Panel Descriptions

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General Sessions



Track 1: Pathways & Industrial Hosts



Track 2: Inputs & Supply Chains



Track 3: Products & Markets



Track 4: Capital & Strategic Partners

General Sessions

THURSDAY, SEPTEMBER 15

8:30 am - 10:00 am

General Session: How and Why Houston is Becoming One of America's Most Important Biorefining Communities

Anchoring America's "Energy Coast" Houston has long been a center of innovation, exploration and energy production. With a robust community of energy professionals it is no surprise that Houston has an active biorefining community springing up in its academic, business and public arenas. This panel will feature representatives from those establishments discussing the role they are playing in the development of a well developed biorefining industry in Houston.

- Moderator: **Tim Portz**, Program Director, BBI International
- George Bennett, E. Dell Butcher Professor of Biochemistry and Cell Biology, Rice University
- Tyra Rankin, Chair, Houston Chapter, Clean Economy Network
- Nick Tillmann, Co-Chairman Biofuels Task Force, Greater Houston Partnership
- William Thurmond, Co-Chairman Biofuels Task Force, Greater Houston Partnership and CEO, Emerging Markets Online

FRIDAY, SEPTEMBER 16

8:30 am - 10:00 am

General Session

Sticker Shock: Examining and Driving Down the High Cost of Next Generation Biorefineries

Loan guarantees, long-term production tax credits and rigid RFS volume targets are the usual prescription for stimulating investor interest in advanced biofuels. However, government support alone will not be enough to spur first-mover equity plays in the biorefining space. Construction cost must come down. Building, operating and maintaining next-generation biorefineries with greater economical efficiency than previously foreseen has the potential to change the way Wall Street views advanced biofuels and biobased chemicals. Find out how leading technology, design and construction partners are working fervently to change common assumptions about the costs of biorefining.

- Moderator: Mark Warner, Senior Vice President, Process Industries, Harris Group
- Rich Chmielewski, Biofuels Marketing Manager, Siemens Industry Inc.

 Strategies to Drive Down and Control the Cost of Biorefinery Construction
- Jacek Chmielewski, Renewable Energy and Advanced Biofuels Business Unit Manager
 Capital Projects, Novaspect Inc.
 - Uncertainty Risks: Alternative Energy Challenges
- Doug Machon, Senior Manager, NAES Corporation
 Strategies to Address the High Costs of Operation and Maintenance
- Speaker TBA

10:30 am - 12:00 pm

General Session

Divining The Political Winds: Examining the Biorefining Industry's Efforts and Progress in Washington DC

As future producers of cellulosic and drop-in fuels prepare to emerge from pilot- and demonstration-scale projects to full-scale commercialization, they are making their voices heard on The Hill. Some are advocating government support rooted in parity and feedstock neutrality—a level-playing field approach—while others are focused on improving the federal loan guarantee program and locking in robust, long-term production tax credits and stopping the EPA from tinkering with the volume requirements of the U.S. RFS. All agree, however, on the importance of providing stable, long-term, common sense public policies that allow manufacturers of advanced biofuels and biobased chemicals to compete to achieve our national policy goals.

- Moderator: Roger Conway, Senior Partner, Rosslyn Advisors
- Wes Bolsen, Chief Marketing Officer & Vice President, Government Affairs, Coskata Inc.
- Michael McAdams, President, Advanced Biofuels Association
- Speakers TBA

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TRACK 1: Pathways & Industrial Hosts



THURSDAY, SEPTEMBER 15

10:30 am - 12:00 pm



Converting and Retrofitting Existing Industrial Assets I: Biofuel Facilities

This panel, the first in a two part conversation, will examine the advantage available to biorefining organizations seeking to co-locate, retrofit or repurpose existing biofuels facilities for advanced biofuel and biobased chemical production. The current fleet of starch and oil based facilities offers developers and technology providers hundreds of in-place facilities that could be co-opted to drive down the capital costs of installing new advanced biofuels capacity. Additionally, the side streams, coproducts and waste streams offer refiners a ready feedstock supply and can enhance the host location's plant economics. Members of this panel will offer perspective on the role the existing biofuels fleet will play in the build out of the next generation of biorefineries.

- Moderator: Ron Kotrba, Editor, Biorefining Magazine
- Nicholas Sikes, Operations Manager, FEC Solutions, Reinventing Ethanol: Moving to a Biorefinery Paradigm
- Joseph Degenfelder, President, Atlantic Greenfuels
 Converting Corn Ethanol Plants into Next-Generation Biorefineries
- Bob Bernacki, Director, Business Development Chemicals, Gevo From Ethanol to Isobutanol
- Kevin Reilly, Chief Technology Officer, AE Resources
 Buying a Used Biofuels Facility: What to Watch for

1:30 pm - 3:00 pm



Converting and Retrofitting Existing Industrial Assets II: Reinvigorating the Forest Products Sector through the Co-Production of Energy, Fuels, Chemicals and Novel Materials

In 2009, the Forest Products Association of Canada (FPAC), with FPInnovations, and Natural Resources Canada (Canadian Forestry Service) launched the Bio-pathways Project to assess the readiness of new technologies for commercial production of energy, fuels, chemicals and novel materials from woody biomass. This two-phased project completed in February of 2011 examines both the social and economic implications for the existing forest products industry and market opportunities for the fuel and chemical products that are under development. Populated by key stakeholders up and down the

value chain, this panel will highlight the discoveries in the project and the pathway forward for the industry.

- Moderator: Randal Goodfellow, Senior Vice President, Corporate Relations, Envergent Technologies
- Paul Lansbergen, Association Secretary, Lead Director, Regulatory Affairs, Forest Products Association of Canada

Transforming the Canadian Forest Sector: What's in it for you

- Don Roberts, Vice Chairman, Canadian Imperial Bank of Commerce (CIBC)
- · Alain Bourdages, Director, Energy Development & Strategy, AbitibiBowater
- David Bookbinder, Executive Chairman, Pinova Holdings Inc.
- David Boulard, Executive Vice-President & CFO, Ensyn Technologies

3:30 pm - 5:00 pm



Track 1: Pathways and Industrial Hosts

Graduating from the Lab: Moving from the Bench to Pilot and Commercial Scale Deployment

Modern science makes the conversion of nearly every substance containing carbon into a usable fuel product. That said, the commercialization and widespread adoption of these technologies hinges on the ability for a technology to convert these materials at scale while delivering a profit. This profit imperative continues to confine many of these technologies to labs and research facilities across the country. How then are advancements made that allow these technologies to graduate from bench scale and begin the journey through pilot and demo scale deployment. Assembled panelists will discuss scale-up challenges as well as opine about the most promising up and coming technologies.

- Moderator: Jeff Manternach, Chief Financial Officer, IR1 Group LLC
- **Doug Dudgeon**, Director, Process Development, Harris Group Inc. *Scale-Up of New Technologies: What is Really Necessary?*
- John Massingill, Jr., President, Advanced Materials and Processes
 High Efficiency Biorefining with Fiber Processors: Vegetable Oil Processing
- Matthew Kropf, Research Associate, Engineering Science/Mechanics, Pennsylvania State University

Multi-Energy Optimized Processing: From Bench-top Proof-of-Concept to Pilot Plant Demonstration

• **Jeff McDaniel**, Commercial Director, Velocys Inc.

The Microchannel Advantage: Enabling the Pioneering Projects

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TRACK 2: Inputs & Supply Chains

THURSDAY, SEPTEMBER 15

10:30 am - 12:00 pm



Track 2: Inputs and Supply Chains

Examining Intentionally Grown Feedstocks to Feed Next Generation Biorefineries

Conversion of residues and side streams associated with agricultural production garners tremendous interest in the biorefining space. That said, these materials have not been optimized from a cultivation and harvest standpoint to serve downstream conversion goals. They are merely the remnants of a production system optimized to produce something else. This panel will examine the results of the development of crop strains and cropping systems that are expressly designed and optimized to provide abundant, consistent and conversion ready feedstocks for the efficient and profitable conversion to tomorrow's advanced biofuels and biobased chemicals.

- Moderator: David Bracht, Partner, Husch Blackwell Sanders LLP
- Carl Kukkonen, Chief Executive Officer, VIASPACE

 Giant King Grass as Biofuel Feedstock
- **Spencer Swayze**, Director, Business Development, Ceres Inc.

 Energy Crops as an Upstream Strategy for Biofuels and Biochemicals
- James Kezerle, Senior Program Manager, Alion Science & Technology Technoeconomic Assessment of Field Pennycress as a Biofuel Resource

1:30 pm - 3:00 pm



Track 2: Inputs and Supply Chains

Fueling Biorefineries with Found or Low Cost Waste Streams

In many ways municipal solid waste seems to be the perfect input for advanced biofuels production. With Americans generating over four pounds of trash each day, the supply stream is certainly robust, predictable and has a well established collection infrastructure. However, MSW does not come without its challenges. It is far from homogenous and is peppered with impurities, toxic materials and inerts. Still, it is loaded with carbonaceous materials and as a result is the chosen feedstock for a number of biorefiners. This panel features companies that have accepted the challenges that are presented by MSW and are deploying technologies to capture the stored energy in the materials we throw away each and every day.

• Moderator: Bryan Sims, Associate Editor, Biorefining Magazine

- Craig Stuart-Paul, Chief Executive Officer, Fiberight LLC Turning Trash into Advanced Biofuels
- **Dirk Andreas**, Senior Vice President Business Development, Enerkem Commercially Implementing Waste-to-Biofuels and Chemicals Technology
- Klaus Ruhmer, Business Development North America, BDI BioEnergy International AG

BioRefineries: Turning Waste Streams into Feedstock

3:30 pm - 5:00 pm



Track 2: Inputs and Supply Chains

Modification Breakthroughs: How Next Generation Science is Changing the Supply Chain

Conversion technology isn't the only area in the biorefining landscape that is benefiting from next generation science. Several research laboratories and private companies have utilized innovative scientific practices to alter the feedstocks used in bioenergy production or modified the enzymes they have designed to break down those same feedstocks. From genetically enhanced pretreatment enzymes, to switchgrass supplied with strategically inserted enzymes, learn what the leading companies in the field of biotechnology are doing to change the way the industry performs pretreatment and approaches biomass cultivation.

- Moderator: Nick Kapur, Commercial Director, Bloomberg New Energy Finance
- Masood Hadi, Senior Member, Technical Staff, Biomass Conversion Technologies, Sandia National Laboratories
 Dedicated Energy Crops for Biofuels Production
- Larry Sullivan, Biomass Business Development Lead, ArborGen Inc.
 Woody Biomass Production for Biopower and Bioenergy: A Sustainability Review
- **David Agneta**, Vice President Business Development, Agrivida Inc.

 Reducing the Cost of Biomass Conversion: Expressing Enzymes in Plants
- Ken Davenport, Vice President Strategic Development, Chromatin

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TRACK 3: Products & Markets

THURSDAY, SEPTEMBER 15

10:30 am - 12:00 pm



Refining the Market for Biobased Chemicals

A recently released study by the World Economic Forum estimates the market for advanced biofuels and bio-based chemicals at nearly \$100 billion. Throw in the economic activity along the expected biorefining supply chain and this industry has the potential to produce nearly a quarter of a trillion dollars in revenues. These are lofty and exciting goals, but from where will these markets first emerge? Where should biorefiners look to make their first significant sales? Which platform chemicals offer the most potential for producers of bio-based chemicals. All of the questions are crucial to ask and answer as the industry grows and investment dollars are solicited. This panel features industry analysts ready to shed light on the existing and emerging fuel and chemical markets.

- Moderator: Erin Voegele, Associate Editor, Biorefining Magazine
- Martha Hilton, Commercial Development Leader, Segetis Inc.
 Emerging Platform Chemicals: Transforming Forest and Crop Residues into Levulinic Acid and Derivatives
- Rob Toker, Vice President Partnerships, GlycosBiotechnologies Inc. Where the ball is going: Targets of Opportunity in Petrochemicals
- David Demirjian, President & CEO, zuChem Inc.
 High Efficiency Production of Xylitol as a Co-product by Fermentation of Hemicellulose
- Speaker TBA

1:30 pm - 3:00 pm



Track 3: Products and Markets

Exploring Market Drivers and Opportunities for Advanced Biofuels and Bio-based Chemicals

Where and how will next generation fuels ultimately fit into the transportation fuel market? First generation producers are now beginning to feel the pinch of market acceptance, blend walls and infrastructure compatibility. Next generation producers often cite strategies for market acceptance and infrastructure compatibility as centerpieces for their corporate strategy. This panel will examine the market opportunities and barriers that await next generation biorefiners as well as commentary on the implications of various legislative policies and sustainability standards on advanced biofuel commercialization efforts.

- Moderator: Sam Nejame, Founder, Promotum
- **David Walden**, Bioenergy Program Officer, Winrock International Sustainability Standards and Production of Biofuels in the U.S.
- Patrik Lownertz, Vice President, Sales & Marketing, Chemrec AB Fuels from the Forest: Deploying the Chemrec Technology
- Dave Munz, Business Development Manager Transportation Fuels, Gevo Inc.
 Gasoline Blendstocks and Drop-In Replacement Fuels
- Patrick Truesdale, Senior Consultant, Emerson Process Management

RFS2: Measuring and Controlling an 800 lb Gorilla

Alejandro Zamorano, US Bioenergy Analyst, Bloomberg L.P.
 High Value Products Cost and Market Size Estimates

3:30 pm - 5:00 pm



Fueling Our Nation's Commercial and Military Jet Fleet with Renewable Fuels

Consuming over 200 million barrels of fuel in 2008, the United States Military may very well be the single largest user of petroleum products in the world. Uncomfortable with its reliance on imported fuels to power its planes, tanks, trucks and heavy equipment, the Department of Defense has set an aggressive goal of 50% biofuels usage by 2016. Moreover, deploying advanced biofuels into the military and commercial air fleet infrastructure has advantages outside of the readily identifiable national security benefits. From a market share perspective, the commercial and military fleets offer a much faster market penetration scenario as air refueling stations can be measured in the hundreds instead of the hundreds of thousands with which alternative automobile fuel manufacturers continue to grapple.

- Moderator: Kevin Weiss, CEO, Byogy Renewables
- Richard Kolodziej, Process Technology Manager, Mustang Engineering The Production of Renewable Jet Fuel
- E. Michael Campbell, Director, Energy Systems Division, Logos Technologies

 The Biojet Program: Cellulosic Biomass to Jet Fuel for the Military and Civilian Aviation

 Industries
- Aaron Imrie, Commercial Manager, Virent Energy Systems Inc.
 A Catalytic Route to Renewable Jet Fuel
- Karl Seck, President, Mercurius Biofuels
 Efficient Cellulosic Jet Fuel Production

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TRACK 4: Capital & Strategic Partners

THURSDAY, SEPTEMBER 15

10:30 am - 12:00 pm



TRACK 4: Capital and Strategic Partners

The Essentials of Acquiring Early Stage Capital

Think you have a proven, economically viable process technology well-suited for a large-scale biorefining project? If the answer is yes, then you are ready to take the next step down the path to acquiring early stage project capital that will make the hard work in the lab pay off in the marketplace. While early stage investors looking for opportunities in the biorefining space may have a heightened enthusiasm for the industry, they are still investors and as a result are looking for as much certainty of a return as they can be afforded. This panel will feature the insights and experiences of professionals who make a living identifying viable investment opportunities in this growing industry.

- Moderator: Luke Geiver, Associate Editor, Biorefining Magazine
- Mark Riedy, Partner, Mintz Levin Cohn Ferris Glovsky and Popeo PC
 Financing Advanced Biofuels Integrated Biorefineries including Attached Biomass-to-Power Operations
- **John May**, Managing Director, Stern Brothers & Co. *Financing Renewable Energy Projects*
- John Pierce, Partner, DLA Piper
 Venture Capital and Private Equity Expectations: Tuning your Message to Attract Early Stage Capital

1:30 pm - 3:00 pm



Track 4: Capital and Strategic Partners

Greater than the Sum: Leveraging Strategic Partnerships in Biorefining

Strategic partnerships offer myriad benefits to all parties involved. Technology and process start-ups gain access to the financial firepower of their established partners. The funding partner gains speculative access to an industry that seems, to all involved, ready to explode. Partnerships in many instances allow well funded agribusiness and petroleum organizations to invest in numerous technologies, increasing the odds of choosing a winning technology. This panel features companies with well established partnerships discussing not only the state of their deployment, but also the role their partnerships have played in their scale-up efforts.

- Moderator: Tom Byrne, Founder, Byrne & Company Limited
- Gregory Keenan, Vice President, Business Development & Engineering, Virent Energy Systems Inc.
 - Required Elements for Successful Biorefinery Commercialization: Feedstocks, Products, and Partners
- **Eric Connor**, Senior Vice President, Business Development, ThermoChem Recovery International Inc.
 - Thermochemical Biorefinery Pilot Plant Review and Biorefinery Integration Strategies
- Roman Wolff, President, Enhanced Biofuels LLC
 Strategic Alliances: Accelerating Deployment of Acidity Reduction Technology
- Chris Wilcox, Director, Business Development, ZeaChem

Aligning Strategic Partnerships through the Biorefining Value Chain

3:30 pm - 5:00 pm



Onboarding EPC Partners to Accelerate Project Scale-Up

With venture capital and bank financing becoming increasingly difficult to attract and obtain, project developers are redoubling their efforts to build a sound project team that will instill confidence within the wary investment community. In many instances project developers are engaging well established EPC partners long before any ground is broken. These EPC partners are being asked to identify the ideal technology partners, drive dollars out of construction budgets and help with site selection and permitting. This assembled panel will examine the benefits of an early and strategic partnership with proven EPC providers and the way in which these partnerships are advancing their projects more efficiently and successfully.

- Moderator: Richard Weiner, Vice President, Fredrikson & Byron P.A.
- Terry Kulesa, President, IR1 Group LLC Strategic Management of EPC Partners
- Gunter Brodl, President, Vogelbusch USA
- · Speakers TBA

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