

University of Hawai'i at Mānoa

Environmental Center

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SB 2404

AUTHORIZING THE ISSUANCE OF SPECIAL PURPOSE REVENUE BONDS FOR THE DEVELOPMENT OF INTEGRATED BIOMASS TO ENERGY FACILITIES

Senate Committee on Economic Development

Public Hearing - January 30, 1996 1:00 P.M. State Capitol, Room 225

By John T. Harrison, Environmental Center Vic Phillips, HITAHR R. Rocheleau, HNEI

SB 2404 provides for issuance of bonds to assist Arkenol, Inc., in developing biorefineries as alternative energy utilizations for sugar cane agricultural operations.

Our testimony on this measure is compiled from voluntarily submitted opinions of listed academic reviewers, and, as such, does not constitute an institutional position of the University of Hawaii.

We strongly support the intent of this measure. Advances in technology are effectively narrowing the gap in cost between biofuels and petrochemical-based energy systems. Strong support from both the federal government and the private sector has led to development of new enzymatic and acid breakdown reactions, to continuous as opposed to batch processes, and to production of genetically engineered microbes which improve conversion efficiencies. While current comparative costs favor petrochemical systems, it is worth noting that the playing field is far from level, given the *de facto* economic subsidies enjoyed by the petrochemical industry. When other social, economic, and environmental externalities are factored in, the competitive advantage of oil or coal-based energy rapidly dissipates.

Labor and land costs notwithstanding, the prospective benefits of biorefinery development as an alternative to sugar production are worth the relatively low-risk step of issuance of revenue bonds. This is a timely technology, particularly for Hawaii.