

## Joint IEPR and Transportation Committee Workshop on Biofuels in California

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To whom it may concern:

ProterraBio would like to thank the California Energy Commission for inviting public participation and commentary at the Joint Integrated Energy Policy Report and Transportation Committee workshop on biofuels in California. The ProterraBio team is confident that our sustainable, BioRefinery platform can immediately assist the state of California in meeting its mandated 2010 targets for the production of biofuels within the state. ProterraBio's advanced BioRefinery platform is proven through 15 years of operational success and is ready immediately to be implemented, as needed, to support the State of California's developing biofuel infrastructure.

ProterraBio employs an advanced and proven anaerobic digestion process, the BioConverter, to convert multiple organic wastes into multiple, clean outputs including energy in the form of compressed and liquefied bionatural gas, biohydrogen, ethanol or butanol and organic co-products of value including slow release fertilizer, protein feed while recycling water for reuse with **zero emissions**. ProterraBio's system uses a patented biofilm process to create optimal conditions for the accelerated digestion of organic wastes, including high solids. This accelerated digestion significantly reduces processing times and costs as compared to other processes such as standard anaerobic digestion and cellulosic conversion. Our system delivers all of this with zero emissions by recycling any remaining CO<sub>2</sub>. Nothing is lost and nothing is wasted.

The BioConverter is a commercially scalable system with 15 years of profitable, commercial operation in Hawaii with two preceding versions of the technology. In 2004, following 3 years of extensive vetting by Los Angeles Dept. of Water & Power, the BioConverter was awarded the largest biorefinery bid, to date, for a system designed to process 2700 tons of organics per day in Los Angeles.

With water and land sustainability issues becoming an increasingly urgent topic of focus in California, it is worth noting that ProterraBio's system **can recycle water and help conserve water**. Equally important to the conservation of water and land resources is the high-potency liquid and solid fertilizer produced by our system. In field studies and continuous application over a period of 18 years in Hawaii, the fertilizer applied as a foliar spray to citrus varieties and subtropical fruit trees increased fruit yield. Its regular application increases root mass and soil organic matter, reducing soil erosion, reducing water consumption by 50 %, while developing drought resistance in turf grasses, crops, flowering plants and trees.

ProterraBio's biorefinery platform can provide communities of varied population densities with scalable options for providing selective biofuels as needed for fleet or private vehicles in those areas. Biofuels ranging from CNG/LNG to hydrogen, ethanol and butanol may be produced from the same ProterraBio facility as the state's infrastructure needs evolve over time with emerging vehicle technologies.

We look forward to the opportunity to meet with representatives of the CEC and the Transportation Committee to further discuss our unique BioRefinery platform technology and its varied applications to today and tomorrow's fuel, energy and environmental challenges.

Respectfully yours,

Jeff McElvaney

Director of Marketing  
ProterraBio

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