

SENT TO LSU AGCENTER/LOUISIANA FOREST PRODUCTS DEVELOPMENT CENTER - FOREST SECTOR / FORESTY PRODUCTS INTEREST GROUP



Beacon Of The Biomass World

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BY KATIE SCHROEDER

Industry leaders at the 17th Annual International Biomass Conference and Expo shared highlights from the past year for their respective sectors, discussed policy victories and priorities and cautioned of the potential hurdles ahead. The event was held in Richmond, Virginia, March 4-6. Nearly 950 attendees and 172 exhibitors were registered, hailing from 45 nations, 44 U.S. states and nine Canadian provinces. Attendees included 250 producers alongside policymakers, academics, technology providers, utility providers, equipment manufacturers and project developers. John Nelson, vice president of BBI International, opened the conference's general session by sharing these statistics with the audience and called the conference "a beacon of progress, innovation and collaboration," citing the diverse programming of the conference and the addition of Pitch Day, an opportunity for startups to share their visions with investors. **Note: The 18th annual International Biomass Conference & Expo will be held in Atlanta, March 18-20**

Anna Simet, editor of Biomass Magazine, presented the two awards in recognition of achievements in the biomass industry. Jason Kessler, president and owner of KESCO Inc., received the Excellence in Bioenergy award. "To be recognized by my peers for helping this industry grow is extremely humbling," he said during his acceptance speech.

North America's largest sustainable aviation fuel (SAF) producer, Montana Renewables, was recognized with the Groundbreaker of the Year award. Greg Staiti accepted the award on behalf of the biorefinery, speaking about the company's journey of transforming the plant from a traditional petroleum refinery to a producer of SAF and biodiesel. A subsidiary of Calumet Specialty Products LP, Montana Renewables is an expression of Calumet's efforts to transition part of the company's Great Falls refinery away from petroleum and toward production of renewable fuels. "We [have] a hundred-year-old facility [and this cycle] of investments has positioned it to thrive for the next hundred years," Staiti said.



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Following the awards, representatives from the diverse sectors that make up the biomass industry delivered individual presentations prior to a group Q&A with the audience. The speakers covered topics including the importance of educating voters on biomass use, tax credit advantages and hurdles, and industry growth.

Domestic and Industrial Pellets

Tim Portz, executive director of the Pellet Fuels Institute, provided a snapshot of the domestic U.S. pellet market. A total of 1.79 million tons of pellets were sold in the domestic market in 2023, slightly less than in 2022. Portz explained that this reduced volume—significantly lower than the most recent peak in 2017—is due to the unusually warm winter throughout the U.S. “All across the upper Midwest, including the whole Great Lakes region, up into New York State, it has been the warmest winter ever,” he says. “That doesn’t bode well for wood pellet sales, which is why we saw a relatively soft year.”

Portz emphasized the importance of pellet producers sharing their industry’s value and message with policymakers and expanding their support amongst forestry product interests and environmental organizations. Wood residuals are the “lifeblood” of the wood pellet industry, and their use is key to the industry’s value proposition, he explained. Wood pellet producers paid sawmills and wood processing facilities \$270 million to purchase 7.7 million tons of wood residuals in 2023. “We pay for those materials, because we recognize their inherent value as a Btu,” he said. “We manufacture and engineer heating fuel from those wood residues; we recognize the value in it. We pass some of that value upstream to our partners in sawmills and wood-processing sites.”

Portz also outlined risks the wood pellet industry faces, including shifts in the clean energy landscape. He explained that since 2008 and 2009, words like “renewable” and “combustion” have been replaced with “low carbon” or “zero carbon,” and the priority has shifted to pursuing electrification first. Policymakers are prioritizing a net-zero narrative and want different things than they did several years ago, and pellet producers need to be mindful of this when they present and defend their value proposition to policymakers. “This comes into some of our big objectives in Washington, D.C., making sure that the federal government recognizes that biomass is carbon-neutral,” he said. “We’re taking materials that are biogenic in nature—the carbon’s already there—and we’re just recycling it and capturing the Btus from it; it’s a virtuous zero-carbon [process].”

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Accusations of deforestation and causing land use change are lodged at the pellet industry frequently, Portz explained, and the industry needs to be wary of statements from government bodies such as the White House and the United Nations as well as environmental groups that recommend avoiding the usage of biomass in favor of electrifying everything, even if it means doing it before the grid is green.

From the industrial wood pellet perspective, the challenges the industry faces are similar. Elizabeth Woodworth, interim executive director at the U.S. Industrial Pellet Association, stressed the importance of U.S. forests as the source of its “No. 1 and only raw material” and emphasized the value that forest education and the pellet industry’s role in caring for them brings to combating misinformation. In the



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U.S., 800 million acres of forest are responsible for absorbing 14% of the country's annual greenhouse gas emissions. The majority of U.S. forests—57%—are privately owned, and most of that private ownership consists of property owners with a hundred acres or less. The pellet industry works alongside logging companies, sawmills, pulp processing and other forest product industries to use the entire tree.

“A lot of the misinformation you often see is when people take pictures of log carts going into a pellet mill and saying, ‘You’re cutting down whole forests, and [that’s] deforestation, and why are you using whole trees to burn in boilers?’ I just want to pick that apart because there’s nothing further from the truth, honestly, in terms of what the wood pellet industry is using as raw material,” Woodworth says.

When a tree is cut down, different parts of it go to different industries, she explains. Pellet mills help utilize waste and ensure that the entire tree is used, everything from treetops, limbs, thinnings, wood chips and sawmill residuals. The industry has a particular synergy with sawmills, consistently sourcing some of their feedstock to make wood pellets. The percentage of residuals used in the industry varies depending on the demand for lumber in a given year.

Although the carbon used in wood pellets is renewable, detractors of the industry struggle to understand that cutting down a tree does not necessarily have a negative impact on the environment when done responsibly. Woodworth said that she sees “defossilization” as a better term to use when championing the pellet industry. She explained pellets are made up of carbon, but they are a renewable and biogenic carbon that can help reduce reliance on fossil-based fuels like coal and petroleum.

Biogas/RNG, Biomass-Based Diesel

The biogas sector has seen significant progress in the past few years, explained Patrick Serfass, executive director of the American Biogas Council. The renewable natural gas (RNG) sector has grown substantially, with a hundred new plants coming online, making 2023 the third year of record growth for the industry. Serfass explained that the 2,251 systems that make up the U.S. biogas fleet are dominated by electricity-generating systems at a total of 1,901, but the fastest-growing sector is the RNG sector, currently at a total of 350. “The RNG projects have been growing much, much faster than the electricity projects to the point now where the number of projects coming online as RNG projects are an order of magnitude greater than those coming online as electricity projects,” he said.

Policy developments have played a significant role in the industry’s growth, as well as new low carbon fuel standards across the nation and the Inflation Reduction Act, which has encouraged biofuel producers to decarbonize their processes. “We are finding lots of new fuels for the biogas industry,” Serfass said, “[Fuels] like ethanol, hydrogen, even gasoline and SAF, and others are using biogas now to decarbonize their fuels.”

▪ RNG was not alone in its significant build-out and growth across the United States. The biomass-based diesel industry is having “a moment,” explained Paul Winters, director of public affairs and federal communications with Clean Fuels Alliance America. The volume of renewable diesel, biodiesel and SAF produced in the U.S. grew by a billion gallons in 2023. This growth was called impossible by the U.S. EPA, along with other naysayers from the world of economics. “There was a number of economists with



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international banking groups, the University of Illinois in particular, who are continuing to tell us that we're going to go bankrupt because we're feeding more biomass-based diesel into the market than it can handle, according to their economic models," Winters said. "Nonetheless, we're still having our moment, and we anticipate that production will increase by another billion gallons in 2024." The industry was able to grow significantly because consumption of diesel increased by 1.3 billion gallons in 2023. Although economists have expressed skepticism about the sustainability of this growth, Winters explained that feedstock diversity, usage of oilseed crops such as camelina and increased supply chain efficiency allow growth to continue.

The primary feedstocks for renewable diesel and biodiesel are include agricultural oilseed crops such as soybeans, camelina, canola and others. Farmers are responding to the demand, with the soybean industry investing \$6 billion into soybean processing. The industry's secondary feedstock source is used cooking oil and other waste greases. Recycled greases are a growing feedstock, which was unexpected, Winters explained. The market's use of greases does not directly respond to demand; however, the collection of these greases for recycling and the global supply chains for them do respond. "On the policy front, we've kind of faced mixed results—the EPA didn't just tell us that growth was impossible; they actually wrote that into the Renewable Fuels Standard. I think the actual regulatory language was just 'pfft,'" he said. "The low volumes they set really pushed RIN prices off a cliff, and that's impacting a number of small producers."

From Biomass Power to Energy

Carrie Annand, executive director of the American Biomass Energy Association, announced the organization's change from the Biomass Power Association. Annand discussed the process that ABEA went through in changing its name and the organization's focus group findings about voters' education—and the lack thereof—on bioenergy. The ABEA engaged a PR firm to assemble focus groups of standard voters and climate-concerned voters, she explained. The firm's findings were that most voters did not know what biomass power was or had very little knowledge about it, which presents an excellent opportunity for education. She explained that when biomass is introduced with "the five Rs"—recover, recycle, repurpose, renewable and reliable—voters had a positive response.

One of the focuses of ABEA's policy agenda is advocating for eRINs, or electric renewable identification numbers, Annand explained. "One thing EPA's proposal did was [to stipulate] that car companies will be the ones—call them OEMs, original equipment manufacturers—those entities will be the generators of the RINs, which was maybe a little frustrating to hear that it wouldn't be the renewable fuel producers like how the program works for the ethanol industry," she said.

Additional topics discussed during the general session included a focus on education and thoughtful communication with the general public, the importance of firmly combating misinformation with facts, the exciting expansion of the RNG and biomass-based diesel industries, and the impact of advocating for the biomass industry's many sectors with policymakers.



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The conference continued with innovation stage presentations and live podcasts on the trade show floor as well as two days of breakout panels with categories including biomass power and thermal, pellets and densified biomass, biogas and RNG, and advanced biofuels and chemicals.

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