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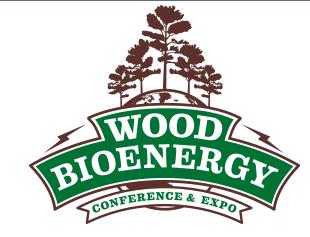
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# LLPOWER

elcome to Atlanta's Omni Hotel at CNN Center and welcome to the fourth Wood Bioenergy Conference & Expo, again hosted by Wood Bioenergy magazine and Georgia Research Institute. We very much appreciate your attendance and participation during what we hope are busy times for your operations and businesses.

In pulling together the speakers agenda for this event, we've come upon a couple of themes. One is the necessity for the wood biomass power industry to dig in its heels as many parts of the world continue to wrestle with how to commit to renewable energy and in particular renewable energy with biomass. That's not necessarily a criticism as much as it is a recognition that this is still a new generation industry and many countries—the U.S. included—are still trying to figure out its place in the power grid so to speak.

Another theme, is new opportunities. The producers that have established themselves as viable participants are talking about additional opportunities in products and markets as well as policy. We're anxious to hear a couple of speakers address these matters.

And then there's the part of the conference that a lot of us like the best—the nuts and bolts, from knife configurations in chippers to auto lubrication systems in pelletizers.

Lucky for us, you're the ones who have to make it all work. We simply provide the venue, and we trust it will be an enjoyable experience for you.

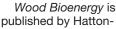
Rich Donnell Editor-in-Chief Wood Bioenergy Wood Bioenergy Conference Co-Chairman



FLT. Kun Fred Kurpiel President Georgia Research Institute Wood Bioenergy Conference Co-Chairman

### **BROUGHT TO YOU BY**

The co-producers of the fourth Wood Bioenergy Conference & Expo are Wood Bioenergy magazine and Georgia Research Institute. Wood Bioenergy is published six times per year and covers the domestic and international industrial wood pellet segment, as well as the domestic heating pellet, biomass power generation, and biomass harvesting and procurement sectors.



Brown Publishers, Inc., which is headquartered in Montgomery, Ala., and also publishes *Timber Processing*, *Timber Harvesting*, *Southern Loggin' Times* and produces *Panel World* magazine.

**Drax Biomass** 

Torms It Un

The co-chairmen of the Wood Bioenergy Conference & Expo are Rich Donnell and Fred Kurpiel. Donnell is the editor-in-chief at Hatton-Brown Publishers, Inc. He has been covering the wood products industries for 33 years. Kurpiel is president of Georgia Research Institute and has worked in the forest products industry for nearly 40 years, including roles in export management, project development, marketing and machinery sales.

Dianne Sullivan, who is chief operating officer at Hatton-Brown Publishers, Inc., where she has worked for more than 50 years, serves as manager of the Wood Bioenergy Conference & Expo.

The Wood Bioenergy Conference & Expo Program is the result of detailed efforts by sales representative Susan Windham, production personnel Cindy Sparks, Shelley Smith, Christy Sparks and Stephen Mock, and associate editor Jay Donnell,

The first Wood Bioenergy Conference & Expo was held in 2010, also at the Omni Hotel at CNN Center in Atlanta.

### **WOOD BIO BUZZ**

Wood Bioenergy
magazine editors Dan
Shell, Jessica Johnson
and Jay Donnell will be
on the scene, with microphones in hand,
combing the exhibitor
floor and conference
rooms to gather inter-



views and feedback from attendees. They'll be accompanied by Hatton-Brown media editor Jordan Anderson, as he videos their reports for worldwide airing at 3 p.m., Tuesday, April 5, and at 10 a.m., Wednesday, April 6.

### **NECK WALLET SPONSOR**



Your neck wallet is brought to you by Andritz, a global manufacturer and supplier of plants, equipment and services to numerous industries, including the wood-to-energy industry.

### **CASH PRIZE DRAWING: \$500**



That's right, you have to be there to win! At the close of the conference, at 1:15 p.m. on Wednesday, April 6, show officials will draw the name of the winner of the \$500 cash prize. To enter, stick your business card on the bulletin board on the wall as you enter the conference rooms from the exhibitor floor (you can't miss it). Officials will pile the cards into the tumbler and draw the winner. (Please don't make us look bad by having to keep drawing.)

### REMEMBER WHEN

The first Wood Bioenergy Conference & Expo (then called the Bioenergy Fuels & Products Conference & Expo) was also held at the Omni Hotel at CNN Center, but up on the Atrium Terrace. Exhibitors set up on the main terrace floor, while the conference sessions were held in a couple of the adjacent meeting rooms. It was less than a one-day affair, prior to the Panel & Engineered Lumber International Conference & Expo (PELICE), which was held in the Grand Ballroom North, the current location of both events. Organizers moved the Wood Bioenergy Conference to the Grand Ballroom North in 2012, and added a second day to it, still held prior to PELICE. More than half of the exhibitors in the Wood Bioenergy Conference & Expo will also be exhibiting at PELICE, which is hosted by Panel World magazine, an affiliated publication to Wood Bioenergy magazine.

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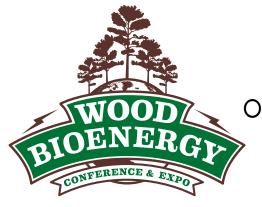
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### **APRIL 5-6, 2016**

Omni Hotel at CNN Center • Atlanta, GA, USA

### TUESDAY APRIL 5

EXHIBITORS/ATTENDEES BREAKFAST 7:15-8:15 a.m.

MORNING KEYNOTERS SESSION (ROOMS B-C)

### 8:30-8:35 a.m.

Welcoming Remarks and Keynoters Introduction

—Rich Donnell, Conference Co-Chairman; Editor-in-Chief, *Wood Bioenergy* magazine

### 8:40-9:00 a.m.

European Pellet Markets: Where to Now?

—Dr. Cormac O'Carroll, Director, London Office, Pöyry Management Consulting

### 9:05-9:25 a.m.

Bending the Curve: Wood Pellets and the Future of Energy

—John Keppler, President and CEO, Enviva Family of Companies

### 9:30-9:50 a.m.

Expanding the Forest Sector Tent: The Role of Wood-to-Energy

—Carlton Owen, President & CEO, U.S. Endowment for Forestry and Communities

TIME OUT WITH EXHIBITORS 10:00-10:30 a.m.

CONCURRENT SESSIONS (Rooms A-B-C)

### PRODUCTS & TECHNOLOGIES PART I (Room A)

#### 10:35-10:55 a.m.

The Current Status and Future Challenges of Torrefaction Technology.

—Andrew Johnson, Vice President, TSI

### 11:00-11:20 a.m.

Second Generation Solid Biofuels and Steam Explosion

—Ryan Davis, Technical Manager, Zilkha Biomass Energy

### 11:25-11:45 a.m.

Why Gasify, When You Could Pyrolyse?

—Russell Burnett, Director and CTO, Applied Gaia Corp.

### PROJECTS & OPERATION (Room B)

### 10:35-10:55 a.m.

High Volume Pellet Projects: Through a Drone's Eyes

—Desmond Smith, Manager, West Coast Office, USA, BRUKS

### 11:00-11:20 a.m.

Value Creation Through Engineering

—Jeff Stephens, Senior Project Manager & V.P., Mid-South Engineering

### 11:25-11:45 a.m.

Emerging Trends in Technology Solutions for Improving Operational Performance

—Bijan Shams, President, Cogent Industrial Technologies

### CHIP CHIP HOORAY! FROM THE WOODS TO THE WOOD YARD PART I

(Room C)

### 10:35-10:55 a.m.

Customizing Your Procurement to the Resource

—Rusty Booker, Vice President-Fiber Procurement,
Drax Biomass

### 11:00-11:20 a.m.

Getting into Fuelwood Chipping
—Deck Trevitt, Principal,
Woodland Improvements

#### 11:25-11:45 a.m.

Increasing the Market for Your Wood Fuel Product by Producing a Quality Product, While Maximizing the Efficiency of Your Wood Fuel Harvesting Operation —Jerry Morey, President,

### 11:50-12:10 p.m.

**Bandit Industries** 

Optimize Your Worksite Efficiencies With A Tipper

—Joseph Canova, Vice President – Global Sales, Columbia Industries, LLC

## EXHIBITORS/ATTENDEES LUNCH

12:10-1:30 p.m.

### AFTERNOON KEYNOTERS SESSION (ROOMS B-C)

### 1:35-1:40 p.m.

Remarks and Introductions

—Dan Shell, Managing Editor, Wood Bioenergy magazine

### 1:45-2:05 p.m.

Poised for Growth: New Opportunities in the Biomass Energy Sector

—Pete Madden, President and CEO, Drax Biomass

### 2:10-2:30 p.m.

Coal Replacement with Biomass: How Ontario Displaced Coal and Created New Supply Chains to Reinvigorate the Forestry Sector

—Brent Boyko, Senior Manager Business Development, Ontario Power Generation

### TIME OUT WITH EXHIBITORS 2:40-3:00 p.m.

CONCURRENT SESSIONS (Rooms A-B-C)

### PRODUCTS & TECHNOLOGIES PART II (Room A)

### 3:05-3:25 p.m.

Biocoal Production with Carbon-FX Technology: A First Commercial Plant

—Sylvain Bertrand, Directeur General/CEO, AIREX Énergie Inc.

### 3:30-3:50 p.m.

A 1st and 2nd Generation Combined White Wood Pellet and Torrefied Wood Production Facility in Canada

—Jerry Ericsson, President, DIACARBON Energy Inc.

### DUST CONTROL & SAFETY (Room B)

### 3:05-3:25 p.m.

Dust Collection Design and Maintenance

—Ben Kice, System Designer and South East Regional Sales Manager, Kice Industries, Inc.

### 3:30-3:50 p.m.

How to Reduce Risks of Combustible Dust: New Standards, New Technologies

—Jordan Newton, Vice President of Engineering, Sonic-Aire/IES

### 3:55-4:15 p.m.

Prevention of Fires and Dust Explosions within the Biomass/Pellet Industry

—Mikael Jidenius, Area Sales Manager, North America, Firefly AB

### 4:20-4:40 p.m.

Proven Fire Protection Systems for the Wood Bioenergy Industry

—Jeff Nichols, Managing Partner, Industrial Fire Prevention

### CHIP CHIP HOORAY! FROM THE WOODS TO THE WOOD YARD PART II

(Room C)

### 3:05-3:25 p.m.

Creating New Opportunities for Product Diversification and Growth in the Forestry Industry
—Michael Stanton, Regional Sales Manager, Morbark, Inc.

### 3:30-3:50 p.m.

Generating a Raw Material Supply for a New Wood Pellet Plant

—Keith Middleton, Procurement Manager, Fram Renewable Fuels, L.L.C.

### 3:55-4:15 p.m.

Logging Growth with Renewable Energy

—Stephen Tucker, Principal, Tidewater Land and Timber

### 4:20-4:40 p.m.

Mobile Chippers for Energy & Micro-Chips

—René van der Merwe, Sales Manager North America, Bruks

### EXHIBITORS/ATTENDEES SOCIAL 5-7 p.m.

### WEDNESDAY APRIL 6

EXHIBITORS/ATTENDEES BREAKFAST 7:15-8:15 A.M.

MORNING KEYNOTERS SESSION (ROOMS B-C)

### 8:30-8:35 a.m.

Welcoming Remarks and Keynoters Introduction

—Fred Kurpiel, Conference Co-Chairman

### 8:40-9:00 a.m.

Wood-Based Bioenergy: An Update for North America

—Dr. Richard Vlosky, Director, Louisiana Forest Products Development Center

### 9:05-9:25 a.m.

Biomass Power in Arizona: Novo Power and the Future

—Brad Worsley, President/CEO, Novo Power

#### 9:30-9:50 a.m.

From the Forest Floor to Electric Energy

—Norman Johnson, Manager Operations and Maintenance for the Contract Managed Assets, Dominion Power

### TIME OUT WITH EXHIBITORS 10:10-10:30 a.m.

CONCURRENT SESSIONS (Rooms A-B-C)

### DRYING & HANDLING TECHNOLOGIES

(Room A)

### 10:35-10:55 a.m.

Drying Performance with Wet Fuel Combustion

—Tyler Player, Principal, Player Design, Inc.

### 11:00-11:20 a.m.

Total Solution Moisture Control for a Wood Pellet Mill

—John Robinson, Principal; Roger Douglas, Director of Engineering; Drying Technology, Inc.

#### 11:25-11:45 a.m.

Proper Engineering and the Choice of Material Handling Machinery

—Dane Floyd, President, Biomass Engineering and Equipment

### EPA & BIOMASS (Room B)

### 10:35-10:55 a.m.

From the Tailoring Rule to State Implementation Plans: The EPA's Evolving Position on Biomass

—Carrie Annand, Vice President of External Affairs, Biomass Power Association

### 11:00-11:20 a.m.

Long-Term Forecast for Bioenergy Demand—US EPA's Recent Curve Ball and How to React

—Wes Younger, Managing Consultant, Trinity Consultants

### AIR EMISSIONS CONTROL (Room C)

### 10:35-10:55 a.m.

Dual-Biophase Bio-Oxidation—A Green, Energy-Efficient Approach to VOC and HAP Emission Destruction

—Nathan Hess, Applications Engineer, Process Combusion

### 11:00-11:20 a.m.

Reducing RTO Annual Fuel Costs with Fine-Tuning Features
—Rodney Pennington, VP of Key Accounts, NESTEC, Inc.

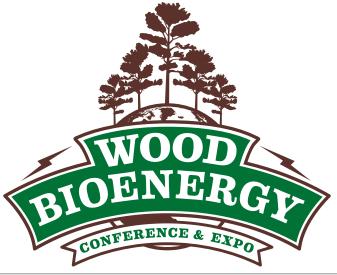
### 11:25-11:45 a.m.

Meeting EPA Emission Standards with Cyclones —Mike Clark, PE, Regional Sales Manager, Fisher-Klosterman Emtrol

> EXHIBITORS/ATTENDEES LUNCH 12:10-1:30 p.m.

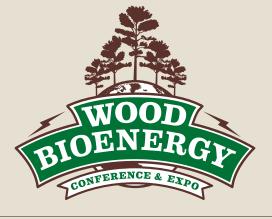
CASH PRIZE DRAWINGS 1:15 p.m.

EXHIBITOR BREAKDOWN 1:30 p.m.



### **BIOENERGY** EXHIBITORS

COMPANY	BOOTH NUMBER	COMPANY	BOOTH NUMBER
A-LERT Construction & Services	s	Georgia Research Institute	
AAA Cooper Transportation Bulk	Service217	GreCon	
Acrowood		HGA	
AGRA Industries		Hurst Boiler & Welding	
AGRICO Sales		IMAL	
Airoflex Equipment &		IMM Inc	
Wolf Material Handling System	ıs205	Kice Industries	
Alabama Department of Comme		Koch Knight	
ALBACH North America		Laidig Systems	
Amandus Kahl USA		Lundberg Associates	
Andritz		M-E-C	
Babcock & Wilcox MEGTEC		Matros Technologies	
Bandit Industries		Mid-South Engineering	
Basic Machinery Company		MoistTech	
Biomass Engineering & Equipme		Morbark	
Bliss Industries		NESTEC	
BRUKS Rockwood		Pallmann Industries	
Brunette Machinery		Paratherm Heat Transfer Fluids	
Canadian Biomass magazine .		Player Design Inc.	
CECO Environmental		Poyry Management Consulting	
Cogent Industrial Technologies		Precision Energy Services	
Columbia Industries		Price LogPro	
Con-Vey Keystone		Process and Storage Solutions	
Consolidated Mill Supplies		ProcessBarron	
CPM		Process Combustion Corporation	
DI PIU		Process Sensors Corporation	
Dieffenbacher Zaisenhausen		Rawlings Manufacturing	
Dieffenbacher USA		Sigma Thermal Inc	
Drying Technology		Spar Refractories	
Eagle Project Services		Stratachem Solutions	
Electric South		Timber Products Inspection (TPI).	
Firefly		TSI	
Flamex		Wechsler Engineering & Consulting	
Forest Products Society		West Salem Machinery	
Georgia Forestry Commission .		Wood Bioenergy magazine	



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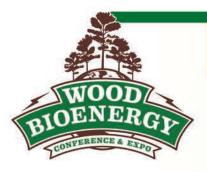
"These fans are freaking awesome. The plant literally has a glow to it now when you walk out into it. My Chief Engineer was very skeptical when I told him what we were going to do, but now he is your biggest fan. I'll be buying more in the coming months."

Bob Call, General Manager

See the SonicAire in action at Bioenergy/PELICE Booth #C417S. Learn about recent changes in combustible dust controls at SonicAire Vice President Jordan Newton's sessions.

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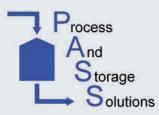
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# TUESDAY, APRIL 5 MORNING KEYNOTERS SESSION (ROOMS B-C)

### 8:30-8:35 a.m.

**Welcoming Remarks and Keynoters Introduction** 

Rich Donnell, Conference Co-Chairman; Editor-in-Chief, Wood Bioenergy magazine

### 8:40-9:00 a.m. European Pellet Markets: Where To Now?

Dr. Cormac O' Carroll, Director, London Office, Pöyry Management Consulting



The growth of the worldwide wood pellet industry has come to a point where regulatory implementation can enhance or stall the continued development of the industry. Cormac's presentation will review the impact of recent regulatory changes on European pellet markets as well as providing a perspective on pellet supply, demand and pricing, and possible trends into the future.

### 9:05-9:25 a.m. Bending the Curve: Wood Pellets and the Future of Energy

John Keppler, President and CEO, Enviva



Where do wood pellets fit in a fast-changing energy landscape and what should we do to propel our industry's continuing growth? This presentation from the leadership of the world's largest industrial wood pellet producer suggests steps that will create new opportunities for wood pellets in the years ahead.

# 9:30-9:50 a.m. Expanding The Forest Sector Tent: The Role Of Wood-To-Energy

Carlton Owen, President & CEO, U.S. Endowment for Forestry and Communities



Just since 1990 North America has lost more than 40% of its pulp and paper mills and perhaps a third of its sawmills. These losses reverberate through the one-third of the U.S. blanketed by forests where forest product manufacturing jobs have long been foundational to community stability and family-wage jobs. Without robust markets America's forest owners—both public and pri-

vate—have diminished tools with which to ensure their lands are kept as forests and that they are healthy and productive. One of the few bright spots in recent years has been the emergence of the wood-to-energy sector. Pellet manufacturers have provided much needed jobs and markets for low-value wood. If America is to remain the wood basket of the world and if the forest sector is to maintain its economic position, it is vital that the U.S. grows the range of sustainable products that flow from its bountiful forests.

### (ROOMS A-B-C)

# PRODUCTS & TECHNOLOGIES PART I (ROOM A)

# 10:35-10:55 a.m. The Current Status and Future Challenges of Torrefaction Technology

Andrew Johnson, Vice President, TSI

An overview of the different torrefaction technologies available with a more detailed look at how TSI approaches the subject and how the challenges of the market are affecting the development of the technology.

### 11:00-11:20 a.m. Second Generation Solid Biofuels and Steam Explosion

Ryan Davis, Technical Manager, Zilkha Biomass Energy The growth of 2nd generation solid biofuels has led to the commercialization of the Zilkha Black Pellet, a water resistant wood pellet with increased bulk density, energy content, and grindability. Zilkha's patented steam treatment process preserves and enhances the binding of sugars and lignin to create strong water resistant bonds in pelleting to produce a renewable replacement for coal power plants. Outdoor storage and test burns were carried out in Canada, England and Asia, and MV shipments are continuing to European customers. Zilkha Biomass offers the patented Black Pellet process to licensees and has converted two white pellet plants to Black Pellets. Many woody and herbaceous species have been converted to Black Pellets at Zilkha's pilot plant, which is available to customers for feedstock trials. Zilkha brings commercial pelleting experience to customers and licensees and is collaborating with Valmet Biofuels.

### 11:25-11:45 a.m. Why Gasify, When You Could Pyrolyse?

Russell Burnett, Director and CTO, Applied Gaia Corp.

How did a community in northern Florida recognize a new way to convert a waste biomass problem into a new multiple revenue stream that creates jobs for the production of environmentally friendly carbon products that enrich agricultural soils, while at the same time generating renewable bioenergy? A large scale biochar facility in Perry, Fla. will have 200,000 tons of wood waste per year at its disposal.

### PROJECTS & OPERATION (ROOM B)

### 10:35-10:55 a.m.

High Volume Pellet Projects: Through a Drone's Eyes Desmond Smith, Manager, West Coast Office, USA, BRUKS

Seeing wood yard equipment from the ground is something we are used to, but seeing it from the air adds a new perspective. The opportunity to fly along conveyors, rise up or down large structures, follow the materials on a moving conveyor, and generally put things into their place at a glance can add greatly to our understanding of spatial relationships. This presentation will visit pellet plants with and without log processing lines, and a pellet loading shiploader as it actively loads a large ship.

### 11:00-11:20 a.m. Value Creation Through Engineering

Jeff Stephens, Senior Project Manger & V.P., Mid-South Engineering

This presentation will focus on how front end engineering and planning helps the customer in both project evaluation and execution process. The parts of a project, project life cycle, distribution of efforts, and the cost of change at different points in the project life cycle will be points of discussion. Each of these components plays a great role in developing and executing an on-time and on-budget project.

### 11:25-11:45 a.m. Emerging Trends in Technology Solutions for Improving Operational Performance

Bijan Shams, President, Cogent Industrial Technologies
Competitive market conditions are forcing industrial plants and facilities to drive more efficiencies from their existing operation. This means getting the most out of their process, equipment and people. With this mindset, operations are deploying technology solutions to enhance process safety, maximize equipment uptime and improve operator effectiveness. This presentation will discuss automation, information and safety technologies that you can deploy to improve the safety and availability of your assets, and empower your personnel to achieve the operational agility and efficiency that the market demands.

### CHIP CHIP HOORAY! FROM THE WOODS TO THE WOOD YARD PART I (ROOM C)

### 10:35-10:55 a.m. Customizing Your Procurement to the Resource

Rusty Booker, Vice President-Fiber Procurement, Drax Biomass

Understanding your fiber resource as you locate a new wood consuming facility is key to long-term operating success—both in terms of supply security and cost management. Given sustainability underpins any new development to support pellet deliveries to the EU; the first step has to be finding the right "hole" in the forest that can support new consumption sustainably over time. Consumers need to be prepared to adapt to changes in the area resource as there are peaks and valleys in pulpwood and sawtimber availability that will be available in the supply chain—both in terms of forest growth and competitor usage. Consideration of the available resource at startup and over time when developing plant inbound fiber handling capabilities can complement a procurement strategy.

### 11:00-11:20 a.m. Getting into Fuelwood Chipping

Deck Trevitt, Principal, Woodland Improvements

How does a logger long-experienced in conventional harvesting get into fuelwood chipping and make a successful go of it? This presentation will discuss market conditions for making chipping attractive; matching equipment to production; operational setup in the woods; some do's and don't's that have been learned; and overall benefits of fuelwood chipping.

### 11:25-11:45 a.m.

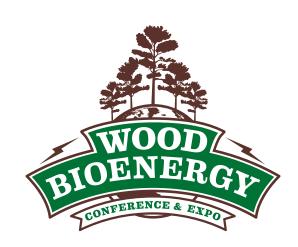
# Increasing the Market for Your Wood Fuel Product by Producing a Quality Product, While Maximizing the Efficiency of Your Wood Fuel Harvesting Operation

Jerry Morey, President, Bandit Industries

This presentation will focus on new chipper technologies to improve chip uniformity and chip sizing, improvements to throwing systems on whole tree chippers, improved feed systems and new electronic control systems. It will address new chipping options in reduction machines. The chipper head design makes it easy to convert a whole tree chipper from a 1/4 in. chip to a standard fuel chip without needing to change the chipping drum. The throwing design in the chippers along with the new electronic controls dramatically reduce energy and fuel consumption. The new feed systems do not allow chips to fall under or carry around the infeed chains, increasing yield by as much as 5%. New clutch technologies are forthcoming.

# 11:50-12:10 p.m. Optimize Your Worksite Efficiencies with a Tipper Joseph Canova, Vice President-Global Sales, Columbia Industries LLC

Since the 1960s, many wood chip processing and other bulk product facilities have been reaping the benefits of using tippers (a.k.a truck dumpers). A tipper essentially consists of a hydraulic platform that tilts a trailer to approximately 60 degrees in order to safely empty the payload out the back chute. The entire up/down cycle can be completed in as little as three minutes. Using tippers can increase the number of trailers per day as well as trailer payloads by eliminating heavy, self-unloading equipment. Tippers at a dedicated facility can empty trailers directly into a hopper connected to conveyors for quick distribution to storage piles or to a barge/ship for bulk transport. Tippers can be stationary or portable for your individual site needs, allowing options for low capital investment and small footprint worksites for multi-stream or seasonal focuses. This presentation will present a backgrounder on tipper functionality and several types of facility implementations, along with a guide of how to evaluate how a tipper can work for your business.



# AFTERNOON KEYNOTERS SESSION (ROOMS B-C)

1:35-1:40 p.m. Remarks and Introductions

Dan Shell, Managing Editor, Wood Bioenergy

1:45-2:05 p.m.
Poised for Growth: New Opportunities in the Biomass Energy Sector

Pete Madden, President and CEO, Drax Biomass



This presentation shares insights gained from the Drax Biomass unique position within Drax Group, a vertically integrated biomass energy company responsible for Europe's largest decarbonization project. It will address recent developments in the industrial pellet manufacturing sector—notably around sustainability, logistics and the arrival of new market participants—and how

those developments are positioning the sector to take advantage of new opportunities created by shifting energy policies.

2:10-2:30 p.m.
Coal Replacement with Biomass: How Ontario Displaced Coal and Created New Supply Chains to Reinvigorate the Forestry Sector

Brent Boyko, Senior Manager Business Development, Ontario Power Generation



Ontario Power Generation (OPG) is proud of the fact that its Atikokan Biomass Conversion (ABC), which ran on coal from 1985 to 2012, is the largest 100% biomass fired electricity generating station in North America—redeveloping not only this publicly owned asset, but starting a local supply chain with the commercial contracts for two new pellet plants to fuel the station. OPG's

Thunder Bay Generation station entered commercial operation in January 2015 on advanced biomass. This is the world's first 100% substitution of coal to an advanced biomass fuel source.

# PRODUCTS & TECHNOLOGIES PART II (ROOM A)

3:05-3:25 p.m. Biocoal Production with CarbonFX Technology: A First Commercial Plant

Sylvain Bertrand, CEO, AIREX Energie Inc.

Airex Energy is a technology provider of biomass torrefaction systems and a producer of biocoal. Based in Laval, Quebec, Airex has developed a proprietary technology called CarbonFX, which allows the production of biocoal pellets, biochar and torrefied wood flour. The company has started operation of a full commercial scale plant with a production capacity of 15,000 tons/year. The presentation will highlight the key features of the plant and the CarbonFX technology.

3:30-3:50 p.m.

A 1st and 2nd Generation Combined White Wood Pellet and Torrefied Wood Production Facility in Canada

Jerry Ericsson, President, Diacarbon Energy Inc.

White wood pellets represent the most simple form of upgrading wood fiber with heat—the fiber is dried and pressed into pellets. Torrefaction represents the second generation of heat treatment, and comprises the devolatilization of components of the wood fiber to create a more energy dense and brittle biofuel that is mechanically and functionally similar to coal. Despite this similarity, many challenges exist with scaling the production technology, and delivering an acceptable fossil fuel replacement to end-users.

### DUST CONTROL & SAFETY (ROOM B)

3:05-3:25 p.m.

Dust Collection Design and Maintenance

Ben Kice, System Designer and South East Regional Sales Manager, Kice Industries, Inc.

What is dust and why is it a problem in production facilities? This presentation examines types of collectors (cyclones and filters); selecting baghouse filters and cyclones; properly sizing manifolds.

3:30-3:50 p.m. How to Reduce Risks of Combustible Dust: New Standards, New Technologies

Jordan Newton, Vice President of Engineering, SonicAire/IES The purpose of this session is to give attendees the vital information they need from the new NFPA 652 Standard, as well as critical updates on the solutions available to meet those standards and save lives from combustible dust explosions. The risks inherent to combustible dust still plague the industry; professionals are still grappling with solutions to solve the problems. National Fire Protection Association (NFPA) has recently released the first edition of NFPA 652, a new standard designed to provide general and more consistent guidelines for combustible dust hazards. This talk will describe the changes—the good, the bad and the ugly—and what they mean to bioenergy processors. It will also examine the spectrum of solutions that can be used by wood and bioenergy processors, and evaluate the strengths and weaknesses of each approach. What's more, the latest technologies will be reviewed and evaluated.

3:55-4:15 p.m.
Prevention of Fires and Dust Explosion within the Biomass/Pellet Industry

Mikael Jidenius, Area Sales Manager, North America, Firefly AB
This presentation examines several elements of prevention:
What is needed to get a dust explosion? Ignition sources. Minimum ignition temperature & energy. Which particles are dangerous? Where to locate spark detection systems. Extinguishing methods. Installation examples.

# 4:20-4:40 p.m. Proven Fire Protection Systems for the Wood Bioenergy Industry

Jeff Nichols, Managing Partner, Industrial Fire Prevention, LLC How do you keep from burning down and blowing up your plant? This program will discuss proven systems to help protect your plant, process, production and people from the devastation of combustible dust fires and explosions in the wood industry. This presentation will help you identify combustible

### **BIOENERGY** SESSIONS

dust and ignition hazards leading to fires and explosions, and present proven systems to prevent and control fires and explosions, thus preventing downtime, production losses and injuries, as well as saving lives.

# CHIP CHIP HOORAY! FROM THE WOODS TO THE WOOD YARD PART II (ROOM C)

### 3:05-3:25 p.m.

### Creating New Opportunities for Product Diversification and Growth in the Forestry Industry

Michael Stanton, Regional Sales Manager, Morbark, Inc.

Fundamental shifts in government energy policies have major implications for companies in forest-based industries. Increasingly, government policies in Europe, North America and elsewhere are encouraging the development of renewable sources of energy, many of them setting ambitious targets for the use of renewable heat, electricity and/or transport fuels. Forest companies with access to appropriate fiber could offer exciting possibilities in a rapidly growing market. This presentation will explore the criteria for assessing whether diversification into chip markets is viable for your forestry-based business.

### 3:30-3:50 p.m.

### Generating a Raw Material Supply for a New Wood Pellet Plant

Keith Middleton, Procurement Manager, Fram Renewable Fuels, LLC

The new wood yard at Fram Renewable Fuels' second wood pellet plant at Hazle-hurst, Ga. relies on mix of residuals and logs procured through strategic partnerships with long-established wood products industry companies.

### 3:55-4:15 p.m.

### Logging Growth with Renewable Energy

Stephen Tucker, Principal, Tidewater Land and Timber

This presentation will provide a "woods" level view of the dramatic changes in demand for hardwood fiber over the past decade. It will chronicle one company's struggles as local pulp mills shifted from fine paper to fluff pulp resulting in virtually no usage of abundant hardwood. It will also describe the ensuing growth in the logging and timber industries as demand increased for sources of sustainable biofuels and renewable energy.

#### 4:20-4:40 p.m.

### **Mobile Chippers for Energy & Micro-Chips**

René van der Merwe, Sales Manager North America, Bruks

Bruks mobile drum chippers have been the cornerstone of the Scandinavian inwoods bioenergy market for more than 50 years. The one-machine system, which eliminates the need for skidders and loaders and dedicated trucks, has significant economic benefits while providing a quality, uniform chip for the energy or pellet producing markets.

# WEDNESDAY, APRIL 6 MORNING KEYNOTERS SESSION (ROOMS B-C)

### 8:30-8:35 a.m.

### **Welcoming Remarks and Keynoters Introduction**

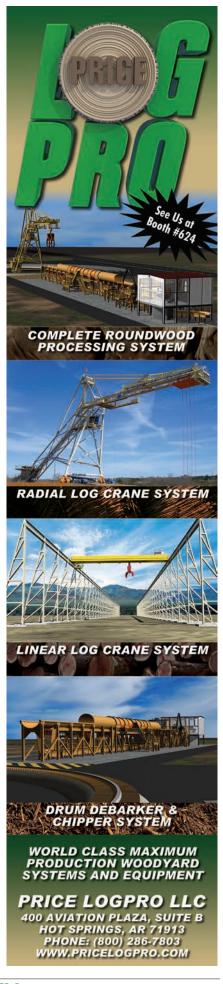
Dr. Fred Kurpiel, Conference Co-Chairman



### 8:40-9:00 a.m. Wood-Based Bioenergy: An Update for North America Dr. Richard Vlosky, Director, Louisiana Forest Products

Dr. Richard Vlosky, Director, Louisiana Forest Products
Development Center
Over the past decade, renewable energy has become a promi-

Over the past decade, renewable energy has become a prominent part of North American policies, programs and even mandates. Wood-based bioenergy is potentially an integral part of the renewable energy portfolio. However, the reality has been a mix of







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### **BIOENERGY** SESSIONS

great anticipation as well as significant disappointment with where wood fits into the renewable equation. This presentation will cover an overview of where wood currently stands in addition to a discussion of successes, challenges, pitfalls and the overall reality of the future.

### 9:05-9:25 a.m. Biomass Power In Arizona: Novo Power and the Future

Brad Worsley, President/CEO, Novo Power



Building a biomass power plant in Arizona was an endeavor that would only have been undertaken by an entrepreneur like Bob Worsley, father of Brad Worsley. Along with a vision, he showed tremendous resolve as the facility persevered through the economic collapse of 2008, changes in ownership, fuel shortages, plant performance issues, PPA renewals, major shifts in renewable power markets, and the implementation of the largest landscape scale restoration project on national forests (4FRI) to create and run what is now a very successful biomass powered

power plant. The future holds as much uncertainty as did the past but through perseverance, investment and grit, Novo Power is optimistic about sustaining a life for biomass power in Arizona for the next several decades.

### 9:30-9:50 a.m.

From The Forest Floor To Electric Energy

Norman Johnson, Manager Operations and Maintenance for the Contract Managed Assets, Dominion Power



Deciding to convert a coal-fired plant to wood involves more than engineering a boiler retrofit. It starts with confirming that a sufficient fuel supply exists and extends through new factors ranging from fuel acquisition and management to ash conditioning and re-use. This presentation will discuss the experiences of obtaining, storing, combusting and lastly managing ash of biomass (forest residuals) at a former coal-fired power plant.

## DRYING & HANDLING TECHNOLOGIES (ROOM A)

### 10:35-10:55 a.m.

**Drying Performance with Wet Fuel Combustion** 

Tyler Player, Principal, Player Design, Inc. (PDI)

This presentation will cover the latest developments in economical bark and green fuel combustion. It will illustrate in detail the impact of wood species, moisture content and overall performance of a drying system when coupled with a wet fuel combustion system. The emissions changes, permit considerations and capital payback will all be addressed.

### 11:00-11:20 a.m.

### **Total Solutions Moisture Control for a Wood Pellet Mill**

John Robinson, Principal; Roger Douglas, Director of Engineering, Drying Technology. Inc.

This presentation shows how the Delta can solve the major problem of widely-varying moisture content of biomass fed to the dryers, thus allowing the dried biomass target moisture to be maintained with at least 30% less variation. This enables a consistent pellet to be produced 24/7, thereby eliminating the risk of shipping a load of pellets halfway around the world and have it rejected for out-of-spec moisture content.

### 11:25-11:45 a.m.

Proper Engineering and the Choice of Material Handling Machinery

Dane Floyd, President, Biomass Engineering and Equipment

What is the value of proper engineering and the choice of material handling machinery? For example: Replacing grain handling conveyors that have been supplied to the biomass and pellet industry should not be happening. This presentation will focus on good versus bad designs and the latest designs that are solving the specific problems associated with biomass material handling.

## EPA & BIOMASS (ROOM B)

### 10:35-10:55 a.m.

From the Tailoring Rule to State Implementation Plans: The EPA's Evolving Position on Biomass

Carrie Annand, Vice President of External Affairs, Biomass Power Assn.

States are considering their implementation plans to comply with the EPA's Clean Power Plan. Biomass can play a key role in the plan as a low-carbon emitting source of renewable energy. How did we get to this point and how could the plan affect the biomass industry?

### 11:00-11:20 a.m.

### Long-Term Forecast for Bioenergy Demand—US EPA's Recent Curve Ball and How to React

Wes Younger, Managing Consultant, Trinity Consultants,

EPA's new Clean Power Plan is the regulatory framework for moving the country toward a sustainable future for electrical power generation. Due to the wording of the Clean Air Act and recent Supreme Court decisions on its interpretation, the role of biomass energy in the Plan is not necessarily what conventional wisdom would have suggested, and leaves biomass on unsteady footing relative to solar and wind for the long term, big picture future of American energy sources. This presentation discusses in layman's terms the big picture of the Clean Power Plan, where biomass does and doesn't fit within, and the path forward to get biomass put back on equal footing with solar and wind as a sustainable domestic energy source.

## AIR EMISSIONS CONTROL (ROOM C)

### 10:35-10:55 a.m.

Dual-Biophase Bio-Oxidation—A Green, Energy-Efficient Approach to VOC and HAP Emission Destruction

Nathan Hess, Applications Engineer, Process Combustion Corporation

Biofiltration systems have been mainly used for treating odor emissions from Municipal Wastewater Treatment Plants, and to a lesser extent, for treating emissions of Hazardous Air Pollutants (HAPs) and Volatile Organic Compounds (VOCs) from industrial operations. Increasingly, modern engineered Biofiltra-

tion, termed Bio-Oxidation, is now a viable alternative to existing air pollutant control technologies because of its advantages of lower operating cost and reduced emissions of carbon dioxide. Dual BioPhase Bio-Oxidation is an effective treatment technology for odors, HAPs, and VOCs due to a number of technological advances. These advances have resulted in reduced equipment size with the ability to handle larger and more concentrated airflows of a wider range compounds than traditional biofilter technologies. The end result is air-handling equipment that performs much like mechanical treatment systems, but is biologically based with significant savings in energy costs.

# 11:00-11:20 a.m. Reducing RTO Annual Fuel Costs with Fine-Tuning Features

Rodney Pennington, VP of Key Accounts, NESTEC, Inc. Several MCC RTO features have been installed and proven to reduce the fuel costs on both new and existing RTO units in the wood industry. The features offer several specific wood application enhancements for maximum compliance, lower operating costs, lower maintenance requirements, and higher up time reliability for wood industry manufacturing facilities. Features include: additional fuel energy savings with Thermal Alignment Programing Design; combustion air on ratio control; valve cycle timing control; premixed natural gas injection system; hotter inlet valve surfaces to minimize/eliminate condensable build up on the valve; heat exchange media support with thermal expansion design compensation, and uniform air flow distribution; 96% thermal energy recovery (TER) design, a 20% reduction in energy requirement over a 95% design; full process flow with incremental on line bake out capability; 98+% destruction removal efficiency (DRE); modular design to minimize shipping and installation costs. Fine-tuning the RTO with one or several of the above features can reduce the fuel consumption by 8 to 40%. On a large wood application this

### 11:25-11:45 a.m. Meeting EPA Emission Standards with Cyclones

today's natural gas cost.

can amount up to \$200,000 per year in fuel savings, even at

Mike Clark, Regional Sales Manager, Fisher-Klosterman Emtrol
This presentation reviews the importance of aerodynamic
particle size distribution analysis and empirical test data used
to guarantee the overall removal efficiency of cyclones. It will
also cover the use of high residence time cyclone design to
collect very fine particles.



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# Carrie Annand Vice President of External Affairs Biomass Power Association



Carrie has worked with Biomass Power Association since 2010, gradually expanding her role from outside PR consultant. Part of her portfolio is overseeing National Bioenergy Day, an annual nationwide educational event recognizing bioenergy's contribution to heating and power in the United States. The day has doubled in size since its inception in 2013. In addition to media relations

and communications, Carrie serves as a resource in membership outreach and government affairs. Carrie has more than 10 years of public affairs and communications experience across many issue areas. She previously served in the press office of the U.S. House of Representatives Committee on Energy and Commerce.

### Sylvain Bertrand CEO Airex Industry



Sylvain has more than 20 years of experience in corporate finance, business development and engineering. Prior to joining Airex, Sylvain was Senior Advisor, Energy Development and Strategy, for Resolute Forest Products, where he was responsible for exploring new bioenergy initiatives. From 2000 to 2007, Sylvain was Principal at Multiple Capital and Innovatech du Grand Mon-

treal, where he managed a portfolio of venture capital investments. Sylvain served on the boards of several high technology companies, and is currently serving on the board of CRIBIQ. Sylvain is a mechanical engineer who attended École Polytechnique de Montréal. He holds a master's degree in Energy Engineering from the Institut National Polytechnique de Toulouse (ENSEEIHT) and a M.B.A. from HEC Montreal.

# Rusty Booker Vice President-Fiber Procurement Drax Biomass International



Rusty directs strategic planning, logistics and startup of plant sites to convert raw materials into wood pellets for power utility firms in the UK. He develops all supply chain and procurement functions for the fiber sector, and ensures supply chain compliance with federal, state and local regulations. As a Supply Chain Executive, he leads crossfunctional teams through the entire procure-

ment lifecycle, while meeting enterprise challenges. He has an in-depth supply chain, distribution, logistics, transportation and operations background within world-class market leading companies, and hands-on proficiency in the latest industry trends, analytic tools and material sources. He previously worked as fiber supply manager and coordinator in the pulp and paper industry at specific facilities for International Paper. He is a Registered Forester, and received his B.S. in Forest Management at Mississippi State University.

# Brent Boyko Senior Manager Business Development Ontario Power Generation



Brent joined Ontario Power Generation in 2011 as Station Manager bringing more than 20 years of operational management and engineering experience in the pulp & paper and construction materials industries. He is accountable for the safe, reliable operation and maintenance of a 211 MW single unit thermal station, which ran on coal from November 1985 to September 2012. He was

instrumental in OPG's conversion of its Atikokan GS into the largest 100% biomass fired electricity generating station in North America. Brent's role is to promote sustainable generating solutions, showcase OPG's bioenergy program, and leverage its people and facilities into broader research and commercial bioeconomy relationships. Brent received a B.Eng. and M.B.A. from Athabasca University in Alberta.

### Russell Burnett Director and CTO Applied Gaia Corp.



An Australian, it was through his farming days that Russell inadvertently began experimenting with making biochar material. Basically, whenever he burned waste and fallen timber and had an incomplete burn, it resulted in charcoal. When that charcoal was incorporated into the soil, generally the crop or pasture grew better. Having previously had an analytical and chemistry background

as a Food Scientist for Kraft Foods, and in later years studying Environmental Science at Charles Sturt University in New South Wales, he connected the practical with the science enabling him to look at this subject with a different viewpoint to academia, who have to date dominated the biochar field. He commenced manufacturing biochar technology in 2007, resulting in the formation of a company called Biochar Energy Systems in conjunction with the Northern Poultry Cluster, which is the poultry industry body representing 10% of the nation's industry based in Central Victoria. In 2013 Russell and colleague Sheila MacDonald established an American company, Applied Gaia, to market their technology and range of products in the U.S. Their technology has been deployed in California, Florida, Australia, China and Peru.

# Joseph Canova Vice President Global Sales Columbia Industries LLC



Joe has worked at Portland, Oregonbased Columbia Industries since 2013, first as senior manager in sales and marketing and now as vice president. Previously he worked 15 years with Engineering Dynamics Corp., most as vice president. He also worked two years at ABER Ltd. in New Zealand as sales and marketing manager. He began his career as a project engineer

and product manager with Pyro Industries, following his education at Portland State University.

### **BIOENERGY** SPEAKERS

### Mike Clark Regional Sales Manager Fisher-Klosterman Emtrol



Mike joined CECO in 2007 and worked with its systems division doing dust system design, evaluations and testing. The last five years he has been with Fisher-Klosterman as a regional sales manager and applications engineer. Mike holds a B.SME. from Mississippi State University, an M.SME. from the University of Alabama at Birmingham, and teaches at the Birmingham Industrial Ventilation Conference.

### Ryan Davis Technical Manager Zilkha Biomass Fuels



Ryan helps to develop and commercialize the Zilkha Black Pellet process. Zilkha Biomass uses the patented steam treatment process to produce Zilkha Black Pellets, a water resistant wood pellet with high strength properties for improved logistics and outdoor storage at coal power plants. As Technical Manager, Ryan helps customers and licensees develop fuel manage-

ment plans for storing and burning Black Pellets, pilot-tests new feedstocks and performs technical due diligence for endusers and investors. Ryan has a master's in Engineering, specializing in Bioprocessing, Agriculture and Renewable Power.

# Roger Douglas Director of Engineering Drying Technology, Inc.



Roger Douglas graduated from Lamar University, Beaumont, Texas, with a B.BA. in Accounting in 1975 and a B.S. degree in Chemical Engineering in 1992. His industrial experience includes 12 years with Mobil Chemical, four years with Quantum Chemicals, and the past 23 years with Drying Technology, Inc. He has designed, programmed and started up hundreds of Delta T Moisture Control Systems

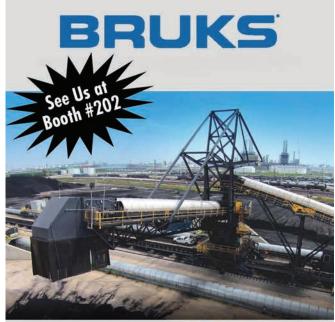
throughout the world. He has presented several technical papers on the subject of moisture sensing and control.

### Jerry Ericsson President Diacarbon Energy



Since 2009 Jerry has led the technical development and all strategic initiatives of the Diacarbon group of companies, including project development and fundraising efforts to commercialize carbon neutral fuels from biomass, and biochar soil conditioners for agricultural applications. Under his leadership, Diacarbon has restarted a 50,000 tonne per year pellet plant, expanded its production ca-

pacity to 75,000 tonnes per year, and is building Canada's largest torrefaction plant to produce biocoal for use by Lafarge Cement Canada. Diacarbon supplies white pellets to the U.S., South Korea and into Europe and plans to offer torrefied wood fuels into these markets in the near future.







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# Dane Floyd President Biomass Engineering and Equipment



A mechanical engineer with more than 35 years in the forest products industry, Dane brings his knowledge and experience to the conference to discuss proper engineering and machinery choices for success. Starting in procurement and engineering, and advancing to VP of Manufacturing, Dane has seen a lot of good and bad engineering and machinery. He left corporate management

and founded Veneer Services, and in 2011 formed Biomass Engineering and Equipment as a division of Veneer Services. The resulting innovations from those companies have been game-changers.

### Nathan Hess Biological Oxidation Engineer Process Combustion Corp.



Nathan designs biological treatment solutions for contaminated gas emissions for a variety of industries, and is responsible for development of the Biological Oxidation R&D initiative at PCC. Nathan received his B.S. in Chemical Engineering from the University of Delaware.

### Mikael Jidenius Area Sales Manager Firefly AB



Mikael works with business development of customized fire prevention systems, which monitor industrial processes in areas such as woodworking, tissue, food, bioenergy and recycling. His well-rounded experience includes sales and management for rail maintenance services, water meters, gear techniques, UV lamps, shaft seals and magnetic mixers, and sales of machine and pro-

cess equipment to numerous industries.

### Andrew Johnson Vice President TSI



After graduating college in 1980 Andrew worked for Wadkin PLC in the UK selling a wide range of wood processing equipment including machines from leading European machinery manufacturers in the wood based panel industry. He went with Schelling (automated panel sawing systems) in the early 90s and transferred with them to the States. He continued in the panel saw business as

President of Mayer USA. Since 2003, Andrew has been with TSI. He joined TSI to help them with their Panel Processing Systems but is now involved across the full range of activities including dryer systems and pollution control equipment for both engineered wood and the biomass industries.

# Norm Johnson Operations & Maintenance Manager Dominion Power



Over the past nine years Norm has been the Dominion Operations & Maintenance Manager for seven power plants—originally two gas, four coal, and one wood. In 2013 he was instrumental as part of the conversion team in the conversion of three coal units to forest residual fuel. He continues to work to resolve O&M issues associated with wood inventory and combustion. Norm is a

Certified Six Sigma Black Belt. His vast experience includes safety, emergency response and environmental training, supervision and management, technical and hands-on skills, quality team leadership, predictive maintenance leadership. He received a B.S. in Mechanical Engineering from Old Dominion University in 1981.

### John Keppler President and CEO Enviva



John is a co-founder of Enviva. He has been responsible for setting Enviva's strategic direction and leading the company's growth from a startup company to becoming the world's leading producer of wood pellets with 2.2 million metric tons of production represented by six facilities in the Southern U.S. with another one in construction, as well as two purpose-built port facili-

ties. John has led all of Enviva's capital raising activities and in April 2015 Enviva began trading on the New York Stock Exchange. John holds a Bachelor of Arts in Political Economy from the University of California, Berkeley, and a Master of Business Administration from the Darden Graduate School of Business Administration at the University of Virginia.

# Ben Kice System Designer and South East Regional Sales Manager Kice Industries, Inc.



Ben has worked at Kice Industries since 2003. He is actively involved in the Strategic Planning Team, product development and introduction to market, project management, and customer management for Kice Industries. Prior to current positions, Ben worked in the Kice Manufacturing facility while finishing his college degree. He holds a bachelor's degree from the Emporia State Univer-

sity School of Business, majoring in Administration. He is involved with IAOM (International Association of Operative Millers) and is a board member of PEMA (Process Equipment Manufacturers Association).

### **BIOENERGY** SPEAKERS

# Peter Madden President and CEO Drax Biomass



Pete oversees Drax Biomass operations that include new wood pellet manufacturing plants and a port facility in the Southeastern U.S. Pete began his career in forestry in 1988 with the Westvaco Corp. in South Carolina. In 1992, he joined Georgia-Pacific where he held various positions including operations manager, procurement manager and senior financial analyst. In 2001, Pete joined Plum Creek Timber as a senior financial analyst. He held several key positions with Plum Creek including director of financial planning, manager of construction materials, senior resource manager,

director of regional marketing for the Southern region, vice president of operations support, and vice president renewable energy and supply chain. Pete graduated in 1988 with a Bachelor of Arts degree from Marlboro College in Vermont. He earned a Master of Science in Forestry and a Master of Business Administration degree from the University of New Hampshire.

Pete is a Registered Forester and a member of the Society of American Foresters.

# Keith Middleton Procurement Manager Fram Renewable Fuels



From the Brunswick, Ga. area, Keith began his 45-year forestry career cruising and buying "Fat Lighter'd Stumps" for Hercules Inc.'s Brunswick. plant. In 1973 he joined Brunswick Pulp & Paper to source and manage a pine and hardwood shortwood rail yard in Ridgeland, SC. In the years since he has had many procurement responsibilities including sourcing fiber for pulp mills, pine and hardwood sawmills, plywood plants, MDF and particleboard mills, and presently pellet mills. The last six of thirty-four years working for G-P was as Fiber Manager with responsibility for annually sourcing 2 million tons of residual chips for the

Brunswick and Palatka, Fla. pulp mills and the Holly Hill MDF plant in SC. He joined Klausner Lumber in 2007 as Procurement Development Manager to establish procurement departments capable of delivering 1.5 million tons of timber annually to each of a couple of new sawmills to be built in the Southeastern U.S. Keith joined Fram Renewable Fuels, LLC in June 2014 as Procurement Manager and has procurement responsibilities for four pellet mills located in Baxley, Hazlehurst, Lumber City, and Hiltonia, Ga.

# Jerry Morey President Bandit Industries



Jerry has spent his entire working life (more than 50 years) with companies supplying equipment to the forest products industries. He and partner Mike Morey have been building and selling equipment, primarily chippers, to the tree care and forest products industry through their company, Bandit Industries, for more than 30 years. He is a graduate of Central Michigan University. Jerry has been an active member of many industry associations in both the forest products and tree care industries.

# Jordan Newton Vice President of Engineering SonicAire/IES



A licensed professional engineer, Jordan graduated from North Carolina State University in 2006 with a Bachelor of Science in Mechanical Engineering. He began his career as a Staff Engineer with Accident Reconstruction Analysis, Inc., where he specialized in forensic engineering. In 2007, Jordan became a Project Engineer with Underwriter Laboratories, where he focused on product certification for firefighting equipment, fire truck apparatus and water quality. While with Underwriter Laboratories, he completed Lean Sigma Green Belt Training. Jordan joined SonicAire/IES in 2010,

where he supervises product development, R&D and engineering equipment layout.



# Jeffrey Nichols Managing Partner Industrial Fire Prevention, LLC



Jeffrey has been providing special hazards protection for combustible dust processes and helping protect production and personnel in the process industries from fires and explosions since 1979. He is a Technical Committee Member of NFPA 664, the Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities. He has undertaken coursework in

Preventing and Mitigating Combustible Dust Fires and Explosions, Combustible Dust Safety Training, as well as Process Safety Management of Highly Hazardous and Explosive Chemicals at Georgia Tech Research Institute; as well as Process Safety and Industrial Explosion Protection from StuvEx, Explosion Protection Fundamentals at Fike Corporation, Dust Explosion Hazard Recognition and Control from The Fire Protection Research Foundation, and Understanding and Practical Prevention of Combustible Dust Hazards in Wood Products and Paper Industries from American Forest & Paper Assn. He has written several articles on spark detection for various publications. He started protecting process and dust collection systems when spark detection & extinguishing systems were first introduced into the United States in the 1970s.

# Dr. Cormac O'Carroll Director, London Office Pöyry Management Consulting



Cormac leads Pöyry's global Forestry, Biomass and Wood Industry practice as well as the London office. Cormac has more than 20 years of experience in forestry, bioenergy and wood industry. Before joining Pöyry, Cormac worked for the Jefferson Smurfit Group in marketing and strategic planning roles. He holds a B.SC. (For) and Ph.D. (Resource Management) from University College Dublin.

# Carlton Owen President & CEO U.S. Endowment for Forestry and Communities



U.S. Endowment for Forestry and Communities is a \$200 million entity with a mission to support sustainable forestry and forest-reliant communities in the U.S. Carlton has for 40 years been at the forefront of conservation innovation. For six years he led his consultancy, The Environmental Edge, LLC; he is a former Executive Director of the Sustainable Forestry Board, Inc. and Vice President – For-

est Policy, Champion International. He has held positions with American Forest Council, American Forest Foundation, Potlatch, and Mississippi Wildlife Federation. Among his achievements is "Acres for America" – a first-of-its-kind program to offset development acre-for-acre with conservation. The program linked the National Fish & Wildlife Foundation, where Carlton served as Vice Chairman of the Board, with Wal-Mart in a nearly \$100 million deal where Wal-Mart made a \$35-million, 10-year commitment that has already conserved nearly 1 million acres in the U.S. A forester and wildlife biologist, Carlton holds a B.S. in forestry and M.S. in wildlife ecology from Mississippi State University.

### Rodney Pennington VP of Key Accounts NESTEC



Rodney is a Registered Professional Engineer with more than 40 years of diverse experience in all phases of research, engineering, design, management, sales and marketing of air pollution control and energy conservation systems. He has more than 20 patents, is a published author and speaker and has served as an Expert Witness in regenerative technology. He holds a bache-

lor's degree in Engineering Science from Penn State University with honors.

### Tyler Player President Player Design, Inc.



Tyler founded PDI after many years working in various engineering and maintenance roles at Huber Engineered Woods. He has received U.S. and Canadian patents for his work in combustion, and holds an Engineering degree from the University of Maine.

# John Robinson Principal Drying Technology, Inc.



John founded Drying Technology, Inc. in 1987, based on derivation of a general, dryer moisture control model that solved the three main problems with currently-used moisture (MC) sensing and control. Two patents were awarded Robinson for this work. He is a graduate of the University of Oklahoma with a B.S. degree in Chemical Engineering. He gained industrial experience

in several process industries and has published and presented numerous technical papers in the field of moisture sensing and control, air pollution control, and biomass energy issues. He resides in Silsbee, Texas where his business is located.

# Bijan Shams President Cogent Industrial Technologies



Bijan is the founder and President of Cogent Industrial Technologies, one of the top system integrators in North America providing electrical, controls and IT system design and integration services to industrial operations and facilities. Bijan has more than 20 years of extensive experience in the execution of technically complex large projects in multiple industry verticals, with a particular

focus on improving plant performance. Bijan has a bachelor's degree in Electrical Engineering and a Master of Science in Instrumentation & Analytical Science from the University of Manchester in England.

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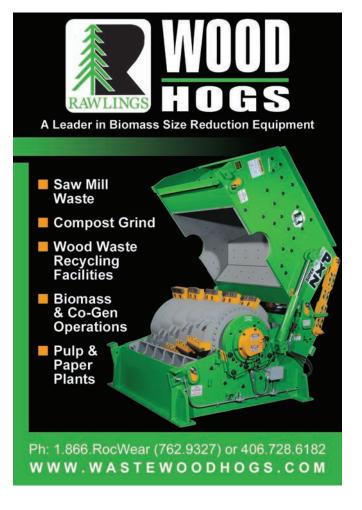
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# Desmond Smith Manager, West Coast Office BRUKS



Desmond holds a doctorate in Forestry from the University of Missouri. His professional career has been spent primarily in the field of machinery design and supply for the many industries that use wood and bark as raw materials. He has worked for several companies that make wood chippers and screens, hogs and grinders, conveyors and truck dumpers, and ship loaders, stackers

and reclaimers. In pursuit of this work Desmond has traveled all over North America and around the world, wherever trees are grown and used.

### Michael Stanton Regional Sales Manager Morbark, Inc.



Mike has been with Morbark for more than 17 years. He is responsible for sales in 17 states throughout the Southeast, Mid-Atlantic, Northeast and Midwest U.S., cementing his expertise in the forestry and wood recycling markets. For nearly 60 years, Morbark has built equipment that creates opportunities in the forestry, recycling, sawmill, bioenergy, and tree care markets.

# Jeff Stephens Senior Project Manager & V.P. Mid-South Engineering



Jeff received an Industrial Engineering degree (B.SIE.) from the University of Arkansas in 1986. He has been employed by Mid-South Engineering Company since his graduation 30 years ago. In addition to his current titles, he is a member of the company's Board of Directors. He is also Registered Professional Engineer with registrations in multiple states. During his career with Mid-

South Engineering Company, he has performed in roles that include equipment design, project planning and development, cost estimating, project scheduling, mass balance spreadsheets, project management, and construction management. As a senior project manager, he has executed greenfield projects and major process improvement projects for the building products industry. Most recently, as senior project manager, he completed a Ceramic Proppants Plant for the Oil and Gas Industry. Jeff has also worked on multiple projects involving biofuels and wood pellet facilities. Jeff has been involved in the additions of the Mid-South Engineering Cary, NC office and the Millinocket, ME office.

# Deck Trevitt Principal Woodland Improvements



Deck, a graduate of Mercer University, started Trevitt Logging in 1978 and later changed the name to Quality Forest Products. He was twice honored as Georgia's Logger of the Year (1986 and 1997) as well as *Timber Harvesting* magazine's Logging Business of the Year in 2001. He served on the Georgia Forestry Assn. and American Pulpwood Assn.'s Board of Directors. He

currently manages Quality Forest Products, a wood dealership, and Woodland Improvements, a logging operation.

# Stephen Tucker Principal Tidewater Land and Timber



Stephen is a 1993 graduate of North Carolina State University with a B.S. in Forest Management. After graduating, he began his career as a contract logging administrator with Weyerhaueser Co.'s Timberlands division. He later became a raw materials procurement representative for the Weyerhaueser pulp mill in Plymouth, NC, which was later purchased by Domtar Corp. In

2004, Stephen partnered with friend and logger, Joedy Cahoon, and formed Tidewater Land & Timber, LLC, a timber procurement dealership that buys, harvests and delivers more than 500,000 tons of forest products annually.

### René van der Merwe Sales Manager North America BRUKS



Before joining BRUKS, René was already well known in logging equipment circles. After earning a theology degree from Helderberg College in her native South Africa, she joined Bell Equipment Co. and moved to the Southern U.S. in the late 1980s to promote and sell Bell's three-wheel feller-buncher. She had tremendous success and the three-wheeler became a regular fixture on many Southern

logging jobs. René later moved to the Northwest and began working with Totem Equipment, which merged into Modern Machinery, for which she sold logging machinery. René's knowledge of forest management and logging prescriptions complement her skills with equipment training and operation.

# Dr. Richard Vlosky Director Louisiana Forest Products Development Center



Rich is the Director of the Louisiana Forest Products Development Center and Crosby Land and Resources Endowed Professor in Forest Sector Business Development at the Louisiana State University Agricultural Center in Baton Rouge. His areas of research and consulting include: biofuels/bioprocessing and bioenergy, domestic and international forest products marketing and

business development, certification and green marketing,

eBusiness and eCommerce. He has authored or co-authored more than 135 publications and four books, and has made more than 350 presentations on a variety of topics in the U.S. and 28 countries. Rich is President-Elect of the Forest Products Society, Board Member of CORRIM (Consortium for Research on Renewable Industrial Materials), Sector Leader-Wood Products for the Louisiana Institute for Biofuels and Bioprocessing (LIBBi), and Louisiana Representative for the Southern Bioenergy Working Group. He received his Ph.D. in Wood Products Marketing at Penn State University, an M.S. in International Forest Products Trade from the University of Washington and a B.S. in Natural Resources and Forest Management from Colorado State University.

at MSU, Brad spent a three month internship at Johnson & Johnson, managing supplier assessments for a subsidiary company of J&J, Nuetrogena. From 2005 to 2007 Brad served as the General Manager of Renegy Holdings LLC, during which he significantly increased the productivity of the company and learned critical trade practices that are invaluable in his current role at Novo Power. Brad received his bachelor's from Brigham Young University in Business Management with an emphasis in Supply Chain Management. He has focused his career on learning world class supply chain practices. He is also a Certified Six Sigma Green Belt.

### Brad Worsley President Novo Power



Brad has served as the acting President of Novo Power since August 1, 2013. Prior to joining Novo Power, he worked as a Commodity Manager at Intel from 2009 to 2013, where he negotiated mutli-year corporate contracts with capital equipment suppliers and assured adherence to said contracts. Brad attended Michigan State University where he was awarded an M.B.A. in

Supply Chain Management in 2009. Brad graduated as one of the top students of his class in performance and GPA. While

### Wes Younger Managing Consultant Trinity Consultants



Wes is Managing Consultant with the Atlanta office of Trinity Consultants, a global environmental consultancy best known for its Clean Air Act expertise. He previously worked in ambient air quality monitoring with Georgia's Environmental Protection Div. and on field research projects with Georgia Tech. In addition to his career in environmental regulatory consulting, he holds a

master's in Public Policy from Georgia Tech, lending him a rare perspective on the interaction between the regulatory world and the political world when it comes to environmental policy.







These hazards in the Wood BioEnergy industry can cause personnel injuries, equipment and plant damage. Friction and heat from **Dryers**, **Hammer Mills**, **Pelletizers**, **Pellet Coolers** or other process equipment **create sparks & embers**. These hazards are then transported along the production line by conveyors and **can start cascading dust explosions and fires**.

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