## PACIFIC WEST ENERGY LLC

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February 8, 2011

Senator Rosalyn H. Baker, Chair Senator Brian Taniguchi, Vice Chair And Members of the Committee on Commerce and Consumer Protection Hawaii State Capitol 415 S. Beretania Honolulu, HI 96813

Re: SB 715 – Relating to Gasoline

Dear Chair Baker, Vice-Chair Taniguchi and Members of the Committee,

My name is William Maloney and I am the President and Chief Executive Officer of Pacific West Energy LLC and its affiliate, Pacific West Energy Kauai LLC, the developers of an integrated agriculture to green power and biofuel project on Kauai. I testify today in opposition to SB 715 which repeals the ten per cent ethanol by volume requirement for gasoline sold in Hawaii for use in motor vehicles.

Pacific West Energy LLC continues to intend to construct a biofuel production facility on Kauai, integrated with a renewable energy electricity cogeneration facility. The total project cost is approximately \$140 million, with \$40 million of this representing the biofuel facility. We recently acquired the former Kekaha sugar mill industrial site. We are in the land lease negotiations, and negotiating contract farming agreements, and have entered into several contracts in support of this project. In addition to producing biofuels for the local Hawaiian motor fuel market we intend to produce renewable electricity for sale to Kauai Island Utility Cooperative ("KIUC").

Our project has been delayed to many circumstances beyond our control, but we still intend to proceed, provided there is a local market for the ethanol we would produce. This local market can only be assured if the ethanol mandate remains in place.

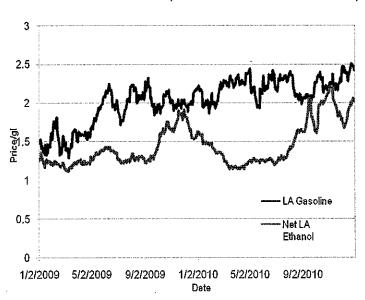
The ethanol blending mandate was enacted for several reasons, including: 1) to ensure a local market for fuel ethanol, to spur investment in local ethanol production; 2) to introduce price competition into Hawaii's petroleum sector, as previous to the mandate the local refineries refused to produce a base gasoline suitable for ethanol blending, which blocked independent oil companies from blending the less-expensive ethanol, and thereby stifled competition in the petroleum sector; 3) to provide Hawaii's consumers with cleaner burning gasoline, and reduce toxic emissions; 4) to reduce imports of petroleum from non-US sources and; 5) to reduce greenhouse gas emissions.

It is also important, especially to this Committee, to note that ethanol blending is only mandated if the price of ethanol net of the tax credits is lower than the local wholesale price of gasoline. So ethanol blending must have a positive, i.e, downward influence on finished gasoline prices or there is no requirement to blend it.

While there has yet to be local ethanol production, despite our continuing efforts and several million dollars of investment to date, the ethanol mandate has been very successful in

accomplishing the other very desirable objectives – and perhaps most importantly benefiting Hawaii's consumers with price competition and reducing wholesale petroleum prices.

The chart below compares the LA OPIS price of ethanol, net of the federal tax credit, and the LA OPIS price of gasoline over the past two years LA OPIS prices are often used as the price basis for petroleum products and ethanol in Hawaii (the US Energy Information Administration ("EIA") reports that Hawaii DTW gasoline prices have on average exceed LA DTW gasoline prices by an average of \$0.165 per US gallon over the past two years, approximating fuel transportation costs to Hawaii). The net ethanol price has averaged \$0.58 per gallon less than gasoline over the past two years. This means that ethanol clearly has a downward influence on gasoline prices – thereby increasing competition in Hawaii's petroleum sector, and benefitting Hawaii's consumers. At a 10% blend and 35 million gallons of annual ethanol blended locally, the \$0.58 per gallon lower cost equates to over \$20 million per annum in petroleum price savings.



Comparison of LA Gasoline and Ethanol Prices - Jan '09 to Dec '10 (Source: Oll Price Information Service)

In addition, ethanol has a much higher octane value than gasoline, and blending ethanol enables refiners to produce a lower octane base gasoline, at lower cost, than boosting octane with catalysts or incorporating more toxic blending components like toluene and benzene. The octane value has been estimated by Stillwater Associates at \$0.15 per gallon of ethanol blended.

I understand that some critics of ethanol have raised issues regarding ethanol and its characteristics as a blendstock in gasoline. This has to do primarily with the volume displacement and energy content of ethanol. These issues were carefully studied by the legislature and the Department of Business Economic Development and Tourism through the rulemaking process in 2004. There is a great deal of misunderstanding about the fuel economy (miles per gallon) of various gasolines, especially those containing ethanol. There are a number of variables that confound accurate fuel economy measurements in anything short of a controlled test or large well documented fleet study. Besides fuel related factors, there are a number of vehicle and climate related issues to consider. Vehicle technology, state of tune, ambient temperatures, head winds, road grade, tire pressure, use of air conditioners, and numerous other

factors have an impact on fuel economy. Some of those that have been documented in testing are covered in the table below. Even whether or not the car is level each time you fill it can distort fuel economy readings by several percentage points. It is easy to see from the table below why an individual using one or perhaps a few vehicles cannot make an accurate determination of the fuel economy impact of various gasolines. There are simply too many variables.

## Factors That Influence Fuel Economy of Individual Vehicles

Factor	Fuel Economy Impact	
	Average	Maximum
Ambient temperature drop from 77°F to 20°F	-5.3%	-13.0%
20 mph head wind	-2.3%	-6.0%
7% road grade	-1.9%	-25.0%
27 mph vs. 20 mph stop and go driving pattern	-10.6%	-15.0%
Aggressive versus easy acceleration	-11.8%	-20.0%
Tire pressure of 15 psi versus 26 psi	-3.3%	-6.0%

It should be noted that vehicle technology and state of tune also play a role in fuel economy variations. For instance older vehicles, which operate rich at specified settings, may actually show a fuel economy improvement on E10 blends. This is because the chemical enleanment from the oxygen results in more complete combustion of the fuel, which partially or totally compensates for the slightly lower Btu value. In many cases refiners often alter the base fuel to which ethanol is added, resulting in the gallon having approximately the same Btu content as the original all hydrocarbon gallon, even with the inclusion of ethanol.

Worse case, if ethanol blends in Hawaii gasoline were to decrease automobile fuel economy by 3%, the result is still a savings to the petroleum sector and thereby the consumers of Hawaii from the octane value of \$0.15 per gallon of ethanol blended, while tax receipts from both GET and liquid fuel taxes would increase by several million dollars per annum due to the higher volume of blended gasoline sales.

To conclude, repealing the ethanol blending mandate would have a negative impact on gasoline prices in Hawaii, decrease competition in the petroleum sector, increase greenhouse gas emissions, decrease State and County tax revenues and result in the loss of potentially significant investments in the agriculture and manufacturing sectors.

Sincerely,

William Maloney
William Maloney
President & Chief Executive Office
Pacific West Energy LLC