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# A BILL FOR AN ACT

RELATING TO THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS.

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

1           SECTION 1. The legislature finds that Hawaii's dependence  
2 on petroleum for approximately ninety per cent of its energy  
3 needs is more than any other state in the nation. This makes  
4 the State extremely vulnerable to oil embargos, supply  
5 disruptions, international market dysfunctions, and many other  
6 factors beyond the control of the State. Furthermore, the  
7 continued consumption of conventional petroleum fuel negatively  
8 impacts the environment.

9           The legislature also finds that increased energy efficiency  
10 and use of renewable energy resources would increase Hawaii's  
11 energy self-sufficiency. Energy self-sufficiency would have  
12 broad societal benefits, including increased energy security,  
13 resistance to increases in oil prices, environmental  
14 sustainability, economic development, and job creation.

15           The legislature has worked steadily to encourage the  
16 deployment of renewable energy resources and energy efficiency  
17 initiatives. Initiatives have included:



- 1           (1) Establishing a net energy metering program,  
2                   interconnection standards, and renewable energy tax  
3                   credits;
- 4           (2) Establishing greenhouse gas and energy consumption  
5                   reduction goals for state facilities and requiring the  
6                   use of energy efficient products in state facilities;  
7                   and
- 8           (3) Providing incentives for the deployment of solar  
9                   energy devices.

10 The legislature has also established a renewable energy  
11 portfolio standard under which twenty per cent of Hawaii's  
12 electricity is to be generated from renewable resources by the  
13 end of 2020.

14           Hydrogen technology development is currently attracting  
15 billions of dollars in investment capital, not only in the  
16 United States, but also in other countries in Europe and Japan.  
17 Federal initiatives are resulting in the development of hydrogen  
18 and fuel cell technologies in partnership with automakers and  
19 major energy companies. Analysts predict that these  
20 initiatives, along with efforts in other countries, will lead to  
21 the development of markets for hydrogen and supportive hydrogen  
22 fuel cell technologies and infrastructure.



1 Hawaii has among the most abundant renewable energy  
2 resources in the world, in the form of solar, geothermal, wind,  
3 biomass, and ocean energy assets. Consequently, the island of  
4 Hawaii produces more electricity from renewable resources than  
5 can currently be used. Several wind projects are expected to be  
6 completed in the near term, exacerbating this problem.

7 Furthermore, the Puna geothermal project is planning to increase  
8 its energy contribution if the electric utility can take and use  
9 the energy.

10 The excess of geothermal and other renewable energy  
11 resources creates an unprecedented, historical opportunity for  
12 Hawaii to emerge as a leader in the use of hydrogen fuel, by  
13 producing hydrogen using water electrolysis. This clean,  
14 renewable hydrogen would then be used as an energy carrier for  
15 stationary power and transportation fuels, making the island  
16 self-sufficient. Hydrogen could also be exported to Oahu and  
17 other islands as the clean fuel of choice for power generation  
18 and transportation fuels, achieving greater self-sufficiency for  
19 the State of Hawaii.

20 The historic confluence of the State's desire for energy  
21 self-sufficiency through development of renewable energy with  
22 the global opportunity of the emerging hydrogen economy calls



1 for a major, far-sighted initiative to develop Hawaii's  
2 renewable energy resources.

3       The legislature further finds that H2 Technologies  
4 Incorporated proposes to build a facility and laboratory to  
5 develop, manufacture, and license hydrogen generator appliances  
6 on the island of Hawaii at the Natural Energy Laboratory of  
7 Hawaii. H2 Technologies Incorporated is engaged in the  
8 planning, design, and construction of a hydrogen generator  
9 production facility on the island of Hawaii to supply a clean  
10 source of electricity and transportation fuel replacing a  
11 portion of the unsustainable and expensive petroleum-based  
12 gasoline or diesel fuel. H2 Technologies Incorporated will also  
13 construct a gasoline or diesel-to-hydrogen automobile conversion  
14 garage to help facilitate use of hydrogen by automobile owners;  
15 thus, moving Hawaii into a sustainable hydrogen economy.

16       SECTION 2. The legislature finds that the issuance of  
17 special purpose revenue bonds and refunding of special purpose  
18 revenue bonds under this Act to assist H2 Technologies  
19 Incorporated in the planning, design, and construction of a  
20 hydrogen generator production facility on the island of Hawaii  
21 will supply a clean source of electricity and transportation  
22 fuel, reduce the use of unsustainable and expensive petroleum-



1 based gasoline and diesel fuel, and provide numerous other  
2 benefits. Use of hydrogen as a transportation fuel and for use  
3 with fuel cell technology for electrical generation will:

4 (1) Reduce Hawaii's dependence on imported fossil fuels,  
5 including gasoline and diesel, for electrical  
6 generation and transportation, thereby increasing  
7 Hawaii's energy security;

8 (2) Help to meet Hawaii's renewable energy goals by  
9 encouraging home or office energy production with on-  
10 island-produced renewable hydrogen;

11 (3) Reduce greenhouse gas emissions via a renewable closed  
12 loop carbon system; and

13 (4) Provide significant reductions of hydrocarbon, sulfur,  
14 toxic compounds, and particulate matter emissions  
15 compared to burning petroleum-based fossil fuels.

16 Benefits from the H2 Technologies Incorporated project will  
17 include:

18 (1) Encouraging local high-technology clean hydrogen  
19 energy research, development, and manufacturing to  
20 help transfer Hawaii's economy to one that moves the  
21 State towards self-sufficiency;



- 1           (2) Providing transportation and generation fuel at
- 2                   competitive prices as compared to importation
- 3                   alternatives;
- 4           (3) Reducing the cost of doing business in Hawaii by
- 5                   lowering the cost of energy and transportation;
- 6           (4) Speeding up the goal of creating a "hydrogen highway"
- 7                   on the island of Hawaii and making full use of the
- 8                   appropriated hydrogen fund passed in legislature in
- 9                   2006 session; and
- 10          (5) Assisting the state, county of Hawaii, and the federal
- 11                   government to meet their goals and mandates for energy
- 12                   efficiency and renewable energy use.

13           SECTION 3. The legislature finds and declares that the

14 issuance of special purpose revenue bonds under this Act is in

15 the public interest and for the public health, safety, and

16 general welfare.

17           SECTION 4. Pursuant to part V, chapter 39A, Hawaii Revised

18 Statutes, the department of budget and finance, with the

19 approval of the governor, is authorized to issue special purpose

20 revenue bonds in a total amount not to exceed \$50,000,000, in

21 one or more series, for the purpose of assisting H2 Technologies

22 Incorporated or a partnership in which H2 Technologies

1 Incorporated is a general partner, or a newly formed LLC in  
2 which H2 Technologies Incorporated is a managing member or the  
3 successor in interest or an assignee of H2 Technologies  
4 Incorporated for the construction of a hydrogen generation  
5 appliance research, development, and manufacturing facility and  
6 laboratory and a gasoline or diesel-to-hydrogen automobile  
7 conversion garage on the island of Hawaii. The legislature  
8 hereby finds and determines that hydrogen generation appliance  
9 research, development, and manufacturing and gasoline or diesel-  
10 to-hydrogen automobile conversion constitute a project as  
11 defined in part V, chapter 39A, Hawaii Revised Statutes, and the  
12 financing thereof is assistance to industrial enterprise.

13 SECTION 5. The special purpose revenue bonds and the  
14 refunding special purpose revenue bonds issued under this Act  
15 shall be issued pursuant to part V, chapter 39A, Hawaii Revised  
16 Statutes, relating to the power to issue special purpose revenue  
17 bonds to assist industrial enterprises.

18 SECTION 6. The department of budget and finance is  
19 authorized, from time to time, including times subsequent to  
20 June 30, 2013, to issue special purpose revenue bonds in  
21 whatever principal amounts the department shall determine to be  
22 necessary to refund the special purpose revenue bonds authorized



1 in section 4 and to refund special purpose revenue bonds  
 2 authorized in this section, regardless of whether the  
 3 outstanding special purpose revenue bonds or refunding special  
 4 purpose revenue bonds have matured or are the subject of  
 5 redemption or whether the refunding special purpose revenue  
 6 bonds shall be bonds for the multi-project programs described in  
 7 section 4. In making this determination, the department shall  
 8 comply with federal law relating to the exemption from federal  
 9 income taxation of the interest on bonds of the nature  
 10 authorized by this section.

11 SECTION 7. The authorization to issue special purpose  
 12 revenue bonds under this Act shall lapse on June 30, 2013.

13 SECTION 8. This Act shall take effect upon its approval.  
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INTRODUCED BY:

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**Report Title:**

H2 Technologies; Hydrogen Generation and Conversion; Special Purpose Revenue Bonds

**Description:**

Authorizes special purpose revenue bonds to H2 Technologies, Incorporated for construction of Hydrogen Generator Appliance Laboratory and hydrogen generation and conversion facilities.

