DAVID Y. IGE
GOVERNOR

LUIS P. SALAVERIA
DIRECTOR

MARY ALICE EVANS
DEPUTY DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt

Telephone: (808) 586-2355
Fax: (808) 586-2377

Statement of
LUIS P. SALAVERIA
Director
Department of Business, Economic Development and Tourism
before the
SENATE COMMITTEES ON TRANSPORTATION AND ENERGY AND COMMERCE, CONSUMER PROTECTION, AND HEALTH
Friday, February 9, 2018
9:00 A.M.
State Capitol, Conference Room 229

in consideration of
SB2910
RELATING TO ELECTRIC GRID RESILIENCY

Chair Inouye, Chair Baker, Vice Chair Espero, Vice Chair Tokuda, and Members of the Committees.

The Department of Business, Economic Development, and Tourism (DBEDT) **offers comments on SB2910**, which establishes programs and designates funds for energy facilities at critical infrastructure, creates a grid resiliency task force, directs government agencies to build grid resiliency into their planning and directs public utilities to incorporate grid resiliency planning into their integrated resource and grid modernization planning.

DBEDT appreciates the holistic efforts and leadership to further maintain and enhance grid resiliency to prepare for and recover more quickly from high consequence events such as hurricanes, which are increasing in frequency. While DBEDT recognizes the valuable functions of the Grid Resiliency Capital Investment Program and the creation of a Grid Resiliency Task Force, we do not have the resources to establish such a program. DBEDT could assist by consulting with stakeholders regarding grid resiliency and building grid resiliency into buildings and planning, but our limited resources for staffing and funding support for technical assistance is of concern.

DBEDT recognizes there are benefits to distributed resilient energy systems for individual electric consumers; however, we defer to the Public Utilities Commission and the Consumer Advocate on the Grid Resiliency Rebate Program proposal.

Thank you for the opportunity to provide DBEDT's comments on SB2910.

DAVID Y. IGE
GOVERNOR

LAUREL A. JOHNSTON
ACTING DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND
OFFICE OF THE PUBLIC DEFENDER

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
P.O. BOX 150
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE
BUDGET, PROGRAM PLANNING AND
MANAGEMENT DIVISION
FINANCIAL ADMINISTRATION DIVISION
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

WRITTEN ONLY

TESTIMONY BY LAUREL A. JOHNSTON
ACTING DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE SENATE COMMITTEES ON TRANSPORTATION AND ENERGY
AND COMMERCE, CONSUMER PROTECTION, AND HEALTH
ON
SENATE BILL NO. 2910

February 9, 2018
9:00 a.m.
Room 229

RELATING TO ELECTRIC GRID RESILIENCY

Senate Bill No. 2910 establishes the Grid Resiliency Capital Investment Program (GRCIP) and Special Fund; appropriates an unspecified amount of general funds for FY 19 to be deposited into the GRCIP Special Fund to provide rebates for the purchase and installation of critical infrastructure; establishes the Grid Resiliency Rebate Program (GRRP) and Special Fund; allocates an unspecified amount from the revenues collected through the Public Benefits Fee as authorized in Section 269-121, HRS, to be deposited into the GRRP Special Fund for the purposes of the GRRP; and establishes a Grid Resiliency Task Force to prepare the State's electrical grid for natural disasters and other emergencies.

The Department of Budget and Finance, as a matter of general policy, does not support the creation of any special fund which does not meet the requirements of Section 37-52.3, HRS. Special funds should: 1) serve a need as demonstrated by the purpose, scope of work and an explanation why the program cannot be implemented successfully under the general fund appropriation process; 2) reflect a clear nexus between the benefits sought and charges made upon the users or beneficiaries or a clear link between the program and the sources of revenue; 3) provide an appropriate means of financing for the program or activity; and 4) demonstrate the capacity to be financially self-sustaining. In regards to Senate Bill No. 2910, it is difficult to determine whether the two proposed special funds would be self-sustaining.

Thank you for your consideration of our comments.

TESTIMONY BEFORE THE SENATE COMMITTEE ON TRANSPORTATION & ENERGY AND THE SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION AND HEALTH

S.B. No. 2910

Relating to Electric Grid Resiliency

Friday, February 9, 2018
9:00 am
State Capitol, Conference Room 229

Rodney Chong
Manager, Grid Modernization
Hawaiian Electric Company, Inc.

Chairs Inouye & Baker, Vice Chairs Espero & Tokuda, and Members of the Committees:

My name is Rodney Chong and I am testifying on behalf of Hawaiian Electric Company and its subsidiary utilities Maui Electric Company and Hawai'i Electric Light Company **in opposition** to SB 2910.

The preamble of this bill correctly frames the importance of and need to invest in grid resiliency. However the bill does not address improving overall electric system resilience – which benefits all customers - but instead focuses on using public funding for PV-battery systems to serve as emergency generators at critical infrastructure facilities and residences of select individuals. As such, this bill is too narrowly focused and fails to consider and prioritize resilience upgrades that provide the best benefits to the State.

SB 2910 jumps to a one-size-fits-all solution without properly considering the specific needs of critical facilities. Although PV-battery systems may be suitable to provide emergency power for certain buildings if properly designed and hardened to withstand severe hurricanes and operate independently from the grid, they may still be inadequate for other critical facilities that will need emergency power during periods beyond the capability of a PV-battery system. For example, the Queen's

Medical Center and the Daniel K. Inouye International Airport have emergency power systems that are able to separate from the utility grid during a power outage and keep operating through prolonged periods of adverse weather, which a PV-battery system would not be able to do.

Furthermore, this bill does not take into consideration existing codes and standards related to emergency power systems, such as the National Fire Protection Association (NFPA) 101 Life Safety Code, NFPA 110 Emergency and Standby Power Systems, and NFPA 111 Standard on Stored Electrical Energy Emergency and Standby Power Systems, that have been developed over time and includes design, installation, and testing requirements for these systems. Also, note that this bill's definition of what is a critical facility is entirely too broad, including even the primary residences of first responders, and does not correspond to the definition in existing codes and standards.

We support the need for resilience of critical infrastructure and critical facilities. But there first needs to be a process of determining and prioritizing those needs, and then meeting those needs with the right solutions. We should not force fit one technology as the solution for resilience, because there are a variety of needs and a variety of solutions.

Accordingly, the Hawaiian Electric Companies oppose SB 2910. Thank you for this opportunity to testify.

Hawaii Solar Energy Association
Serving Hawaii Since 1977

TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION
IN REGARD TO SB 2910, RELATING TO ELECTRIC GRID RESILIENCY
BEFORE THE
SENATE COMMITTEE ON TRANSPORTATION AND ENERGY
AND
SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND HEALTH
ON
FRIDAY, FEBRUARY 9, 2018

Chair Inouye, Chair Baker, Vice-Chair Espero, Vice-Chair Tokuda, and members of the committee, my name is Will Giese, and I represent the Hawaii Solar Energy Association, Inc. (HSEA)

HSEA **strongly supports** SB 2910. The measure amends establishes the grid resiliency capital investment program and the grid resiliency rebate program as well as a grid resiliency task force to prepare Hawaii's electrical grid for natural disasters and other emergencies.

The HSEA was founded in 1977 to further solar energy and related arts, sciences and technologies with concern for the ecologic, social and economic fabric of the Hawaiian Islands. Our membership includes the vast majority of locally owned and operated solar installers, contractors, distributors, manufacturers, and inspectors across all islands.

Grid resiliency and stability before, during, and after disasters is essential to providing residents of Hawaii a sense of security and the ability to quickly recover. Now more than ever electrical systems that build resiliency and stability into island electrical grids should be seriously considered as a path to energy independence by 2045.

As of last month, more than 30% of Puerto Ricans are without electricity.[1] **Puerto Rico is a wakeup call for Hawaii.** In the wake of Hurricane Maria, Puerto Rico released proposed rules on microgrid development and other grid resiliency efforts to strengthen its grid against extreme weather.[2] As a state we must decide if we are going to stand by and wait until a major disaster hits our islands or be proactive with intelligent and timely energy policy.

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[1] Savransky, Rebecca. "Nearly Half a Million Customers Are Still without Power in Puerto Rico."*TheHill*, 25 Jan. 2018, thehill.com/blogs/blog-briefing-room/news/370744-nearly-half-a-million-customers-still-dont-have-power-in-puerto.
[2] Staff, PREC. *REGULATION ON MICROGRID DEVELOPMENT*. MI ed., CEPR, ser. 0001, 2018, *REGULATION ON MICROGRID DEVELOPMENT*.

[1]Order No.32052, Docket No. 2012-0036, 16–29

The 2015 Hawaii Catastrophic Hurricane Plan published by the Hawaii Emergency Management Agency paints a stark picture of the current state of Hawaii's electrical grid.[3] The report states:

> "A catastrophic hurricane will produce statewide power outages and disrupt all energy systems, resources, and markets. Much of Hawaii's electrical systems are located in inundation zones. Failure of this infrastructure will lead to major disruptions of production, transmission, and distribution of electricity. The power generation and distribution systems in Hawaii are subject to island-wide outages before, during, and after a catastrophic hurricane."[4]

Per this report, a ***best case*** scenario estimates 50% power outage for ***at least*** 30 days post-disaster (category 4 hurricane or stronger):[5]

Table 2-6: Critical Services Impacts

	Description	Summary of Impact
Critical Services	**Days without power** *Source: Hawaiian Electric Company*	50% of power generation lost for up to 30 days
	Days without water/sewer services *Source: 2013 State of Hawaii Mass Care Council*	7 days without service post-hurricane
	Days without seaport services *Source: 2013 State of Hawaii Mass Care Council*	7 days without basic/emergency service post-hurricane
	Days without airport services[12] *Source: 2013 State of Hawaii Mass Care Council*	3-5 days with no airport availability. Initially, only emergency operations via military transport. Estimate for restoration of commercial traffic was not available.
	Days required for debris clearance *Mass Care Working Group*	7 days for major roadways

It is essential that Hawaii be prepared for a major emergency or natural disaster. Through this bill, critical services like EMS, fire, and police as well as utility line workers and healthcare professionals would be given an extra layer of security in the event of a disaster. Hospitals and emergency shelters (primarily public schools) will be hardened against the impacts of a major emergency. Utility infrastructure will be made more resilient.

The state must act to treat grid resiliency efforts like those outlined in HB 2249 proactively, rather than symptomatically. Renewable energy, energy storage, microgrids, and grid resiliency efforts inherent in this bill build the critical infrastructure needed to safeguard the state against major disaster. This bill makes our state more secure, more resilient, and cleaner.

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[3] HI-EMA, Staff. *2015 Hawaii Catastrophic Hurricane Plan*. SOH-HI-EMA, 2015, *2015 Hawaii Catastrophic Hurricane Plan*.
[4] See "Report" at pp. 109.
[5] See "Report" at Impacts, 2-6.

[1]Order No.32052, Docket No. 2012-0036, 16–29

Put simply, this bill will save lives.

We **strongly support** SB 2910 and we urge this committee to pass this measure.

Thank you for the opportunity to testify.

[1]Order No.32052, Docket No. 2012-0036, 16–29

Before the Senate Committee on Transportation and Energy and the Senate Committee on Commerce, Consumer Protection, and Health.
Friday, February 9th, 2018, 9 a.m., Room 229
SB 2910: Relating to Electric Grid Resiliency

Aloha Chairs Inouye & Baker, Vice Chairs Espero & Tokuda, and members of the Committees,

On behalf of the Distributed Energy Resources Council of Hawaii ("DER Council"), I would like to testify in support of SB 2910 with amendments which establishes the grid resiliency capital investment program and the grid resiliency rebate program as well as a grid resiliency task force to prepare the State's electric grid for natural disasters and other emergencies.

The DER Council is a nonprofit trade organization formed to assist with the development of distributed energy resources and smart grid technologies which will support an affordable, reliable, and sustainable energy supply for Hawaii.

The investment in grid resiliency is seen as a crucial next step towards the development of an electrical grid which can respond to and withstand any emergency that may come our way. Even though Hawaii has made significant progress in the development of renewable energy, that renewable energy will not necessarily help Hawaii should we face a natural disaster or some other kind of emergency. A standard roof-top solar deployment, for instance, is designed to shut down if the grid is down. This is a safety feature that is part of an inverter's programming to protect line workers should they shut down a part of the grid for repair. Hawaii needs installations which are designed as a microgrid, such that the installation can operate independently from the grid should the grid fail. Microgrids are very flexible in that they can be designed for a wide range of uses, from single residential homes, commercial buildings, schools, and entire communities.

However, we believe that SB 2910 should be amended such that the resiliency fund is managed directly by the commission with the support of the task force, and that the funds should come through an amendment to the PBFA as directed by the commission. By streamlining the bill and removing DBEDT from the first year of administration of any funds appropriated, we contend that resources will be utilized more effectively as the resiliency program would be administered by only one entity.

This bill would begin the process of wisely allocating funds for investment in a resilient electrical infrastructure. Hawaii is the most isolated island in the world, and we need to ensure that we can stand strong should we face a natural disaster or other emergency.

Thank you for the opportunity to testify.

Best regards,
Leslie Cole-Brooks
Executive Director
Distributed Energy Council of Hawaii

TESTIMONY REGARDING SB 2910

being heard by the Senate Committee on Transportation and Energy and the Senate Committee on Commerce, Consumer Protection, and Health
on Friday, February 9, 2018 at 9:00 a.m.
Room 229

Aloha Chair Inouye, Chair Baker and Members of the Committees:

Thank you for the opportunity to provide testimony regarding SB 2910 , which would advance efforts to improve the resiliency of Hawaii's critical infrastructure facilities by integrating resiliency considerations into planning activities and by providing support for the deployment of energy solutions that reduce the risk of electrical service interruptions during crisis events. Tesla supports this bill and requests two changes described below.

In the wake of the large scale natural disasters that impacted numerous parts of the United States and its territories last year, it is appropriate that localities like Hawaii, which are uniquely vulnerable to such disasters, take steps to ensure that critical infrastructure facilities continue to be operational in times of crisis. Access to electricity is a fundamental need, the absence of which can effectively render many critical infrastructure facilities inoperative, deepening the challenges such episodes invariably pose and slowing the pace of recovery in their aftermath.

The distributed solar and energy storage technologies that Tesla deploys provide system planners and facilities managers a new set of tools that can play an important part in improving facility and system resiliency. For example, battery systems paired with solar represent a relatively new form of energy back-up. Because such systems are not dependent on an onsite conventional fuel supply they represent a robust and environmentally sound approach as compared to conventional gas or diesel generators.

While the resiliency "use case" is intuitively appealing, the ability of those entities that manage critical infrastructure facilities to deploy clean energy solutions may be limited, owing to constraints these entities face. At the same time, given the public nature of the benefits of ensuring these facilities remain operational, there is a strong policy rationale for programmatic support to facilitate the deployment of such systems.

While Tesla supports SB 2910, we request two friendly amendments. First, to ensure that the Task Force's recommendations are well-vetted and practical, the Grid Resiliency Task Force should be explicitly directed to convene stakeholder meetings to solicit input from the broader stakeholder community. Second, the timeline for completion of the Task Force's report and recommendations should be accelerated. Moving the deadline for the report forward to allow those recommendations to be considered in the 2019 legislative session would help ensure the benefits of this legislation can be achieved in a more timely manner.

We appreciate the opportunity to provide this testimony.

P.O. Box 37158, Honolulu, Hawai`i 96837-0158
Phone: 927-0709 henry.lifeoftheland@gmail.com

COMMITTEE ON TRANSPORTATION AND ENERGY
Senator Lorraine R. Inouye, Chair
Senator Will Espero, Vice Chair

COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND HEALTH
Senator Rosalyn H. Baker, Chair
Senator Jill N. Tokuda, Vice Chair

Friday, February 9, 2018
9:00 am
Conference Room 229

SB 2910 RELATING TO ELECTRIC GRID RESILIENCY. SUPPORT

Aloha Chairs Inouye and Baker, Vice Chairs Espero and Tokuda, and Members of the Committees

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for 47 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

The bill proposes the establishment of the DBEDT grid resiliency capital investment program and the grid resiliency rebate program as well as a DBEDT grid resiliency task force to prepare the State's electrical grid for natural disasters and other emergencies.

Life of the Land supports this bill if the Legislature either assigns the PUC as the lead agency, or if the Legislature asserts that the effort should be a cross-silo investigation conducted jointly by the PUC and the Office of Planning (OP). The current bill language putting DBEDT in charge is unacceptable.

The proceeding should holistically examine the electric, gas, and telecommunication grids together, as well as the other aspects of the energy sector (aviation, marine, ground transportation), to minimize the delayed responses to Acts of God or nuclear strikes. The four systems (electric, gas, telecom, transportation) work together in recovery efforts.

HB 2249 states that the 20-plus members of the task force shall comprise almost entirely of state-governmental people who do not deal with energy policy and grid operations on a day-to-day basis.

The bill should bring together state and county people.

Entities that will not be task force members according to the bill include the Public Utilities Commission, Consumer Advocate, Counties, energy stakeholders in PUC grid modernization dockets, the energy industry, the telecommunications industry, the transportation sector, and the public.

Part of the reason for incorporating resilience is the growing problem of climate change impacts.

Therefore, the resilience effort must be consistent with the need to replace foreign fossil fuel with low-cost, low-climate-impact renewable energy. The solution to climate change can`t be what is proposed by the Gas Company: to change from one fossil fuel to another fossil fuel and use part of the life cycle greenhouse gas emissions as proof that Mother Earth supports a total rise in greenhouse gas emissions.

Resilience also requires distributed systems so one problem does not contaminate the whole grid.

Therefore, the solution must involve geographically-diverse resources.

This approach can also be done in conjecture with, or alongside, the proposal for a state controlled wireless broadband telecom system based on the forthcoming fifth generation (5G) wireless standards.

The Hawai`i electric transmission and distribution grids are unique. Most places that have high-levels of renewable energy rely on baseload (geothermal, hydroelectric) or are grid-tied to a much larger system. One country in the world generates more than half of its electricity from geothermal, and most people couldn`t identify the African

nation. Germany has a high renewable energy penetration rate and is grid-tied to its neighbors; it gets significant amounts of electricity from several nations, and exports significant amounts of electricity to several other nations.

Hawai`i has 70,000 rooftop solar systems, and significant amounts of centralized wind and solar facilities. Our grids are becoming two-way. We have low inertia systems, that is, they have less spinning reserves and more variable generators which can impact frequency and voltage.

There are positive offsets. The Hawai`i electric utilities have capable grid experts. The PUC recently approved smart inverters and demand response programs. Hawai`i has a variety of different organizations that actively participate in PUC grid reliability proceedings.

The PUC is in the middle of its largest and most complex proceeding. Some twenty parties are engaged in a five-year effort to modernize the grid to handle Distributed Energy Resources (DER). Overall, the PUC is moving forward. Some would like the pace to be faster or slower or head in on a tangent, but generally believe that the PUC is functioning better than in the past.

By contrast, the department of business, economic development, and tourism (DBEDT) assumed that an interisland transmission cable would become the first man-made object that would never fail, and hence, no back-up was needed in analyzing its costs and merits.

DBEDT is also home to the infamous GEMS project. DBEDT pushed ethanol. DBEDT backs high-greenhouse gas emitting renewable energy projects.

DBEDT recently dropped out of the PUC docket process so it can work behind the scenes without having to explain its positions.

The January 2018 Audit of the Hawai`i State Energy Office summed it up. "**The Energy Office's existence and relevance are unclear to clean energy stakeholders."**

The bill states that the Task Force will hire one consultant.

The legislation focuses on how to protect critical infrastructure, which includes "police stations, fire stations, hospitals, nursing homes, designated emergency shelters, the primary residences of first responders", but currently does not include the transmission grid.

The bill focuses on how to fix today`s grid to handle tomorrow`s storms.

DBEDT has no formal mechanism for receiving, and acting on, community input. Its entire focus is business growth. Building resilience first and foremost means involving the people in the planning process.

The preface to the bill states, “Hurricanes Irma and Maria struck Puerto Rico with devastating force, causing an estimated $95,000,000,000 in damages to the island.”

Many believe that a new grid architecture is needed, one that focuses on layered microgrids, as the military did with Camp Smith in Aiea.

Words and phrases not in the bill are “microgrid”, “grid architecture” and “cyber-security.”

A microgrid can be one facility or house that can provide its own energy when the utility grid fails. A mobile microgrid can be one vehicle which is powered by the grid but acts independently of the grid.

Critical infrastructure can survive an electric grid failure by getting power from the Gas grid (Queens Hospital), or on-site renewable energy combined with energy storage.

The bill appears to favor systems which are interfaced with the grid, as opposed to those that stand-alone, even though both architectures can provide resilience and reliability. There are hundreds of individual power systems around the State that are not connected to the utility grid. Many people have their own wind or solar system hooked up with storage. Stand-alone systems may withstand cyber assaults better than layered microgrids. Or they may be worse. State policy should not favor one or the other.

In conclusion, the energy-telecom revolutions are escalating in simplicity and complexity. Hawai`i should get out ahead of the curve and establish a regulatory framework that will protect the residents. We cannot allow Puerto Rico to occur here. We must provide solutions that the entire world can learn from.

Mahalo

Henry Curtis, Executive Director

SB-2910
Submitted on: 2/8/2018 8:55:47 AM
Testimony for TRE on 2/9/2018 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	OCC Legislative Priorities	Support	No

Comments:

THE ALLIANCE FOR SOLAR CHOICE

SENATE COMMITTEE ON TRANSPORTATION AND ENERGY

February 9, 2018, 9:00 a.m.
(Testimony is 1 page long)

TESTIMONY IN SUPPORT OF SB 2910

Aloha Chair Inouye and Members of the Committee:

The Alliance for Solar Choice (TASC) respectfully supports SB 2910, relating to electric grid resiliency. This measure prepares Hawaii for natural disasters and other emergencies, by creating (1) a grid resiliency task force, (2) an investment program, and (3) a rebate program.

Four months after the devastating impacts of Hurricane Irma, nearly a half a million people in Puerto Rico lack access to reliable sources of electricity.[1] Puerto Rico's grim struggle must serve as a wake-up call for Hawaii. Imagine the devastation if a similar storm were to hit Hawaii, and how our vulnerable keiki and kapuna would struggle without reliable access to electricity, food, and water?

In 2017, more damage occurred as a result of natural disasters than any other time in recorded history. Experts believe the severity and frequency of natural disasters will only increase as a result of climate change. Modernizing our grid can lessen the severity of blackouts, as well as reduce the amount of dirty fossil fuels we burn, thus cutting back the emission of greenhouse gases that increase the severity and impact of monster storms.

We can look to other another island for inspiration: Cuba. Over a decade ago, Cuba made a commitment to moving away from its Soviet-style electrical grid and centralized power plants. Cuba committed to both energy efficiency and decentralized power plants. These local power plants, or microgrids, can disconnect from the electrical grid during severe storms or blackouts and continue to provide power to their customers. This way during major storms, critical areas like hospitals and emergency centers can continue to have access to electricity. Cuba's success directly contrasts with Puerto Rico. After Hurricane Irma struck, power was mostly restored within a week.

Further, we know we can move towards a more distributed and resilient grid. Over 90% of the solar panels survived superstorm Sandy in 2012. Solar power systems similarly survived the impact of Hurricane Irma, even powering street lights in Coral Springs, Florida. Distributed electrical grids -- ones with lots of small, decentralized power systems -- are inherently more reliable and resilient, ensuring power at the place where it is needed the most regardless of what happens to a wooden pole supporting an electrical power line somewhere else.

Mahalo for the opportunity to submit these comments.

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[1] http://abcnews.go.com/US/months-maria-450k-residents-puerto-rico-power/story?id=52585227

TESTIMONY OF RANDY IWASE
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF HAWAII
TO THE
SENATE COMMITTEE ON
TRANSPORTATION AND ENERGY
AND
SENATE COMMITTEE ON
COMMERCE, CONSUMER PROTECTION, AND HEALTH

February 9, 2018
9:00 a.m.

MEASURE: S.B. No. 2910
TITLE: RELATING TO ELECTRIC GRID RESILIENCY.

Chair Inouye, Chair Baker, and Members of the Committees:

DESCRIPTION:

Establishes the grid resiliency capital investment program and the grid resiliency rebate program as well as a grid resiliency task force to prepare the State's electrical grid for natural disasters and other emergencies.

POSITION:

The Public Utilities Commission ("Commission") offers the following comments for consideration.

COMMENTS:

The Commission welcomes legislative guidance to specifically analyze vulnerability and improve grid resilience through planning and investment.

The Commission notes that this legislation will require increasing the Public Benefits Fee on utility customer bills to support the grid resiliency rebate program. As such, the Commission requests the Legislature consider appropriating additional funds into the grid resilience special fund instead of requiring an increase in the Public Benefits Fee.

In addition, the Commission is unclear as to whether Section 7 contemplates electric utilities receiving rebates from the grid resiliency rebate program.

Thank you for the opportunity to testify on this measure.

SB-2910
Submitted on: 2/5/2018 5:26:17 PM
Testimony for TRE on 2/9/2018 9:00:00 AM

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

Comments:

SIERRA CLUB OF HAWAIʻI
MĀLAMA I KA HONUA. Cherish the Earth.

SENATE COMMITTEE ON TRANSPORTATION AND ENERGY

SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION & HEALTH

Friday, February 9, 2018 9:00AM Conference Room 229

In SUPPORT of SB 2910 Relating to electric grid resiliency

Aloha Chairs Inouye and Baker, Vice Chairs Espero and Tokuda and members of the Committees,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawaiʻi, a member of the Common Good Coalition, **strongly supports SB 2910**, a measure that establishes the grid resiliency capital investment program and the grid resiliency rebate program as well as a grid resiliency task force to prepare Hawaiʻi's electrical grid for natural disasters and other Emergencies.

The electrical infrastructure of Hawaiʻi is severely vulnerable to major disaster. Currently, all of Hawaiʻi's major utility scale power generators sit within inundation zones across all islands. In the event of a major natural disaster, such as a category 4 hurricane or a tsunami, the majority of these generators would be rendered inoperable. This and other major vulnerabilities also extend to transformers, transmission systems, and distribution networks. The people of Hawaiʻi would be without power for days or weeks post disaster, and recovery would be slow and expensive.

SB 2910 creates a structure by which this system can be updated. By allowing the use of the Public Benefits Fee to create resiliency in the electric grid, our emergency shelters and hospitals,and residential homes, this measure seeks to safeguard the people of Hawai'i against major disaster. Additionally, many of these updates will utilize renewable energy which is in line with Hawaii's 2045 RPS goals, the power supply improvement plan, and grid modernization efforts. SB 2910 simultaneously creates reliability, grid stability, and clean power infrastructure.

Last year, Hurricane Irma and Maria devastated the country of Puerto Rico and its people, leaving thousands without power and creating massive environmental devastation. A similar fate awaits Hawai‘i, unless this bill is passed. Major flooding in even one of our fuel oil burning power plants could irreversibly destroy the vulnerable ecosystems surrounding them. A renewable power generator on a similar geographic footprint, such as wind turbines or ground-mounted solar, would have not even 1/100 of the environmental impact of an inundated traditional fossil fuel plant. Solar panels do not generate oil slicks or leak dangerous hydrocarbons into the water supply.

Hawai‘i, its people, and the environment need smart energy policies like SB 2910. The alternative to not passing this measure is terrifying and unacceptable.

We **strongly support SB 2910** and urge the committee to pass this measure.