

ALGAE BIOFUELS

World Summit

March 23-25, 2009 | San Francisco, CA

March 23, 2009

9:00 – 5:00 *Pre-Summit Workshop*

COMMERCIALIZING ALGAE BIOFUELS: THE ROAD FORWARD

March 24, 2009

8:00 – 8:15 Welcome and Introduction by Summit Chairman
Mark J. Hanson, *Principal*, STOEL RIVES LLP

8:15 – 8:45 *Keynote Address*

BUILDING AN ALGAE BIOFUELS INDUSTRY

Roger Ballentine, *President*, GREEN STRATEGIES INC., former
Chairman, WHITE HOUSE CLIMATE CHANGE TASK FORCE and *Deputy*
Assistant to the President, Environmental Initiatives, THE
CLINTON ADMINISTRATION.

8:45 – 10:15 **ALGAE BIOFUELS INDUSTRY DRIVERS AND BUSINESS MODELS**

As an emerging industry, the algae community is in the process of defining the structures and business models that will enable it to move successfully to full-scale commercial operations. From vertical integration to geographical expansion, from technology licensing to international partnerships, from project development to supply contracts, there are a host of strategic relationships that need to be ironed out. The panelist will discuss these issues and provide their vision of what structures and business models will lead to industry success.

Moderator: **Mark J. Hanson**, *Principal*, STOEL RIVES LLP

Panelists:

Peter Attia, *Senior Director, Business Development & Corporate Strategy*,
SAPPHIRE ENERGY

Linda Capuano, *VP Emerging Technology*, MARATHON OIL

Riggs Eckelberry, *President & CEO*, ORIGIN OIL, INC.

Alan Weber, *Senior Advisor*, NATIONAL BIODIESEL BOARD

Harrison Dillon, *President/Chief Technology Officer*, SOLAZYME

March 24, 2009 (continued)

10:15 – 10:45 *Summit Networking Break*

10:45 – 12:00 **CARBON GENERATORS’ PERSPECTIVES ON THEIR ROLE IN THE VALUE CHAIN**

CO² generators—power plant operators and cement and glass manufactures, among others—as the first stage in the value chain, are the all important feedstock suppliers to the industry. The panelist will discuss what role they see CO² generators playing in the emerging algae industry, what business models they find compelling, and what business factors are driving their decision-making. They will then outline the key technical, organizational, economic and financial challenges they face and, where appropriate, how the solution to these challenges will require the joint efforts of others in the value chain. They will then identify the specific needs of CO² generators that must be met in order for them to be able to truly support their position in the value chain.

- What are the principal factors driving CO² generators interest in algae?
- What role do they want to play in the value chain? Sell CO₂? Sell algae? Sell/buy carbon credits? Gasify algae for internal operations use? Produce biofuel?
- What business models are they exploring to enable these roles? On site collaboration?
- What type of relationships are they pursuing with other players in the value chain? What type of relationships would they like to see established?
- What challenges need to be addressed to attract widespread CO² generator commitment to the industry?

Moderator:

Andrew Davis, *Partner*, DEWEY & LEBOEUF LLP

Panelists:

Bruce Braine, *VP Strategic Policy Analysis*,
AMERICAN ELECTRIC POWER

Christian Ettinger, *Brewmaster-Owner*, HOPWORKS URBAN BREWERY

Jaisen Mody, *Director Generation Projects*, PORTLAND GENERAL
ELECTRIC

12:00 – 1:30 *Group Luncheon*

1:00 - 1:30 **Luncheon Address: Early Steps in Industry-Building**

Jennifer Fonstad, *Managing Director*, DRAPER FISHER JURVETSON

Jennifer Fonstad will discuss examples of the successful business models being adopted and value chain relationship established and what they foretell about future industry-building activities.

March 24, 2009 (continued)

1:30 – 3:00 **TECHNOLOGY DEVELOPERS' PERSPECTIVE ON THE VALUE CHAIN**

Algae technology developers sit at the heart of, and to a large extent, are driving the industry's development. This panel of technology developers will review their experience to date in trying to jumpstart a value chain that can mature and, in time, support a full-blown algae industry. They will also discuss the nature of the technical, organizational, economic and financial relationships that need to be established with other value chain members and provide their perspectives on the type of relationships that will lead to industry success.

- What business models and financial arrangements do technology developers need to support their future success?
- What are the key value chain relationships that need to be established to move their activities and the industry forward?
- What process do they envision for creating these relationships?
- How are technology developers currently working with other players in the value chain?

Moderator:

MJ Maloof, *Associate*, BRAEMAR ENERGY VENTURES

Panelists:

Matt Caspari, *Chief Executive Officer*, AURORA BIOFUELS

Ben Cloud, *President/Chief Operating Officer*, XL RENEWABLES

Dave Jones, *Chief Operating Officer*, LIVE FUELS

Ariel Martinez, *President*, CELLANA LLC

Fred Tennant, *Executive VP, Business Development*, PETROALGAE LLC

3:00 – 3:30 *Summit Networking Break*

March 24, 2009 (continued)

3:30 – 4:30 **BIOREFINERS' PERSPECTIVES ON THE VALUE CHAIN**

Alternative feedstocks, next generation feedstocks and feedstock development and integration have become the rallying cry for biorefiners in today's market environment. This panel of biorefiners will discuss their needs for new feedstocks and how these needs are driving their interest in algae. They will also discuss the type of relationships and business models that will be critical to make algae a realistic solution to their feedstock challenges.

- How do biorefiners rank the potential of algae in comparison to other possible alternative feedstocks?
- What qualities do they expect in their feedstock?
- Do biorefiners see algae as a commodity or a vertically integrated part of their own operations?
- How do they view the role of integrated energy systems?
- Are they looking to sign feedstock supply agreements or are they also considering becoming investors in or owners of algae operations?
- How do financing issues impact their perspectives?
- What type of long-term relationships are biorefiners looking to establish with other industry players?

Moderator: **Eric Wesoff**, *Senior Analyst*, GREENTECH MEDIA

Panelists:

Jeff Hassannia, *Vice President, Business Development*, DIVERSIFIED ENERGY

Rahul Iyer, *Cofounder/Chief Marketing Officer*, PRIMAFUEL

Daniel Oh, *Chief Operating Officer*, RENEWABLE ENERGY GROUP, INC.

John Plaza, *President/Founder*, IMPERIUM RENEWABLES

Russell Teall, *President*, BIODIESEL INDUSTRIES, INC

March 24, 2009 (continued)

4:30 – 5:30 **THE FINANCIAL COMMUNITY’S PERSPECTIVES ON THE VALUE CHAIN**

From start up to full-scale commercial production, the willingness of the financial community to become active players in financing the algae industry’s growth is essential to its success. Recent announcements have shown a readiness of some investors to move from small, early-stage investments to much bigger investments, suggesting that investors are becoming more confident that the industry is ready to move to commercial-scale production. This panel of representatives from the financial community will share their current perspectives on the industry and outline the key elements that need to be in place in order to receive financial community backing. They will describe the criteria they will use when making investment and lending decisions, the terms they will be seeking, and the level of investments they are prepared to make.

Moderator: **David Benson**, *Principal*, STOEL RIVES LLP

Panelists:

Jamie Boyd, *Vice President*, CASCADIA CAPITAL

Andrew G.W. Chung, *Principal*, LIGHTSPEED VENTURE PARTNERS

Sam Kanes, *Managing Director Chemicals Research Scotia Capital*, SCOTIA CAPITAL

Jerome Peters, *Senior Vice President*, TD BANKNORTH

5:30 – 7:00 *Algae Biofuels World Summit Reception*

March 25, 2009

8:30 – 9:30 **GOVERNMENT SUPPORT FOR BUILDING AN ALGAE INDUSTRY**

Representatives from the DOE, USDA, Air Force, Navy and the California Energy Commission will discuss their policies and programs in support of the development of an algae industry.

Panelists:

William Hagy, *Deputy Administrator for Rural Development*, U.S. DEPT. OF AGRICULTURE

Joyce Yang, *Science & Technology Policy Fellow*, U.S. DEPT. OF ENERGY

March 25, 2009 (continued)

9:30 – 10:00 *Summit Networking Break*

10:00 – 11:00 **MONETIZING ALGAE CARBON VALUES: PERSPECTIVES FROM THE CARBON MARKET**

The production of algae biofuels—by using captured CO₂ to create renewable fuel—delivers clear carbon benefits. However, there is significant uncertainty and complexity in translating these carbon benefits to tradable carbon credits and additional revenues. Key questions include: Where in the biofuel value chain are carbon emissions reduced, what is the source of the reduction, and who owns the resulting carbon credits. This panel of representatives from the carbon markets will discuss these challenges and the opportunities for monetizing algae values.

- Will algae biofuel carbon benefits be created at the point of feedstock cultivation, fuel production or fuel consumption?
- Do algae biofuels offer opportunities for permanent carbon sequestration?
- What are the key regulatory and market uncertainties affecting algae monetization strategies?
- What type of relationships and agreements will be needed between CO₂ emitters, algae fuel developers and users to capture carbon offsets?
- What role can the carbon project developers and markets play in monetization?

Panelists:

Jeff Cole, *Director, Project & Portfolio Development*, BLUE SOURCE

Kate Faulhaber, *Project Manager*, ECOSECURITIES

Rob Toker, *Business Development Director, Americas*, SCC AMERICAS

March 25, 2009 (continued)

11:00 – 12:00 **TRANSPORTATION PERSPECTIVES ON THE VALUE CHAIN**

The devastating impact of rising fuel prices and the pressures to reduce CO² emissions have triggered widespread efforts among airlines and airplane manufactures to develop biojet fuels. Worldwide, a number of consortiums have been established to push these development efforts forward. The size, capabilities, and resources of these players open up opportunities for them to play a number of roles in the algae value chain, depending on each company's needs and strategies. This panel of representatives from airlines and aircraft makers will discuss their plans for participation in the algae value chain and discuss the relationships they would like to establish with others in the value chain. They will also articulate their unique needs and the challenges they face in becoming integrated into the value chain.

- How do airlines and airplane manufactures rank the potential of algae in comparison to other possible alternative jet fuel solutions?
- Do they see algae based jet fuels as a commodity or vertically integrated part of their own operations?
- Are they looking to sign supply agreements or are they also considering becoming investors in or owners of algae operations?
- What type of long-term relationships are they looking to establish with other industry players?

Moderator: **Larry Sullivan**, *Biofuels Consultant*,
AMERICAN SCIENCE AND TECHNOLOGY

Panelists:

Michael Baer, *Managing Director – Fuel Administration*, US AIRWAYS
Business, Economic & Policy Lead, COMMERCIAL AVIATION ALTERNATIVE
FUELS INITIATIVE (CAAFI)

Dirk Kronemeijer, *VP Business Innovation*, KLM ROYAL DUTCH AIRLINES

Rob Myrben, *VP Fuels Management*, SOUTHWEST AIRLINES CO

Simon Pickup, *Director of Business Operations & Analysis*,
AIRBUS AMERICA