

SB 2548

Measure Title: RELATING TO ELECTRICAL POWER GENERATORS.

Report Title: Electrical Power Generators; Diesel-powered; Filters

Description: Requires certain diesel-powered electrical power generators to be equipped with diesel particulate filters that remove no less than 85% of the particulate matter.



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
File:

COMMITTEE ON ENERGY AND ENVIRONMENT
COMMITTEE ON COMMERCE AND CONSUMER PROTECTION
S.B. 2548 RELATING TO ELECTRICAL POWER GENERATORS

Testimony of Gary L. Gill
Acting Director of Health

January 28, 2014
2:45 p.m.

1 **Department's Position:** The Department of Health (Department) supports the intent of this bill.

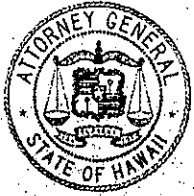
2 **Fiscal Implications:** There will be economic and operational impacts on many facilities in Hawaii that
3 use diesel engine generators to provide power.

4 **Purpose and Justification:** This bill amends Chapter 342B, HRS requiring certain sized diesel engine
5 generators to have filters with at least 85% control efficiency for reducing particulate emissions from the
6 engine's exhaust.

7 The Department supports reducing particulate matter emissions from diesel engine generators;
8 however, additional particulate emission controls may not be necessary considering Hawaii is in
9 attainment with the National Ambient Air Quality Standards (NAAQS) and diesel engine generators are
10 regulated on the state and federal level. Federal standards for diesel engine generators incorporate
11 emission limits, maintenance procedures, and air pollution control requirements. Affected diesel engine
12 generators are also required to obtain air permits from the Department to ensure compliance with the
13 federal regulations and NAAQS.

14 We also note that requiring filters on diesel engine generators will have associated costs but
15 defer this matter to the owners and operators of the engines.

16 Thank you for the opportunity to testify on this bill.



**TESTIMONY OF
THE DEPARTMENT OF THE ATTORNEY GENERAL
TWENTY-SEVENTH LEGISLATURE, 2014**

ON THE FOLLOWING MEASURE:

S.B. NO. 2548, RELATING TO ELECTRICAL POWER GENERATORS.

BEFORE THE:

SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

DATE: Tuesday, January 28, 2014 **TIME:** 2:45 p.m.

LOCATION: State Capitol, Room 225

TESTIFIER(S): David M. Louie, Attorney General, or
William F. Cooper, Deputy Attorney General

Chair Gabbard and Members of the Committee:

The Attorney General has concerns with this bill.

This bill would regulate diesel-powered electrical power generators. Diesel-powered electrical power generators power either stationary or mobile machines. The federal government has expressly preempted state regulation of mobile diesel-powered electrical generators. 42 U.S.C. § 7543(e). As a result, only stationary diesel-powered electrical power generators can be regulated by the Legislature.

This bill would add a new section to chapter 342B, Hawaii Revised Statutes, that would require that “Any diesel-powered electrical power generator capable of generating more than ____ kilowatts of power used in the State shall be equipped with a diesel particulate filter that is capable of filtering out no less than eighty-five per cent of the particulate matter in the exhaust produced by the generator.” Because this provision would affect both stationary and mobile diesel-powered electrical power generators, it would violate federal law. This problem can be corrected by inserting the word “stationary” before the phrase “diesel-powered electrical power generator” in section 1, page 1, line 5, of the bill. As amended, the sentence would read as follows, “Any stationary diesel-powered electrical power generator capable of”

The Department of the Attorney General respectfully recommends that the Committee amend the bill as suggested above.



Neal K. Okabayashi
Senior Vice President & Attorney
Government Affairs

Presentation To
Committee on Energy and Environment
January 28 at 2:45 p.m.
State Capitol Conference Room 225

Testimony in Opposition to Bill S. B. 2548

TO: The Honorable Mike Gabbard, Chair
The Honorable Russell E. Ruderman, Vice Chair
Members of the Committee

My name is Neal Okabayashi of First Hawaiian Bank and I testify for First Hawaiian Bank.

First Hawaiian Bank is a bank whose deposits are insured by the Federal Deposit Insurance Corporation. The FDIC requires that we take protective measures to protect and preserve our data. As is the case with many other banks with their own dedicated data centers, we rely on the electrical feed from the electrical utility to power our data center but to protect ourselves against electrical outages, we provide for back-up power to ensure a steady stream of electrical power. That is the role played by our generators. Thus, our generators are rarely used, and unless there is a blackout, the usage is confined to periodic testing and thus does not appear to pose the concern that this bill addresses.

We are also located in an industrial center and not a residential neighborhood.

We fear that the language would require us to retrofit existing generators, and since generators come in pairs for redundancy, retrofitting costs might be expensive and also raises issues of temporary inoperability.

Thank you for the opportunity to submit this testimony and please let us know if we can provide further information.

Neal K. Okabayashi

Testimony before the Senate Committee on Energy and Environment

S.B. 2548 -- Relating to Electrical Power Generation

Tuesday, January 28, 2014
2:45 p.m., Conference Room 225

By Ron Cox

Hawaiian Electric Company, Inc.

Chair Gabbard, Vice Chair Ruderman and Members of the Committee:

My name is Ron Cox. I am the Vice President of Power Supply at Hawaiian Electric Company. I am providing written testimony on behalf of Hawaiian Electric Company and its subsidiary utilities, Maui Electric Company and Hawaii Electric Light Company (the "Hawaiian Electric Companies").

The Hawaiian Electric Companies understand the general intent of S.B. 2548, which proposes to require equipping diesel-powered electrical power generators with diesel particulate filters capable of filtering out 85% of the particulate matter from the exhaust. However, the Hawaiian Electric Companies offer that the bill is unnecessary given that as an electric utility we are already subject to stringent particulate matter (PM) emissions limitations. The Hawaiian Electric Companies offer the following comments and suggested amendment for the Committee's consideration.

Hawaiian Electric Companies' facilities are designed to operate and comply in accordance with federal standards of performance for stationary sources, which include regulations for PM emissions. The Hawaiian Electric Companies perform EPA-approved dispersion modeling to demonstrate compliance with federal National Ambient Air Quality Standards (NAAQS) as part of the air quality permitting process. S.B. 2548 would introduce a requirement that is incompatible with the federal and state framework established by the Clean Air Act, particularly as it has been applied to the electricity generating industry.

S.B. 2548 proposes adding a new section to Hawaii Revised Statutes Chapter 342B applying to "*diesel-powered electrical power generators*". There is no definition of a "*diesel-powered electrical power generator*" in either the Hawaii Revised Statutes Chapter 342B, Air Pollution Control, or in the

Hawaii Administrative Rules Title 11, Chapter 60.1 Air Pollution Control. It is not clear if S.B. 2548 applies to any electric generating unit that combusts diesel fuel, and whether it applies to emergency, black start, non-emergency, stationary, mobile, or marine sources within the State. Diesel fuel is used throughout Hawaiian Electric Companies' generation facilities.

We therefore suggest that the Committee consider the following amendment to the bill, which will recognize that particulate matter emissions from the Hawaiian Electric Companies' generation facilities are already regulated through numeric limits, restrictions on the sulfur content of the fuel, and operational requirements.

- Section 1. *"§342B- Electrical power generators; diesel; filters. Any diesel-powered electrical power generator capable of generating more than ___ kilowatts of power used in the State, **except for such generators used solely in the production of electricity for sale to the public.** shall be equipped with a diesel particulate filter that is capable of filtering out no less than eighty-five per cent of the particulate matter in the exhaust produced by the generator."*

Thank you for the opportunity to testify.

SB 2548

RELATING TO ELECTRICAL POWER GENERATORS

**KEN HIRAKI
VICE PRESIDENT-GOVERNMENT & COMMUNITY AFFAIRS
HAWAIIAN TELCOM
January 28, 2014**

Chair Gabbard and members of the Committee:

I am Ken Hiraki, testifying on behalf of Hawaiian Telcom (HT) on SB 2548.

We oppose SB 2548 which mandates diesel-powered electrical power generators be equipped with particulate filters that remove no less than 85% of the particulate matter. Passage of this measure poses a risk to our state's emergency preparedness, provides limited environmental benefits and imposes a costly unfunded mandate.

When it comes to public safety, Hawaiian Telcom takes its job very seriously. Our company plays a critical role in our state's emergency preparedness strategy. When the electricity goes out, our phones are still on providing essential communication services connecting the public to FEMA, state and local emergency providers, doctors, friends and loved ones. Our diesel-powered emergency backup electrical generators are the reliable workhorses that power on when the electricity goes off in order to keep our communication services up and running.

Mandating the installation of a particulate filter creates an additional risk that our emergency electrical power generators could fail during a state of emergency. For example, if the particulate filter required under this bill should get clogged there is a risk that exhaust from the emergency generator will not be able to properly vent and will cause the entire emergency generator to malfunction and cease operation. When it comes to public safety, we must do everything possible to ensure optimal operational reliability by reducing rather than increasing the number of failure points along the way.

In addition to our public safety concerns, it should be emphasized that our diesel-powered electrical generators are what are called "intermittent" use generators. Intermittent generators are normally dormant except when the electricity goes off or switched on as part of a scheduled safety test. By virtue of the limited intermittent use of our generators, an important public policy question is raised whether the perceived environmental benefits contained in this bill outweigh the steep economic costs and public safety concerns raised in our testimony.

Finally, we are concerned this measure does not include an appropriation or tax credit to reimburse affected entities for the cost to make the necessary equipment

upgrades as required under SB 2548. Our company has over a hundred generators statewide and the retrofitting construction cost to our company alone will be well over \$4,000,000. This figure does not include the cost to other affected entities such as hospitals, police, fire stations, airports, nursing homes, military bases and even the emergency generators located in the Capitol basement.

For the foregoing stated reasons, Hawaiian Telcom respectfully requests that SB 2548 be held in committee.

Thank you for the opportunity to testify.



January 27, 2014

To: Senate Committee on Energy and the Environment
Subject: Opposition to SB 2548, Relating to Electrical Power Generators

My name is Joseph Shacat and I am the Environmental Compliance Manager for Grace Pacific LLC. I am writing today in **opposition to SB 2548**. This bill would impose an undue financial hardship on owners of diesel engine generators, with a relatively small impact on air quality and human health.

I have personally been involved in numerous grant projects over the past seven years to retrofit, repower, and refuel diesel powered vehicles and equipment, usually by creating partnerships with State and County agencies, non-profit organizations, and other companies. Over the course of implementing these projects, Grace Pacific has become the leading organization in Hawaii to voluntarily retrofit diesel equipment. We have developed a strong knowledge base regarding the available technologies, engineering considerations, and the cost to install and maintain these systems. At the same time, we have closely tracked the changing Federal requirements that apply to diesel engines. Based on our extensive experience in this area, we feel that SB 2548 would provide limited benefit to human health or the environment at a high cost, for the reasons outlined below.

Older generators are already required to be retrofit in order to reduce emissions. According to 40 CFR 63 Subpart ZZZZ (often referred to as the RICE NESHAP Rule), diesel engine generators greater than 300 horsepower that were constructed prior to June 2006 are required to install a Diesel Oxidation Catalyst (DOC). DOCs are capable of reducing carbon monoxide (CO) emissions by 90%, hydrocarbon (HC) emissions by 80%, and particulate matter (PM) emissions by 20%. Although the PM reductions associated with DOCs do not meet the emission reduction goals established in SB 2548, the DOCs have already been installed on this older equipment, and Hawaii's residents are already benefiting from the reduced emissions. It should be noted that the RICE NESHAP Rule has an exemption for emergency use generators, but emergency generators tend to have fairly limited operating cycles and relatively low overall emissions on an annual basis (see below for more information).

The cost to retrofit older generators would be overly burdensome. Over the past 1-2 years, many organizations have spent considerable resources to install DOCs in order to comply with the RICE NESHAP Rule. For instance, the compliance cost to retrofit an 800 HP generator with a DOC under the RICE NESHAP Rule might be in the range of \$50,000 - \$85,000. If SB 2548 were enacted, these costly DOCs would become obsolete as owners would be required to install a diesel particulate filter (DPF) at a substantial additional cost, likely to be well in excess of \$100,000. In order to provide context, it should be noted that the cost of a new generator of this size would be on the order of \$400,000.

SB 2548 could create a direct conflict with Federal regulations. As indicated above, the RICE NESHAP Rule mandates that a DOC be installed on older generators. It may not be technologically feasible to install both a DOC and a DPF, which could present a compliance challenge for the owner – should a DOC be installed to meet the Federal requirements, or should a DPF be installed to meet the State requirements?



Grace Pacific LLC

A SUBSIDIARY OF ALEXANDER & BALDWIN, INC.

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Newer generators have substantially lower emissions. New generators purchased today are required to meet stringent EPA Tier 4 emissions requirements. As currently written, SB 2548 would apply to all engines regardless of age. Therefore, someone who buys a new diesel engine generator that meets the latest EPA requirements would be required to install an expensive retrofit system prior to putting the engine into service.

There is no exemption for emergency use generators. Emergency generators have relatively limited duty cycles. For instance, the RICE NESHAP Rule limits non-emergency operation of emergency generators (i.e., for maintenance and readiness testing) to no more than 50 hours per year. Additional operation of these generators is limited to "emergency events" in which a facility's main power supply goes out. In most years, an emergency generator will only operate a few days per year. It does not make sense to impose a costly requirement to reduce the emissions of equipment that hardly ever operates.

Hawaii is already in attainment with State and National ambient air quality standards. Because Hawaii is already in attainment with ambient air quality standards for particulate matter, it is irresponsible to impose a costly mandate without first conducting a cost/benefit analysis.

I appreciate your time and consideration of my testimony regarding this important matter.

Sincerely,

Joseph Shacat
Environmental Compliance Manager

SB2548

Submitted on: 1/24/2014

Testimony for ENE on Jan 28, 2014 14:45PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Brad Parsons	Individual	Oppose	No

Comments: