

DAVID Y. IGE  
GOVERNOR  
MIKE MCCARTNEY  
DIRECTOR

## DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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Statement of  
**MIKE MCCARTNEY**  
Director  
Department of Business, Economic Development, and Tourism  
before the  
**HOUSE COMMITTEES ON ENERGY AND ENVIRONMENTAL PROTECTION  
AND ECONOMIC DEVELOPMENT AND BUSINESS**

Thursday, February 7, 2019  
8:40 AM  
State Capitol, Conference Room #

In consideration of  
**HB 556**  
**RELATING TO ENERGY EFFICIENCY.**

Chairs Lowen and McKelvey, Vice Chairs Wildberger and Kitagawa, and Members of the Committees. The Department of Business, Economic Development, and Tourism (DBEDT) **offers comments** regarding HB 556 which calls for DBEDT to adopt California's appliance efficiency standards for appliances as allowed by federal law.

While we concur with the energy conservation and energy efficiency goals of this bill, DBEDT is not a regulatory entity. The bill calls for testing, regulating and enforcement of the appliance standards. In addition, any agency charged with implementing the responsibilities of the bill would need significant resources.

We strongly recommend that Hawaii Energy, which offers incentives to retailers and distributors for consumers to purchase energy efficient appliances, conduct an aggressive program to ensure the purchase of energy efficient appliances.

Thank you for the opportunity to testify.

**CALIFORNIA ENERGY COMMISSION**

1516 NINTH STREET  
SACRAMENTO, CA 95814-5512  
www.energy.ca.gov



February 5, 2019

Representative Nicole E. Lowen, Chair  
Committee on Energy & Environmental Protection  
Hawaii State Legislature, Honolulu HI  
**via [www.capitol.hawaii.gov/submittestimony.aspx](http://www.capitol.hawaii.gov/submittestimony.aspx)**

Representative Angus L.K. McKelvey, Chair  
Committee on Economic Development & Business  
Hawaii State Legislature, Honolulu HI  
**via [www.capitol.hawaii.gov/submittestimony.aspx](http://www.capitol.hawaii.gov/submittestimony.aspx)**

RE: SUPPORT OF HB 556, RELATING TO APPLIANCE EFFICIENCY STANDARDS

Dear Chairs Lowen and McKelvey, and Honorable Members of the House Committees:

The California Energy Commission is California's primary energy policy and planning agency. Since 1976, the Energy Commission has set cost-effective and technically feasible appliance standards to improve the efficiency and reduce the energy use of appliances in the state. These standards have saved Californians billions of dollars in utility costs and helped keep the state's energy demand relatively flat, even as demand grew in the rest of the country, reducing the need for new power plants and avoiding emissions from electricity generation derived from fossil fuels.

As the Lead Commissioner for Efficiency at the Energy Commission, I write to support enactment of HB 556. These bills would establish appliance efficiency standards that require everyday products sold in Hawaii to meet minimum energy or water efficiency standards. Three of the standards proposed in HB 556 have been adopted by the Energy Commission and are currently in effect: computers and monitors, faucets, and showerheads. For high color rendering index (CRI) fluorescent lamps and spray sprinkler bodies, the Energy Commission has begun its rulemaking process to adopt standards for these products in California as well and looks forward to joining the multi-state effort to improve their efficiency in the absence of federal action. By California statute, appliance efficiency standards adopted in California must save consumers money over the lifetime of the appliance. The appliance efficiency standards proposed in HB 556 will save Hawaii consumers and businesses a projected \$38 million annually in lower utility bills by 2025.

Rep. Lowen  
Rep. McKelvey  
February 5, 2019  
Page 2

We offer our support to Hawaii in responding to any implementation challenges associated with appliance efficiency standards that California has adopted. The Energy Commission maintains a publicly searchable database of products certified to the Commission as compliant with California standards, which may be useful to Hawaii in its implementation of appliance efficiency standards (<https://cacertappliances.energy.ca.gov/Pages/Search/AdvancedSearch.aspx>). We also support the efforts to protect against repeal of federal appliance standards. California has similar provisions in its appliance efficiency regulations.

Thank you for considering our input and please let us know if there is any additional information that California can offer to support the adoption and implementation of the appliance efficiency measures in HB 556.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Andrew McAllister", written in a cursive style.

J. ANDREW MCALLISTER, PHD  
Commissioner



# Hawai'i Energy

YOUR CONSERVATION & EFFICIENCY PROGRAM

1132 Bishop Street, Suite 1800 • Honolulu, Hawai'i 96813 • HawaiiEnergy.com • P: (808) 839-8880 • F: (808) 441-6068

Before the House Committee on Energy & Environmental Protection  
and the House Committee on Economic Development & Business  
Thursday, February 7, 2019, 8:40 A.M., Conference Room 325

Testimony in Strong Support of HB556: Relating to Energy Efficiency

Chair Lowen, Chair McKelvey, Vice-Chair Wildberger, Vice-Chair Kitagawa and Members of the  
Committee:

Thank you for the opportunity to submit comments on House Bill 556. The Hawai'i Energy program  
would like to testify in strong **support**.

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.

Hawai'i Energy would like to affirm the critical importance of this bill. Appliance Standards will play an  
important role in reaching the state's Energy Efficiency Portfolio Standard of a 4300 GWh reduction by  
2030, as well as boost efforts to reach our 100% clean energy goal by 2045. Hawai'i is not alone in  
adopting appliance standards, as over a dozen states have some form of appliance standards in place for  
various equipment<sup>1</sup>, with California, a market leader, having paved the way.

With minimal or no additional up-front cost, appliances in HB556 could potentially save households with  
electric water heaters over \$200 annually and could save 1,122 GWh over the next 15 years. Appliance  
standards enable Hawai'i consumers to make the best energy, water and financial choice over the  
lifetime of the equipment and protect our consumers from 'dumping' by manufacturers who cannot sell  
less efficient products in markets where standards do exist. Standards will also protect renters who  
often have little say in purchasing decisions by their landlords, but who may then bear the brunt of  
higher electric bills.

As it relates to enforcement, Hawai'i Energy takes no position as to which Department should have this  
responsibility. Hawai'i Energy would like to emphasize that minimal active enforcement has proven to  
be effective in key jurisdictions, and that a notification to manufacturers may be sufficient.

Thank you for the opportunity to provide comments on HB556.

Sincerely,

Karen Shishido  
Transformational Program Manager  
Hawai'i Energy

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<sup>1</sup> <https://appliance-standards.org/states#states-table>

February 5, 2019

Representative Nicole E. Lowen  
Chair, House Energy & Environmental Protection  
Hawaii State Capitol Room 425  
Honolulu, HI 96813

**Re: CTA Comments on HB 556— Relating to Energy Efficiency – OPPOSE**

Dear Representative Lowen:

The Consumer Technology Association™ (CTA) respectfully submits these comments to express our concerns and opposition regarding [House Bill 556](#), specifically Section 196-G which grants broad authority to the Department of Business, Economic Development, and Tourism to establish energy efficiency standards for products not specifically approved by the Hawaii legislature. While CTA appreciates the Legislature's leadership in the area of energy efficiency, policies and initiatives already in place for consumer technology are resulting in real savings for consumers, while at the same time protecting consumer choice and industry innovation.

CTA is the trade association representing the U.S. consumer technology industry, which supports more than 15 million U.S. jobs. Our membership includes more than 2,200 companies – 80 percent are small businesses and startups; others are among the world's best known manufacturer and retail brands. For many years, CTA has supported and advanced energy efficiency in consumer technology as part of the industry's broader commitment to environmental sustainability. CTA has advanced energy efficiency with a variety of initiatives related to public policy, consumer education, research and analysis, and industry standards. Regarding public policy, we advocate for approaches that are national, voluntary, market-oriented, globally harmonized, flexible to keep pace with technology, and friendly to innovation and economic growth.

CTA shares the Committee's interest in striving to improve energy efficiency. As leaders on energy efficiency, CTA and our members are actively engaged with state, federal and international policymakers. We've also developed new approaches –industry-led voluntary agreements– that go beyond existing programs to capture additional energy savings in rapidly-evolving product categories. While we share the same interest, we do not believe that the approach outlined in HB 556, specifically Section 196-G, is the path to get there.

**Consumer electronics are already an energy efficiency success story.** A recent study commissioned by CTA and produced by Fraunhofer USA finds the number of tech devices in U.S. homes has increased 21 percent since 2010, but those devices now account for *25 percent less* residential energy consumption

over that same time.<sup>1</sup> This landmark energy efficiency achievement is due to the consumer tech industry's investments in lightweight materials and energy efficient technologies, as well as the convergence of multi-functional devices and continuous innovation. These achievements weren't accomplished through mandated state or federal requirements.

Televisions are an excellent example of consumer technology's major energy efficiency strides. A television's annual in-home energy consumption declined 30 percent from 2013 to 2017 – the average cost to power a television in the U.S. is now less than five cents a day.<sup>2</sup> LCDs alone consume 76 percent less energy (per screen area) in 2015 than they did in 2003.<sup>3</sup> These major strides are driven by competition, consumer demand, and voluntary, market-oriented programs like ENERGY STAR. They have not been driven by government governments mandates.

In addition to the above accomplishments for televisions, CTA has pursued voluntary agreements on energy efficiency. A voluntary agreement for set-up boxes resulted in consumer savings of nearly \$2.1 billion since it was signed in 2013 with nearly 99 percent of new set-top boxes meeting its energy standards. A similar industry agreement for home internet equipment has increased the energy efficiency of more than 98 percent of consumer broadband equipment purchased and sold in the U.S. in 2016.<sup>4</sup>

**CTA does not support the broad authority granted in HB 556.** As demonstrated above, consumer technology products are already an energy efficiency success story. Section 196-G of HB 556, which provides a blanket authorization to the Department of Business, Economic Development, and Tourism "to establish standards for products not specifically listed in section 196-D" is not the appropriate method to achieve energy efficiency and cost savings for Hawaii consumers.

Section 196-G would grant vast new authority to the Department to create mandatory standards and regulations for virtually any electronic or electrical product. For high tech products, such government standards are not only damaging to technology innovation and design, they ultimately harm consumers and limit their choice of consumer electronics products, features and services. CTA believes the Hawaii State Legislature should retain oversight and expertise on appliance efficiency standards rather than delegate their authority to a state agency in such a broad way.

**Conclusion:** CTA and its members are firmly committed to energy efficiency across our industry. We continue to work with policymakers across the U.S. and globally to urge innovation-friendly, voluntary and market-oriented approaches to energy efficiency for consumer electronics that have proven successful. Industry and policymakers share the goal of energy efficiency and conservation, but there are many paths to that goal.

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<sup>1</sup> Urban, Roth, Singh, & Howes. "Energy Consumption of Consumer Electronics in U.S. Homes in 2017". December 2017. Available at: <http://www.cta.tech/cta/media/policyImages/policyPDFs/Energy-Consumption-of-Consumer-Electronics-in-U-S-Homes-in-2017.pdf>

<sup>2</sup> Urban, Roth, Singh & Howes. December 2017.

<sup>3</sup> Urban & Roth. "LCD Television Power Draw Trends from 2003 to 2015". May 2017. Available at: <http://www.cta.tech/cta/media/policyImages/policyPDFs/Fraunhofer-LCD-TV-Power-Draw-Trends-FINAL.pdf>

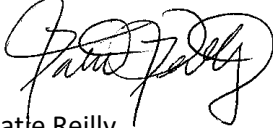
<sup>4</sup> For additional information, visit <https://www.energy-efficiency.us/>.

CTA Comments on HB 556 - OPPOSE

February 5, 2019

CTA appreciates the opportunity to provide comments on HB 556 and urges you to consider removal of Section 196-G from the bill. Please do not hesitate to contact us with any questions or requests for additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Katie Reilly", written in a cursive style.

Katie Reilly

Senior Manager, Environmental and Sustainability Policy

[kreilly@cta.tech](mailto:kreilly@cta.tech)

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## TESTIMONY

KEVIN MESSNER  
SENIOR VP, POLICY & GOVERNMENT RELATIONS

ON BEHALF OF  
THE ASSOCIATION OF HOME APPLIANCE MANUFACTURERS

BEFORE THE HAWAII STATE LEGISLATURE  
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION  
HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS

HEARING  
HB 556  
RELATING TO APPLIANCE EFFICIENCY STANDARDS

FEBRUARY 7, 2019



Chairmen Lowen and McKelvey, Vice Chairs Wildberger and Kitagawa, and Members of the Committee, I appreciate the opportunity to provide testimony on HB 556, relating to creating new energy efficiency standards. **The Association of Home Appliance Manufacturers (AHAM) is opposed to HB 556.**

AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's membership includes over 150 companies throughout the world. In the U.S., AHAM members employ tens of thousands of people and produce more than 95% of the household appliances shipped for sale. The factory shipment value of these products is more than \$30 billion annually. The home appliance industry, through its products and innovation, is essential to improving a person's lifestyle and health, and saving people time. Through its technology, employees, and productivity, the industry contributes significantly to U.S. jobs and economic security. Home appliances also are a success story in terms of energy efficiency and environmental protection. New appliances often represent the most effective choice a consumer can make to reduce home energy use and costs.

We appreciate that Hawaii is striving to improve energy efficiency. As leaders in energy efficiency and active participants in efficiency matters before the U.S. Department of Energy, AHAM has a particular interest in H.B. 556. Nevertheless, we oppose section 196-G, which provides a blanket authorization to the Department of Business, Economic Development, and Tourism "to establish standards for products not specifically listed in section 196-D." The Hawaii State Legislature should consider whether it is appropriate to permanently transfer its oversight and expertise on appliance efficiency standards to a state agency in such a broad way. In addition, developing efficiency standards require a lot of resources to do it correctly. Even if the legislature would decide to risk providing such blanket authority to the department, the increased budget to implement it should be considered. Also, there should be some sort of limits to this authority, such as requiring a certain threshold of energy savings, cost-benefit criteria, and impacts on consumers and manufacturers. These types of thresholds are found in federal law, which has a long history and experience with establishing minimum energy standards for decades.

Further, AHAM does not support, nor do we see the value in Hawaii attempting to duplicate California standards. Since our members have a national market share that provides an incentive to adhere to California's standards, states, including Hawaii, will automatically experience the energy savings generated by our sectors' compliance with the California standards. H.B. 556 unnecessarily creates a significant administrative burden on all stakeholders, including the department, for the state to amend Hawaii's rules to adhere to California's constantly evolving modifications.

AHAM appreciates the opportunity to comment on the Hawaii House Bill 556 and would be glad to further discuss these matters.

February 6, 2019

Honorable Nicole Lowen  
Chair, House Committee on Energy & Environmental Protection  
Via: <http://www.capitol.hawaii.gov/submittestimony.aspx>.

Honorable Angus McKelvey  
Chair, House Committee on Economic Development & Business  
Via: <http://www.capitol.hawaii.gov/submittestimony.aspx>.

Re: HB 556, Relating to Appliance Efficiency Standards;  
Hearing on Wednesday, February 7, 2019 at 8:40 am

Dear Chairs Lowen and McKelvey and Honorable Members of the House Committees:

The Appliance Standards Awareness Project (ASAP) is writing in reference to HB 556. ASAP is a coalition project that includes representatives from energy efficiency, consumer and environmental advocacy groups, state government, and utilities. ASAP works to advance cost-effective appliance standards at the national and state level.

We call appliance efficiency standards the best climate and energy policy that you've never heard of because of their strong impact and minimal exposure. Though Hawaii doesn't yet have state standards, national appliance standards are already saving Hawaii consumers and businesses \$945 a year in lower utility bills.<sup>1</sup> Adopting the state appliance standards in HB 556 would add to the savings and further reduce energy and water waste and lower consumer utility bills – an important undertaking given Hawaii's highest-in-the-nation electricity prices and high per household outdoor water use.

HB 556 would adopt minimum efficiency standards for common household products, including the newest computer, faucet, and showerhead standards from the California Energy Commission (CEC). These standards could save up to \$38 million on utility bills for Hawaiians in 2025 and reduce water consumption by 1.5 billion gallons. As more and more consumers purchase the efficient products compliant with state standards, annual savings would grow, reaching nearly \$100 million and 3.2 billion gallons of water annually in 2035.<sup>2</sup>

Per unit utility bill savings for just two of the five products – showerheads and kitchen faucets – is more than \$200 per year.

Aligning Hawaii standards with those in place or under development in California allows Hawaii to take advantage of a significant body of work already completed. The California Energy Commission (CEC) develops standards through a thorough rulemaking process and currently maintains a database of compliant products that other states are free to use. Because Hawaii can piggy-back off work already

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<sup>1</sup> From the 2017 ASAP/ACEEE White Paper, [Energy Saving States of America: How Every State Benefits from National Appliance Standards](#).

<sup>2</sup> From the 2019 update to the 2017 ASAP/ACEEE report: [States Go First: How States Can Save consumers Money, Reduce Energy and Water Waste, and Protect the Environment with New Appliance Standards](#).

completed by California and other states, the effort to implement such standards in Hawaii can be minimal.

Standards are a low-cost way for states to cut energy and water waste, reduce utility bills and reduce greenhouse gases. We would be happy to provide further information, answer questions about appliance standards, or provide technical assistance should such need arise.

Sincerely,

A handwritten signature in black ink that reads "Marianne DiMascio". The signature is written in a cursive style and is placed on a light gray rectangular background.

Marianne DiMascio  
State Policy Manager  
Appliance Standards Awareness Project



February 6, 2019

Representative Nicole E. Lowen, Chair  
Committee on Energy and Environmental Protection  
Hawaii State Legislature

Representative Angus L.K. McKelvey, Chair  
Committee on Economic Development  
Hawaii State Legislature

Dear Chair Lowen, Chair McKelvey, and Members of the Committees,

On behalf of the Natural Resources Defense Council, a leading environmental advocacy organization, and its more than 2 million members and activists, including nearly 2,700 Hawaii residents, we offer our strong support for House Bill 556, concerning appliance efficiency standards.

Strong standards for appliances and equipment are particularly important for Hawaii, which has the most expensive energy rates in the country. Hawaii residents pay double or triple what residents of other states pay for their energy, and potential savings from standards are substantial. Hawaii has the potential to save more than any other state through appliance standards: a recent report from the Appliance Standards Awareness Project found that Hawaii's consumers and businesses could save up to \$215 each year on their utility bills by adopting a broad package of state standards.

This bill proposes the adoption of standards already in place in California for faucets, showerheads, and computers and monitors. California is also currently working on standards for the other products in this bill, high color rendering index fluorescent lamps and sprinkler spray bodies.

The appliance standards proposed in this bill will collectively save Hawaii consumers and businesses more than \$38 million each year on their utility bills by 2025. The annual savings grow to more \$75 million in 2035, while

**NATURAL RESOURCES DEFENSE COUNCIL**

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reducing carbon pollution by 61,000 metric tons each year, equivalent to eliminating the annual emissions from around 13,000 cars. To be clear: those are the benefits Hawaii households and businesses will receive *each year* thanks to the proposed state standards—real savings that can be spent and invested in other parts of the economy.

Products that meet these standards are already available in the marketplace, thanks to state-level standards already in place in California and elsewhere, or voluntary specifications put in place through the ENERGY STAR or WaterSense programs. The standards proposed in this bill are already well developed by California, so Hawaii would not be starting from scratch. Adopting the standards simply means that all consumers in Hawaii would reap the energy benefits.

Furthermore, many of these standards will have no incremental cost for consumers: products that meet the standards are often not more expensive to purchase than less efficient products. In the case of products that do cost more upfront, any higher purchasing costs will be offset through energy savings in a year or less in nearly every case. A full analysis from the Appliance Standards Awareness Project of the potential annual utility bill savings and payback periods of the products in this bill and other potential products is found in the table below.

The water-related savings are particularly striking. State standards for faucets, showerheads, and sprinkler spray bodies will provide more than 85% of the utility bill savings to consumers in 2035. These three standards will save more than 3 billion gallons of water each year.

We encourage you to support this bill.

Sincerely,

A handwritten signature in black ink that reads "Lauren Urbanek". The signature is written in a cursive, flowing style.

Lauren Urbanek  
Senior Energy Policy Advocate  
Climate and Clean Energy Program

	Potential annual utility bill savings (million 2017\$)		Net present value savings (million 2017\$)	Benefit-cost ratio	Payback period (years)
	In 2025	In 2035			
Computers and computer monitors	7.5	9.5	63.9	5.7	0.9
Faucets	10.4	24.5	178.5	no cost	0.0
High CRI fluorescent lamps	2.3	0.8	14.2	7.8	0.9
Showerheads	6.3	14.9	109.2	no cost	0.0
Spray sprinkler bodies	11.8	27.1	171.6	8.0	1.1
<b>Total</b>	<b>38</b>	<b>77</b>	<b>537</b>	<b>14.4</b>	<b>-</b>

Assuming a compliance date of 2021. Net present value savings take into account both utility bill savings and estimated impacts on product costs for items sold between 2021 and 2035. Totals may not sum due to rounding. The total benefit-cost ratio is calculated as the present value of the total utility bill savings from products sold through 2035 divided by the present value of the total additional costs.



## Consumer Federation of America

February. 5, 2019

Rep. Nicole E. Lowen, Chair  
Committee on Energy & Environmental  
Protection  
Hawaii State Legislature

Rep. Angus McKelvey  
Committee on Economic Development and  
Business  
Hawaii State Legislature

Submitted via: <https://www.capitol.hawaii.gov/submittestimony.aspx>

RE: Support for HB 556, Relating to appliance efficiency standards

Dear Chair Lowen, Chair McKelvey, and members of the Committees:

The Consumer Federation of America (CFA) is pleased to write in support of HB 556., appliance efficiency standards legislation. By way of background, CFA is an association of more than 250 nonprofit consumer organizations that was established in 1968 to advance the consumer interest through research, advocacy, and education. We have long advocated for cost-effective energy and water efficiency standards at the state and federal levels as they benefit consumers through lower utility bills.

We strongly support HB 556, which would adopt energy and water efficiency standards for 5 consumer products that are estimated to save Hawaiians approximately \$537 million between 2021 and 2035. With Hawaii's highest-in-the-nation electricity prices and high per household water use, HB 556 is a great opportunity to reduce energy and water waste and lower consumer utility bills.

The bill would adopt minimum efficiency standards for computers and computer monitors, faucets, showerheads, spray sprinkler bodies, and high CRI fluorescent lamps using standards already set or under development by the California Energy Commission (CEC). According to a recent analysis by the Appliance Standards Awareness Project, this bill could save up to \$38 million on utility bills for Hawaiians in 2025 and reduce water consumption by nearly 1.5 billion gallons. As more and more consumers purchase the efficient products compliant with standards proposed in HB 556, annual savings would grow, reaching nearly \$77 million and 3.2 billion gallons of water annually in 2035.

Aligning Hawaii standards with those in place or under development in California allows Hawaii to take advantage of a significant body of work already completed. CEC develops standards through a thorough rulemaking process and currently maintains a database of compliant products that other states are able to use.

Passing HB 556 will cut energy and water waste, save consumers and businesses money and reduce greenhouse gases. Because Hawaii can take advantage of work already completed by other states, the effort to implement such standards in Hawaii can be minimal. CFA urges you to adopt this cost-effective, pro-consumer bill—it's a win-win-win opportunity for Hawaii.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Mel Hall-Crawford" followed by a stylized flourish.

Mel Hall-Crawford  
Director of Energy Programs  
Consumer Federation of America



February 5, 2019

Representative Nicole Lowen, Chair  
House Committee on Energy and Environmental Protection  
Representative Angus McKelvey, Chair  
House Committee on Economic Development and Business  
Hawaii State Capitol

**RE: Support of HB 556, Relating To Energy Efficiency**

Dear Chair Lowen, Chair McKelvey, and members of the Committees:

On behalf of the American Council for an Energy-Efficient Economy (ACEEE), I write in support of HB 556, Relating to Energy Efficiency. ACEEE is a nonprofit research organization based in Washington, D.C. that conducts research and analysis on energy efficiency. We have been active on energy efficiency issues at the national, state, and local level for more than three decades, collecting extensive best-practice information on topics including energy efficiency programs and utility business model design.

HB 556 sets state appliance efficiency standards for Hawaii for the first time. These state-level standards for minimum energy and water efficiency have been projected to result in water and energy bill savings of \$38 million annually by 2025, adding dollars to consumers' pockets and benefiting the economy. These savings would double, to \$77 million, by 2035. By saving energy, state appliance standards also help to avoid the need to import fossil fuel and help to reduce emissions reductions.

Hawaii has long been a leader in energy efficiency. These state-level appliance standards would reaffirm Hawaii's leadership, and deliver benefits to residents and businesses alike. We urge you to support and work to advance HB 556. Thank you for considering our input.

Sincerely,



Annie Gilleo  
Senior Manager, State Policy  
American Council for an Energy-Efficient Economy



# ELEMENTAL EXCELERATOR

**Written Statement of Elemental Excelerator  
before the House Committee on Energy and Environmental Protection  
Thursday, February 7, 2019**

**In consideration of HB 556  
RELATING TO ENERGY EFFICIENCY**

**Aloha Chair Lowen, Vice Chair Wildberger, and Members of the House Committee on  
Energy and Environmental Protection:**

Elemental Excelerator respectfully submits our support for HB 556 which requires the Department of Business, Economic Development, and Tourism (DBEDT) to adopt state appliance efficiency standards.

Elemental Excelerator is a Honolulu-based growth accelerator program founded and operating in Hawai'i. We have awarded over \$30 million to 82 companies resulting in 56 demonstration projects in Hawai'i & Asia Pacific. Each year, we evaluate over 500 companies and look for innovative entrepreneurs from around the world to come to Hawai'i and find transformative solutions to help us achieve our 100% clean energy goals and solve our most pressing environmental problems. We select 15-20 companies annually that best fit our mission and fund each company up to \$1 million.

In April 2018, Elemental Excelerator commissioned a study entitled *Transcending Oil: Hawai'i's Path to a Clean Energy Economy*. The study found that in Hawai'i, transitioning to renewable energy is cheaper than sticking with fossil fuels like oil. The faster we go, the cheaper it will be.<sup>1</sup>

**We support HB 556 for the following reasons:**

1. **It will support the acceleration of our clean energy goals:** The adoption of state appliance efficiency standards strengthens and reaffirms our state's commitment to its clean energy goals. In 2014, the *Hawai'i Energy Efficiency Potential Study* assessed whether the State is on track to meet the Energy Efficiency Portfolio Standard (EEPS) 2030 goal of 4,300 gigawatt hours (GWh) savings. The assessment found that one-third of the goal could be reached through the adoption new appliance standards and implementation of updated building codes. The 2014 assessment estimated that Hawai'i's economic energy efficiency potential could be as high as 6,210 GWh by 2030, 44% greater than the current goal.<sup>2</sup>

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<sup>1</sup> *Transcending Oil*, pg.3, Retrieved from <https://www.transcendingoil.com/>

<sup>2</sup> *Hawai'i Energy Efficiency Potential Study*. (n.d.). Retrieved from [https://puc.hawaii.gov/wp-content/uploads/2013/04/State\\_of\\_HI\\_Potential\\_Study\\_Final.pdf](https://puc.hawaii.gov/wp-content/uploads/2013/04/State_of_HI_Potential_Study_Final.pdf)

2. **It is economically responsible:** A July 2017 study by the Appliance Standards Awareness Project called *States Go First: How States Can Save Consumers Money, Reduce Energy and Water Waste, and Protect the Environment with New Appliance Standards*, identifies potential for \$119 and \$235 per household annual energy and water savings per household in Hawai'i in 2025 and 2035, respectively.<sup>3</sup> This is particularly important, given the findings by Aloha United Way's *ALICE Report* that identifies 48% of households in Hawai'i are Asset Limited, Income Constrained, and Employed.<sup>4</sup>
  
3. **It opens up opportunities for innovation to achieve efficiency standards:** Innovation has the potential to reduce the cost of very high levels of renewable energy penetration, through technologies such as advanced storage and high levels of demand response (DR). About 17% of Elemental Excelerator's 82 portfolio companies, such as Hawai'i grown company Pono Home, focus on energy efficiency, demonstrating an increased opportunity to attract innovation with forward-thinking policies.<sup>5</sup>

Mahalo for the opportunity to provide testimony on this legislation.

Sincerely,



Aki Marceau  
Managing Director, Policy & Community - Hawai'i

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<sup>3</sup> Mauer, J., DeLaski, A., & DiMascio, M. (2017, July). *States Go First: How States Can Save Consumers Money, Reduce Energy and Water Waste, and Protect the Environment with New Appliance Standards*. Retrieved from [https://appliance-standards.org/sites/default/files/States Go First.pdf](https://appliance-standards.org/sites/default/files/States%20Go%20First.pdf)

<sup>4</sup> ALICE: A Study of Financial Hardship in Hawai'i. (2017). Retrieved from <https://www.auw.org/alice>

<sup>5</sup> Pono Home. (n.d.). Retrieved from <https://elementalexcelerator.com/companies/pono-home/>



Dear Chair Lowen, Chair McKelvey, and members of the Committees,

As an organization concerned about the environmental and health impacts of our current energy use, we urge the Hawaii legislature to help conserve energy by supporting HB 556, which would establish energy efficiency standards for a set of commonly used appliances, electronics and other products in the state of Hawaii.

Our current energy practices harm our environment, our climate and our health. The cleanest form of energy is the energy we don't consume in the first place-- using energy more efficiently means less pollution and a healthier climate, planet and population.

Adopting efficiency standards for appliances and household products would significantly reduce Hawaii's energy and water consumption, help prevent air and water pollution and climate-altering carbon emissions; while saving consumers money. In Hawaii alone, by 2025, the recommended appliance efficiency standards would annually:

- Save enough electricity to power over 7,880 average U.S. homes for a year.
- Save as much water as the annual water consumption of 15,835 average U.S. households
- Prevent 56,000 metric tons of CO<sub>2</sub> from entering our atmosphere; the equivalent of taking over 12,150 cars off the road each year.
- Prevent 188 tons of NO<sub>x</sub> emissions; a smog-forming emission and potent respiratory irritant.
- Prevent 196 tons of SO<sub>2</sub> emissions; the main component of acid rain that irritates the respiratory tract and increases the risk of respiratory tract infections.\*\*

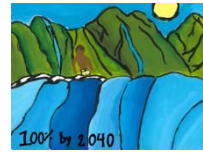
And as an added bonus, appliance efficiency standards would annually save Hawaii consumers \$50 million by 2025. These numbers would then increase, yielding annual savings of \$106 million by 2035.

With many of our leaders in Washington D.C. failing to act, local and state governments need to lead. Appliance efficiency standards represent a tangible way for Hawaii to reach its environmental, climate and clean energy objectives. By adopting appliance efficiency standards we can reduce pollution and save our residents money. We support HB 556 and we urge the Hawaii legislature to support it as well.

Sincerely,

Alexandra E. Astor  
Clean Energy Associate, Environment America

*\*\*Numbers are based on Appliance Standards Awareness Project statistics and Environment America calculations*



**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION  
HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT & BUSINESS**

February 7, 2019, 8:40 A.M.

Room 325

(Testimony is 5 pages long, including attachment)

**TESTIMONY IN STRONG SUPPORT OF HB 556**

Aloha Chair Lowen, Chair McKelvey, and members of the Committees:

Blue Planet Foundation **strongly supports** House Bill 556, which sets in motion the adoption of state appliance efficiency standards that can lead to substantial savings (up to \$537 million in cumulative net utility bill savings over 15 years) for Hawaii residents and businesses.

**House Bill 556 is an important measure that helps protect consumers from energy wasting appliances that drive up utility bills** by adopting a “starter suite” of appliance standards that are cost-effective and easy to implement.

Hawaii businesses and residents pay the highest electricity rates in the nation, which exacerbates our already high cost of living. Appliance efficiency standards are a low-hanging-fruit policy that can provide economic relief to Hawaii’s small businesses and struggling families. We have provided a fact sheet on the benefits of appliance efficiency standards for Hawaii along with this testimony.

## **What are appliance efficiency standards?**

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Appliance and equipment standards specify the minimum energy and/or water efficiency levels of specific products. Many large household appliances—like refrigerators, washers, and dryers—are regulated by national standards. Action at the state level was the catalyst for national policy. Most of the products now covered by national standards were first subject to state standards. For example, California, New York, and Florida refrigerator standards in the 1970s and 1980s were the basis of and a catalyst for the 1987 national refrigerator standards.

By adopting state appliance efficiency standards, states can fill in the gaps on appliances that aren’t regulated by the federal government. While doing so, they also decrease energy use, save consumers and businesses money, and reduce greenhouse gas emissions and other pollutants.

Many states have already adopted appliance efficiency standards, including California (the leader on state appliance standards), Connecticut, New Hampshire, New York, Oregon, Rhode

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Island, Vermont, and Washington. **Adopting state appliance efficiency standards is also a priority initiative for the U.S. Climate Alliance to accelerate climate action.**<sup>1</sup>

## Hawaii has the biggest opportunity for significant savings

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Lights and appliances are far more efficient than they were just years ago. Yet energy-wasting devices are still being sold because Hawaii lacks consumer protection standards for energy efficiency in appliances. As a result, manufacturers can offload in Hawaii the noncompliant appliances that they cannot sell in other states that have adopted standards—and once these products are shipped to Hawaii, they rarely leave.

In 2017, a national study<sup>2</sup> found that Hawaii could achieve the most savings of any state by adopting state-level appliance efficiency standards, up to \$1 billion in electricity costs over 20 years, depending on the suite of appliance standards adopted—or about \$215 annually per household—with a payback that is 14 times more than the cost.

Although House Bill 556 proposes a smaller “starter” subset of appliance standards than recommended in the national study, the saving potential is still substantial: \$537 million in cumulative utility bill savings over 15 years for Hawaii,<sup>3</sup> not to mention the corresponding kilowatt-hour savings that can help the state meet its energy efficiency portfolio standards, and carbon emissions reductions that can help us meet our climate goals under the Paris Agreement (Act 32 of 2017). On an annual basis, the savings equate to \$38 million each year by 2025, and doubling to \$77 million each year by 2035.<sup>4</sup>

## Appliance standards are cost-effective

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A number of the products in HB 556 have **no incremental cost**, meaning that they don’t cost more than inefficient models and **consumers will start saving right away**. For others, utility bill savings pay back the small incremental cost of products meeting the standards within a few months to one year. After that, savings accrue to the consumers over the lifetime of the product.

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<sup>1</sup> See <https://www.usclimatealliance.org/about-initiatives/>.

<sup>2</sup> See Joanna Mauer, Andrew deLaski, and Marianne DiMascio, *States Go First: How States Can Save Consumers Money, Reduce Energy and Water Waste, and Protect the Environment with New Appliance Standards*, available at <https://appliance-standards.org/sites/default/files/States%20Go%20First.pdf>.

<sup>3</sup> See Appliance Standards Awareness Project, *2019 State Appliance Standards Recommendations – Savings estimates for Hawaii*, available at [https://appliance-standards.org/sites/default/files/state\\_savings\\_state\\_standards/Hawaii.pdf](https://appliance-standards.org/sites/default/files/state_savings_state_standards/Hawaii.pdf) (providing updated saving figures for Hawaii for 2019).

<sup>4</sup> *Id.*

Refer to Blue Planet Foundation's enclosed fact sheet for a breakdown on these incremental costs.

## **House Bill 556 is ready to implement**

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The standards referenced in HB 556 are also easily implementable for the government agency tasked with oversight. This is because: (1) the standards are applicable to readily available products—i.e. products and technologies meeting the standards are readily available today from multiple manufacturers, and (2) other states have already done the lion's share of work to set the appropriate standards and shift manufacturers' behavior and compliance.

The proposed standards are largely modeled after California's already existing and enforced standards, meaning that the manufacturers have already adapted to the testing, certification, and labeling requirements for selling energy efficient products in California. Consequently, Hawaii can merely piggyback off of these standards for easy implementation without a heavy lift for the local government agency tasked with oversight.

## **A critical backstop if federal standards are repealed**

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House Bill 556 also includes an important backstop provision to adopt federal appliance energy efficiency and water conservation standards as Hawaii state standards in the event that the federal standards are repealed or withdrawn. With uncertainty at the national level, this is a real concern for Hawaii consumers who pay the highest electricity rates in the nation.

This backstop provision is a safeguard for Hawaii consumers and sends a powerful message: If national standards go away, Hawaii will step into the breach and continue to use this proven tool to protect consumers and the environment.

## **Conclusion**

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Energy efficiency is the cheapest, quickest, and cleanest way to accelerate Hawaii's transition to 100% renewable energy. Adopting state appliance efficiency standards is a cost-effective, easily implementable and proven policy to accelerate our clean energy goals while saving consumers money.

We respectfully request that the Committees forward HB 556 as a critical consumer protection policy to the benefit of Hawaii's families and businesses.

Thank you for the opportunity to testify.



# Hawaii Appliance Efficiency Standards

SB 1323 / HB 556

## Basics of appliance efficiency standards

HAWAII BUSINESSES AND RESIDENTS PAY THE HIGHEST ELECTRICITY RATES IN THE NATION. EFFICIENCY STANDARDS ENSURE THAT THE PRODUCTS WE PURCHASE USE LESS ENERGY AND WATER WHILE ENSURING QUALITY, AFFORDABILITY, AND PROGRESS TOWARD OUR CLEAN ENERGY AND CLIMATE GOALS.

- Set a minimum level of energy and water efficiency for certain household and commercial appliances.
- Piggyback off of California standards for easy implementation.
- Provide substantial savings for consumers and businesses.
- Encourage innovative water- and energy-saving technologies.
- Protect consumers against manufacturers who would otherwise sell the less efficient appliances that they can't sell in markets without such protections.

"Those savings are particularly important for low-income households, who struggle to pay their energy bills and are too often faced with termination of vital utility services due to non-payment."

— Charlie Harak, National Consumer Law Center

## \$537 MILLION

NET UTILITY BILL SAVINGS HAWAII CONSUMERS AND BUSINESSES COULD SEE OVER 15 YEARS IF THE PROPOSED STANDARDS ARE ADOPTED.

### AFFORDABILITY

Consumers and businesses save money on utility bills

### JOBS

Local economies get a boost when consumers have more spending money.

### CLEAN ENERGY

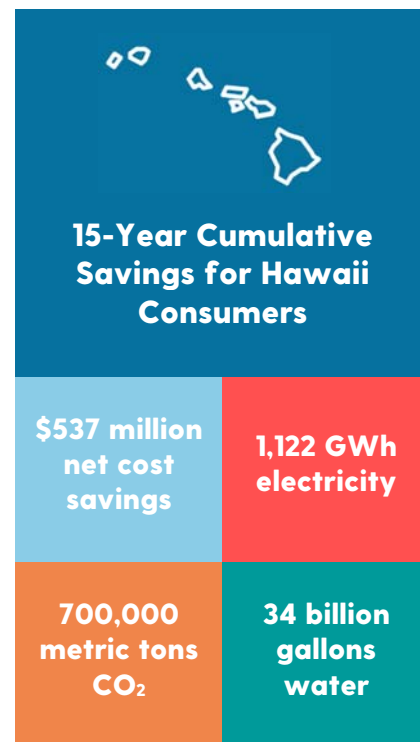
Reducing air pollutants and greenhouse gas emissions improve public health and accelerate progress toward meeting our clean energy and climate mitigation targets.



## Cost-effective and ready to implement

The standards proposed in SB 1323 and HB 556 are:

- **COST EFFECTIVE:** A number of the products in the bill have no incremental cost, meaning that they don't cost more than inefficient models and consumers will start saving right away. For others, utility bill savings pay back the small incremental cost of products meeting the standards within a few months to one year. After that, savings accrue to the consumers over the lifetime of the product.
- **APPLICABLE TO READILY AVAILABLE PRODUCTS:** Products and technologies meeting the standards are readily available today from multiple manufacturers.
- **IMPLEMENTABLE AT LOW COST:** Each standard is ready to implement because other states are already using or proposing identical standards.



Savings for Hawaii consumers						
	Average lifetime (years)	Per-unit incremental cost (\$)	Per-unit annual savings		Per-unit annual utility bill savings in 2021 (\$/yr)	Lifecycle cost savings (\$)
			Electricity (kWh/yr)	Water (gallons/yr)		
<b>Computers and monitors</b>						
<i>Desktops</i>	5	\$14.27	49	--	\$15.38	\$51.28
<i>Notebooks</i>	4	\$1.02	4	--	\$1.13	\$2.92
<i>Monitors</i>	7	\$5.10	28	--	\$8.69	\$44.17
<b>Faucets</b>						
<i>Residential lavatory</i>	10	\$0	54	651	\$23.67	\$180.39
<i>Kitchen</i>	10	\$0	210	2,543	\$92.53	\$705.23
High CRI fluorescent lamps	15	\$4.34	12	--	\$3.90	\$35.75
Showerheads	10	\$0	303	2,503	\$121.04	\$919.79
Spray sprinkler bodies	9	\$3.34	--	299	\$3.13	\$19.43

**Notes:** Faucet and showerhead savings assume an electric water heater. High CRI fluorescent lamp costs and savings assume a Type A LED replacement lamp. Lifecycle cost savings are equal to the present value of the lifetime utility bill savings minus the present value of the incremental cost for a product purchased in 2021. Savings and costs are discounted to 2019 using a discount rate of 5%.



CONTACT: [info@blueplanetfoundation.org](mailto:info@blueplanetfoundation.org); (808) 954-6161

Savings calculations provided by *Appliance Standards Awareness Project (ASAP)*, [appliance-standards.org](http://appliance-standards.org)

[info@blueplanetfoundation.org](mailto:info@blueplanetfoundation.org)

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**HB-556**

Submitted on: 2/6/2019 8:14:57 AM

Testimony for EEP on 2/7/2019 8:40:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Melodie Aduja	O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:

**HB-556**

Submitted on: 2/4/2019 12:41:05 PM

Testimony for EEP on 2/7/2019 8:40:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Karen Winslow	Individual	Support	No

Comments:

**LATE**

**HB-556**

Submitted on: 2/6/2019 5:19:51 PM  
Testimony for EEP on 2/7/2019 8:40:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Andrea Quinn	Individual	Support	No

Comments:

Dear Honorable Committee Members:

Please support HB556.

Hawaii stands to lose valuable coastline due to climate change, which is already occurring. We need to be a leader in energy efficiency.

Thank you for the opportunity to present my testimony.

Sincerely,

Andrea Quinn



February 5, 2019

The Honorable Nicole Lowen  
Chair, House Committee on Energy & Environmental Protection  
Hawaii State Capital  
Honolulu, HI 96813

Re: ITI comments for Senate Bill (HB) 556 - An act relating to appliance efficiency standards

Dear Chair Lowen:

I am writing on behalf of the preeminent companies in the information and communications technology (ICT) sector to express concerns with HB 556, as recently introduced in the House Committee on Energy and Environmental Protection. As HB 556 is reviewed by the House, we want to ensure your office is aware of the technology sector's concerns with the bill.

ITI represents the most innovative companies in the world. Our companies vigorously compete to offer customers products that meet performance needs and do so with the highest levels of energy efficiency. We're proud of our global engagement on energy efficiency programs and standards, including our twenty-five-year partnership with the U.S EPA's ENERGY STAR® program and our recent multi-year collaboration with the California Energy Commission (CEC) on standards for computers, monitors and lighting products. After four years of collaboration with the CEC, environmental advocates, and other stakeholders, we publicly supported California's ambitious standards when they were adopted in December 2016. Since our members have a national market share that will adhere to California's standards, states including Hawaii will experience the energy savings generated by our sectors' compliance with the California standards. We do not support, nor do we see the value in, Hawaii attempting to duplicate the California standards, because of the risk and likelihood that these standards will differ.

As it stands, HB 556 unnecessarily creates a significant administrative burden on all stakeholders, including the Hawaii legislature, to continually ensure that Hawaii's standards are harmonized with California's. For example, there have been three separate changes to the California's standards since the standards passed in December 2016 (automatic brightness control test method, discrete GPU definition and mobile workstations definition) and there's a growing list of frequently asked questions where California provides their interpretation of the standards on an ongoing basis. It will be a significant and unnecessary burden for the state to amend Hawaii's rules to adhere to California's constantly evolving modifications. We've seen other states attempt to duplicate California standards. The State of Oregon, for example, passed a regulation for battery chargers and has had to issue multiple rulemakings to adhere to California's changes to their regulations.

Additionally, we respectfully oppose section 196-G of HB 556, which provides a blanket authorization to the Department of Business, Economic Development, and Tourism "to establish standards for products not specifically listed in section 196-D." It is not appropriate to permanently transfer the Hawaii State Legislature's oversight and expertise on appliance efficiency standards to a state agency in such a broad



way. Industry opposes the establishment of future additional energy efficiency standards without due consideration by the General Assembly and the opportunity for input from affected stakeholders, especially manufacturers of affected products.

In closing, we'd like to emphasize that while we understand the intent of the bill and appreciate Hawaii's willingness to lead on environmental issues, this bill is a solution in search of a problem. HB 556 has the potential to create a burden for doing business in Hawaii, for no reason, since the CEC standard is already being followed nationally. ITI represents the vast majority of computer and monitor manufacturers in the U.S., and we encourage the state to test a computer sold in California and another comparable unit sold in Hawaii, as it will confirm there's no significant difference in energy consumption for the same model configuration. It is exorbitantly expensive and too complex for our manufacturers to develop a unique computer with unique efficiency standards for one state. Hence all computers sold in North America are meeting CA standards and Hawaii is receiving these now. Also of note, CA has the fifth largest economy in the world<sup>1</sup>.

We appreciate the opportunity to provide further insight on the bill and welcome additional discussion on these topics.

Sincerely,

A handwritten signature in black ink that reads "Erica C. Logan".

Erica Logan  
Senior Director of Policy  
Information Technology Industry Council (ITI)  
[elogan@itic.org](mailto:elogan@itic.org)  
(202) 626-5729

**About ITI.** ITI is the global voice of the tech sector. We advocate for public policies that advance innovation, open markets, and enable the transformational economic, societal, and commercial opportunities that our companies are creating. Our members represent the entire spectrum of technology: from internet companies, to hardware and networking equipment manufacturers, to software developers. ITI's diverse membership and expert staff provide a broad perspective and intelligent insight in confronting the implications and opportunities of policy activities around the world. Visit <http://www.itic.org/> to learn more. Follow us on Twitter for the latest ITI news [@ITI\\_TechTweets](#).

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<sup>1</sup> <https://www.usatoday.com/story/news/nation-now/2018/05/05/california-now-worlds-5th-largest-economy-beating-out-uk/583508002/>