



Renewable Chemicals

Challenges of Feedstock Supply and Logistics; Experience with Pilot Projects:
Building Alliances to Supply a Booming Industry
September 12-13, 2011 • JW Marriott • Houston, Texas

AGENDA

DAY ONE: Monday, September 12, 2011

7:45 *Registration and Continental Breakfast*

8:45 *Chair's Welcome and Opening Remarks*
Vonnie Estes, Vice President, Corporate Development, Codexis, Inc.

Business Rationale and Market Outlook

9:00 **The Economic Value of Bio-Based Chemicals**

- Value of the market for renewable chemicals
- Drivers of the market
- Platform chemicals, intermediates, and end products
- Financial outlook as the industry grows
- What all this means for the economics of renewable chemicals and materials

Moderator: *Maryanne Maldonado, Vice President and Managing Director- Energy, Houston Technology Center*

Duke Rao, Director, Polymers and Materials Technology, Sherwin-Williams Company
Pulakesh Mukherjee, Ph.D., Principal. BASF Venture Capital

Mario Portela, Chief Executive Officer, Amyris Brasil; Chief Operations Officer, Amyris Biotechnologies

Ronald Cascone, Manager, Biofuels Development, Energy and Chemicals Consulting, Nexant, Inc.

10:30 *Networking & Refreshment Break*

Challenges of Feedstock Supply and Logistics

11:00 **Logistics Challenges – Feedstocks and Feedstock Flexibility**

- Challenges of feedstock availability
- Advantages of multiple feedstocks
- Importance of maintaining a year-round reliable supply
- Cost/price
- Logistical challenges including transportation network, storage, quality control
- Experience working with some of the major feedstocks

- municipal solid waste
- dedicated energy crops
- agricultural waste products
- forest products
- sugar cane and materials

Moderator: *Roger Conway, Principal, **Rosslyn Advisors LLC***

*Kelly Tiller, Ph.D., President and Chief Executive Officer, **Genera Energy***

*Tim Cesarek, Managing Director, Organic Growth Group, **Waste Management***

*Gary Luce, Chief Executive Officer, **Terrabon***

*Linda Beltz, Ph.D., Director, Technology Partnerships, **Weyerhaeuser Corporation***

12:30 *Networking Luncheon*

Experience with Pilot Projects

2:00 **Pilot Projects – Proof of Concept**

- Demonstrated performance and cost at pilot projects
- Results of larger demonstrations
- Data on rates and yields
- Best demonstrated costs at commercial scale based on development results
- Cost targets for success
- Validation of the models at pilot level

Moderator: *Sam Nejame, Chief Executive Officer, **Promotum***

*Charles Eggert, President and Chief Executive Officer, **OPX Bio***

*Eric Connor, Senior Vice President, **ThermoChem Recovery International (TRI)***

*Jim Imbler, Chief Executive Officer, **ZeaChem***

*Edward Green, Ph.D., Founder and Chief Technology Officer, **Green Biologics***

3:30 *Networking & Refreshment Break*

Business Models for Scaling Up

4:00 **Scaling Up and Market Penetration Strategies**

- Increasing the scale of projects
- Integration with production-scale biorefineries
- Experience with propanediol
- Next steps for scaling up to meet the needs of the market

Moderator: *Roger Conway, Principal, **Rosslyn Advisors LLC***

*Michael Knauf, Senior Vice President, Bioindustrials, **Codexis, Inc.***

*John Mafrige, Vice President, Commercial Development, **DuPont Danisco Cellulosic Ethanol***

*Robin Weitkamp, Vice President, Chemicals Development, **Elevance Renewable Sciences***

*James Iademarco, Vice President, Bio-Based Chemicals and Fuels, **DSM***

5:30-6:30 *Networking Reception*

DAY TWO: Tuesday, September 13, 2011

7:30 *Continental Breakfast*

8:15 *Chair's Introduction to Day Two*

Vonnie Estes, Vice President, Corporate Development, Codexis, Inc.

Partnership and Investment Strategies in Renewable Chemicals

8:30 **Building the Supply Chain for the Sustainable Chemicals Industry**

- The biobased supply chain, from platform chemicals to intermediaries and end products
- Milestones of commercialization
- Transition to large scale commercial production
- Building alliances with partner companies
- Examples of successful partnerships

Christophe Schilling, Ph.D., Chief Executive Officer, Genomatica

9:00 **Creating Value and Building Alliances for Renewable Chemicals**

- Partnership strategies for success
- Examples of programs
 - what commitments were made?
 - what were the main requirements?
- Key success factors for partnering and commercialization
- USDA support through the BioPreferred program

Moderator: *Vonnie Estes, Vice President, Corporate Development, Codexis, Inc.*

Johan Van Walsem, Vice President, Commercial Development, Metabolix, Inc.

Rob Toker, Vice President, Partnerships, Glycos Biotechnology

Babette Pettersen, Senior Vice President, Marketing and Sales, BioAmber Inc.

Steven L. Devlin, Program Director, Iowa State University Extension, USDA BioPreferred Program

10:30 *Networking & Refreshment Break*

11:00 **Finance and Investment in Renewable Chemicals**

- Capital finance considerations for projects
- Capital intensity
- Capital required for scale
- Sources of capital
- Evaluating and managing risk in project finance
- Investors and market views of risk
- Planning and evaluating offtake agreements
- Petrochemical industry perspectives on offtakes for biobased intermediates

Moderator: *Maryanne Maldonado, Vice President and Managing Director-Energy,*

Houston Technology Center

John M. May, Managing Director, Stern Brothers & Co.

Luis Castanheiro, Project Development Manager, Vinmar Projects, Ltd.

Irvin Barash, President, Vencon Management

Ross Crawford, Managing Director, Hamilton Clark & Co. LLC

12:30 *Close of Conference*