
A BILL FOR AN ACT

RELATING TO THE PACIFIC INTERNATIONAL SPACE CENTER FOR
EXPLORATION SYSTEMS SUSTAINABLE CONCRETE 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, including its
3 proposed aerospace technology research and development park
4 project, is an economic driver for the island of Hawaii that
5 promotes the establishment and growth of new sustainable and
6 green industries along with associated jobs, workforce
7 development, internships, and science, technology, engineering,
8 and math education programs.

9 The legislature also finds that the Pacific international
10 space center for exploration systems aerospace technology
11 research and development park project will attract investment
12 that will help leverage the costs of expanding the island of
13 Hawaii's broadband capacity.

14 Current market demands for concrete in Hawaii are primarily
15 met through cement and asphalt imports. Research and
16 development enabling innovative technologies in basalt concrete



1 composition and delivery is an attractive and self-sustaining
2 alternative to continued cement and bitumen imports.

3 There is also interest in and work being done on developing
4 various basaltic concrete binding methods at the National
5 Aeronautics and Space Administration, Hanyang University of
6 Korea, Purdue University, American Society of Civil Engineers,
7 and many other professional organizations. In addition to
8 enabling three dimensional concrete printing technology, this
9 work holds amazing potential for creating advanced manufacturing
10 jobs and inexpensive building options in the State of Hawaii.

11 The proposed Pacific international space center for
12 exploration systems sustainable concrete initiative is an
13 important step toward realizing this potential, providing an
14 investment in the future of Hawaii and its economy by offering a
15 self-sufficient and in-situ source of concrete for local
16 applications.

17 The purpose of this Act is to provide state funding to
18 support the investigative stage of the Pacific international
19 space center for exploration systems sustainable concrete
20 initiative. This investigative stage will help identify
21 appropriate binding methods and technologies; quantifiably test
22 and validate the identified technologies in terms of durability,



1 compressive strength, and other ASTM International certification
2 standards; and help identify appropriate out-of-state partners
3 and investors, as well as other extramural funding sources, for
4 program development.

5 SECTION 2. There is appropriated out of the general
6 revenues of the State of Hawaii the sum of \$ or so much
7 thereof as may be necessary for fiscal year 2013-2014 to support
8 the investigative stage of the Pacific international space
9 center for exploration systems sustainable concrete initiative.

10 The sum appropriated shall be expended by the department of
11 business, economic development, and tourism for the purposes of
12 this Act.

13 SECTION 3. The Pacific international space center for
14 exploration systems shall submit a report to the legislature on
15 September 1 of each year, commencing on September 1, 2013, that
16 includes:

- 17 (1) An updated business plan regarding the aerospace
18 technology research and development park project;
- 19 (2) Details on any progress made toward the development of
20 a world-class space center in Hawaii;



- 1 (3) The development of technologies for basalt concrete
2 composition and delivery and any effect on the level
3 of cement and bitumen imports into the State;
- 4 (4) The status of all working relationships with
5 educational and research institutions, federal
6 agencies, and local industry on the use of existing
7 basalt resources in the State to identify, verify, and
8 validate sustainable and in-situ concrete binders;
- 9 (5) Details on any progress made toward the development of
10 a robotic operator training and certification program,
11 including program location, course and curriculum
12 development, and when the program is expected to begin
13 accepting students;
- 14 (6) The level of private sector investment in aerospace
15 and related industries, including the number and
16 nature of any partnerships with private industry to
17 facilitate state-based manufacturing and operations
18 related to green energy technology;
- 19 (7) The status of the memorandum of understanding with
20 Hawaii Techworks and the east Hawaii community
21 development corporation regarding the cultivation of a

1 skilled local workforce to support planned
2 manufacturing operations; and
3 (8) A detailed statement of assets, liabilities, revenues,
4 and expenses for the corresponding fiscal year ending
5 June 30.
6 SECTION 4. This Act shall take effect on July 1, 2050.



Report Title:

Pacific International Space Center for Exploration Systems
Sustainable Concrete Initiative; Appropriation

Description:

Appropriates funds to support the investigative stage of the
Pacific international space center for exploration systems
sustainable concrete initiative. Effective July 1, 2050.
(SB930 HD2)

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not legislation or evidence of legislative intent.*

