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## A BILL FOR AN ACT

MAKING AN APPROPRIATION FOR THE UNIVERSITY OF HAWAII.

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

1           SECTION 1. The legislature finds that, while ethanol can  
2 be used in cars, biodiesel or bio-jet fuel is needed for heavy  
3 transportation, ships, and jetliners. There is wide agreement  
4 that potentially the best way to biologically derive oil for  
5 biofuels is to extract it from algae, especially salt water  
6 algae. Algae produce vastly more biofuel oil per acre than any  
7 other source. Using current technology for producing algae from  
8 salt water, six thousand gallons per acre of biodiesel from  
9 algae is a realistic production target. This compares to a fuel  
10 yield of only one thousand five hundred gallons per acre for  
11 sugarcane ethanol produced using the Brazilian method. Algae  
12 use no fresh water and far less land than any other biofuel crop  
13 and can be grown on any land that is near the ocean. Algae from  
14 sea water have the added benefit of consuming excess carbon  
15 dioxide, a harmful greenhouse gas that contributes to global  
16 warming. Ideally, algae should be fed a carbon dioxide enriched  
17 air stream to help them grow.



1           The legislature further finds that Hawaii's bio-scientists  
2 have developed the technology to make biodiesel cheaply.  
3 Funding for the national energy laboratory of Hawaii is needed  
4 to complete the technology and provide the University of Hawaii  
5 with the research and development platform to place Hawaii  
6 firmly out in front at bringing this technology to commercial  
7 reality.

8           The legislature further finds that sea water algae  
9 technology for a global industry could be spawned in Hawaii, and  
10 the yields per acre are so high that the cost per gallon could  
11 prove far superior to Malaysian-style palm kernel oil grown in  
12 Hawaii.

13           The purpose of this Act is to appropriate funds to the  
14 University of Hawaii for a five-acre pilot project at the  
15 national energy laboratory of Hawaii to research and develop  
16 marine algae for the purpose of producing biodiesel.

17           SECTION 2. There is appropriated out of the general  
18 revenues of the State of Hawaii the sum of \$3,000,000, or so  
19 much thereof as may be necessary for fiscal year 2007-2008, and  
20 the same sum, or so much thereof as may be necessary for fiscal  
21 year 2008-2009, for a pilot project for the national energy



1 laboratory of Hawaii to research and develop marine algae on a  
2 five-acre plot to produce biodiesel.

3 The sums appropriated shall be expended by the University  
4 of Hawaii for the purposes of this Act.

5 SECTION 3. This Act shall take effect on July 1, 2007.

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INTRODUCED BY:

Calvin K. King  
Nemine Inoué

JAN 22 2007



**Report Title:**

UH; Appropriations

**Description:**

Appropriates funds to the University of Hawaii to grow marine algae for biodiesel.

