UNIVERSITY OF HAWAIʻI SYSTEM
Legislative Testimony

Testimony Presented Before the
House Committee on Finance
February 22, 2017 at 2:00 p.m.
By
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Vice President for Administration
University of Hawaiʻi System

HB 794 HD1 – RELATING TO ENERGY AT THE UNIVERSITY OF HAWAII

Chair Luke, Vice Chair Cullen, and members of the committee:

Thank you for the opportunity to submit testimony on HB 794 HD1. The University of Hawaiʻi ("University") supports this measure which establishes a green special fund within the University to reduce energy consumption and costs. This bill will facilitate a sustainable means of financing energy efficient and other sustainability projects at the University that will ultimately improve energy performance, reduce operating costs, and modernize our facilities.

Green Revolving Funds ("GRFs") are prominent across many colleges and universities dedicated to addressing sustainable facilities, operations and behaviors. These funds are typically managed by the university to fund energy-efficient projects, reduce resource use, and other sustainable efforts which repays the GRFs either through savings realized by the project or other sources of income.

GRFs have gained momentum across the nation. According to the Association for the Advancement of Sustainability in Higher Education, there are at least 85 universities that use GRFs as part of their sustainability programs.

Last year, the University of Hawaiʻi formally established the Office of Energy Management ("OEM"). In addition to supporting smaller campus initiatives, the OEM has taken on a larger effort to holistically tackle the high energy consumption across all ten campuses. To assist in this effort, a green special fund is necessary to support multiple methods of financing (including internal loans, other special funds, and private donations) and the repayment of debt service from special funds, private donations, and energy rebates. Establishment of a green special fund at the University will also ensure that funding dedicated to sustainability initiatives are used for that particular purpose and, more importantly, ensure that any savings from the investment be reinvested toward other sustainable projects.

There is strong student support for this initiative as well. In August 2015, the Associated Students of the University of Hawaiʻi ("ASUH") passed a resolution in support of a Green Revolving Fund, saying that *"ASUH acknowledges the growing concern our university's infrastructure faces and believes that sustainability projects that reduce operational costs is integral in improving both the fiscal nature of this university along with its environment".*

The student resolution further states that *“ASUH hopes the GRFs would serve as an example for organizations and departments on this campus to lead best business practices to not only save money, but to also further promote sustainability in a fiscally responsible manner”.*

The green special fund advanced by HB 794 HD1 will improve fiscal management, increase transparency, and support the University’s progress towards its Net Zero Energy mandate (Act 99, Session Laws of Hawaii 2015).

Thank you for the opportunity to testify in support of HB 794 HD1.

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WRITTEN ONLY

TESTIMONY BY WESLEY K. MACHIDA
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE HOUSE COMMITTEE ON FINANCE
ON
HOUSE BILL NO. 794, H.D. 1

February 22, 2017
2:00 p.m.
Room 308

RELATING TO ENERGY AT THE UNIVERSITY OF HAWAII

House Bill No. 794, H.D. 1, establishes the University of Hawaii Green Special Fund to help the University of Hawaii (UH) reduce energy consumption and costs. The special fund would generate revenues through savings from energy conservation measures, legislative appropriations, rebates, private contributions, and investment earnings. The bill contains an unspecified appropriation for the new fund that would be used to support energy efficiency, renewable energy and sustainability projects and services.

As a matter of general policy, the department does not support the creation of special funds which do 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

House Bill No. 794, H.D. 1, it is difficult to determine whether the proposed special fund would be self-sustaining.

In addition, it should be noted that Section 196-121, HRS, provides a financing mechanism for energy efficiency and renewable energy projects through energy savings contracts (ESCOs) and energy performance contracts (EPCOs). Other State departments and agencies have used these financing mechanisms to finance many of the same types of projects as proposed under the UH Green Special Fund. Further, the ESCOs and EPCOs may be more flexible as they utilize existing budgetary resources, and do not require seed money, nor the ongoing calculations of energy savings for deposit into the special fund.

Thank you for your consideration of our comments.

FINTestimony

From: mailinglist@capitol.hawaii.gov
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HB794
Submitted on: 2/20/2017
Testimony for FIN on Feb 22, 2017 14:00PM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Kim Coco Iwamoto	Individual	Support	No

Comments: Two years ago, I wrote an education column for Civil Beat that highlighted the University of Hawaii's energy plan. (See attached.) Their plan included a Green Revolving Fund, which was introduced to the legislature in 2015 and conceptualized this year in HB 794. Every year we delay implementation of this kind of incentivized innovation, we miss the opportunity to leverage savings, reinvestment and, perhaps most importantly, inciting students to participate in the challenge and rewards this model offers.

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Column

Kim Coco: Now that UH Has a Plan, Will Legislature Support It?

By approving a six-year strategic plan for capital improvements, the Board of Regents has done what legislators have long sought.

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By Kim Coco Iwamoto / February 17, 2015

The Legislature has berated the University of Hawaii for lacking a plan to implement cost-saving measures. Now that UH has a long-term strategic plan for capital improvement projects — will the Legislature step up to the plate?

Time and time again key legislators take UH to task for the way it manages itself. Although the Legislature is a minority investor in higher education, providing for only 25 percent of UH's 2013 sources of funds, the Legislature seems to exert 75 percent of the micromanagement. The Legislature begrudges its over-involvement with the UH system; however, it continues to meddle with bills and budgets to perpetuate that effect. (Compare that against the 28 percent of UH's funds coming from student tuition and the relatively limited influence students have at UH.)

Manoa Rep. Isaac Choy, chair of the Higher Education Committee, has repeatedly called out UH: Show me a plan!

State Rep. Isaac Choy, left, listens to testimony during a University of Hawaii budget briefing in December.

In his December 2013 legislative newsletter, "Prevailaing Winds," Choy wrote: "Is there no strategic plan for the University of Hawaii? ... The management of the University needs to make up its mind now, are they going to be agent for change or protector of the status quo? Are they going to come up with solutions or continue to be the problem?"

In his spring 2014 newsletter, Choy specifically addressed UH's repair and maintenance backlog — threatening to fiscally "micromanage" it if he does not see UH "solving their own problems."

Message received.

It is time for the Legislature to follow Isaac Choy's advice

and give UH a motherly hug — no more chokeholds or headlocks.

At its October 2014 meeting, the Board of Regents approved the UH system's first-ever six-year Capital Improvement Projects Plan. Regents voted for the plan, stating that it is "more fiscally responsible," and that the "University is acting more prudently to yield a higher return on the request."

UH approved this strategic plan just in time for the 2015 legislative session. So now that Choy got what he wanted, he could, in his own words: "defer to the expertise of the responsible department or agency and give them whatever support I could along with a motherly hug."

Buildings, repairs, maintenance and energy-saving infrastructure seem like a nice place to begin demonstrating that maternal support.

There is a very creative and timely bill that presents the perfect opportunity for a Choy hug-fest — HB 1509, UH Net-Zero Initiative. The original version of HB1509 seems to have all the elements Choy has been looking for: innovation, problem-solving, measurable savings, compounding gains by restricting reinvestment into additional cost-saving projects, and it funds student scholarships and it helps saves the planet!

If HB 1509 is properly worded, it could be a win-win for everyone; well, everyone except HECO.

PF Bentley/Civil Beat

Students at the UH Manoa campus.

The current energy expense for UH Manoa is almost $35 million per year, according to the bill. This expense is covered by the student tuition revenue; in 2014 that amounted to $141 million. That means 25 cents of every student tuition dollar goes to purchase imported fossil fuels. Students should have the most input on a bill like HB 1509.

Last year, UH students, student groups and the Statewide Student Sustainability Coalition of Hawaii led the successful effort to have the Board of Regents adopt comprehensive sustainability amendments to its policies on planning. From that point on, UH had an express commitment to "developing mechanisms to track and re-invest savings from sustainability initiatives that further increase efficiencies, reduce waste, and improve sustainability[.]"

HB 1509 would support UH in meeting its own mandate. The bill would jump-start Hawaii's first green revolving fund, an internal investment vehicle that provides a source of financing for implementing energy efficiency, renewable energy, and other sustainability projects that produce cost-savings, which are measured and reinvested into a next round of green investments.

There seems to be an auspicious alignment happening for UH. The Board of Regents has never had a chair who has as much experience with facilities management as Randy Moore. He spent six years with the Department of Education managing more than 250 school sites statewide.

In 2008, Moore rolled out an “Electricity-Savings Incentive Program” for the DOE that rewarded principals and School Community Councils with 50 percent of the savings from lowering electrical usage at their schools. Unfortunately, when Randy Moore retired from the DOE in 2012, the DOE retired his Electricity-Savings Incentive Program.

The green revolving fund in HB 1509 would ensure that these energy-efficient innovations and cost-savings incentives would continue to fund additional sustainability programs at UH beyond Randy Moore’s retirement from the Board of Regents.

This is an optimal time to ignite this new model of facilities financing and management. UH has new sustainability in planning policies. It has an unprecedented six-year strategic plan with an energy efficiency component that could compound cost-savings all the way to net-zero fossil fuel reliance. And student stakeholders are leading the way to a more sustainable UH system.

It is time for the Legislature to follow Isaac Choy’s advice and give UH a motherly hug — no more chokeholds or headlocks.

End note: The third annual Hawaii Sustainability in Higher Education Summit will be hosted at UH Manoa on Feb. 26-28. Mark Orlowski and Mark Jewel will speak about green revolving funds and energy efficiency funding.

About the Author

Kim Coco Iwamoto

Kim Coco Iwamoto was elected to the Hawaii Board of Education in 2006 and served until 2011. She also served on the Hawaii Teachers Standards Board from 2009 to 2011 and the Career & Technical Education Coordinating Advisory Council from 2007 to 2011. She was appointed to a four-year term on the Hawaii Civil Rights Commission in 2012.

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Testimony: Sustainable Endowments Institute
RE: HB 794, Hawaii

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The Sustainable Endowments Institute (SEI) is a Boston-based nonprofit research and advocacy organization committed advancing resilient institutional responses to the climate crisis. SEI's seminal report on green revolving funds (GRFs), *Greening the Bottom Line*, identified green revolving funds as a robust financial tool useful in achieving long-term climate and sustainability goals. The Billion Dollar Green Challenge is an initiative of the SEI that provides educational material, best practices, research, and raises the public profile of GRFs with the goal of encouraging diverse sectors (including Higher Ed) to commit a total of one billion dollars to self-managed GRFs in the U.S. and Canada.

With buildings consuming almost half (49 percent) of all energy used in the United States, and three quarters of all electricity, there is a compelling need for investment in energy efficiency upgrades. These energy saving improvements "represent a significant opportunity to save money, reduce climate impact and generate jobs," according to *United States Building Energy Efficiency Retrofits*, a recent report by Deutsche Bank Climate Change Advisors and the Rockefeller Foundation.

(GRFs) transform one-time capital infusion into sustained investments in energy efficiency upgrades and related savings. By financing resource efficiency projects which reduce resource use and result in cost savings which are returned to the fund, the GRF preserves or increases the institution's future capacity to fund energy efficiency and sustainability projects.

The revolving nature of GRFs as a self-replenishing source of long-term funding makes for an efficient investment of state funds. A report by the UCLA Luskin Center for Innovation concluded that when compared to a grants program, the investment of public funds into a revolving loan fund model quadruples total investment. SEI supports state funding for nonprofit institutions such as the University of Hawaii, which seek to establish a GRF and financially commit to long term energy efficiency and sustainability.

Green Revolving Funds are Smart Financial Planning

Green revolving funds are efficacious specifically because they are used to fund resource efficiency projects, which reduce the use of resources such as steam, gas, electricity or water resulting in a reduction of utility costs associated with those resources.

According to SEI's research into Higher Education institutions in the U.S. and Canada, published in the *GRF Full Implementation Guide*, GRFs:

I. **Boost Return on Investment (ROI)**: Established green revolving funds (GRFs) report a median annual return on investment (ROI) of 28 percent. This suggests that GRFs can significantly outperform average endowment investment returns, while maintaining strong returns over longer periods of time
II. **Achieve Short Payback Periods**: Schools reported a median payback period of 3.5 years, which means on average more than a quarter of all money invested in projects can be reinvested within one year (given that savings are typically paid back into the fund on an annual basis).

III. **Initiate a New Mindset**: GRFs overcome the limitations of budgeting energy efficiency projects as expenses, rather than as a low-risk/high yield financing resources. They are transforming energy efficiency upgrades from perceived expenses to high-return investment opportunities.
IV. **Facilitate Flexibility**: GRFs allow for the use of a variety of capital sources and they can be scaled up over time.
V. **Hedge against Rising Energy Prices**: GRFs are an effective strategy for hedging against rising energy prices without the negative downside of traditional energy price hedges, which incur losses if energy prices stay flat or decline.

Green Revolving Funds Help Institutions Meet Environmental Goals

According to SEI's research into Higher Education institutions in the U.S. and Canada, published in the *GRF Full Implementation Guide*, GRFs:

I. Sixty-two percent of the (green revolving) funds surveyed explicitly reported that their fund was established to target environmental objectives. Drury University (Missouri) and the University of Pennsylvania installed their campus GRFs into their formal Climate Action Plans as a method to achieve their institutional commitments.
II. "We had already established a history of short-term paybacks related to the dollars invested in energy initiatives," explained Tom McGee, Energy Engineer at the University of Denver. "Electrical consumption was a significant component of our overall carbon footprint and this funding mechanism would help contribute to the achievement of our carbon reduction goals."

Green Revolving Funds Institutional Snapshot

To date, there are at least 140 Higher Ed institutions in the U.S. and Canada managing active green revolving funds focused on energy efficiency and sustainability. These institutions include public and private universities, colleges, and community colleges implementing sustainability projects appropriate for diverse settings from rural communities to sprawling urban campuses.

George Washington University:

- George Washington University's Green Campus Fund invested $141,000 to upgrade the lighting in their academic center in 2010. Since completion, the project is generating $100,000 per year in savings and has already more than paid for itself. With a projected lifespan of at least 8 years, the original $141,000 investment will generate about $800,000 in total savings (or substantially more if energy prices rise).

Boston University:

- Boston University's million dollar fund, as of 2010, achieves an average cost-savings of $70,782 per project, with an average return on investment of 57 percent, including utility incentives.
- Projects are reviewed on a case-by-case basis and the fund has no guidelines to dictate requirements for a successful project. However, potential projects with a payback period of less

than one and a half years are favored. To date, there have been no projects approved that exceed an expected three year payback period.

California Institute of Technology:

- "One of the common questions we heard," said John Onderdonk, "was how are we going to guarantee that there will be an actual reduction in our utility bill due to the implementation of an energy-efficiency project. We were also asked how are we going to assign a dollar value to that reduction, and how can we guarantee that the savings will go back into the revolving fund for future investment. It was mainly a process of explaining how CECIP staff would track that important data."2 To establish ways to measure the savings that would accrue following the implementation of energy-efficiency retrofits, meters were installed in all campus buildings before any projects had gotten underway. This allowed for clear baseline information to be gathered, which could be used to compare energy use before and after the retrofits. Onderdonk noted, "That's really the crux of the entire program—the documentation and verification of savings; the assigning of a dollar value to the savings, so that it revolves back into a return to the endowment."
- CECIP has financed 13 large-scale building projects, ranging from lighting replacements to complete mechanical and control system retrofits. In its first two years, these projects reduced the school's energy bills by $1.5 million. They have achieved an average return on investment of 33 percent and an average payback period of three years.

Denison University:

- "We looked at energy performance contracts, but we would rather fund a project and then [the savings are] ours immediately," said King. "Th ese are smart investments that pay themselves off and allow you to keep investing into the future."

The Sustainable Endowments Institute believes that GRFs are a robust and adaptable solution in achieving institutional energy efficiency and sustainability. In addition to long term savings, funding a GRF ultimately provides an opportunity to pursue visible, and innovative approaches to resource efficiency and experiential education on campus. The financial benefits of the GRF model are numerous and compound the value of an infusion of state funds. *The Sustainable Endowment Institute is FOR HB 794, pertaining to energy at the University of Hawaii.*