GREENSUMMIT
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PHOENIX COVENTION CENTER

TRACK NAME
Sustainability Research, Education, and Community Engagement - GIOS

SESSION NAME
Green Algae – Arizona's Next Number One Industry?

DATE + TIME + ROOM NUMBER
Saturday September 6th – 10:10am – 106A

SESSION DESCRIPTION
Arizona would benefit from a strong new industry that provided more revenue than housing or hospitality, more fascination than sports, more food than agribusiness currently produces and more energy than has been produced in the history of the state. It would be nice too if the industry aligned with the current focus on biosciences. The industry should also employ engineers and scientists and other high salary professionals.

Arizona needs a new industry with a strong competitive advantage and a business model that is sustainable. Sustainability requires a green industry that is minimally consumptive—requiring little land, water or other resources. A sustainable industry should provide more energy than it consumes and provide a positive ecological footprint.

The business model should strengthen with growth and demonstrate a vitality and versatility to support a variety of niches. The industry should also integrate with the high technology associated with Arizona's $600 million investment in genomics, medical information systems and biosciences.

The new algae industry might be called the "Green Gold Rush." The analogy has validity because the attraction to gold mining is finding a free resource at one's feet. Similarly, algae production takes nearly free resources: sunshine, waste water and desert and creates high value foods, fuels, nutraceuticals and medicines.

Green Algae Strategy: Engineering Sustainable Food and Fuels outlines a path towards a sustainable future with algae-based foods and fuels. Arizona is perfectly positioned to become Algae Central because Arizona uniquely has what the algae industry needs:

- **Sunny days** – 360 days
- **Warmth** – 350 days
- **Few frosts** – about 3
- **Flat, cheap land** – hundreds of square miles of Arizona desert
- **Waste water** – trillions of gallons of brine water in Arizona's aquifers

Arizona will become Algae Central and provide algae-based food, fuel, fertilizers, fodder, fish food, biodegradable plastics and fine medicines, vaccines and pharmaceuticals to our world.

PRESENTOR(s)

Mark Edwards – Professor of Strategic Marketing, Entrepreneurship and Sustainability at Arizona State University in the Morrison School of Management and Agribusiness

PRESENTOR BIOGRAPHY(s)

Mark R. Edwards, Ph.D. serves as professor of strategic marketing, entrepreneurship and sustainability at ASU. He is and expert on sustainable food, water and energy with degrees in engineering, oceanography and meteorology from the U.S. Naval Academy and an MBA and PhD in marketing.

He creates advanced metrics for firms globally and has worked with senior executives at many of the largest US food, transportation, and utility and energy firms over the past three decades. Mark serves on several boards of directors and creates metrics to assess board effectiveness that are used internationally.