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## A BILL FOR AN ACT

RELATING TO THE PACIFIC INTERNATIONAL SPACE CENTER FOR  
EXPLORATION SYSTEMS' BASALT REBAR INITIATIVE.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:**

1       SECTION 1. The legislature finds that the Pacific  
2 international space center for exploration systems stimulates  
3 economic growth for the State, promoting the establishment and  
4 growth of new sustainable and green industries, associated jobs,  
5 workforce development, internships, and science, technology,  
6 engineering, and mathematics education programs.

7       The legislature further finds that that the Pacific  
8 international space center for exploration systems' work often  
9 expands the State's economic development opportunities outside  
10 of the aerospace sector, including work pertaining to a basalt  
11 rebar initiative. Basalt rebar weighs 25 per cent less and is  
12 200 per cent stronger than steel rebar. A basalt rebar plant  
13 will reduce the import of steel rebar and provide a local basalt  
14 rebar source, supporting the State's high technology development  
15 corporation's initiative to create eighty thousand new  
16 technology jobs with salaries of \$80,000 or above by 2030.



1           A Pacific international space center for exploration  
2 systems' basalt rebar initiative includes construction of a  
3 basalt rebar plant that will initially use imported basalt  
4 fibers to manufacture basalt rebar to assess the local market  
5 demand. Given a positive market response, basalt fiber  
6 manufacturing capabilities will be added. Furthermore, Kodiak  
7 Fiberglass Rebar L.L.C., is interested in collaborating with the  
8 State and federal and private sectors to develop these  
9 capabilities.

10           The purpose of this Act is to provide funding for the  
11 Pacific international space center for exploration systems'  
12 basalt rebar initiative and advance the State's economic  
13 development and sustainability.

14           SECTION 2. The director of finance is authorized to issue  
15 general obligation bonds in the sum of \$                   or so much  
16 thereof as may be necessary and the same sum or so much thereof  
17 as may be necessary is appropriated for fiscal year 2015-2016  
18 for the purpose of supporting the Pacific international space  
19 center for exploration systems' basalt rebar initiative,  
20 including construction of a basalt rebar plant and engineering  
21 assessments of the manufactured basalt rebar; provided that no



1 funds shall be made available under this Act unless the private  
2 sector and the federal government collectively provide a \$2 for  
3 \$1 match.

4 The sum appropriated shall be expended by the Pacific  
5 international space center for exploration systems for the  
6 purposes of this Act.

7 SECTION 3. The appropriation made for the capital  
8 improvement project authorized by this Act shall not lapse at  
9 the end of the fiscal biennium for which the appropriation is  
10 made; provided that all moneys from the appropriation  
11 unencumbered as of June 30, 2018, shall lapse as of that date.

12 SECTION 4. This Act shall take effect on July 1, 2015.

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INTRODUCED BY:

*[Signature]*  
*[Signature]*  
*[Signature]*  
*[Signature]*  
*[Signature]*  
*[Signature]*



**Report Title:**

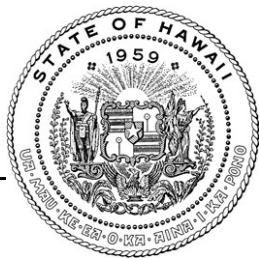
Pacific International Space Center for Exploration Systems;  
Basalt Rebar Initiative; General Obligation Bonds; Appropriation

**Description:**

Authorizes the director of finance to issue general obligation bonds to support the Pacific international space center for exploration systems' basalt rebar initiative, including construction of a basalt rebar plant and engineering assessments of the manufactured basalt rebar; provided that no funds shall be made available unless the private sector and the federal government collectively provide a \$2 for \$1 match of funds.

*The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.*





## DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

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**LATE**

Statement of  
**LUIS P. SALAVERIA**  
Director

Department of Business, Economic Development & Tourism

before the

**SENATE COMMITTEE ON  
ECONOMIC DEVELOPMENT & BUSINESS**

Tuesday, February 10, 2015

9:00 a.m.

State Capitol, Conference Room 312

in consideration of

**HB 867**

**RELATING TO THE PACIFIC INTERNATIONAL SPACE CENTER FOR  
EXPLORATION SYSTEMS' BASAL REBAR INITIATIVE.**

Chair Kawakami, Vice Chair Kong, and members of the Committee. The Department of Business, Economic Development and Tourism supports the intent of this bill to fund an engineering study to explore the possibility of establishing a basalt rebar plant in Hawaii.

Hawaii currently imports iron rebar from China, but has experienced high transportation costs and quality issues with these imports (e.g., product rust, poor manufacturing quality). Given that the Hawaiian Islands are made of basalt material, there may be industrial potential for fabricating basalt rebar in Hawaii as a substitute for imported iron rebar currently used for civil engineering projects statewide. PISCES' vision is to help establish a pilot processing plant in Hawaii that would demonstrate the manufacture of basalt rebar, initially using imported basalt-extruded fibers from Russia and China, but eventually using local basalt. Funding appropriated through this measure would be used to conduct an engineering study that would determine if Hawaii basalt can be used to produce the fibers required for basalt rebar; if local construction companies can use basalt rebar as a substitute for iron/steel rebar; the energy costs associated with the proposed facility; and where a pilot basalt rebar plant might be located.

We also note that the language in the current bill draft relating to funds being appropriated for “construction of a basalt rebar plant and engineering assessments of the manufactured basalt rebar,” and providing that “no funds shall be made available under this Act unless the private sector and the federal government collectively provide a \$2 for \$1 match” (Page 2, lines 17 to 21, and Page 3, lines 1 to 3), is inaccurate. State funds being requested through this measure are only to support the initial engineering study outlined in the previous paragraph, with no private sector or federal government matching requirement.

We support this bill provided that its passage does not replace or adversely impact priorities indicated in our Executive Budget.

Thank you for the opportunity to testify on this measure.

WRITTEN ONLY

TESTIMONY BY WESLEY K. MACHIDA  
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE  
STATE OF HAWAII  
TO THE HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT AND BUSINESS  
ON  
HOUSE BILL NO. 867

February 10, 2015

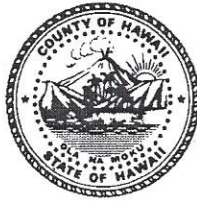
**LATE**

RELATING TO THE PACIFIC INTERNATIONAL SPACE CENTER FOR  
EXPLORATION SYSTEMS' BASALT REBAR INITIATIVE

House Bill No. 867 authorizes the Director of Finance to issue general obligation (G.O.) bonds to support the Pacific International Space Center for Exploration Systems' Basalt Rebar Initiative, including construction of a basalt rebar plant and engineering assessments of the manufactured basalt rebar; provided that no funds shall be made available unless the private sector and the federal government collectively provide a \$2 for \$1 match of funds.

The Department of Budget and Finance would like to make several technical comments on the bill. First, federal tax law requires that tax-exempt G.O. bond proceeds be used only to finance projects that serve public purposes. This project appears to be a private activity that would have to be funded with taxable G.O. bonds or special purpose revenue bonds. Second, as funding for this basalt rebar plant is not included in the proposed Executive Budget, an amount for the corresponding annual debt service will need to be included in the Legislature's version of the budget should this bill pass the Legislature.

DENNIS "FRESH" ONISHI  
Council Member  
District 3



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**HAWAI'I COUNTY COUNCIL**  
25 Aupuni Street, Hilo, Hawai'i 96720

**LATE**

February 9, 2015

The Honorable Representative Derek S. K. Kawakami, Chair  
and Members of the Committee on Economic Development and Business

Dear Chair Kawakami and Committee Members,

Thank you for the opportunity to provide testimony in support of House Bill No. 867, which will provide funding for the Pacific International Space Center for Exploration Systems' basalt rebar initiative and advance the State's economic development and sustainability.

A basalt rebar plant will reduce the import of steel rebar and provide a local basalt rebar source, supporting the State's high technology development corporation's initiative to create eighty thousand new technology jobs with salaries of \$80,000 or above by 2030.

Further, the technologies that will be developed – basaltic construction and fabrication, off-grid renewable energy and water reclamation – will spur sustainable living for others here on Earth.

Thank you for the opportunity to provide testimony in support of this bill.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis Onishi".

Dennis "Fresh" Onishi  
Hawai'i County Council Member





Pacific International  
Space Center for  
Exploration Systems

February 7, 2015

To whom it may concern.

Subject: Testimony for HB867 / Basalt Rebar Initiative

It is with pleasure that PISCES provides supportive testimony in regard to HB867 / Basalt Rebar Initiative.

PISCES see a potential to expand basalt rebar technology into terrestrial applications within the State of Hawaii as an emerging economic development project for civil engineering. Currently, Hawaii imports iron rebar from China, but has experienced the high expense of transportation and quality issues with the imports (rust, manufacturing quality, etc). Given the fact that the Hawaiian isles are made of basalt material, it follows that there may be industrial potential for eventually fabricating basalt rebar in Hawaii for a substitute to iron rebar for civil engineering projects within the State.

Thus, PISCES supports the State's effort to perform an engineering study to address any questions relative to basalt rebar prior to the establishment of a Phase 1 pilot plant in Hawaii that could manufacture basalt rebar using imported basalt-extruded-fibers from Russia/China. If there appears to be an interest within the State to adopt basalt rebar for civil engineering construction projects, it follows that Phase 2 could be considered where the basalt fibers themselves are constructed in Hawaii from indigenous basalt...eventually eliminating the need to import iron rebar from China.

Hence, there appears to be an application of basalt rebar for assessing planetary construction for Moon/Mars in the PISCES engineering landing pad construction project, but also a real potential for regional economic development and new industry creation within the State of Hawaii for civil engineering.

Note: The current bill incorrectly states a "\$2 to \$1 match". This provision was inadvertently left in the bills during re-write to shift from requesting funds for the Phase 1 project and instead seeking only engineering study funds. There is not a matching component for the study...only in regard to the Phase 1 pilot plant. It is recommended that the bill be revise to correct this oversight.

Thus, PISCES strongly endorses HB867 / Basalt Rebar Initiative.

With much mahalo,

Robert M. Kelso  
Executive Director, PISCES

kong2 - Brenden

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From: mailinglist@capitol.hawaii.gov  
Sent: Saturday, February 07, 2015 5:07 AM  
To: edbtestimony  
Cc: ssday1@aol.com  
Subject: Submitted testimony for HB867 on Feb 10, 2015 09:00AM

**HB867**

Submitted on: 2/7/2015

Testimony for EDB on Feb 10, 2015 09:00AM in Conference Room 312

Submitted By	Organization	Testifier Position	Present at Hearing
Stephen Day	Individual	Support	No

Comments: I am fully in support of HB867 - on the basis that it should/could prove economically beneficial to the state, in terms of local application for roads, buildings, general construction, etc., and the development of novel technology hopefully with broader applications, and employment. Sincerely, Stephen M. D. Day Chairman of the HAAC.

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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