



**TESTIMONY BEFORE THE HOUSE COMMITTEE ON
ENERGY & ENVIRONMENTAL PROTECTION**

SCR 94 SD1

**Requesting the Hawaii State Energy Office to Engage the United States Department of
Energy to Establish a Permanent Presence Within the State of Hawaii**

Thursday, April 14, 2022

9:00 AM

State Capitol, Conference Room 325 & Videoconference

Darren Ishimura, P.E.
Director, Grid Technologies
Hawaiian Electric Company, Inc.

Chair Lowen, Vice Chair Marten, and Members of the Committee:

My name is Darren Ishimura and I am testifying on behalf of Hawaiian Electric Company, Inc. ("Hawaiian Electric") in support of SCR 94 SD1.

Hawaiian Electric supports efforts to establish a presence by the U.S Department of Energy ("DOE") in Hawai'i. This presence could help the State by: (1) increasing availability of federal funding, technical expertise, and laboratory capabilities that can strengthen the State's ability to evaluate, demonstrate, and deploy new technologies; and (2) attracting skilled labor needed by local government agencies and private industry to develop and implement solutions that address the State's energy challenges.

Hawai'i faces unique energy challenges compared to the continental U.S. due to its non-interconnected island-based electric grid systems and industry-leading levels of renewable energy and distributed energy resources. As such, DOE technical studies and federal funding opportunities do not always align to Hawai'i's situation and needs. DOE's presence could help address this gap as Hawaiian Electric proactively seeks opportunities that advance its capabilities to generate and deliver safe, reliable power and strengthen the electric grid by making it more resilient to achieve the State's goals for renewable energy and decarbonization.

Accordingly, Hawaiian Electric supports SCR 94 SD1. Thank you for the opportunity to testify.



DAVID Y. IGE
GOVERNOR

GWEN S. YAMAMOTO LAU
EXECUTIVE DIRECTOR

HAWAII GREEN INFRASTRUCTURE AUTHORITY

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Testimony of
Gwen Yamamoto Lau
Executive Director
before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Thursday, April 14, 2022
Time: 9:00 A.M.
State Capitol, Conference Room No. 325 & Videoconference

In consideration of
SENATE CONCURRENT RESOLUTION NO. 94, SD1
REQUESTING THE HAWAII STATE ENERGY OFFICE TO ENGAGE THE UNITED STATES
DEPARTMENT OF ENERGY TO ESTABLISH A PERMANENT PRESENCE WITHIN THE
STATE OF HAWAII

Chair Lowen, Vice Chair Marten, and Members of the Committee on Energy & Environmental Protection:

Thank you for the opportunity to testify on Senate Concurrent Resolution No. 94, SD1 requesting the Hawaii State Energy Office to engage with the United States Department of Energy to establish a permanent presence within the state of Hawaii. HGIA **supports** this bill.

As a clean energy leader, having a presence in Hawaii would be a mutually beneficial arrangement for the U.S. Department of Energy ("US DOE"), allowing for closer collaboration and implementation of pilot projects in Hawaii that can be scaled nation-wide.

The U.S. DOE could adopt the U.S. Patent and Trademark Office's Telework Enhancement Act Pilot Program ("Program"), which has been in existence since February 2012. Through this program, we have U.S. Patent attorneys living and working in Hawaii. Similarly, the U.S. DOE could leverage said Program and have a presence in Hawaii while complying with the Biden-Harris Administration's Justice40 Initiative.

Thank you for this opportunity to testify in support of SCR 94, SD1.



NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY



An Authority of the State of Hawaii attached to the Department of Business, Economic Development & Tourism

Written Only

Statement of
Gregory P. Barbour
Executive Director
Natural Energy Laboratory of Hawaii Authority
before the

HOUSE COMMITTEE ON ENERGY AND ECONOMIC PROTECTION

Monday, April 14, 2022
9:00 am

State Capitol, Conference Room 325 & Videoconference

in consideration of

SCR 94 SD1 REQUESTING THE HAWAII STATE ENERGY OFFICE TO ENGAGE THE UNITED STATES DEPARTMENT OF ENERGY TO ESTABLISH A PERMANENT PRESENCE WITHIN THE STATE OF HAWAII.

The Natural Energy Laboratory of Hawaii Authority (NELHA) strongly supports SCR 94 SD1 which requests the Hawaii State Energy Office to explore expanded relationships with the US Department of Energy (US-DOE). This makes good business sense, as the establishment of a US-DOE Field Office here will permit Hawaii to re-position itself among energy leaders in the US and the Asia-Pacific and enable us to attract substantial activity and investment in renewable energy.

The large amount of interest generated in the US Department of Energy by the Hawaii Clean Energy Initiative (HCEI) affords a great opportunity for Hawaii to market itself as a hub for energy research and commercialization, while promoting commerce and partnerships in the Asia Pacific Region. As a result, Hawaii certainly has unique and valuable assets and holds an exclusive place in the Pacific for energy and distributed energy applied research, demonstration, test and evaluation,

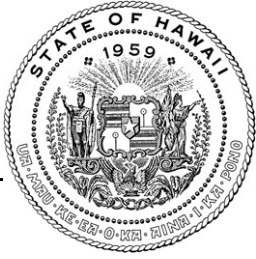
and deployment of clean energy technologies and can play a key role in support of the Indo-Pacific National Security Strategy.

The relationship and interest in Hawaii has been strong and it is our understanding that Hawaii is on a list of facilities suggested for future facilities and/or programs from US-DOE. We possess an extraordinary combination of physical infrastructure and access to natural energy resources. These assets can be coupled effectively with the challenging demands faced by our electrical system to integrate substantial amounts of renewable energy, efficiency resources, and other non-fossil fuel distributed energy resources on relatively small, isolated island electrical grids and achieve the HCEI goals. Studies of renewable energy technologies in tropical conditions is an added enticement for researchers at US-DOE and national labs as well as a site for future demonstration projects.

With timely implementation, we can take advantage of the growing interest among academia, utilities, federal and state government agencies, and industry to address the types of deployment challenges that are already being faced in Hawaii. President Biden's stimulus packages also increase the possibility of partnerships and funding for our renewable energy initiatives.

Over the years, NELHA has built strong relationships with the US-DOE, National Renewable Energy Laboratory, Sandia National Laboratory, and the Pacific Northwest National Laboratory. Recent and ongoing projects funded in cooperation with these agencies include hydrogen production, storage and fueling, energy storage, solar desalination, microgrid development. A US-DOE regional Field Office in Hawaii will assist us in growing these initiatives and attract new projects to our outdoor demonstration testbed in Kailua-Kona.

Thank you for the opportunity to offer these comments.



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

DAVID Y. IGE
GOVERNOR

MIKE MCCARTNEY
DIRECTOR

CHUNG I. CHANG
DEPUTY DIRECTOR

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Statement of
MIKE MCCARTNEY
Director

Department of Business, Economic Development, and Tourism
before the

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Thursday, April 14, 2022
9:00 AM

State Capitol, Conference Room 325 & Videoconference

SCR 94, SD1
REQUESTING THE HAWAII STATE ENERGY OFFICE TO ENGAGE THE UNITED STATES DEPARTMENT OF ENERGY TO ESTABLISH A PERMANENT PRESENCE WITHIN THE STATE OF HAWAII.

Chair Lowen, Vice Chair Marten, and Members of the Committee.

The Department of Business, Economic Development, and Tourism strongly supports SCR 94, SD1, which requests the Hawai'i State Energy Office to engage the United States Department of Energy (USDOE) to establish a permanent presence within the State of Hawai'i.

DBEDT is ready and willing to assist HSEO in pursuing this effort. The USDOE is a strategic partner to the State of Hawai'i in achieving Hawai'i's clean energy goals and transforming Hawai'i into a knowledge-based, zero emission, digital, and global economy. Many DBEDT agencies and numerous businesses across the state engage the USDOE through numerous initiatives.

A permanent presence for the USDOE in Hawai'i would deepen this partnership to accelerate Hawai'i's transformation, enable the USDOE to better assist other jurisdictions with undertaking these transformations, and enhance the United States' ability to engage with partners throughout the Pacific region to enhance national security through economic prosperity and fighting climate change.

Thank you for this opportunity to submit this testimony.



Written Statement of
Len Higashi
Acting Executive Director
Hawaii Technology Development Corporation
before the

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Thursday April 14, 2022
9:00 a.m.
Conference Room 325 & Videoconference

In consideration of
SCR94

REQUESTING THE HAWAII STATE ENERGY OFFICE TO ENGAGE THE UNITED STATES DEPARTMENT OF ENERGY TO ESTABLISH A PERMANENT PRESENCE WITHIN THE STATE OF HAWAII

Chair Lowen, Vice Chair Marten, and Members of the Committee

The Hawaii Technology Development Corporation (HTDC) **supports** SCR 94 requesting the Hawaii State Energy Office to engage the United States Department of Energy to establish a permanent presence within the state of Hawaii.

HTDC supports initiatives aimed at promoting technology and manufacturing jobs. HTDC believes that having the United States Department of Energy (DOE) present in the state of Hawaii will lead to better opportunities for research and advanced manufacturing companies. One of HTDC's core programs supports Hawaii companies participating in the federal Small Business Innovation Research (SBIR) program. Hawaii companies have received 49 SBIR awards for Department of Energy topics, 39 of which were awarded after 2017. Furthermore, Shifted Energy, a local company headquartered at HTDC's Entrepreneurs Sandbox, was 1 of 10 companies selected in 2019 to participate in the Wells Fargo Innovation Incubator co-administered by the DOE's National Renewable Energy Laboratory. A presence in Hawaii will allow better communication and collaboration between Hawaii companies and the DOE.

Another of HTDC's programs is the Hawaii Center for Advanced Transportation Technologies. HCATT has a long standing partnership with the DOE and would welcome the opportunity to continue to pursue innovative renewable energy transportation projects for the state and is a key asset in HTDC's ability to compete for federal funding, particularly in hydrogen technologies and sustainable aviation fuel.

Finally, HTDC's INNOVATE Hawaii program is the Hawaii center for the National Institute for Standards and Technology Manufacturing Extension Partnership (NIST MEP) program. NIST MEP and DOE previously piloted a strategic agreement for Manufacturing Impacts Through Energy and Commerce (MITEC). The MITEC pilot is a step toward linking innovation resources across the

federal government. It will expand the partnerships between the MEP Centers and DOE national labs to help states develop strong, regional clean energy manufacturing and economic development clusters. The DOE Advanced Manufacturing Office also has direct synergies with our program.

Hawaii HTDC looks forward to working with all stakeholders in moving this initiative forward. Thank you for the opportunity to offer these comments.



**Testimony to
The Committees on Energy & Environmental Protection
Thursday, April 14, 2022
9:00 AM
Conference Room 325, Hawaii State Capitol and VIA Video Conference
SCR 94 SD1/ SR 84**

Chair Lowen, Vice Chair Marten, and members of the committees,

Hawaii Gas **supports SCR 94, SR 84**, which requests the Hawaii State Energy Office to engage the United States Department of Energy to establish a permanent presence within the state of Hawaii.

Hawaii Gas is a national leader in the transmission and distribution use of hydrogen in our clean energy mix, and it is our vision to continue to lead the gas industry in its ability to safely, affordably, and reliably increase the amount of this zero-emissions fuel source in our utility pipeline.

Hawaii Gas is incorporating RNG and studying the feasibility of increased levels of hydrogen, while providing cost-effective rates and reliable service. Our goal is to leverage Hawaii Gas's established and resilient pipeline infrastructure to enable a long-term energy transition for Hawaii.

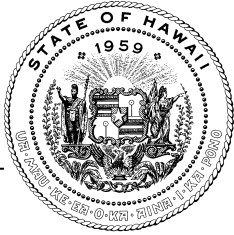
Hawaii Gas is participating in the H2@Scale initiative, led by the U.S. Department of Energy's (DOE's) Hydrogen and Fuel Cell Technologies Office (HFTO) within the Office of Energy Efficiency and Renewable Energy (EERE), which brings together stakeholders to advance affordable hydrogen production, transport, storage, and use while increasing revenue opportunities in multiple energy sectors. It includes DOE funded projects at National Laboratories and in collaboration with industry to accelerate hydrogen research, development, and demonstration activities.

These resolutions call on the HSEO, with the Governor and executive branch agencies' support, to engage the USDOE on establishing a permanent presence in Hawaii, which could help advance similar future collaborations with the DOE and National Laboratories.

The 2008 State and USDOE Memorandum of understanding created the Hawaii Clean Energy Initiative (HCEI) that was instrumental in facilitating Hawaii's progress in the renewable electric sector. We hope that the depth of information, technology, R&D, collaboration, experience, and forward-thinking ideas from the passage and execution of this resolution will establish a platform for Hawaii's move towards the clean energy goal in other sectors and we hope that the gas utility, as a provider of low carbon and resilient energy be invited to participate as a stakeholder.



We urge the committees to pass SCR 94 and SR 84. Thank you for the opportunity to testify.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

SCOTT J. GLENN
CHIEF ENERGY OFFICER

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Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
**HOUSE COMMITTEE ON
ENERGY & ENVIRONMENTAL PROTECTION**

Thursday, April 14, 2022
9:00 AM

State Capitol, Conference Room 325 & Videoconference

**SUPPORT
SCR 94, SD1
REQUESTING THE HAWAII STATE ENERGY OFFICE TO ENGAGE THE UNITED
STATES DEPARTMENT OF ENERGY TO ESTABLISH A PERMANENT PRESENCE
WITHIN THE STATE OF HAWAII.**

Chair Lowen, Vice Chair Marten, and Members of the Committee, the Hawai'i State Energy Office (HSEO) supports SCR 94, SD1, which requests the Hawai'i State Energy Office to engage the United States Department of Energy (USDOE) to establish a permanent presence within the State of Hawai'i. SCR 94, SD1 is substantively similar to HCR 46, which this Committee passed on March 24, 2022.

As noted in HSEO's testimony on HCR 46, the USDOE has been a critical partner to the State of Hawai'i in achieving its clean energy goals and economic transformation. The Legislature designated HSEO as the lead agency for the Hawai'i Clean Energy Initiative, a partnership between the USDOE and State of Hawai'i. The Legislature further tasked the Chief Energy Officer to "Coordinate the State's energy programs with those of the federal government, other territory and state governments, the political subdivisions of the State, departments of the State, and governments of nations with interest in common energy resources." 196-72(d)(4), HRS.

Since the re-establishment of HSEO as an independent attached agency to the Department of Business, Economic Development, and Tourism (DBEDT), HSEO has pursued its statutory responsibilities diligently in a way to increase public support of and

confidence in Hawai'i's renewable energy transition and US leadership on renewable energy and climate change mitigation.

A permanent USDOE presence in Hawai'i would accelerate the leadership and transformation of Hawai'i toward a resilient, clean energy economy. In addition to the policy leadership cited in SCR 94, SD1, Hawai'i is leading in innovative project development and execution. Hawai'i's unique geography and discrete energy systems serve as models for testing and demonstrating effective policies and technologies. For example, O'ahu now has more distributed rooftop solar generation than produced by any one power plant. Through the Powering Past Coal Task Force, Hawai'i is pioneering the level of coordination needed to reliably retire Hawai'i's last coal plant and replace it with renewable energy projects. Kaua'i has achieved approximately 70% renewable energy for electricity eight years ahead of its 2030 target and is currently planning an innovative pumped storage hydroelectric project to achieve the next 20% of its target. Moloka'i has a grassroots community-led renewable energy transition underway. Many of these initiatives have received support from the USDOE through its various offices, programs, and national labs. A permanent presence in Hawai'i would deepen and further integrate these collaborations.

Concurrent with the Biden-Harris Administration's Justice40 Initiative, HSEO has been intentionally including an equity viewpoint in its office, structure, planning, programming, and projects. As HSEO works to more equitably advance Hawai'i's clean energy and climate goals, a successful path to a clean-energy and carbon-free economy requires green economic development innovation that creates living-wage jobs while enhancing environmental and social justice. To this end, HSEO partnered with other state and county agencies to establish the Energy Equity Hui focused on creating energy equity and justice programming outcomes.

As an example of practice, this is also the second year that three full-time AmeriCorps Volunteers in Service to America (VISTA) service members are contributing to HSEO's efforts to make clean energy and clean transportation more accessible and affordable for all Hawai'i residents. The VISTAs, part of the Climate Ready Hawai'i VISTA-AmeriCorps cohort coordinated by the Hawai'i Climate Change Mitigation and

Adaptation Commission, were selected for their ability and commitment to help strengthen HSEO's capacity to serve vulnerable and under-represented communities.

The HSEO has also launched a new Clean Energy Wayfinder program through the Kupu 'Āina Corps program, which the Legislature funded in Act 181 last year, and in partnership with Hawai'i community and energy industry stakeholders. The purpose of the program is to advance Hawai'i's clean energy goals and create jobs for a new generation of clean energy leaders while addressing inequities in vulnerable communities. Increasing vocalized community concerns about energy projects' benefits and impacts on host communities have made it clear that a deliberate and more intentional effort must be made to reach out to and include everyone in Hawai'i to more effectively, efficiently, and equitably achieve our 100% clean energy and carbon free economy goals. The Wayfinders serve as liaisons between communities and energy industry stakeholders by working with host community organizations, especially those in low-to-moderate income (LMI), asset limited, income constrained, employed (ALICE), or under-resourced communities with existing or planned renewable energy projects. The Wayfinders co-create strategies for sharing information, providing referrals to resources, and facilitating community input on energy efficiency and renewable energy policy, program, and project development. This increases energy conservation and efficiency, lowers monthly energy utility bills, increases access to clean transportation and renewable energy resources, and promotes green career training and employment.

Lastly, Hawai'i, as a US State centered in the Pacific, regularly engages in international diplomatic relations. Hawai'i's clean energy leadership has resulted in partnerships directly with countries and islands across the Pacific. The Biden-Harris Administration has identified clean energy and climate technology, investment, and policymaking as critical tools for the Indo-Pacific National Security Strategy. As Hawai'i is also the home to the Department of Defense's presence in the Indo-Pacific region, having a permanent USDOE presence in Hawai'i would enhance not only Hawai'i's engagement and support for the Biden-Harris Administration's objectives, but collaboration between the USDOD and USDOE on national security.

Thank you for the opportunity to testify.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Energy & Environmental Protection
Thursday, April 14, 2022 at 9:00 a.m.

By

Richard Rocheleau, Director
Hawai'i Natural Energy Institute

And

Michael Bruno, PhD
Provost

University of Hawai'i at Mānoa

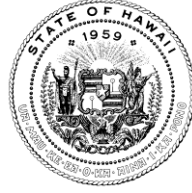
SCR 94 SD1 – REQUESTING THE HAWAII STATE ENERGY OFFICE TO ENGAGE THE UNITED STATES DEPARTMENT OF ENERGY TO ESTABLISH A PERMANENT PRESENCE WITHIN THE STATE OF HAWAII

Chair Lowen, Vice Chair Marten, and members of the committee:

SCR94 SD1 requests that the Hawai'i State Energy Office engage the U.S. Department of Energy to establish a permanent presence within the State of Hawai'i; and further requests that the Governor, Director of Business, Economic Development, and Tourism, as well as all departments and agencies with energy—related duties and responsibilities, are requested to support the Chief Energy Officer in this endeavor.

The Hawai'i Natural Energy Institute **supports** SCR 94 SD1 and looks forward to working with the Hawai'i State Energy Office on this endeavor.

Thank you for the opportunity to testify.



DAVID Y. IGE
GOVERNOR

JOSH GREEN
LT. GOVERNOR

**STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS**

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CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

Testimony of the Department of Commerce and Consumer Affairs

**Before the
House Committee on Energy & Environmental Protection
Thursday, April 14, 2022
9:00 AM
Conference Room 325 & Videoconference**

**On the following measure:
SCR 94, SD1, REQUESTING THE HAWAII STATE ENERGY OFFICE TO ENGAGE
THE UNITED STATES DEPARTMENT OF ENERGY TO ESTABLISH A PERMANENT
PRESENCE WITHIN THE STATE OF HAWAII**

Chair Lowen and Members of the Committee:

My name is Dean Nishina, and I am the Executive Director of the Department of Commerce and Consumer Affairs' (Department) Division of Consumer Advocacy. The Department supports this resolution.

The purpose of this resolution is to request the Hawaii State Energy Office to engage the United States Department of Energy (USDOE) to establish a permanent presence within the State of Hawaii. This resolution also requests that "all departments and agencies with energy-related duties and responsibilities . . . support the Chief Energy Officer in this endeavor".

As noted in the resolution, there is a well-established history of collaboration between the USDOE and Hawaii with respect to Hawaii's clean energy and climate goals. As Hawaii continues to push forward with its energy transition, the need for assistance in many areas, such as technology, research, and education to name a few examples, will increase. The need for such assistance will become even more

pronounced as the relatively low-hanging fruit that are currently being pursued are eventually exhausted. As acknowledged by the resolution, the State must also focus on pursuing the transition in a manner that benefits all consumers rather than simply assuming that such benefits will accrue equally to all communities. In addition, the State, which is geographically isolated, needs to pursue the transition in a manner that will increase Hawaii's resiliency both for the purposes for residents and businesses but also for the purposes of supporting the Department of Defense's ability to stand ready to address national security needs. Having USDOE assistance in thoughtful and comprehensive planning to meet these objectives is desirable.

The Department supports this resolution because it believes that such a permanent presence in the State by the USDOE could: 1) enhance opportunities to create more Federal/State partnerships; 2) increase opportunities for Hawaii to take advantage of Federal assistance in terms of technologies, studies, and programs that will help Hawaii's transition to clean energy; and 3) explore opportunities to ensure that the benefits of Hawaii's transition to clean energy are delivered to all customers and make the transition more affordable for all.

Thank you for the opportunity to testify on this resolution.

TESTIMONY OF
JAMES P. GRIFFIN, Ph.D.
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF HAWAII

TO THE
HOUSE COMMITTEE ON
ENERGY AND ENVIRONMENTAL PROTECTION

April 14, 2022
9:00 a.m.

Chair Lowen and Members of the Committee:

MEASURE: S.C.R. No. 94 SD1

TITLE: REQUESTING THE HAWAII STATE ENERGY OFFICE TO ENGAGE THE UNITED STATES DEPARTMENT OF ENERGY TO ESTABLISH A PERMANENT PRESENCE WITHIN THE STATE OF HAWAII.

POSITION:

The Public Utilities Commission (“Commission”) supports this resolution and offers the following comments for consideration.

COMMENTS:

The Commission supports this resolution, which intends to engage the U.S. Department of Energy to establish a permanent presence within Hawaii.

Federal assistance in support of the Hawaii Clean Energy Initiative has been important to the State’s current progress on clean energy goals. The Commission is willing to provide support, as needed, to the Hawaii State Energy Office in these efforts.

Thank you for the opportunity to testify.