

# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

JOSH GREEN, M.D.

MARK B. GLICK CHIEF ENERGY OFFICER

235 South Beretania Street, 5th Floor, Honolulu, Hawaii 96813 Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804 Telephone: Web:

(808) 587-3807 energy.hawaii.gov

# Testimony of MARK B. GLICK, Chief Energy Officer

# before the SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

Tuesday, February 7, 2023 1:01 PM State Capitol, Conference Room 229 and Videoconference

In SUPPORT of SB 690

#### RELATING TO ENERGY EFFICIENCY.

Chair DeCoite, Vice Chair Wakai, and Members of the Committee, the Hawaii State Energy Office (HSEO) supports the adoption of SB 690, which prohibits the sale of common fluorescent lamps while exempting certain specialty lamps.

HSEO's testimony is guided by its mission to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy.

The attached summary sheet from the Appliance Standards Awareness Project summarizes estimated benefits of adopting this bill. In addition to avoiding the dumping of inefficient lamps in Hawai'i from other locations that have banned these products, the bill is projected to reduce Hawai'i consumers' electricity bills by \$37 million annually by 2030, eliminate the production of 756,000 tons of CO2 by 2050, and avoid the production of 36 pounds of mercury (sufficient to contaminate 1.8 billion gallons of drinking water).

Thank you for the opportunity to testify on this bill.



# Hawaii Can Protect Health and Lower Energy Bills by Phasing Out Fluorescent Light Bulbs

FACT SHEET | JANUARY 2023

Fluorescent lights are a common sight in offices, garages, and basements—but they contain toxic mercury and use far more energy than newer alternatives. By phasing out fluorescents in favor of efficient LED bulbs, Hawaii can avert a needless health risk, save families and business money on utility bills, and curb greenhouse gas emissions.

Fluorescent lighting was once the preferred option for many uses, but not anymore. LED light bulbs—readily available as replacements for fluorescents in all needed shapes and sizes—do not contain any of the toxic mercury that fluorescent bulbs do. They also cut energy use in half compared to fluorescents, last about twice as long, and typically cost far less to purchase and operate over their lifetime. So why are fluorescents still on store shelves?

In 2022, Vermont and California became the first states to phase out the sale of most fluorescent bulbs. As other states move to eliminate fluorescents, Hawaii risks becoming a dumping ground for inefficient, mercury-containing bulbs that suppliers cannot sell elsewhere. Hawaii lawmakers should take prompt action to phase out sales of the most common fluorescent bulbs by 2025.

# REDUCE THE THREAT OF MERCURY EXPOSURE

All fluorescent bulbs contain mercury, a potent neurotoxin that threatens human health and the environment. The World Health Organization counts mercury among the top 10 most dangerous chemicals impacting public health.

When fluorescent bulbs are accidentally broken—whether in homes, businesses, or the waste management system—they present a health hazard to those nearby. And when fluorescent bulbs are not disposed of properly—as happens with an estimated 75% of bulbs—mercury can leach from landfills and eventually contaminate waterways and the fish and shellfish within them.

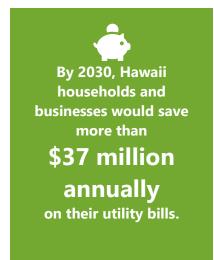


By transitioning from the most common fluorescent bulbs to LEDs, Hawaii could avoid

# 36 pounds

of mercury waste, enough to contaminate 1.8 billion gallons of water.

LEDs, which are mercury-free, are a much safer option. Technological advancements in recent years have made them readily available and cost effective.



# **SAVE MONEY ON ELECTRIC BILLS**

Fluorescent bulbs are <u>no longer the most affordable lighting</u> <u>option</u>. Because they are more energy efficient than fluorescents, LEDs cost less to operate, more than paying back their slightly higher upfront costs—which continue to drop each year—through lower electric bills. A typical school could see more than \$5,000 in annual utility bill savings if all its fluorescent bulbs were replaced with LEDs.

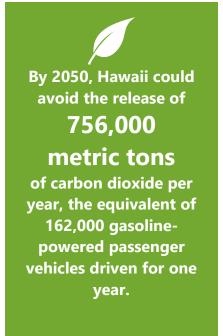
LEDs also last about twice as long as fluorescents, so they need to be replaced less often. And because LEDs do not contain mercury, a hazardous waste, they can be disposed of more easily and cheaply than fluorescents when the time comes.

# AVERT NEEDLESS GREENHOUSE GAS EMISSIONS

LEDs use approximately half the electricity as fluorescent bulbs to produce the same amount of light. As a result, accelerating the transition to LEDs can reduce planet-warming emissions from power plants and help prevent the worst effects of climate change.

# HAWAII LAWMAKERS CAN PHASE OUT FLUORESCENTS

24 states around the country already regulate mercury-containing products, including fluorescent light bulbs, because of their toxic nature. Lawmakers could continue this effort and protect Hawaii from mercury pollution by ensuring a transition from fluorescents to LEDs.







#### STATE OF HAWAI'I HAWAI'I CLIMATE CHANGE MITIGATION & ADAPTATION COMMISSION

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

> **Testimony of** Leah Laramee

Coordinator, Hawai'i Climate Change Mitigation and Adaptation Commission

# **Before the Senate Committee on** ENERGY, ECONOMIC DEVELOPMENT AND TOURISM

Tuesday, February 7, 2023 1:01 PM State Capitol, Via Videoconference, Conference Room 229

# In support of Senate Bill 690 RELATING TO RELATING TO ENERGY EFFICIENCY

House Bill 690 prohibits the sale of certain fluorescent lamps as a new manufactured product, with certain exemptions. The Hawai'i Climate Change Mitigation and Adaptation **Commission** (Commission) supports this measure.

The State of Hawai'i's commitment to uphold the Paris Climate Accord and progressively move towards zero emissions clean economy by 2045 requires that we actively invest in reducing our emissions and mitigate greenhouse gases. Fluorescent tube light bulbs use far more energy than LEDs which are now available in all needed shapes and sizes and cost less to own and operate.

Transitioning all new fluorescent bulbs to LEDs in the United States would cut annual carbon dioxide emissions in 2030 by an amount equal to the emissions from 4 million typical passenger cars over a year.<sup>i</sup> The American Council for an Energy-Efficient Economy (ACEEE), the Appliance Standards Awareness Project (ASAP), CLASP, and the Clean Lighting Coalition recommend that state, federal, and international policymakers should now phase out fluorescent bulbs to reduce mercury in homes and the environment while cutting greenhouse gas emissions.

For businesses where most linear fluorescent bulbs are used additional upfront costs for the most common LED bulbs in the United States are paid back in less than two months. For households, the payback period for the most common LED bulbs is about a year. On a cumulative basis, a phaseout would cut carbon dioxide emissions by more than 200 million metric tons through 2050.

Mahalo for the opportunity to testify in support of this measure.

1

Co-Chairs:

Chair, DLNR Director, OPSD

Chair, Senate AEN Chair, Senate WTL Chair, House EEP Chair House WAL Chairperson, HTA Chairperson, DOA CEO, OHA Chairperson, DHHL Director, DBEDT Director, DOT Director, DOH Chairperson, DOE Director, C+C DPP Director, Maui DP Director, Hawai'i DP

Director, Kaua'i DP The Adjutant General

Manager, CZM

i https://www.aceee.org/sites/default/files/pdfs/b2202.pdf

JOSH GREEN, M.D. GOVERNOR OF HAWAI'I KE KIA'ĀINA O KA MOKU'ĀINA 'O HAWAI'I





## STATE OF HAWAI'I DEPARTMENT OF HEALTH KA 'OIHANA OLAKINO

P. O. BOX 3378 HONOLULU, HI 96801-3378 WRITTEN TESTIMONY

## Testimony in SUPPORT of SB0690 RELATING TO ENERGY EFFICIENCY

SENATOR LYNN DECOITE, CHAIR
SENATE COMMITTEE ON ENERGY, ECONPOMIC DEVELOPMENT AND TOURISM
Hearing Date: 2/7/2023 Room Number: 229

- 1 **Fiscal Implications:** This measure will 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 this measure that seeks to ban mercury
- 5 containing lamps. Implementing this measure will improve energy efficiency and decrease the
- 6 overall burden of mercury contamination in Hawaii's environment.
- 7 Mercury is a widespread environmental pollutant that has severe negative impacts on the
- 8 developing brain of children and can cause other adverse health effects in humans and animals.
- 9 Fluorescent lamps are a significant source of mercury in Hawaii and eliminating them and their
- associated mercury will contribute to a cleaner and healthier Hawaii.
- 11 The elimination of mercury containing lamps will also have a positive impact on our state's solid
- waste disposal systems.
- 13 Multiple other states including Vermont and California have recently implemented similar bans
- on Mercury containing fluorescent lamps and the Department supports this effort to decrease
- prospective chemical contamination in Hawaii.
- 16 **Offered Amendments:** None
- 17 Thank you for the opportunity to testify on this measure.

Mitchell D. Roth Mayor

Lee Lord
Managing Director



Ramzi I. Mansour

Director

Brenda Iokepa-Moses
Deputy Director

# County of Hawai'i

## DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

345 Kekūanāoʻa Street, Suite 41 · Hilo, Hawaiʻi 96720 · cohdem@hawaiicounty.gov Ph: (808) 961-8083 · Fax: (808) 961-8086

February 6, 2023

COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, & TOURISM Sen. Lynn DeCoite, Chair Sen. Glenn Wakai, Vice Chair Hawai'i State Capitol Honolulu, HI 96813

Re: Testimony in Support of Senate Bill (HB) 690 Relating to Energy Efficiency, which prohibits the sale of certain fluorescent lamps as a new manufactured product, with certain exemptions.

Dear Chair DeCoite, Vice Chair Wakai and Committee Members,

The County of Hawai'i Department of Environmental Management is pleased to submit testimony in strong support of Senate Bill 690, which will phase out the sale of many mercury-containing light bulbs in Hawai'i.

The County of Hawai'i agrees that LED lighting is far more energy efficient, less toxic and has a lower lifecycle cost than obsolete fluorescent lighting. The County of Hawai'i sponsors costly regular household hazardous waste collection events to encourage proper disposal of toxic products like fluorescent lamps to protect our residents' health, the environment and water resources.

The County believes this law will reduce energy consumption, reduce the incidence of toxic mercury releases and with the longer lifespan of replacement LED lighting will also reduce waste generation.

Thank you for your consideration.

Best Regards,

Ramzi I. Mansour DIRECTOR



45 North King Street, Suite 500 • Honolulu, Hawaiii 96817 • HawaiiEnergy.com • P: (808) 839-8880 • F: (808) 441-6068

Before the Senate Committee on Energy, Economic Development, and Tourism Tuesday, February 7, 2023 at 1:01 p.m.

Testimony in Support of SB690: Relating to Energy Efficiency

Chair DeCoite, Vice Chair Wakai, and Members of the Committee:

Thank you for the opportunity to testify in support and provide comments on Senate Bill 690.

Hawai'i Energy works to empower island families and businesses on behalf of the Hawai'i Public Utilities Commission (PUC) to make smart energy choices to reduce energy consumption, save money, and pursue a 100% clean energy future. Energy efficiency – the energy we do not use – is the cheapest option to help us achieve our 100% clean energy goal by eliminating waste and being more efficient.

Hawai'i Energy applauds the legislature's efforts to support the continued impact of energy efficiency on Hawai'i's residents and businesses as an integral component of the State's Clean Energy Initiative, which calls for Hawai'i to achieve 100% clean energy by 2045.

The bill would prohibit the sale and distribution of most mercury-containing lighting in Hawaii, meaning a mandated phaseout of, primarily, the linear fluorescent – mercury containing – lighting still favored by many in Hawai'i. It would put the state on a path following in the footsteps of what California and Vermont enacted last year, which will allow Hawai'i to benefit from the market power that California in particular exerts on manufacturers and the appliances they produce and ensure consistency for manufacturers.

Hawai'i Energy is proud to offer a robust array of programs available to both residents and businesses designed to provide low-to-no cost lighting retrofits to replace existing lighting, including mercury-containing fluorescents, with energy-efficient light-emitting diodes (LEDs). Our <a href="Energy Smart 4 Homes">Energy Smart 4 Homes</a> (ES4H) program provides that opportunity for free to residential properties, and our <a href="Energy Advantage">Energy Advantage</a> program allows small businesses and restaurants to implement lighting retrofits at greatly reduced costs.

According to the Appliance Standards Awareness Project, phasing out the majority of mercury-containing lighting would in 2030 produce \$37 million in electricity bill savings for Hawai'i, save 129 GWh, cut CO2 emissions by 65 metric tons and eliminate more than three pounds of mercury in lamps shipped to our islands. Senate Bill 690 is a win for Hawai'i ratepayers, and it is a win for the environment as well.

Thank you for the opportunity to testify in support of Senate Bill 690.

Sincerely, Caroline Carl Executive Director Hawai'i Energy



#### SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

February 7, 2023, 1:01 PM Room 224

#### **TESTIMONY IN SUPPORT OF SB 690**

Aloha Chair DeCoite, Vice Chair Wakai, and Committee members:

Blue Planet Foundation **supports SB 690**, which establishes a "clean lighting standard" by phasing out the sale of new fluorescent bulbs in Hawai'i. By phasing out fluorescent bulbs in favor of efficient LED bulbs, Hawai'i residents and businesses will conserve energy, save millions on utility bills, and reduce carbon emissions and mercury exposure.

# Helping local families and businesses save on electric bills

Hawai'i continues to have the highest electricity rates and most expensive electric bills in the nation. 1 Energy efficiency measures are a simple, accessible, yet effective tool to reduce the high-cost of electricity for local residents and businesses. Light-Emitting Diodes (LED) lamps are much more efficient than fluorescent bulbs by using half the amount of electricity to produce the same or better amount of light. 2 LEDs also last two to three times longer than fluorescent bulbs, resulting in life-cycle cost savings for both residential customers and the commercial sector. Estimates show that if Hawai'i passed this bill with an effective date of 2025, by 2030, Hawai'i households and businesses would be saving \$37 million annually on their utility bills. Through 2050, we would cumulatively save \$446 million on electricity bills. 3 By supporting SB 690, Hawai'i lawmakers would provide millions in utility bill savings for taxpayers to help address the state's high electricity costs and rising cost of living.

#### Helping reduce carbon emissions and meet our climate goals

<sup>&</sup>lt;sup>1</sup>Compton, Sophia. "Hawaii has the highest electric bills nationwide in 2022, report finds." *Pacific Business News.* January 6, 2023. (https://www.bizjournals.com/pacific/news/2023/01/06/hawaii-had-highest-electric-bills-nationwide.html)

<sup>&</sup>lt;sup>2</sup> Amann, J. T., B. Fadie, J. Mauer, K. Swaroop, and C. Tolentino. "Farewell to Fluorescent Lighting: How a Phaseout Can Cut Mercury Pollution, Protect the Climate, and Save Money." Washington, DC: American Council for an Energy-Efficient Economy. 2022. (www.aceee.org/research-report/b2202.)

<sup>&</sup>lt;sup>3</sup> "2023 State Clean Lighting Savings Estimates for: Hawaii" *Appliance Standards Awareness Project*. (https://appliance-standards.org/state-savings-clean-lighting)

Climate change will have devastating, long-term consequences on Hawai'i's environment, economy, and quality of life. For these reasons and others, the State of Hawai'i has committed to a decisive transition away from fossil fuels. The legislature has passed aggressive carbon reduction goals, including a mandate to achieve 100% renewable electricity by 2045 (Act 97 of 2015), and a goal to be carbon-negative by 2045 (Act 15 of 2018), with an interim goal to achieve a 50% reduction from 2005 levels by 2030 (Act 238 of 2022).

Embracing energy efficiency measures is an important part of addressing climate change and reducing carbon emissions. By eliminating the sale of fluorescent bulbs over time, Hawai'i could prevent 65 metric tons of carbon emissions from entering the atmosphere, each and every year. Through 2050, this would result in eliminating 756,000 metric tons of greenhouse gases in our state.<sup>4</sup> Adopting a "clean lighting standard" would significantly aid our collective efforts to achieve a carbon-negative, clean energy future.

## Reducing a needless risk from mercury exposure and pollution

Fluorescent bulbs contain mercury, a toxic chemical that is dangerous to both human health and the environment. Mercury is considered by the World Health Organization as one of the top 10 chemicals of major public health concern for its potential harmful effects on the nervous, digestive, and immune systems. The World Health Organization states, "There are several ways to prevent adverse health effects of mercury, including promoting clean energy...and phasing out non-essential mercury-containing products." By phasing out fluorescent bulbs over the next few years and transitioning to mercury-free LED bulbs, Hawai'i can avoid a needless health risk.

In addition to the human health impacts, mercury exposure is dangerous to our natural environment. Roughly 75% of fluorescent bulbs are not disposed of properly, which can lead to mercury leaching into landfills, contaminating waterways, and bioaccumulating in shellfish.<sup>6</sup> By continuing to bring new mercury-containing bulbs in the state, we are continuing the potential for toxic exposure and increasing the volume of bulbs that will need safe disposal.

# States are already leading the way on clean lighting

States across the country are adopting "clean lighting standards" to support energy efficiency, reduce mercury pollution, and address climate change. In 2022, both Vermont and California passed state laws to phase out the sale of new fluorescent bulbs. Vermont became the first state to phase out compact fluorescent lamps in 2023 and will phase-out the sale of 4-foot linear fluorescent lights, the most common type on the market, in 2024. California's law goes further

<sup>&</sup>lt;sup>4</sup> Ibid.

<sup>&</sup>lt;sup>5</sup> "Mercury and Health." *World Health Organization.* March 2017. (https://www.who.int/news-room/fact-sheets/detail/mercury-and-health)

<sup>&</sup>lt;sup>6</sup> "Clean Lighting". *Appliance Standards Awareness Project.* February 2023. (https://appliancestandards.org/clean-lighting).

by including lamps up to 8 feet in its phase-out.<sup>7</sup> As more states adopt similar legislation and lead the way to an energy efficient economy, the states without a clean lighting policy risk becoming a dumping ground for inefficient, mercury-containing bulbs that suppliers cannot sell elsewhere. Hawai'i should continue to lead the country in pursuit of a 100% clean energy future by phasing out fluorescent bulbs in the next few years.

#### Conclusion

As Hawai'i progresses toward achieving its 100% renewable energy and decarbonization goals, energy efficiency remains the most cost-effective way to reduce emissions from the electricity sector, while providing financial benefits to Hawai'i residents and businesses during the transition. The cheapest and cleanest energy is the energy that we don't use, and passing SB 690 to establish a "clean lighting standard" has many benefits for our state, taxpayers, and the environment.

Thank you for the opportunity to provide testimony.

Blue Planet Foundation Senate Bill 690 Page 3

<sup>&</sup>lt;sup>7</sup> "California Passes Clean Lighting Legislation Banning Fluorescent Lamps." *Electrical Construction & Maintenance*. September 2022. (https://www.ecmweb.com/lighting-control/article/21251579/california-passes-clean-lighting-legislation-banning-fluorescent-lamps)



February 6, 2023

Chairwoman DeCoite Vice-Chair Wakai

RE: SB 690 - Relating to Energy Efficiency ("Clean Lighting")

Dear Members of the Senate Committee on Energy, Economic Development, and Tourism:

Please accept this testimony on behalf of the Appliance Standards Awareness Project (ASAP). We are a project of the American Council for an Energy Efficient Economy (ACEEE) dedicated to advancing cost-effective appliance and lighting standards at both the national and state level.

In 2022, ASAP and ACEEE published a joint report - Farewell to Fluorescents: How a Phaseout Can Cut Mercury Pollution, Protect the Climate, and Save Money — detailing research findings on the lighting market and whether Light Emitting Diodes (LEDs) are ready to widely replace fluorescent light bulbs. <sup>1</sup> We also published analysis showing savings states could see from transitioning common fluorescent light bulbs to LEDs. Included as a separate file submitted with this written testimony is the 2023 Hawaii savings analysis for the products covered by SB 690. We would be happy to provide additional information about this analysis or answer any questions.

#### SB 690 WOULD SAVE RESIDENTS AND BUSINESSES MONEY, HAVE VERY FAST PAYBACKS

SB 690 would transition sales of common fluorescent light bulbs to LEDs. Because LEDs are twice as energy efficient as fluorescents, they generate significant electricity bill savings. ASAP estimates by 2030 Hawaii would see \$39 million in annual, statewide electricity bill savings due to transitioning from fluorescents to LEDs.<sup>2</sup> By 2050 this would result in cumulative savings of \$446 million statewide on electricity bills.

Additionally, the majority of fluorescent light bulb sales today are for commercial buildings. ASAP estimates for the most common fluorescent light bulb type, the 4-foot T8, the commercial sector would see a payback period of less than one month. Each 4-foot T8 LED would then go on to save \$65 per bulb over its lifetime, resulting in significant electricity bill savings.

### SB 690 WOULD AVOID TOXIC MERCURY POLLUTION, SAVE ENERGY, AND AVOID GREENHOUSE GASSES

All fluorescent light bulbs contain mercury, a potent neurotoxin that threatens human health and the environment. When fluorescent bulbs are accidentally broken—whether in homes, businesses, or the waste management system—they present a health hazard to those nearby. LEDs do not contain mercury, therefore transitioning away from fluorescents would avoid a source of mercury pollution coming into Hawaii. ASAP estimates by 2050 Hawaii would cumulatively avoid 36 pounds of mercury waste, enough to contaminate 1.8 billion gallons of water.

Furthermore, LEDs increased energy efficiency means the state would see reduced energy consumption and thereby also avoid greenhouse gas emissions. ASAP estimates in 2030 Hawaii would see annual

<sup>&</sup>lt;sup>1</sup> For the 2022 ASAP/ACEEE report and state savings analysis visit <a href="https://appliance-standards.org/clean-lighting">https://appliance-standards.org/clean-lighting</a>

<sup>&</sup>lt;sup>2</sup> For all 2023 Hawaii savings analysis see <a href="https://appliance-standards.org/sites/default/files/Hawaii.pdf">https://appliance-standards.org/sites/default/files/Hawaii.pdf</a>



savings of 129 gigawatt hours of electricity. From this, by 2050 Hawaii could cumulatively avoid the release of 756,000 metric tons of carbon dioxide per year, the equivalent of 162,000 gasoline-powered passenger vehicles driven for one year.

# LEDS ARE READY TO REPLACE COMMON FLUORESCENT LIGHT BULBS

LEDs have advanced tremendously over the last 10 years. Our lighting market research found that today LEDs are widely available and cost effective as replacements for general-purpose, white light fluorescent light bulbs across the different sizes and shapes. General-purpose, white light bulbs are most commonly found in office building settings or in certain residential situations like a kitchen or basement (see Figure 1). LEDs were found to produce the same or better light quality, last 2-3 times longer, have positive economic outcomes for consumers, and not contain mercury compared to their general-purpose fluorescent counterpart. SB 690 only proposes to



**Figure 1**. General-purpose, white light fluorescent light bulbs.

transition out these types of fluorescents and would not cover specialty fluorescents, such as ultraviolet (UV) fluorescents used for suntanning booths or other specialty purposes.

#### SB 690 IS A COST-EFFECTIVE WAY TO ACHIEVE STATE GOALS

Transitioning from fluorescent light bulbs to LEDs is a low-cost way for Hawaii to cut energy waste, reduce electricity bills, and reduce greenhouse gases – helping the state meet its clean energy, energy efficiency, and affordability goals.

We would be happy to provide further information, answer questions, or provide technical assistance.

Sincerely,

Brian Fadie, State Policy Manager Appliance Standards Awareness Project

Brian Fadir



Email: communications@ulupono.com

# SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, & TOURISM Tuesday, February 7, 2023 — 1:01 p.m.

### Ulupono Initiative <u>supports</u> SB 690, Relating Energy Efficiency.

Dear Chair DeCoite and Members of the Committee:

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 SB 690,** which prohibits the sale of certain fluorescent lamps as a new manufactured product, with certain exemptions.

Ulupono is supportive of energy efficiency measures to lower electricity consumption across the state and also recognizes the negative health risks associated mercury. This bill seeks to address both issues by phasing out the use of fluorescent lights to reduce mercury in our environment and encourage use of more energy-efficient options currently available on the market. Fluorescent lights utilize far more energy than alternatives. For example, LED bulbs use half the electricity and last twice as long as fluorescent lights. While there may be a slight incremental cost up front, LED lights have a payback period ranging from 1 to 2.5 months, depending on the bulb.<sup>1</sup>

As Hawai'i's electricity costs are expected to rise in the near-term,<sup>2</sup> we must consider our energy future to support affordable and resilient options for our local communities in the long run.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata Director of Government Affairs

<sup>&</sup>lt;sup>1</sup> https://www.aceee.org/research-report/b2202

<sup>&</sup>lt;sup>2</sup>See Hawaiian Electric Newsroom, "Driven up by Russian invasion, oil prices will push electric bills higher in coming months," March 10, 2022. <a href="https://www.hawaiianelectric.com/driven-up-by-russian-invasion-oil-prices-will-push-electric-bills-higher-in-coming-months">https://www.hawaiianelectric.com/driven-up-by-russian-invasion-oil-prices-will-push-electric-bills-higher-in-coming-months</a>

# **SB-690**

Submitted on: 2/4/2023 10:01:32 AM

Testimony for EET on 2/7/2023 1:01:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Douglas Perrine	Individual	Support	Written Testimony Only

## Comments:

I support SB690. Fluorescent lamps present dangers to health and environmental quality that are no longer offset by any advantages. They are rarely disposed of properly, causing constant leakage of mercury, a potent neurotoxin, into our environment. LEDs are superior.

## **SB-690**

Submitted on: 2/6/2023 12:26:45 AM

Testimony for EET on 2/7/2023 1:01:00 PM

Submitted By	Organization	<b>Testifier Position</b>	Testify
Sherry Pollack	Individual	Support	Written Testimony Only

#### Comments:

I support SB690 and the phasing out of the sale of mercury containing bulbs in Hawaii. This will prevent toxic pollutants from being brought into the State's ecosystem, reduce energy use, and save consumer dollars.

Mercury can be very harmful to the brain and even small amounts can damage a brain that is just starting to form or grow. There are mercury-free alternatives that exist, including LEDs. In addition to being mercury-free, LEDs are more energy efficient and are cheaper. Phasing out the sale of mercury containing bulbs is a common sense measure.

Please pass SB690. Mahalo.

# **SB-690**

Submitted on: 2/6/2023 11:22:07 AM

Testimony for EET on 2/7/2023 1:01:00 PM

<b>Submitted By</b>	Organization	<b>Testifier Position</b>	Testify
chris c.	Individual	Support	Written Testimony Only

## Comments:

Dear Chair DeCoite, Vice Chair Wakai and Committee Members,

Please passs SB 690 which will ban most mercury-containing lamps. Fluorescent lighting is obsolete. LED lighting is far more energy efficient, less toxic, easier to dispose safely and has a lower lifecycle cost.

Mahalo for your consideration.