

PLEASE STATE YOUR NAME, POSITION AND PLACE OF EMPLOYMENT.

My name is James S. Grant. I am employed by HNTB Corporation, Inc. ("HNTB"). I am an associate vice president of HNIB, which is a transportation consulting design firm with multiple offices located throughout the United States ("US"). I work in HNTB's office, located at 600 108th Avenue NE, Suite 900, Bellevue, Washington ("WA") 98004.

PLEASE STATE YOUR PROFESSIONAL EXPERIENCE AND EDUCATIONAL BACKGROUND.  
Exhibit CA-100 summarizes my professional experience and educational background.

ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

I am appearing on behalf of the Division of Consumer Advocacy ("Consumer Advocate" or "CA"), who is a participant in this proceeding to represent, advance and protect the interests of Hawaii's electric utility ratepayers.

HAVE YOU PREVIOUSLY PARTICIPATED IN REGULATORY ENGAGEMENTS BEFORE THE HAWAII PUBLIC UTILITIES COMMISSION ("COMMISSION") ON BEHALF OF THE CONSUMER ADVOCATE?

No.

WHAT IS THE PURPOSE OF YOUR TESTIMONY?

In resolving the issues raised by the Commission in Order No. 24144, my testimony responds to the Consumer Advocate's request for assistance in determining whether the terms and conditions of Hawaiian Electric Company, Inc.'s ("HECO's" or the "Company's") Biodiesel Supply Contract with Imperium Services, L.L.C. ("Imperium") are reasonable, prudent, and in the public interest.

PLEASE SUMMARIZE THE ISSUES TO WHICH YOU RESPOND.

The Commission set forth the following four issues to be addressed in this docket.

1. Are the terms and conditions of HECO's Biodiesel Supply Contract with Imperium reasonable, prudent, and in the public interest?
2. Is it reasonable for HECO to include the costs for biodiesel fuel, transportation, storage, and related taxes incurred pursuant to the Imperium Contract in its [ECAC], to the extent that they are not recovered in HECO's base rates?
3. Is it reasonable for HECO to use biodiesel blended with no more than 0.2% petroleum diesel in order to benefit from the Federal biofuel blender's credit?
4. Is it reasonable, prudent and in the public interest for HECO to enter into the subject biofuel supply contract even though it does not expressly (1) require meeting the Internal Revenue Service's requirements to qualify for any available tax credits, including, the renewable fuel mixture tax credits; and (2) require the satisfaction of biofuels sustainability principles contained in HECO and the Natural Resources Defense Council's Roundtable on Sustainable Palm Oil Principles and Criteria?

My testimony will address issues 1, 3, and 4.

WHAT ARE YOUR CONCLUSIONS REGARDING THE TERMS AND CONDITIONS OF THE SUPPLY CONTRACT WITH IMPERIUM, WHICH IS THE SUBJECT OF THE INSTANT DOCKET?

I have concluded that the terms and conditions of the Imperium Supply Contract are reasonable and in the public interest.

IS IT REASONABLE FOR HECO TO USE BIODIESEL BLENDED WITH NO MORE THAN 0.2% PETROLEUM DIESEL IN ORDER TO BENEFIT FROM THE FEDERAL BIOFUEL BLENDER'S CREDIT?

The proposal to blend the biodiesel with petroleum diesel is reasonable because it allows HECO to lower the price at which the biofuel is procured under the terms of the Supply Contract with Imperium. The blender's credit, I however, may no longer be available with the passage of new legislation in 2008, thus making the issue moot at this time.

IS IT REASONABLE, PRUDENT AND IN THE PUBLIC INTEREST FOR HECO TO ENTER INTO THE SUBJECT BIOFUEL SUPPLY CONTRACT EVEN THOUGH IT DOES NOT EXPRESSLY (I) REQUIRE MEETING THE INTERNAL REVENUE SERVICE'S ("IRS's") REQUIREMENTS TO QUALIFY FOR ANY AVAILABLE TAX CREDITS, INCLUDING, THE RENEWABLE FUEL MIXTURE TAX CREDITS; AND (2) REQUIRE THE SATISFACTION OF BIOFUELS SUSTAINABILITY PRINCIPLES CONTAINED IN HECO AND THE (II) NATURAL RESOURCES DEFENSE COUNCIL'S ROUNDTABLE ON SUSTAINABLE PALM OIL PRINCIPLES AND CRITERIA?

As to Point (1), it is reasonable, prudent, and in the public interest for HECO to enter into the Biodiesel Supply Contract with Imperium even though the contract does not expressly require meeting the IRS's requirements to qualify for any available tax credits because HECO is not a provider or vendor of biodiesel fuel and is not subject to the IRS requirements to qualify for any available tax credits. As to Point (2) of Issue 4 in Order No. 24144, the contract specifies that certified sustainable biodiesel will be used to meet HECO's requirements under the Supply Contract. I was unable to confirm that the sustainable biodiesel criteria meet the requirements of the Natural Resources Defense Council's principles and criteria on sustainable palm oil.

WHAT ARE THE KEY TERMS AND CONDITIONS OF THE IMPERIUM SUPPLY CONTRACT?

The key terms and conditions are as follows:

- The Supply Contract shall commence on or after January 1, 2009 (or earlier if mutually agreed upon by the parties) (Ex. A, Application, Docket No. 2007-0346, at 2 (Supply Contract § 1.8 (definition of "commencement date"))) and shall run through December 31, 2011, without any termination penalties. (Ex. A, Application, Docket No. 2007-0346, at 3 (Supply Contract § 2.1))

The Supply Contract can be automatically renewed for successive annual terms unless HECO or Imperium provides a notice of intent not to renew the Supply Contract to the other party not less than 180 days prior to the end of the then-current annual term. (Ex. A, Application, Docket No. 2007-0346, at 3 (Supply Contract § 2.1))

**Confidential Information** Deleted Pursuant To CA-I-I

- Under the Supply Contract with Imperium, (In anticipation of the need for biofuels to operate its CIP Generating Unit to be built in the Campbell Industrial Park, HECO, on December 27, 2006, issued a New Capacity Biofuel Supply Request for Proposal ("RFP"), see Ex. C, Application, Docket No. 2007-346, to find suppliers interested and able to provide biofuels for the Company's CIP Generating Facility to be located in the Campbell Industrial Park. Application, Docket No. 2007-0346, at 7. Black & Veatch Corporation (Black & Veatch"), along with HECO, evaluated seven proposals that were submitted in response to HECO's RFP. Application, Docket No. 2007-0346, at 7-8. Applying its criteria and selection methodology to the proposals received by HECO in response to the Company's RFP, see Ex. D, Application, Docket No. 2007-0346, HECO selected Imperium to supply its biofuel requirements for the CIP Generating Unit to be located in the Campbell Industrial Park. The supply contract negotiated between HECO and Imperium is the subject of Docket No. 2007-0346.) HECO expects to purchase and receive its entire fuel requirement for the Company's Campbell Industrial Park Generating Unit ("CIP Generating Unit") from Imperium. According to the Supply Contract, HECO shall have no minimum purchase requirement with respect to the biodiesel fuel purchased from Imperium pursuant to the

terms and conditions of the Supply Contract. (Ex. A, Application, Docket No. 2007-0346, at 3 (Supply Contract § 3.1)).

- The Supply Contract does not specify the type of feedstock Imperium must use to produce the biodiesel fuel delivered to HECO in accordance with the provisions of the Supply Contract. However, the Supply Contract does provide that Imperium shall supply biodiesel fuel that complies with the requirements of the Company's ("Biodiesel Procurement Policy"), attached as Attachment B to HECO's Supply Contract with Imperium.

- The prices under which HECO will purchase the biodiesel fuel from Imperium is based upon a series of formulas set forth in Article V of the Supply Contract and vary according to the feedstock used to produce the biodiesel fuel finally delivered to HECO under the terms of the Supply Contract.

DO YOU BELIEVE THAT THE KEY TERMS OF THE SUPPLY CONTRACT WITH IMPERIUM ARE REASONABLE?

Yes for the following reasons.

First, the biodiesel fuel industry is presently in a period of transition from what I will refer to as "first generation" biodiesel fuel to "second generation" biodiesel fuel. Furthermore, the price of biodiesel fuel has increased significantly in the recent past, due primarily to the lack of sufficient feed stock to match the demand for biodiesel fuel. In addition, the price of biodiesel fuel is likely to increase further due to the passage of legislation in 2008 that could eliminate the tax credits that are currently available to biodiesel fuel producers.

Thus, having a contract term of three years, with the ability to terminate the Supply Contract without any early termination penalties, is reasonable and in the public interest because it allows sufficient time to explore the feasibility of successfully producing the "second generation" of biodiesel within the next three years.

In addition, allowing the termination of the contract prior to the expiration of the three-year term without penalty will enable HECO to secure lower cost biodiesel fuel if the second generation of biodiesel fuel can be produced at lower prices than today's market. Finally, given the current high price of the first generation of biodiesel fuel, allowing HECO to only purchase what is needed to operate the 110 megawatt ("MW") combustion turbine will help to minimize ratepayer costs, since HECO is expected to economically dispatch its available generation, taking into consideration unit efficiency and fuel costs.

Second, I believe that it is reasonable to allow Imperium to produce its biodiesel fuel from a number of different feed stocks. The freedom to use different kinds of feed stock in Imperium's operations will ensure that biodiesel fuel is available to meet HECO's biodiesel fuel needs given today's market conditions.

WHAT IS THE OUTLOOK FOR THE BIODIESEL MARKET IN THE NEAR TERM, INCLUDING AN ASSESSMENT OF FEEDSIOCK AVAILABILITY AND FEEDSIOCK OPTIONS AT FUTURE POINTS IN TIME?

The outlook for the biodiesel market as it first evolved is not promising at the present time, primarily due to the cost of biodiesel fuel resulting from the competing demand for the biodiesel feedstock and the loss of the federal tax credits that are currently available to lower the price of the biodiesel fuel. It is possible in the near term that first generation biodiesel (e.g., soybean oil, rapeseed and palm oil) markets in the US may get a second life if tax benefits are reinstated. However, this is unlikely given the comparative strength and influence of environmental lobbyists that are arguing the concerns regarding (a) food vs. fuel, (b) deforestation, and (c) sustainability.

## WHAT EFFECT HAS THE CURRENT SITUATION HAD ON THE PRICE OF THE FIRST GENERATION OF BIODIESEL FUEL FEEDSTOCK?

Feedstock prices for rapeseed and soybean oil have increased to over \$1,000 per metric ton in 2008, well above their historic averages that equaled \$400 per metric ton. In addition, the US is currently experiencing a large corn to ethanol push, which makes it unlikely that soybean acreage will expand significantly or prices for soybean oil will become affordable in the near term.

Finally, the biodiesel tax benefits will end this year to close the "loophole" that resulted in 80% of the US biodiesel production (approximately 360 million gallons or about 1 million metric tons) being exported to Europe in 2007, at an expense to US taxpayers of \$360 million dollars in subsidies. The tax advantages favored the export of subsidized US biodiesel to Europe where there were more than 50% of automobiles run on diesel fuel compared to only 4% of US passenger cars run on diesel fuel. As a result, in December 2007, the Congress of the United States revised its "Energy Bill" under the title of the Energy Independence and Security Act and did not extend the subsidy (a federal excise credit for biodiesel production) beyond the year 2008.

## ARE THERE OTHER CONCERNS WITH THE FEEDSTOCK FOR THE **FIRST GENERATION** OF BIODIESEL FUEL?

Yes, deforestation is a major global warming concern and it threatens indigenous wild life. Rainforest advocates argue that when rainforests are cleared, the carbon that has been captured and stored in the rainforests is then released and emitted into the atmosphere which contributes to greater CO<sub>2</sub> emissions and accelerated global warming.

Sustainability is a concern as well. Palm that is grown on non-forest, non-arable land that has been degraded and/or is being repurposed (i.e., dormant, unused coconut, melon, etc. plantations that have not been used in a long time) is considered sustainable. Non-sustainable palm, grown by clearing rainforests, is not recommended for use.

## WHAT IS THE IMPACT OF THE ABOVE SITUATION ON THE BIODIESEL MARKET AND FEEDSTOCK?

By the end of 2008, the US biodiesel market will have to continue to produce biodiesel fuel on a price-competitive basis, and without government subsidies. Export volumes will also be affected, as the US government will no longer support the export of subsidized biodiesel fuel to Europe after 2008. Considering that 80% of the US biodiesel production in 2007 was exported to Europe, the end of subsidies will signal a new era for the US biodiesel industry. The US biodiesel industry will have to find an alternative means of survival.

Moreover, of the 36 billion gallons of fuel targeted by 2022, the lion's share of these fuels is mandated to come from "second generation" biofuels. This excludes first generation soybean-based biodiesel and first generation corn for ethanol. Instead, the 22 billion gallons of fuels targeted under the mandate are earmarked for second generation fuels, such as cellulosic ethanol, green diesel, algae and other advanced fuels. The prospect for first generation biodiesel fuels in the US using food grade crops such as soybean oil does not look promising. The prospects for second generation fuels offer more hope.

## WHAT IS THE EFFECT OF THE DECREASE IN THE AMOUNT OF BIODIESEL FUEL PRODUCED IN THE US THAT IS EXPORTED TO EUROPE?

In Europe, a similar movement is underway favoring the development of the next-generation of biodiesel fuels that are sustainable (i.e., non-rainforest, non-food-based biodiesel fuels). The primary concern in Europe, the world's largest consumer and producer of biodiesel fuel, relates to "sustainable" fuels.

In 2008, a draft law for sustainable fuels is expected to be passed, which I would prohibit the import of biofuels made from corn in the US, palm oil in Malaysia and Indonesia, and soybeans in certain parts of

Brazil and Argentina.

There are exceptions for palm oil and soybeans grown on repurposed plantations, but not from rainforest areas or from prairie/grasslands. Since Europe is the primary driver of demand for biodiesel fuel in the world, the passage of sustainability laws in the year 2008 will effectively exclude a large portion of palm oil imports from Malaysia and Indonesia.

Moreover, any biodiesel fuel that has been produced from palm oil in rainforest-cleared areas of Malaysia, Indonesia, Brazil or Colombia will not be accepted in Europe. The Netherlands has already passed such a law and bans any biodiesel fuel produced that does not meet its sustainability criteria, particularly palm oil. Other countries in Europe are likely to follow suit and implement their own sustainability measures ahead of the European Union ("EU") policy.

The transitional government policies of the EU and the US have essentially established a new direction for the biofuels industry, and one that is not favorable towards the production of palm oil or soybean oil based biodiesel fuel.

**Confidential Information Deleted Pursuant To CA-T-1**

DO THE ECONOMIC CONDITIONS OF THE INTERNATIONAL ENERGY MARKET MAKE THE CHOICE OF BIODIESEL, AS OPPOSED TO OTHER KINDS OF BIOFUELS, IN HECO'S CIP GENERATING UNIT, A REASONABLE CHOICE, GIVEN THE SPECIFIC ENGINEERING AND ENERGY REQUIREMENTS OF THE COMPANY (I.E., HECO'S NEED TO PROCURE BIOFUEL TO POWER A 110 MW ELECTRICAL ENERGY PEAKING UNIT)?

The only other biofuel available is ethanol. Ethanol, however, is not a preferred fuel for power generation, although it can be useful as a blended fuel for transportation purposes. In contrast, biodiesel is very similar in chemical structure to diesel #2 and heavy fuel oil (used for power generation in electric power generation turbines). Biodiesel can be substituted for diesel #2, heavy fuel oil and bunker fuel in a turbine engine for power generation without any expensive modification. Comparatively, ethanol cannot be used as readily and effectively in a power generation turbine as biodiesel fuel.

WHAT ARE THE SOURCES OF THE BIODIESEL FUEL TO BE SUPPLIED BY IMPERIUM UNDER THE TERMS OF THE CONTRACT WITH HECO?

Per Docket No. 2007-0346, Exhibit F, Biodiesel Supply Contract Negotiating Strategy, Certain Contract Provisions, Forecasted Fuel Requirements and Ratepayer Impact, Source of Biodiesel, page 3 of 7,

**Confidential Information Deleted Pursuant To CA-T-1**

I will discuss the merits of each of the above three sources of biodiesel fuel in the following sections of my testimony.

DO YOU BELIEVE THAT THERE WILL BE SUFFICIENT BIODIESEL PRODUCED IN HAWAII TO FULFILL HECO'S NEED FOR SUCH FUEL UNDER THE TERMS OF THE CONTRACT?

No, I do not. In the short term, to the year 2012, the outlook for Hawaii's ability to replace or displace between 10 and 20% of its present diesel consumption using biodiesel sourced from locally grown feedstocks remains unlikely for the following reasons. First, Hawaii does not have enough land mass (and will not permit the clearing of large amounts of additional land) to produce sufficient quantities of feedstock (i.e., palm, coconut, jatropha, etc.) required to produce the biodiesel fuel that will enable HECO to reach targets of 10 or 20% growth. Jatropha may be used on a small-scale farming level.

Second, Hawaii does not produce enough waste vegetable oil and yellow grease to provide a significant replacement or displacement of diesel fuel consumption.

HECO realizes that Hawaii does not have enough land mass or agricultural resources to meet its power generation needs, so it is pursuing algae as an alternative source of biodiesel feedstock. Thus, in the longer term, from 2012 to 2020, Hawaii's exploration and implementation of algae-based biofuels could achieve between 50% and up to 100% of Hawaii's transportation and energy fuel needs. For example, in Hawaii, HR Biopetroleum and Shell are working together with the Hawaii Natural Energy Laboratory to create algae in a collaborative project. When this project is commercialized in the next 3-5 years, it may provide a significant portion of Hawaii's transportation energy and power generation needs. Another example — HECO is also working on an algae project with HR Biopetroleum and the Maui Electric Company.

More information on HECO's participation in algae may be seen at the following web site: <http://www.hrbp.com/News/071508.html>. Per the web site, "Micro algae have significant potential as an energy crop, with the prospect for very high levels of oil production per acre. When combined with other vegetable-oil crops that could be grown locally, such as jatropha or palm, algae could help meet the biodiesel feedstock need for biodiesel on Maui, which now fuels about 85 percent of its combustion generation with petroleum diesel."

IS IT REASONABLE TO EXPECT IMPERIUM TO BE ABLE TO OBTAIN BIODIESEL FUEL FROM ITS AFFILIATE'S OPERATIONS IN THE NEAR FUTURE?

A. Yes, I believe so. Although Imperium's financial future remains uncertain in the short term, the situation is likely to improve over the long term. There have been some financial difficulties and setbacks in the last seven months. In late 2007, Imperium's President, Martin Tobias, left the company due to financial pressures, difficulty in securing feedstocks (including algae, soy and canola), and meeting projected profit margins — mostly due to the unexpectedly short supply and rapid inflation in biodiesel feedstocks, leading to higher costs of operations and lower profit margins. In early 2008, Imperium planned for an initial public offering of stock, but this was shelved due to the aforementioned difficulties. By the summer of 2008, several news stories indicated that Imperium's operations were consolidating, Imperium was decreasing the size of its staff, and Imperium was putting a few of its planned projects for expansion on hold until its financial picture improved.

Nevertheless, Imperium remains one of the top three largest biodiesel producers in the US, and has significant advantages over smaller, land-locked biodiesel producers. Some of these advantages include the following:

- First, being near a coastal area provides Imperium's affiliate with an opportunity to take advantage of the import and export of feedstocks instead of relying exclusively on increasingly expensive and volatile markets for soy in the US. Thus, Imperium can obtain lower cost feedstocks from other countries, import these feedstocks in higher quantities to its Grays Harbor facility in WA, store them in its massive tank storage facilities, and sell its biodiesel fuel within and beyond the borders of the US where diesel fuel is in higher demand at more attractive (i.e., profitable) prices.
- Moreover, Imperium's Grays Harbor facility gives Imperium access to deep water port and railroad facilities, which offers an advantage over land-locked agricultural facilities in the Midwest.
- Due to high feedstock prices, it is not likely that smaller biodiesel producers will be able to survive the price volatility of the first generation of biodiesel feedstocks such as soy, canola and palm oils. However, larger facilities such as Imperium (at 100 million gallons per year) are likely to benefit from economies of scale and will likely out-compete the large majority of smaller plants.
- Imperium's large tank storage operation affords it a competitive advantage over smaller facilities, since Imperium can buy large quantities of lower cost feedstocks from many countries at attractive prices, store these quantities, and sell them on the open global market at improved profit margins compared to Midwestern soybean-only based facilities.

Given the above, it is expected that over the long term, Imperium is likely to be one of the survivors in the first-generation biofuels markets.

SHOULD HECO'S BIODIESEL PROCUREMENT POLICY AND, BY IMPLICATION, HECO'S BIODIESEL SUPPLY CONTRACT BE LIMITED TO THE PROCUREMENT OF BIODIESEL PRODUCED FROM A PALM OIL FEEDSTOCK OR BE LIMITED TO THE PURCHASE OF BIODIESEL PRODUCED FROM PALM OIL FEEDSTOCK?

No. HECO's Biodiesel Procurement Policy should not be limited to the purchase of biodiesel produced from a single feedstock (e.g., palm oil). HECO would be wise, for financial reasons, to seek multiple feedstocks to diversify its feedstock supply for the biodiesel fuel provided by Imperium. This is similar to diversifying a portfolio of stocks to offset risky investments.

PLEASE EXPLAIN WHY YOU RECOMMEND A DIVERSIFICATION OF THE BIODIESEL FUEL FEEDSTOCK USED BY IMPERIUM.

Biodiesel fuel feedstocks are agricultural-based commodities that are highly volatile in price and supply, based on variations in weather, rain, floods, drought, heat, insects, and increasingly by global demand from emerging market nations in China, India and Latin America. Thus, similar to any other energy company purchasing food- and agriculture-based, commodity-traded feedstocks, diversification of the sources to a multiple-feedstock supply portfolio will ensure a wide range of potential supplies, and hedge against turbulence and volatility in supply and prices of sources. HECO would not be wise to choose palm oil exclusively for its project. Instead, HECO should continue to participate in algae-based projects and jatropha projects to diversify its sources of non-food, non-commodity traded biodiesel fuel feedstocks to offset the risks and volatility in the supply and price of its energy sources.

ONE OF THE POSSIBLE FEEDSTOCKS FROM WHICH IMPERIUM CAN PRODUCE THE BIODIESEL FUEL FOR SALE TO HECO IS PALM OIL. DO YOU HAVE ANY CONCERNS WITH THIS PROVISION?

A. Yes. I recommend that only certified "Sustainable" palm oil be allowed to be used as a feedstock for the biodiesel fuel produced by Imperium under the terms of the HECO contract to avoid challenges from advocacy, environmental, and public interest groups. Choosing certified "Sustainable" palm oil, will have negligible environmental consequences because "sustainable palm" is generally characterized as palm oil that has not been grown by clearing rainforests, but rather palm that is grown on non-forest, non-arable land that has been degraded and/or is being repurposed (i.e., dormant, unused coconut, melon, etc. plantations that have not been used in a long time) for palm oil.

If biodiesel is supplied from palm oil that is derived from recently cleared (i.e., in the last 10 years) rainforests in Malaysia, Indonesia, Brazil, Colombia, Borneo, etc., then the general public perception of "environmental consequences" will be negative and will have an adverse impact on HECO's purchase. Non-Sustainable palm activists, theorists, academics and proponents argue that the clearing of rainforests for growing palm oil is not "environmentally sustainable" because it leads to the following environmental consequences:

**Biodiversity Threats - Rainforest clearing for palm oil production threatens indigenous wild life.**

Rainforest clearing for palm oil production threatens endangered species. Rainforest clearing for palm oil production has demonstrated a negative displacement of indigenous, endangered species such as the Orangutan in Borneo and Indonesia. Rainforest clearing for palm oil production threatens to reduce the natural biodiversity of animal, plant, and insect species.

**C02 and Global Warming Threats:**

Rainforest clearing for palm oil production threatens to upset the balance of the natural ecosystem of the earth where rainforests act as a "buffer" where the large plants consume significant amounts of

man-made carbon dioxide from the earth's atmosphere, offering an offset or benefit against rising amounts of CO2 that reportedly contribute to global warming.

Rainforest clearing for palm oil production also is suggested, reported and argued by activists to "accelerate" global warming. Rainforest advocates and activists argue rainforests are natural "carbon sinks" or that capture and reduce carbon emissions, and store these large amounts of man-made CO2 that would otherwise contribute to global warming. Due to these causal factors, rainforest advocates argue that when rainforests are cleared, the carbon that has been captured and stored in the rainforests is then released and emitted into the atmosphere.

The causal effect of rainforest clearing contributes to greater CO2 emissions and accelerated global warming.

### **Summary of Arguments — Environmental Threats:**

Rainforest advocates argue that rainforests should be left alone and not used for palm oil (or any other industrial) production since the clearing of rainforests leads to a negative confluence of variables: Reduces biodiversity. Reduces CO2 captured and displaced by natural plant CO2 consumption. Increases CO2 release and emissions by clearing the rainforest. Increases threats to endangered and indigenous species, including humans.

### **ARE THE PRICING TERMS OF HECO'S BIODIESEL SUPPLY CONTRACT**

Yes for the following reasons. First, the price under which the biodiesel fuel will be procured from Imperium resulted from a competitive bidding process that solicited proposals from multiple vendors and required the vendors to submit historical pricing data to support their bid proposals. (Per Docket No. 2007-0346, Exhibit D, Attachment 2, New Capacity Biofuel. **Confidential Information Deleted Pursuant To CA-I-I**) Second, HECO retained the services of Black & Veatch to independently evaluate the bid proposals. Based on that evaluation, Black & Veatch selected Imperium, stating that Imperium's price is competitive.

Based on the fact that all companies that participated in the RFP process are for-profit, private enterprises, they can only be expected to provide the best price possible while still being able to make a profit. Imperium's "Cost plus" model applies here and this is a common practice in energy trading.

### **IS HECO'S BIODIESEL PROCUREMENT POLICY REASONABLE, PRUDENT, AND IN THE PUBLIC INTEREST?**

Yes. HECO's Biodiesel Procurement Policy is reasonable because HECO issued an RFP out to multiple vendors using a third party expert Engineering Consulting firm (i.e., Black & Veatch) to administer the RFP process. The process was prudent and fair, because it used several vendor selection criteria to determine the best capable supplier. The process was also fair since HECO used a third party expert firm as an intermediary to determine the best candidate.