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To : Senate committee on Economic Development and
Technology
Senate Committee on Energy and Environment

Hearing Date : February 9th 2012
Re : Testimony in Strong Support of SB2402 (2 pages)

Aloha Chairs Fukunaga and Gabbard and members of the
Committees,

My name is Anthony Aalto. I am a resident of Honolulu, a taxpayer
and a voter, and as a member of the City & County of Honolulu's
Sustainable Building Task Force 2011 I believe I have a little
additional information that might make for a useful amendment to this
bill and I thank you for this opportunity to testify.

This issue may seem manini, but as your advisory committee
reported, a dark night sky is an integral component of the aloha that
we show to our visitors as well as our lifestyle experience as
residents and a vital resource for the scientific community.

Handled with common sense this is an issue that can be addressed
without great expense as part of a schedule of regular maintenance.

If there is a concern about possible expense it could be mitigated by
simultaneously addressing another issue – the type of replacement
lamps.

LATE

This was an issue discussed by the Sustainable Building Task Force, which found that many cities are installing Light Emitting Diode (LED) street lighting. The largest is Los Angeles, which is installing 410,000 units. Reports indicate that LED streetlights result in improved visual acuity while reducing energy use and associated costs by about 50%.

In addition, there is an LED-lighting demonstration project at the Manoa recreation center, with possible plans to convert areas of the University of Hawaii sports complex to LED outdoor lighting. Conversion to LED or other energy-efficient streetlights represents a significant opportunity for the state to improve outdoor lighting and reduce light pollution while reducing energy costs. In addition there are other energy-efficient technologies emerging that are worthy of consideration, including Plasma Lights, also considered to be 50% more energy efficient than traditional street lighting options.

For this reason I urge you to direct the pertinent State departments to convert to LED streetlights on a pilot or replacement basis.

At a minimum you should request a report from the County of Hawaii regarding their planned installation of 1,000 LED streetlights to use as a resource for the state to develop its own initiatives related to this issue.

With or without this proposed amendment I strongly support this bill and urge you to do the same.

Mahalo for this opportunity to testify.

LATE

Testimony for EDT/ENE 2/9/2012 3:00:00 PM SB2402

ME

Conference room: 225
Testifier position: Support
Testifier will be present: No
Submitted by: Elizabeth McDermott
Organization: Individual
E-mail: bMcD50@aol.com
Submitted on: 2/9/2012

Comments:

I strongly support this bill! Please pass it to allow us all, animals and people, a good nights sleep and the return of our beautiful starry skies. We really don't need all this glaring light everywhere. Honolulu is starting to look like L.A. from above. Our endangered birds are dying because of this unnecessary lighting, and I can't get to sleep with the street lights from all the way across the valley shining in my bedroom window at night. Direct them where they are needed, the street, and please shield the rest of us!

Beth McDermott



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

LIT

Written Testimony Presented Before the
Senate Committees on Economic Development and Technology and
Energy and Environment

Thursday, February 9, 2012 at 3:00 p.m.

by

Virginia S. Hinshaw, Chancellor

and

Richard J. Wainscoat

Astronomer, University of Hawai'i at Mānoa

Chair, Light Pollution Working Group, International Astronomical Union

Chairs Fukunaga and Gabbard, and members of the Committees. My name is Richard Wainscoat and I am here today to submit this testimony on behalf of the University of Hawai'i. The University of Hawai'i strongly supports this bill that is an important first step in reducing light pollution in Hawai'i.

Mauna Kea on the island of Hawai'i, and Haleakalā on the island of Maui, are two of the best astronomy sites in the world. Dark night skies are essential for these observatories to continue to operate. However, increasing urban lighting is threatening the dark night skies over these observatories. Light pollution extends well beyond county boundaries; lights from O'ahu have a major and growing impact on Haleakalā, and also affect Mauna Kea. Statewide legislation is needed to protect the observatories.

Astronomy in Hawai'i has a major economic impact. The present economic impact of astronomy is estimated to be \$150 to \$200 million per year.

The primary focus of this bill is proper shielding of outdoor lighting. Full shielding of lights is one of the most important techniques for protecting astronomical observatories from light pollution. Light emitted from poorly shielded fixtures at small angles above the horizontal travels enormous distances through the atmosphere, and is a major contributor to light pollution — it increases sky glow at remote locations, making it difficult or impossible to see faint objects. Fully shielded light fixtures emit no light above the horizontal, and therefore have much less impact on remote locations.

Full shielding also reduces glare, which is a very important safety factor, particularly for older drivers, and greatly reduces the impact of nighttime lighting on species that are affected by light at night, including endangered birds and turtles. Poorly designed and improperly shielded lights continue to be installed by government agencies, and a quick inventory of nighttime lighting shows that some of the most poorly shielded lighting is county and state lighting.

The present wording of SB 2402 affects only lighting by the state and state agencies. Careful use of all nighttime lighting in the State of Hawai'i — not just state lighting — including proper shielding, is required to protect the observatories.