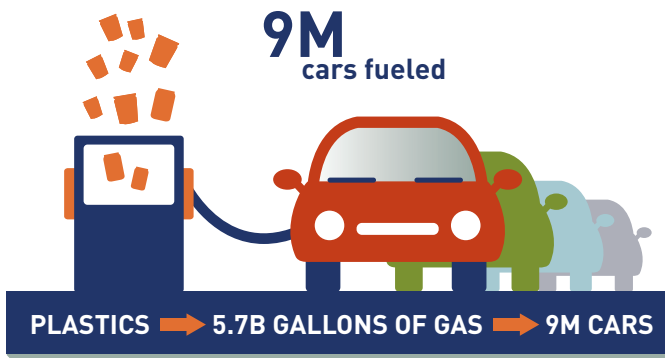


The Power of Waste

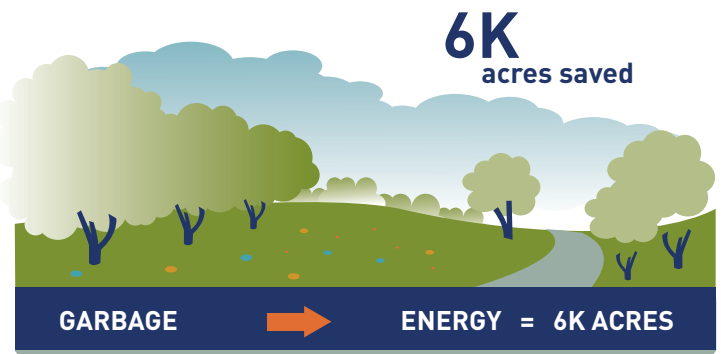
A recent study from the Earth Engineering Center at Columbia University assessed the energy value of municipal solid waste that is currently sent to U.S. landfills. It demonstrates the tremendous potential of modern technologies that convert waste into energy to help boost energy security, reduce landfill waste and lower greenhouse gas emissions.



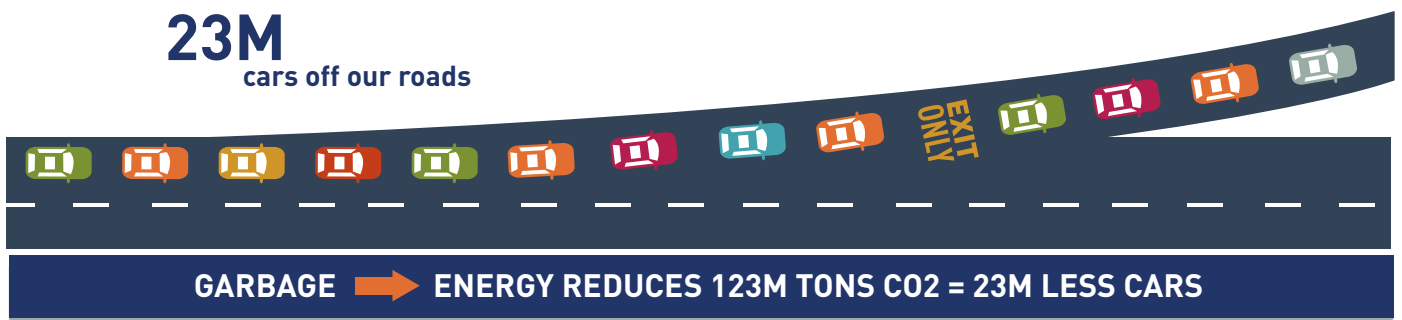
If current capacity were to be expanded so that all of the non-recycled municipal solid waste that is currently sent to U.S. landfills each year could instead be converted to energy, we could generate enough electricity to supply 13.8 million homes with power.



If current capacity were to be expanded so that the U.S. could convert all its non-recycled plastics into oil each year, we could produce 5.7 billion gallons of gas annually. That's enough to fuel nearly 9 million cars each year.



If capacity were to be expanded so that we could convert our non-recycled waste to alternative energy instead of landfilling it, we would have the opportunity to preserve more than 6,000 acres of open space every year that would otherwise be used to store garbage.



If capacity were to be expanded so that we could convert all of our non-recycled waste into energy instead of landfilling it, we could reduce greenhouse gas (GHG) emissions by nearly 123 million tons of carbon dioxide equivalents. This is comparable to removing 23 million cars from our roads.

From: mailinglist@capitol.hawaii.gov
Sent: Monday, February 13, 2017 2:08 PM
To: AEN Testimony
Cc: owen@hawaii.edu
Subject: Submitted testimony for SB524 on Feb 14, 2017 10:00AM

SB524

Submitted on: 2/13/2017

Testimony for AEN/PSM/TRE on Feb 14, 2017 10:00AM in Conference Room 414

Submitted By	Organization	Testifier Position	Present at Hearing
Owen Miyamoto	American Society of Civil Engineers	Support	No

Comments: The American Society of Civil Engineers supports any effort that would decrease energy dependence on oil and waste to energy is one of the systems available to Honolulu. This or similar systems should be extended statewide. Should there be improvements needed to clarify the intent of the bill, this can be done through the committee's report.

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From: mailinglist@capitol.hawaii.gov
Sent: Friday, February 3, 2017 3:27 PM
To: AEN Testimony
Cc: mendezj@hawaii.edu
Subject: *Submitted testimony for SB524 on Feb 8, 2017 14:45PM*

SB524

Submitted on: 2/3/2017

Testimony for AEN/PSM/TRE on Feb 8, 2017 14:45PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez	Individual	Support	No

Comments:

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Testimony in **SUPPORT** of
SB 524 Relating to Solid Waste; Waste-to-Energy

To: The Chairs and members of the AEN/PSM/TRE Joint Committees

Position: **Support**

Hearing: 2/14/17 3:00pm, Rm 414

Dear Chair Gabbard, Chair Nishihara, Chair Inouye, Vice Chairs and Committee members:

My name is Kaily Wakefield, and I am a third year law student at the William S. Richardson School of Law. I support SB524 because I believe it essential for the sustainable future of Hawai'i that our state continue to improve its waste management practices as well as increase efforts to reach the 100% RPS by 2045.

Amending HRS 342G-2 to include waste-to-energy as part of its waste management priority practices, I believe would only further mandate what the state is currently working to achieve through its H-Power plant. With the amendment, HRS 342-G would still place the highest priority on source reduction, with recycling and bioconversion (including composting), and waste-to-energy as the second priority with landfilling and incineration as the last means of waste disposal.

H-Power is inefficient for managing food waste, and as such, it is still important that the county work to increase composting efforts. Food waste is the second largest component in our waste stream and accounts for 25% of all materials sent to our landfills, according to the United States Environmental Protection Agency (U.S. EPA) and the United States Department of Agriculture (USDA).

By requiring the consideration and prioritizing the development of waste-to-energy facilities in Hawaii, this law has the potential to create more opportunity Hawai'i to reduce our state's carbon footprint. While H-Power may be a good start to managing the waste problem, more waste-to-energy facilities on Oahu, as well as the neighbor islands would be beneficial. This bill would require that more attention be given to those possibilities. There is an urgent need to deal with waste in our islands, as many landfills are at, or over capacity, with no one wanting a new landfill in their backyard.¹

Thank you for the opportunity to testify in support of SB524. I urge you to pass SB524 for the health of our communities and our environment.

Sincerely,
Kaily Wakefield

¹ <http://www.hawaiinewsnow.com/story/9077420/trash-problems-not-only-impacting-oahu>

From: mailinglist@capitol.hawaii.gov
Sent: Saturday, February 11, 2017 7:09 AM
To: AEN Testimony
Cc: jbeyhi@yahoo.com
Subject: Submitted testimony for SB524 on Feb 14, 2017 10:00AM

SB524

Submitted on: 2/11/2017

Testimony for AEN/PSM/TRE on Feb 14, 2017 10:00AM in Conference Room 414

Submitted By	Organization	Testifier Position	Present at Hearing
John Begg	Individual	Oppose	No

Comments: Target should be zero waste, 100% reuse. Harvest and fix the current Hilo landfill. Contract to send unusable waste back to the mainland, after all containers are going back empty and we do not need it. Why not consider air-drop into the lava lake, it would hardly add to the toxic gases.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 8, 2017 3:03 PM
To: AEN Testimony
Cc: arianna.lunowluke@lejardinacademy.org
Subject: Submitted testimony for SB524 on Feb 8, 2017 14:45PM

SB524

Submitted on: 2/8/2017

Testimony for AEN/PSM/TRE on Feb 8, 2017 14:45PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Arianna Lunow-Luke	Individual	Oppose	No

Comments: This bill encourages us to be locked into a contract where Hawaii would be required to meet a waste quota each year, and if we don't meet that quota, the people will have to pay for it through our taxes. In order to meet Hawaii's sustainability goals, we need to reduce our waste in the long run, and create a recyclable and reusable foundation.

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From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 8, 2017 3:01 PM
To: AEN Testimony
Cc: mnkanaia@gmail.com
Subject: Submitted testimony for SB524 on Feb 8, 2017 14:45PM

SB524

Submitted on: 2/8/2017

Testimony for AEN/PSM/TRE on Feb 8, 2017 14:45PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Malialani Kanaiaupuni	Individual	Oppose	No

Comments: This bill will hurt Hawaii, in that it will limit the extent of our sustainability.

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February 13, 2017

LATE

To: The Honorable Mike Gabbard, Chair
The Honorable Clarence K. Nishihara, Chair
The Honorable Lorraine R. Inouye, Chair

From: Nicole Chatterson
nchatter@hawaii.edu

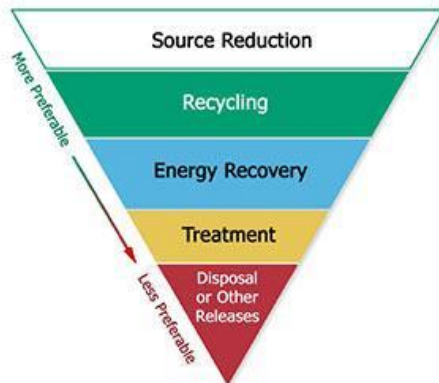
Dear Chair Gabbard, Chair Nishihara, Chair Inouye and Members,

Re: SB 524—Oppose

I am a resident of Manoa and a graduate student at the University of Hawaii. My thesis research is on the waste management strategies of the City and County of Honolulu. I respectfully oppose this bill, which seeks to equate waste-to-energy (WTE) with recycling and bioconversion on the second tier of the Solid Waste Management Priorities (HRS Ch. 342G-2).

There are several significant costs associated with WTE that position this technology as less preferential than recycling/bioconversion. This bill proposes to restructure the waste management values of the state in such a way that fails to recognize the disparity in WTE technology and recycling. Most states and municipalities do not align WTE with recycling. The US Environmental Protection Agency supports this notion, as demonstrated in Figure 1 below, where energy recovery is less preferable than recycling and reduction.

Figure 1: EPA Waste Management Hierarchy



I'd like to offer a couple of relevant points to consider for this bill which highlight that WTE is not a “second tier” approach for our state:

1. WTE typically requires “put or pay” contracts. This the type of contract the City and County of Honolulu currently holds with Covanta. These contracts mean if citizens do not generate a certain threshold of trash, the City must pay Covanta for lost profit. This directly undermines the state’s primary goal of waste reduction by encouraging the production of waste and the thus generation of items to become waste. For example, Honolulu experienced a “waste shortage” in 2014. This should have been cause for celebration in reaching our **priority waste management strategy as stated in HRS Ch. 342G-2—waste reduction**. However, instead this was framed as “falling short” of our 800,000 ton quota and City taxpayers were stuck with a hefty fine.¹ Instead of reducing waste, we end up creating waste.
2. Locally, WTE is associated with saving barrels of oil from being burned while also saving the oil used to ship the barrels to Hawaii. While that is true, it is far from the whole picture. These statements do not account for the fossil fuel used to produce and ship and the products-turned-trash that get burned at HPOWER. According to Honolulu’s last waste stream study, 14% of the waste incinerated at HPOWER was plastic² (and this bound to have increased due to the county’s decrease in recycling services). Plastic is made from fossil fuel, which was shipped here using fossil fuel. So there are fossil fuel costs imbedded upstream in the product-trash lifecycle that need to be

¹ <http://www.hawaiinewsnow.com/story/26369149/hpower-trash-shortage>

² http://www.opala.org/pdfs/solid_waste/2006%20Final%20Waste%20Characterization%20Report.pdf

taken into account when painting a picture of WTE as “sustainable” and offsetting fossil fuel use. A full lifecycle analysis should be done prior to making these claims.

Mahalo for your time and consideration. Once again, I write in opposition of SB 524 because of the skewed value statement it would impose upon the state’s waste management priorities.

Respectfully,

Nicole Chatterson

nchatter@hawaii.edu

LATE

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 14, 2017 12:42 AM
To: AEN Testimony
Cc: doorae@hawaii.edu
Subject: Submitted testimony for SB524 on Feb 14, 2017 10:00AM

SB524

Submitted on: 2/14/2017

Testimony for AEN/PSM/TRE on Feb 14, 2017 10:00AM in Conference Room 414

Submitted By	Organization	Testifier Position	Present at Hearing
doorae shin	Kokua Hawaii Foundation	Oppose	No

Comments: Aloha, I am a resident of Manoa Valley and am representing the Kōkua Hawaii Foundation in opposing this bill. This bill attempts to categorize incineration as "recycling". In doing so, we allow incineration to justify our inaction in reducing waste at the source. If incineration becomes categorized as recycling, then the Solid Waste Management Plan for the counties and the State loses its integrity. It will tout its successful recycling of waste as a way to appease the public & claim that State goals for waste reduction/zero waste are being achieved, when the reality is that incineration is exactly just that. It is incineration of trash. We may get 4-5% of our energy from incineration on an average day, but it is not recycling. Recycling is when you turn a product back into a raw state to be re-created into a similar product. Burning all of our trash, including food scraps, paper and plastic, and turning it into energy does not qualify as recycling, and the consequences of categorizing it as so are too high. Please do not pass this bill. The State & local counties should instead achieve the originally stated goals of source reduction and recycling, rather than trying to categorize incineration as recycling. True recycling & reduction are the key to a sustainable solid waste management plan. Incineration can be a component of waste management, but labeling it as recycling, will make it the most prominent component under the greenwashing label of "recycling" and that is inherently deceptive to the people of Hawaii and a way for no true effort to be made towards a sustainable solid waste management plan. Mahalo.

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Testimony by:
FORD N. FUCHIGAMI
DIRECTOR

Deputy Directors
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG

IN REPLY REFER TO:

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

February 14, 2017
10:00 a.m.
State Capitol, Room 414

S.B. 524
RELATING TO SOLID WASTE

Senate Committees on Agriculture and Environment, Public Safety, Intergovernmental
and Military Affairs & Transportation and Energy

The Department of Transportation (DOT) **supports** this bill which requires the Department of Health and the counties to consider waste-to-energy as part of their solid waste management practices and processing methods in implementing the Hawaii Integrated Solid Waste Management Act.

These facilities are designed to reduce the volume of waste in our landfills by separating recycling materials in the landfill and producing renewable fuels from materials that cannot be recycled.

The DOT believes renewable sources of energy are sustainable to transportation and considers the benefits of renewable energy projects in its facilities in meeting Hawaii's clean energy goals.

Thank you for the opportunity to provide testimony.