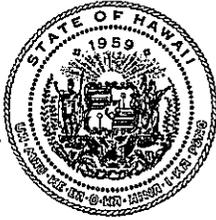


SB 1231



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

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Statement of
THEODORE E. LIU
Director
Department of Business, Economic Development, and Tourism
before the
SENATE COMMITTEE ON ENERGY AND ENVIRONMENT
Tuesday, February 10, 2009
3:45 PM
State Capitol, Conference Room 225

in consideration of
SB 1231
RELATING TO RENEWABLE ENERGY.

Chair Gabbard, Vice Chair English, and Members of the Committee.

The Department of Business, Economic Development, and Tourism (DBEDT) opposes SB 1231 because it would adversely impact the priorities set forth in the Executive Biennium Budget.

Since it appears that this project is intended to involve a specific company, it may be more appropriate for that company to seek private capital and perhaps request special purpose revenue bonds.

There are also several funding opportunities available through the United States Department of Agriculture and the United States Department of Energy that the project could apply for directly.

Thank you for the opportunity to provide these comments.



HAWAII COUNTY ECONOMIC OPPORTUNITY COUNCIL

47 Rainbow Drive
Hilo, Hawaii 96720-2013
Tel: (808) 961-2681 / Fax: (808) 935-9213

To: Committee on Energy and Environment
Date: Tuesday, February 10, 2009
Time: 3:45 p.m.
Place: Conference Room 225 – State Capitol

Re: TESTIMONY OF GEORGE YOKOYAMA IN SUPPORT OF SB 1231 – RELATING TO RENEWABLE ENERGY

Honorable Chairperson and Members of the Committee,

On behalf of Hawaii County Economic Opportunity Council (HCEOC), a community action agency, I testify in support of Senate Bill 1231 – Relating to Renewable Energy, specifically the conversion of biomass to energy as follows:

- Conversion of biomass to liquid transportation fuel-synthetic gasoline and diesel to include aviation fuel.
- Conversion of biodegradable municipal waste to generate electricity from landfills. The conversion process has been perfected by Dr. Gerd Sanstede, one of the foremost chemical scientist of Germany, a longtime friend and colleague of Dr. Max Goldberger, Science and Technology Director for HCEOC.

Dr. Sanstede has applied for a German patent. By prior agreement, he will assign the patent to Aggregate Energy, LLC of Idaho. A representative of Aggregate Energy, LLC has been in contact with HCEOC for the past year with the aim of field testing Dr. Sanstede's system on the Big Island where year-round vegetation growth can be obtained, as well as, mining of the County's landfill for methane gas.

HCEOC has agreed to coordinate and assist in locating a demonstration site (preferably private land), procure green waste, and provide manpower for assembling of a demonstration pilot plant with assurance of funding for HCEOC for manpower needs for plant operation.

A laboratory scale model has been fabricated by Dr. Sanstede and successfully tested and a larger demonstration scale pilot plant is being constructed presently in Germany.

The requested funds will be used for purchase of plant, disassembling the plant in Germany, crating and shipping the plant to Hilo, and then reassembling the plant in Hilo.

With successful field testing, the project will then become a commercial venture for private investors and private developers.

The outcomes of the project:

- Biomass to synthetic fuels (gasoline and diesel) to reduce the retail price by appreciably less than 50 percent of the prevalent retail rate.
- Municipal biodegradable waste-to-energy, the production of methane gas for electric generation to solve the landfill problem.

Summary of the technical concept of the Project:

Biomass is placed in sealed 10' X 10' plastic cubes, cultured to produce significant volumes of gas containing methane and carbon dioxide. The gas is converted to powerful syngas containing hydrogen in a chemical reactor using advance reforming technology. The syngas, 5 times more powerful than methane, is used to produce liquid synthetic fuel through a vastly modified gas to liquid converter, or used to produce electric power.

Sealed landfill cubes never leak and will produce gas for 30 years. The biomass emptied from the cubes is shredded, palletized and consumed in the chemical reforming reactor to produce syngas. This entire process is designed as a closed loop zero emission facility.

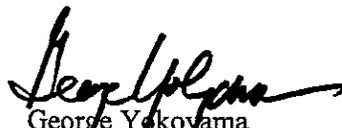
Components of biomass to energy:

- Biomass is compacted, baled and placed in sealed plastic 10' X 10' cubes or boxes.
- Arrays of plastic cubes are formed to enhance production.
- Extracted gas is cleaned and separated to form pure methane gas.
- Pure combustible gas is used to produce electric power.

Processes for production of synthetic fuel and electric power:

- Chemical reforming reactor converts landfill and other sources of gas to syngas containing hydrogen and carbon monoxide.
- Carbon dioxide is converted to methane or carbon monoxide.
- Syngas or hydrogen is combusted to produce electric power.
- Carbon monoxide and hydrogen gases are combined in proper ratio to produce liquid synthetic transportation grade gasoline or diesel.

Thank you for the opportunity to testify.


George Yokoyama
Executive Director



LIFE OF THE LAND

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COMMITTEE ON ENERGY AND ENVIRONMENT

Senator Mike Gabbard, Chair

Senator J. Kalani English, Vice Chair

Tuesday, February 10, 2009

3:45 p.m.

Conference Room 225

SB 1231 RELATING TO RENEWABLE ENERGY.

CONCERNS

Appropriation for the relocation and establishment of a pilot plant for the conversion of a Aggregate Energy, LLC of Idaho biomass into transportation fuel and electricity.

Aloha Chair Gabbard, Vice Chair English and Members of the Committee

My name is Henry Curtis and I am the Executive Director of Life of the Land, Hawai'i's own energy, environmental and community action group advocating for the people and `aina for almost four decades. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

1. All Hawai'i businesses **must register with DCCA**. Aggregate Energy, LLC is not licensed by DCCA
2. Most businesses has some form of listing on the web. Aggregate Energy is not found on the world wide web.
3. The bill states: "as plentiful as the natural resources are locally, in many cases, the technology is far afield and must be imported into the State." The opposite is true: Hawai'i has a wealth of local companies and individuals who must often install renewable technology elsewhere in the world because of Hawai'i's resistance to go beyond stating it wants to get off oil.

Mahalo
Henry Curtis