SB 1207

DAVID Y. IGE Governor

SHAN S. TSUTSUI Lt. Governor



SCOTT E. ENRIGHT Chairperson, Board of Agriculture

PHYLLIS SHIMABUKURO-GEISER
Deputy to the Chairperson

State of Hawaii **DEPARTMENT OF AGRICULTURE**

1428 South King Street Honolulu, Hawaii 96814-2512 Phone: (808) 973-9600 FAX: (808) 973-9613

TESTIMONY OF SCOTT E. ENRIGHT CHAIRPERSON, BOARD OF AGRICULTURE

BEFORE THE SENATE COMMITTEES ON AGRICULTURE & ENVIRONMENT, PUBLIC SAFETY, INTERGOVERNMENTAL, & MILITARY AFFAIRS & TRANSPORTATION & ENERGY

FEBRUARY 14, 2017 10:00 A.M. CONFERENCE ROOM 414

SENATE BILL NO. 1207 RELATING TO LAKE WILSON

Chairpersons Gabbard, Nishihara and Inouye and Members of the Committees:

Thank you for the opportunity to testify on Senate Bill No.1207 that appropriates moneys to ADC for a study to be conducted in cooperation with the US Army Corps of Engineers on the merits of acquiring Lake Wilson dam and spillway to upgrade the dam and develop pumped-storage hydroelectricity. The Department of Agriculture supports the intent of this measure provided it does not impact the Department's priorities listed in the Executive Budget.

The Department supports the work of the Agribusiness Development Corporation. Lake Wilson provides a great opportunity for the ADC to look into hydroelectricity as a means to support local farmers in the region.

Thank you for the opportunity to testify on this measure.





DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

LUIS P. SALAVERIA DIRECTOR

MARY ALICE EVANS
DEPUTY DIRECTOR

Telephone: (808) 587-2757 Fax: (808) 586-2589

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813 Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804 Web site: www.hawaii.gov/dbedt

Statement of LUIS P. SALAVERIA Director

Department of Business, Economic Development, and Tourism before the

SENATE COMMITTEES ON AGRICULTURE AND ENVIRONMENT And

PUBLIC SAFETY, INTERGOVERNMENTAL, AND MILITARY AFFAIRS And TRANSPORTATION AND ENERGY

Tuesday, February 14, 2017 10:00 a.m. State Capitol, Conference Room 414

in consideration of SB 1207 RELATING TO LAKE WILSON.

Chairs Gabbard, Nishihara, and Inouye, Vice Chairs Riviere, Wakai, and Dela Cruz, and Members of the Committees.

The Department of Business, Economic Development, and Tourism supports SB 1207, which appropriates funds to the Agribusiness Development Corporation (ADC) for a study to be conducted in cooperation with the U.S. Army Corps of Engineers on the merits of acquiring Lake Wilson dam and spillway for the purposes of upgrading the dam and developing pumped-storage hydroelectricity; provided that federal matching funds are made available.

We support this measure as pumped-storage hydroelectricity is a renewable energy resource that could support our State's achievement of 100% Renewable Portfolio Standard by 2045. The project proposed under this measure could also provide valuable insight into the broader development of pumped-storage hydroelectricity in the greater State of Hawaii.

We defer to ADC regarding the administration of the study provided in this measure. Thank you for the opportunity to offer testimony on SB 1207.

DAVID Y. IGE Governor SHAN S. TSUTSUI Lt. Governor



STATE OF HAWAII AGRIBUSINESS DEVELOPMENT CORPORATION

235 S. Beretania Street, Room 205 Honolulu, HI 96813 Phone: (808) 586-0186 Fax: (808) 586-0189

TESTIMONY OF JAMES J. NAKATANI EXECUTIVE DIRECTOR AGRIBUSINESS DEVELOPMENT CORPORATION

BEFORE THE COMMITTEE ON AGRICULTURE AND ENVIRONMENT,
COMMITTEE ON PUBLIC SAFETY, INTERGOVERNMENTAL, AND MILITARY
AFFAIRS, AND
COMMITTEE ON TRANSPORTATION AND ENERGY

Tuesday, February 14, 2017 10:00 a.m.

SENATE BILL NO. 1207 RELATING TO LAKE WILSON

Chairpersons Gabbard, Nishihara, and Inouye and Members of the Joint Committees:

My name is James Nakatani, Executive Director of the Agribusiness Development Corporation ("ADC"). The ADC supports Senate Bill No. 1207 which appropriates moneys to the ADC for a study to be conducted in cooperation with the United States Army Corps of Engineers on the merits of acquiring Lake Wilson dam and spillway to upgrade the dam and develop pumped-storage hydroelectricity.

The Wahiawa Reservoir (Lake Wilson) was created by the Waialua Sugar Company in 1906. Built to irrigate sugarcane fields to the north, the reservoir is the largest freshwater impoundment in the state, with a holding capacity of about 2.5 billion gallons and a surface area of about 350 acres. The elevation changes

of Lake Wilson and its associated ditch systems and water lines make conditions ideal for generating hydropower, which can be created 24/7 indefinitely assuming that the reservoir it is utilizing never runs dry.

The ADC is intrigued by hydroelectricity and would explore the idea of producing a clean source of energy to help its farmers become more self-sufficient and protect their bottom line while creating more efficiency in their water usage. More importantly, because hydroelectricity uses "non-consumptive water", all of the water used to generate the hydropower is returned to the reservoir or original source.

In addition to the water conservation benefits, utilizing the lake to develop pumped-storage hydroelectricity can attract and help generate the necessary funding to upgrade the dam and modernize the entire water system which will benefit its users from Wahiawa to the North Shore.

Thank you for the opportunity to testify, and for your consideration of this bill.

From: mailinglist@capitol.hawaii.gov

Sent: Wednesday, February 8, 2017 2:20 AM

To: AEN Testimony Cc: brian@hfbf.org

Subject: *Submitted testimony for SB1207 on Feb 8, 2017 14:45PM*

SB1207

Submitted on: 2/8/2017

Testimony for AEN/PSM/TRE on Feb 8, 2017 14:45PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing	
Randy Cabral	Hawaii Farm Bureau	Support	Yes	l

Comments:

Please note that testimony submitted <u>less than 24 hours prior to the hearing</u>, 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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From: mailinglist@capitol.hawaii.gov

Sent: Monday, February 13, 2017 2:13 PM

To: AEN Testimony
Cc: owen@hawaii.edu

Subject: Submitted testimony for SB1207 on Feb 14, 2017 10:00AM

SB1207

Submitted on: 2/13/2017

Testimony for AEN/PSM/TRE on Feb 14, 2017 10:00AM in Conference Room 414

Submitted By	Organization	Testifier Position	Present at Hearing
Owen Miyamoto	American Society of Civil Engineers	Support	No

Comments: The members of the American Society of Civil Engineers urge passage of SB 1207 that would make excellent use of an existing resource, Lake Wilson reservoir, to convert the stored energy to electricity. This would be consistent with the State's goal to reduce the use of imported oil for the generation of electricity.

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COMMITTEE ON AGRICULTURE AND ENVIRONMENT Senator Mike Gabbard, Chair Senator Gil Riviere, Vice Chair

COMMITTEE ON PUBLIC SAFETY, INTERGOVERNMENTAL, AND MILITARY AFFAIRS Senator Clarence K. Nishihara, Chair Senator Glenn Wakai, Vice Chair

COMMITTEE ON TRANSPORTATION AND ENERGY Senator Lorraine R. Inouye, Chair Senator Donovan M. Dela Cruz, Vice Chair

DATE: Tuesday, February 14, 2017

TIME: 10:00 a.m.

PLACE: Conference Room 414

SB 1207 RELATING TO LAKE WILSON

STRONG SUPPORT

Aloha Chairs Gabbard, Nishihara, and Inouye, and Members of the Committees

Life of the Land is Hawai'i's own energy, environmental and community action group advocating for the people and 'aina for 47 years. 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.

<u>Proposed Amendment</u>: The purpose of this Act is to appropriate funds to the agribusiness development corporation ... <u>provided hoping</u> that federal matching funds are made available.

Wahiawa Dam, which created Wahiawa Reservoir or Lake Wilson, is located in Wahiawa. It is the second largest reservoir in Hawaii (302 acres) and is owned by Dole Foods. The concrete dam was first built in 1906 on the Kaukonahua Stream, the state's longest stream (thirty-three miles). The entire Kaukonahua Stream flow is 39 million gallons per day, gathered from a drainage basin of ten square miles. The height of the dam is eighty-eight feet and the lake can store 9,200 acre-feet.

Lake Wilson Hydroelectric

A hydroelectric facility can be built at Lake Wilson. A large-diameter water pipe can be built adjacent to Kaukonahua Stream along most or all of the stream's length between Lake Wilson and Otake Camp in Waialua. The pipe could be used to generate in-flow hydroelectric power during periods of peak energy demand.

Some of the water can be returned to the Kaukonahua Stream, which empties into Ki'iki'i Stream about a mile mauka of Kaiaka Bay.

FOUR-FOLD ADVANTAGES AND REVENUE STREAMS

- 1. During the night (10 p.m. to 6 a.m.) wind facilities can produce power but instead sit idle, since they are curtailed by the utility due to low demand. The two North Shore Wind Plants (Kahuku, Kawailoa) could send night-time wind energy to HECO's Haleiwa (Weed Circle) Subtransmission Station and then to the lower end of Kaukonahua Stream, just a mile away. The wind energy could then be used to pump water back up to Lake Wilson (pumped storage hydro).
- 2. Kaukonahua Stream has periodically overrun its banks, flooding and displacing communities, especially Otake Camp. This practice would end and the City and State would save money.
- 3. Siltation occurs throughout Kaiaka Bay every time there is a heavy rain. The huge watershed gets its water from four Ko`olau streams and two Mount Ka`ala (Waianae) streams. By siphoning off the stream water into lower reservoirs, electricity would be created, and the flooding and siltation can be avoided.
- 4. Diverted and captured water in the lower reservoir could support local farmers.

Mahalo,

Henry Curtis,
Executive Director

From: mailinglist@capitol.hawaii.gov

Sent: Friday, February 3, 2017 3:27 PM

To: AEN Testimony

Cc: mendezj@hawaii.edu

Subject: *Submitted testimony for SB1207 on Feb 8, 2017 14:45PM*

SB1207

Submitted on: 2/3/2017

Testimony for AEN/PSM/TRE on Feb 8, 2017 14:45PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez	Individual	Support	No

Comments:

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From: mailinglist@capitol.hawaii.gov

Sent: Tuesday, February 7, 2017 3:19 PM

To: AEN Testimony

Cc: victor.ramos@mpd.net

Subject: *Submitted testimony for SB1207 on Feb 8, 2017 14:45PM*

SB1207

Submitted on: 2/7/2017

Testimony for AEN/PSM/TRE on Feb 8, 2017 14:45PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Victor K. Ramos	Individual	Support	No

Comments:

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