Vol. 26 • Issue 6

June 2023

$10.00

American Recycler

NewsVoice of Salvage, Waste and Recycling

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Alternative fuel vehicles growing in waste and recycling industries

by MAURA KELLER
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At the 2023 WasteExpo in May, electric vehicle recycling and waste management trucks took center stage as more and more recycling companies, including construction and demolition (C&D) debris recycling haulers, are turning their attention to alternative fuel vehicles as part of their zero emission goals.

Graham Rihn, founder and chief executive officer at RoadRunner Recycling, said that within the construction and demolition segment of the recycling industry, as well as other areas of the industry, more and more entities are exploring alternative fuel options and vehicles for fleets.

"While it varies from company to company, the exploration of alternative fuel options in the waste and recycling industry is happening – particularly as the Environmental Protection Agency (EPA) proposes some ambitious regulations for cutting pollution from vehicles," Rihn said. "Some industry players have already implemented compressed natural gas (CNG) or hybrid vehicles into their fleets." Not surprising, the current marketplace for CNG is driven by concerns about the cost, availability, and environmental impact of gasoline and diesel, the traditional fuels of transportation.

Others are still in the planning stages, or may be too small an operation to benefit from any changes at this time. As for fully electric vehicles, Rihn said that recycling companies are still in the very early stages of adoption as an industry, but some have plans to actively test fully electric trucks this year.

In March, Greensboro, North Carolina-based Mack Trucks announced its new Mack MD Electric, a medium-duty EV truck. Prior to the Mack MD Electric, the company had introduced the heavy-duty Mack LR Electric refuse vehicle in 2020. Mack joins other manufacturers who are rolling out electric recycling and waste management trucks as the technology continues to improve to meet the needs of C&D recycling companies, whose typical routes may average 100 miles per day. These fully electric waste and recycling vehicles are available in rear and automated side loaders and they are grabbing the attention of C&D waste haulers of all sizes.

According to a Waste Management (WM) spokesperson, WM operates the largest fleet of Class 8 heavy-duty natural gas vehicles (NGVs) in North America.

"We have been committed to alternative fuel options for more than 20 years, including renewable natural gas (RNG), electric vehicles and other technologies as we work to reduce our overall emissions and help achieve our sustainability goals."

WM is planning to invest more than $1.2 billion from 2022-2025 to grow its renewable energy business. This planned investment is expected to support its objective to maximize allocation of RNG to the company's CNG-powered fleet, aiming for 100 percent allocation by 2026.

Natural gas powered vehicles at a fueling station. Waste Management

"We have an ambitious goal of reducing our overall Scope 1 and Scope 2 GHG emissions by 42 percent by 2032, in alignment with the Paris Agreement to limit global warming to 1.5 C," a WM spokesperson said. "More than 70 percent of WM's routed fleet currently operate on compressed natural gas or renewable natural gas (RNG). Today, about 53 percent of the fuel that we allocate to our natural gas fleet is renewable, produced from biogas from both landfills and dairy farms."

Evaluating the Options

Compressed natural gas produces fewer emissions than diesel or gasoline, which is a step in the right direction. In fact, natural gas produces fewer greenhouse gases than any other form of transportation fuel. Also, more stringent government regulations worldwide and an increase in consumer concern with emissions make CNG a very attractive alternative to gas and diesel within the C&D recycling industry. Additionally, CNG is typically a lower fuel cost than diesel, which will positively impact the bottom line of many C&D recycling companies.

"In the recycling industry, CNG trucks are often referred to as a 'bridge technology,' meaning they will help us in the transition to more sustainable options," Rihn said.

Hybrid vehicles used for C&D recycling further reduce their carbon footprint by leveraging the efficiency of electricity but still maintain the mileage range that gasoline or diesel engines offer.

As Rihn explained, right now electric vehicles are mostly capable in shorter-range applications and are still being tested across the industry.

"As technology advances to accommodate longer-ranges and lower-cost models, there should be a higher adoption rate. Ultimately, all electric will provide great advantages including zero emissions, lower operating costs, longer truck life, and even quieter trucks on the road," Rihn said.

At RoadRunner in particular, they don't own trucks, rather they work with trusted hauling partners.

"Our partners currently vary in where they are in their sustainable trucking lifecycles, however, alternative fuel vehicles have been an ongoing topic across the industry," Rihn said.

Exploring New Transportation Avenues

So what are the biggest challenges surrounding these alternative fuel options and vehicles for recycling companies?

Quite simply, the upfront cost of acquiring an alternative fuel recycling truck is one of the biggest challenges. As Rihn pointed out, not only are alternative fuel trucks expensive, there is limited availability for fueling or charging infrastructure. This means that CNG and electric vehicles may require installation of new fueling stations or charging infrastructure, which only adds to the total monetary investment needed to adopt solutions like these.

"The recycling and waste industry is well-suited for this kind of transition. Trucks typically operate consistent routes and return to a base to refuel, most times," Rihn said. "Yes, the industry will need to adapt, however, the rate of progression to more sustainable options will be dictated by government regulations, technological and infrastructure advancements, and fleet degradation."

As technology evolves, the WM team expects electric vehicles to be more compatible with its operations, but right now, electric Class 8 heavy-duty vehicles present challenges regarding weight, cost, range and energy capabilities. WM is examining where current EV capabilities align with its operation as the company continues to seek alternative fuel options and route optimization for waste collection.

See ALTERNATIVE FUEL VEHICLES, Page A4

Casella Waste Systems reports increased revenue

Casella Waste Systems, Inc., a regional solid waste, recycling and resource management services company, reported its financial results for the three month period ended March 31, 2023.

Highlights for the three months ended March 31, 2023:

Revenues were $262.6 million for the quarter, up $28.6 million, or up 12.2 percent, from the same period in 2022.

Overall solid waste pricing for the quarter was up 8.8 percent from the same period in 2022, driven by 8.9 percent higher collection pricing and 9.3 percent higher disposal pricing.

Net income was $3.5 million for the quarter, down $(0.7) million, or down (15.3) percent, from the same period in 2022.

Adjusted EBITDA, a non-GAAP measure, was $50.7 million for the quarter, up $5.1 million, or up 11.2 percent from the same period in 2022.

The company completed the acquisition of a solid waste collection and transfer station company with approximately $12 million of annualized revenues on April 3, 2023.

The company signed an equity purchase agreement on April 21, 2023 to acquire select operations from GFL Environmental Inc.

"I am very pleased with the strong start to the year led by the performance of our solid waste operations, where our operating initiatives and pricing programs helped to expand Adjusted EBITDA margins by over 220 basis points year-over-year for this line-of-business," said John W. Casella, chairman and chief executive officer of Casella Waste Systems, Inc. "The level of execution in the first quarter reflects the continued focus and agility of our team to outpace cost inflation. Further, we have not experienced meaningful indications of an economic slowdown in our business as solid waste volumes were positive in the quarter and other key operating metrics are stable."

"While recycling commodity prices have improved sequentially from late 2022 through the first quarter, prices were still down significantly year-over-year in the first quarter and presented an expected headwind to our consolidated performance. Despite this year-over-year decline in commodity prices, our risk mitigation strategies, such as our floating Sustainability Recycling Adjustment (SRA) fee, have helped to limit the negative financial impact. However, we are experiencing recycling commodity price headwinds related to several existing contracts from recent acquisitions that will reset over the next few years. We continue to invest in key recycling infrastructure to help meet the sustainability needs of our customers, including the full retrofit and technology upgrade to our Boston material recovery facility, which will be completed by mid-2023," Casella said.

For the quarter, revenues were $262.6 million, up $28.6 million, or up 12.2 percent, from the same period in 2022, with revenue growth mainly driven by: positive collection and disposal pricing; higher SRA and solid waste fuel cost recovery fees; the roll-over impact from acquisitions closed in the fiscal year ended December 31, 2022; higher pricing, recycling processing fees and volume within our Resource Solutions operating segment; and higher solid waste volumes; partially offset by lower recycling commodity prices.

Net income was $3.5 million for the quarter, or $0.07 per diluted common share, down $(0.7) million, or down (15.3) percent, as compared to net income of $4.2 million, or $0.08 per diluted common share, for the same period in 2022. Adjusted Net Income, a non-GAAP measure, was $5.3 million for the quarter, or $0.10 Adjusted Diluted Earnings Per Common Share, a non-GAAP measure, down $(0.5) million, or down (8.6) percent, as compared to Adjusted Net Income of $5.8 million, or $0.11 Adjusted Diluted Earnings Per Common Share, for the same period in 2022.

Operating income was $10.3 million for the quarter, up $0.1 million, or up 1.0 percent, from the same period in 2022. Adjusted EBITDA was $50.7 million for the quarter, up $5.1 million, or up 11.2 percent, from the same period in 2022.

Maine passes emergency bill to rescue local redemption centers

An emergency bill that would provide immediate financial relief to struggling redemption centers has been approved by the Maine Legislature and is heading to Governor Mills' desk.

Redemption center owners and environmental groups were urging lawmakers to quickly pass LD 134 with the two-thirds vote necessary for it to be implemented right away. They will now shift their attention to supporting a companion bill sponsored by Representative Allison Hepler aimed at modernizing the Bottle Bill.

Maine's Bottle Bill began in 1978 and has become the state's most effective recycling and litter prevention program. The money redeemed at centers is often used to support local charities.

In a public hearing on LD 134, redemption center owners made clear action is sorely needed. The bill received unanimous bipartisan approval from the Environment & Natural Resources Committee last month.

"The distributors, they raised their prices because of food, fuel everything went up. We can't, and you're the ones who can help us," said Don Cook who was forced to close his South Portland redemption center last summer.

"I've been in business 42 years, and this is the first year that I've had to borrow money to keep my doors open," said Melodie Zale, who owns a redemption center in Wilton.

LD 134 would increase the handling fee paid to local redemption centers, which are the linchpin of the state's enormously successful and popular Bottle Bill. The fee, which is paid to centers by beverage companies, hasn't been increased since 2019.

"The reason we need a handling fee increase is in order to support redemption

See EMERGENCY BILL, Page A6

Alternative fuel vehicles

■Continued from Page 1

"We are also currently integrating EV pickup trucks for on-site use, which helps to minimize emissions in our day-to-day operations," the WM spokesperson said. "WM was at the forefront of the shift to CNG and RNG-powered vehicles in our industry, and we began adopting the technology about 20 years ago, gradually expanding the fuel use across our operations as cost and technology evolved. We believe that the adoption of EV will be similar as technology and capabilities improve."

As Rihn further explained, the government has made it clear that reducing carbon emissions and our country's carbon footprint is top priority through the proposed Inflation Reduction Act and more.

"As regulations are put in place and become increasingly strict, this will be a forcing function. As technology advances, lower-cost and longer-range models will become available. Alongside this, there will be more widespread and better infrastructure opportunities, which will increase an industry's willingness to invest," Rihn said. "Lastly, the industry has already invested millions of dollars in truck fleets. As these trucks near their end of life, waste and recycling companies will be more likely to strategically invest in new hybrid or electric trucks that can support increased efficiency, cost savings, and a reduced environmental impact."

Chris Yuan, Ph.D., Leonard Case Jr. Professor of Engineering at Case Western Reserve University said that it will take some years or decades to gradually switch, but the government could play a role in expediting the switch.

"It depends on the cost and benefits," Yuan said. "When the cost of ownership of these alternative fuel vehicles can be made much lower than that of conventional vehicles, we will see a rapid increase of their adoptions in industry. I believe it will continue to evolve in the following years or decades."

ISRI2023: Breaking records and driving recycling innovation

Fifth graders Bailey Maltese, Yaesung Kim, and Ashvin Saini from Fairfax, Virginia accept their Youth Recycling Video Contest award from ISRI's Peter Van Houten.

Shattering all prior records, more than 6,600 attendees participated in the ISRI2023 Convention and Exposition in Nashville. From April 17 through April 20, ISRI gathered in Music City Center to recognize national award recipients, learn about developments in the recycled materials industry, and participate in networking opportunities. The ISRI2023 attendee total represented the event's largest paid registration in nine years.

"We broke all the records as ISRI2023 saw over 6,600 attendees from 58 countries and all 50 states, plus D.C. and Puerto Rico," said Robin Wiener, ISRI president. "It was an amazing event! We hosted industry leaders from around the world, recognized members for their lifetime achievement, as well as our Young Executive of the Year and ISRI and JASON Learning's Youth Recycling Poster and Video Contest. Attendees were treated to exemplary networking and educational opportunities from leading speakers. ISRI2023 also showcased the largest recycled materials exhibit hall ever, allowing attendees to see the latest in technology and innovation."

Wiener was honored for her 25th year as ISRI president and 35th year at ISRI.

Public-private partnership improves recycling collection

The City of Kansas City, Missouri began delivery of 162,000 recycling carts that sets the wheels in motion to transition the city to cart-based recycling collection. This provides increased capacity for more recyclable materials, rolling carts for easy maneuvering, and a streamlined collections process. The project, which advances safer, more efficient, and equitable recycling access for Kansas City's half a million residents is the culmination of nearly five years of planning and one of the nation's largest public-private collaborations to advance a community's recycling program.

The city's current opt-in recycling system requires residents to purchase or use their own recycling bins, which can be no larger than 32 gallons. With the transition to 65 gallon carts, every household with curbside solid waste service will receive a cart, be able to participate in recycling and fully utilize all 65 gallons for recyclable materials. Additionally, the carts have wheels making them easy to maneuver and are lidded to keep recyclables loose and dry.

"We heard Kansas Citians' requests loud and clear and Kansas City government is proud to deliver new lidded recycling carts, ensuring we can become a cleaner and more environmentally conscious community, while diverting thousands of pounds of waste away from landfills," said Kansas City Mayor Quinton Lucas. "These improved recycling carts are yet another step toward achieving a clean and green city and reaching our goal of climate neutrality citywide by 2040."

The 65 gallon recycling carts are the result of a $1.5 million public-private collaborative project between the city, The Recycling Partnership, the American Beverage Association, and Dow. Dow donated 1.2 million pounds of the plastic resin to produce the recycling carts, The Recycling Partnership provided program technical support, and funding support was made possible in part by American Beverage's Every Bottle Back initiative and the Missouri Beverage Association.

With any recycling system change, education is a critical component to ensuring residents know what should be recycled, and how to best utilize the space and capacity of carts to recycle more material. As part of the recycling cart roll-out, a recycling education campaign will be launched for residents throughout Kansas City, Missouri. Many residents have already received a postcard announcing their cart will be delivered and cart distribution will continue throughout the summer. Further information will be delivered with the recycling cart itself to inform residents about how to use their cart, as well as what can and cannot be recycled.

Kansas City anticipates the delivery of 162,000 carts by August 2023.

American Recycler
NewsVoice of Salvage, Waste and Recycling
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American Recycler is published 12 times per year, postage paid at Columbia, Missouri.

SUBSCRIPTIONS: Call our offices at 877-777-0043 or visit AmericanRecycler.com.
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Emergency bill

■ Continued from Page A3

centers statewide. Many have closed over the last year or two by virtue of the fact that costs are spiraling," said Peter Welch, who owns a redemption center in Portland.

Under the proposal, the handling fee would be set to match inflation and increased from 4.5 cents to 5.5 cents per container starting on May 1, then 6 cents on September 1.

"Local redemption centers across the state have been losing money, forced to close or work on the margins due to inflation and labor shortages, leaving many Mainers without places to redeem their bottles and cans," said Sarah Nichols, Sustainable Maine director at the Natural Resources Council of Maine. "These hard-working local businesses can barely afford to operate and pay their employees because the handling fee has remained stagnant while big beverage companies continue to reap profits."

Representative Hepler's bill to modernize the Bottle Bill focuses on streamlining the program for redemption centers by eliminating tedious sorting requirements, reclaiming unclaimed deposits to fund improvements, and encourages waste reduction through reusable containers and increasing the recycling rate. The bill has not received a formal LD number yet, so a public hearing has not been scheduled.

The Bottle Bill is responsible for recycling more than 40,000 tons of material each year, including all glass containers and more than 60 percent of all plastics.

More than 1.17 billion beverage containers were sold in Maine in 2021.

AF&PA releases paper reports

The American Forest & Paper Association released its first quarter 2023 (Q1) U.S. paper reports.

Boxboard

Total Boxboard production in Q1 decreased 5 percent compared to Q1 2022. The boxboard operating rate was 87.8 percent, down 6.1 points from Q1.

- Solid Bl. Folding – Domestic production decreased eight percent compared to Q1 2022.
- Recycled Boxboard – Coated production increased three percent compared to Q1 2022.

Containerboard

According to the report, total Containerboard production in the first quarter of 2023 decreased 10 percent when compared to Q1 2022.

- All containerboard grades experienced operating rate increases relative to Q4 2022.
- Liner grades had a combined quarterly operating rate of 83.5 percent, up from 78.7 percent, while Medium grades were at 90.9 percent, up from 86.1 percent.
- Export production in Q1 was 22.9 percent higher than the previous quarter, but trailed Q1 2022 production by 23.5 percent.
- Mill inventories dropped below 400,000 short tons for the first time since September 2021.

WASTE

Oshkosh fully integrated electric refuse collection vehicle debuted at Waste Expo

McNeilus Truck and Manufacturing Inc., together with parent company Oshkosh Corporation, provided visitors to Waste Expo 2023 a live look at North America's first fully integrated, zero emission electric refuse collection vehicle (eRCV).

This vehicle is built from the ground up by Oshkosh Corporation, developed with technologies and design features that are protected by more than 50 patents and patent applications. These eRCV innovations are the latest in a rapidly-growing family of electric refuse technologies, which are collectively protected by more than 100 patents and patent applications.

"Bringing together Oshkosh's experience in severe duty vehicle innovation and McNeilus expertise in refuse collection vehicle bodies, this new product platform will provide the best driver, technician and owner experience," said Lee Dreas, vice president and general manager at McNeilus Truck and Manufacturing. "Every aspect is unified, creating a vehicle that sets new standards of excellence."

Features and components of the Oshkosh fully integrated zero emission electric refuse collection vehicle deliver numerous benefits across multiple categories.

Driver-first design

The ergonomically designed pass-through cab incorporates a series of features and components to optimize comfort and safety including a Direct Vision Standard 5-star rating for visibility, as well as a 360 degree camera and radar system to provide enhanced visibility. Easy, consistent operation is delivered in part through Oshkosh's Advanced Driver Assistance Systems (ADAS), which are offered as standard equipment and provide complete vehicle coverage. Other features include a 15 inch step height for ease of getting in and out of the cab, a tilt and telescoping steering wheel with integrated controls, an aligned driver workspace, heated and ventilated seats, integrated operator controls in the seat, automated full-length sun shade, a 15 inch touchscreen and 12 inch cluster displays for streamlined controls, enhanced storage areas, plus 38 percent more space in the cab compared to the industry average, and vibration limits below the ISO standard.

North America's first fully integrated, zero-emission electric refuse collection vehicle. Oshkosh Corporation

Total cost of ownership

Simplified maintenance and parts inventory, operational efficiency, strong productivity, and extended service life all help contribute to improving total cost of ownership by up to an estimated 14 percent. Other key contributing factors include connected, intelligent telematics providing condition-based and predictive maintenance, tire pressure monitoring system, regenerative braking, battery preconditioning and more.

Performance and productivity

The design of the compaction unit is based on the proven performance and design of the McNeilus® Zero Radius™ Automated Side Loader. The vehicle's zero radius lift arm – available in 6 foot or 12 foot reach, combined with a tight vehicle turning radius of up to 67 feet (depending on configuration) allow drivers to collect refuse without leaving the cab and to maneuver around cul-de-sacs and tight corners with ease. Additionally, integrated telematics systems provide data on fleet performance, route management, battery management system status and more for optimal operation.

The Oshkosh fully integrated electric refuse collection vehicle will be produced in a new facility in Murfreesboro, Tennessee, with the compaction assemblies manufactured at the McNeilus facility in Minnesota.

New cell opens at South Kent Landfill

The Kent County Department of Public Works (DPW) has begun construction of the final landfill cell, Cell 56, at the South Kent Landfill in Kent County, Michigan. Cell 56 will occupy last 6.1 acres of the 105.43 acres permitted for the primary municipal solid waste landfill.

A landfill cell is a single waste-holding unit within the larger landfill property. These cells are generally shaped as basins during excavation, with berms running along the sides and a liner system to contain leachate and other liquids.

The Kent County Board of Public Works voted in January to move forward with landfill cell construction.

"We are working hard to achieve our goals to divert landfill waste and create a community where we all reduce, reuse, repair, repurpose and recycle in order to protect our environment," said Dar Baas, director of the Kent County DPW. "Breaking ground on the final piece of the South Kent Landfill is likely the last time the Board of Public Works will need to make the decision to construct more landfill, which is exciting."

South Kent Landfill is the last active landfill in Kent County, and this cell could represent the last landfill cell built in the county if other waste diversion strategies and projects are implemented with the community. Kent County DPW currently oversees three closed landfills in Sparta, Kentwood and North Kent through monitoring and post-closure management in accordance with the Michigan Department of Environmental Quality and/or the United States Environmental Protection Agency.

The first phase of South Kent Landfill opened in October 1982. The current phase began in 1987, and nearly 8 million tons of waste has been deposited at this location since then. Last year, the landfill received over 306,000 tons of waste in addition to ash from the Waste-to-Energy facility. With this new cell, the landfill is expected to reach capacity in 2029.

The DPW has set a bold goal to divert 90 percent of Kent County-generated trash that goes into landfills by 2030. Building a sustainable business park on acres previously acquired for landfill is an essential part of reaching that goal. If constructed, the Kent County Bioenergy Facility, a public private partnership between Kent County DPW and Anaergia, will be able to process a minimum of 400,000 tons of municipal solid waste annually to produce renewable natural gas and a fertilizer product, as well as reclaim recyclable material from trash. In June, the Kent County Board of Public Works will review the final project development agreement for the Kent County Bioenergy Facility, the proposed anchor tenant at the Sustainable Business Park.

WASTE

Local organizations receive Community Waste Reduction Grant funding from SWACO

Solid Waste Authority of Central Ohio (SWACO) is awarding more than $168,000 to 10 central Ohio organizations as part of the 2023 Community Waste Reduction Grant. The grant program is designed to provide funding to assist with projects that address the unique waste reduction, recycling, and composting needs in central Ohio, and ultimately support SWACO's mission of reducing reliance on the Franklin County Sanitary Landfill.

The list of 2023 grant recipients and their projects include:

- City of Columbus ($35,000) – Three new residential drop-off sites for food scrap composting.
- Goodwill Industries of Central Ohio Inc. ($35,000) – To help with the Goodwill repair, rebuild, reuse project for furniture and pallets.
- Rescuing Leftover Cuisine ($29,400) – To provide for the expansion of their food waste donation.
- Columbus College of Art and Design ($20,200) – To hire a consultant to perform a campus sustainability audit, community engagement and waste reduction activities.
- Impact Community Action ($14,300) – Make improvements to public-facing recycling containers and composting for their community garden.
- Worthington Partnership ($13,176) – To expand and improve existing recycling in Downtown Worthington.
- MY Project USA ($6,755) – To create a recycling program for the non-profit and its youth center.
- City of Bexley ($6,625) – For the purchase of mobile niche recycling collection receptacles.
- New Albany Intermediate School ($5,698) – For the implementation of a cafeteria food waste composting program at school.
- Global Water Dances Columbus ($1,964 – To help increase recycling awareness and waste reduction through outreach and education during events.

"The grants program is an invaluable opportunity for SWACO to support our local organizations and communities to address their waste reduction goals and to bring them to life," said SWACO's executive director Joe Lombardi. "We're thrilled to be able to help offset the costs for these ten incredible community partners doing meaningful work to reduce waste."

"Together, the 2022 efforts resulted in more than 70 tons of food waste composted, nearly 17 tons of single-stream recycled materials diverted from the Franklin County Sanitary Landfill, and more than 327,000 single-use plastic bottles saved, marking significant impacts in central Ohio," said Kristi Higginbotham, SWACO administrator of grants.

SWACO is accepting applications for the 2024 Community Waste Reduction Grant program. Eligible applicants must be local governmental or non-profit organizations including cities, townships, villages, parks, K-12 schools, colleges, universities, hospitals, and churches. The application deadline is August 4, 2023 for initiatives planned for 2024.

$24 million in grants for litter removal programs

Municipal and county governments are receiving more than $24 million in annual Clean Communities grants to fund litter removal programs that spruce up communities, improve water quality, reduce localized flooding and protect natural habitats, New Jersey Commissioner Shawn M. LaTourette announced.

The grant awards were announced in conjunction with an open house event hosted by New Jersey Clean Communities Council at Kean University. This year's funding represents a nearly $2.7 million increase from last year. In total, the Department of Environmental Protection (DEP) is awarding $21.4 million to eligible municipalities and $2.7 million to counties across the state to conduct cleanups, educate the public and enforce litter-related laws and ordinances. Funding for the grant program is generated from taxes paid by businesses that produce litter-generating products as well as penalties collected for litter-related violations.

The New Jersey Clean Communities Council, a nonprofit organization partnered with the DEP, oversees the reporting requirements for the program. Grant awards are based on population, housing units and miles of municipally owned roadways, as prescribed by state law.

The Clean Communities Council operates public awareness campaigns to educate the public, primarily youth, about the adverse environmental impacts of litter, especially on waterways. The organization also helped facilitate the transition away from single-use plastic and paper bags with its Litter Free NJ campaign, utilizing public service announcements to remind residents to use their own reusable bags when shopping, and to recycle plastic bags. These efforts have helped reduce the amount of plastic pollution in the state.

The Clean Communities grant program funds a variety of activities including volunteer cleanups of public spaces; cleanups of stormwater systems that can disperse trash into waterways; educational outreach campaigns; enforcement of local anti-littering ordinances; graffiti removal; and purchases of trash receptacles, recycling bins and anti-litter signs.

E-WASTE

WEEE Forum works to improve e-waste management

WEEE (Waste Electrical and Electronic Equipment) Forum, the international association of Producer Responsibility OrganiZations (PROs), which recently celebrated its 20th anniversary continues to expand its membership across the world and announced reaching the landmark of 50 members spread over 33 countries on 6 continents. In its mission to facilitate taking on the worldwide societal challenge of electronic waste through projects, alliances and exchange of best practices among organizations across the WEEE value chain, this significant step illustrates the global influence of the know-how the WEEE Forum embodies.

E-waste is the fastest growing waste stream in the world, expected to exceed 74 million tonnes (Mt) globally in 2030, according to the UN. An increasing number of countries are adopting or implementing e-waste specific legislation based on the extended producer responsibility (EPR) principle. This results in a growing number of EPR schemes and expands the WEEE Forum's knowledge base with new PROs joining from all around the globe and bringing their local experience.

Pascal Leroy, director general of the WEEE Forum, said, "We are very pleased to see PROs from more and more countries tapping into the knowledge and know-how of their peers. Europe leads the way in e-waste collection with 54 percent of it being formally reported as properly recycled, but we also see many innovative approaches in emerging economies and are proud to serve as a platform to exchange best practice with new members to ensure the e-waste issue is tackled properly across the world".

Joining the conversation this year are four not-for-profit producer responsibility organizations from Canada, South Africa and Slovakia.

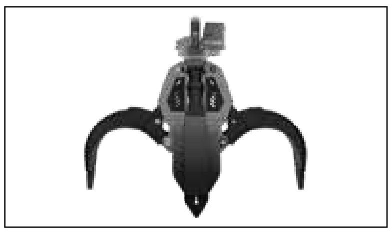
Canadian Electrical Stewardship Association (CESA) leads the industry members whose products are stipulated in the regulations. By operating as a single organization, CESA allows for an efficient approach to recycling, keeping fees low and making it easier for consumers to return their electricals for recycling.

Circular Energy is based in South Africa and the objective of Circular Energy to assist its members of the scheme, in their capacity as producers, to meet their obligations under the EPR Regulations, by operating a compliance scheme for the storage, collection, treatment and recovery of WEEE, batteries and packaging, and reporting as part of the regulatory requirements.

GoRecycle represents over 170 members, mainly retailers, distributors and manufacturers affected by the EPR regulation in the region of Québec, Canada.

Envidom is an association founded by large producers of white goods and represents over 290 producers/importers of electrical and electronic equipment in Slovakia with the aim fulfilling responsibilities for their e-waste.

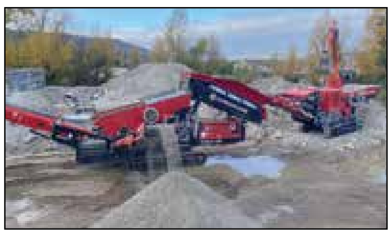
NEW PRODUCT SHOWCASE



BATEMAN UNVEILS NEW GRAPPLE

Bateman Manufacturing unveiled its newest 160 series, four-tine scrap grapple. Also new to their lineup is the 160 series mag-grab scrap grapple, which comes equipped with a wrap-around rod cylinder guard and a more robust body and improved rotator guarding for greater impact protection. They include a larger pin diameter and improved bushing design with seals for longer life and optimized work time. With its improved tine design, it's optimal for scrap penetration and material collection.

Bateman Manufacturing
5 Winstar Rd
Oro-Medonte, ON L0L 2L0
Canada
705-487-5020
batemanmanufacturing.com

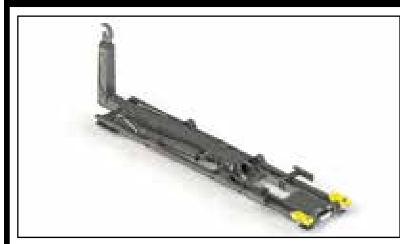


SCREENCORE INTRODUCES XL TRIDENT

From its base in Coalisland, Northern Ireland, Screencore introduced a 237 trommel and a 30 ton Trident 165 scalper. They feature hassle free transport, swift set-up time, intuitive control systems, and distinctive design elements such as full sized bottom decks on scalpers or augers within the trommel hoppers.

The Screencore range consists of a selection of tracked and highly mobile scalping screens, trommels and compact, yet productive jaw crushers.

Screencore
2 Washing Bay Rd
Coalisland, Dungannon, Ireland
+44 28 8710 3005
screencore.ie



STELLAR INTRODUCES NEW NXT52 HOOK LIFT

Stellar introduced the NXT52 Hooklift. This strong 52,000 lb capacity hoist is the latest telescopic hooklift in the NXT series from Stellar. It features a Z-channel base design and industry-leading universal body latching system, a 54/61.75 inch hook height and rectangular style secondary jib. Stellar offers the industry-leading low profile, with an approximate 10.5 inch lost load height, providing a lower vertical center of gravity and the ability to accommodate down to 6 inch subframe heights.

Stellar Industries, Inc.
190 State Street
Garner, IA 50438
800-321-3741
stellarindustries.com

YANMAR'S NEW COMPACT TRACK LOADER

Yanmar Compact Equipment introduced the TL100VS compact track loader, offering intuitive features for enhanced efficiency and easy training for new operators. Equipped with a 103.5 horsepower Tier 4 Final Yanmar diesel engine and standard 40 gpm high flow to optimize performance capacity. Paired with a 3,600lb standard operating capacity and 10,286lb tipping load. Travel speeds up to 8 mph round out the features while 4.5 psi ground pressure allows smooth performance on unstable surfaces.

Yanmar America Corporation
101 International Parkway
Adairsville, GA 30103
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yanmar.com

SHOWCASE YOUR COMPANY'S NEW PRODUCTS

Providing news about equipment to our readers is one of the most valuable services American Recycler provides. Our New Product Showcase (above) displays Featured Products with full color exposure to highlight the introduction of your company's new, innovative products to the recycling industry marketplace. Submit an 80 word or less description of your new product, a photo and contact information to establish your brand identity and further your long-term marketing efforts.

American Recycler
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877-777-0043
news@americanrecycler.com

PLASTICS

Mastercard to remove first-use plastics from payment cards

Mastercard is accelerating efforts to remove first–use, PVC plastics from payment cards on its network by 2028. This move further reinforces the company's sustainability commitments and scales the accessibility of more sustainable card offerings for consumers seeking a way to reduce the environmental impact of their wallet.

From January 1, 2028, all newly–produced Mastercard plastic payment cards will be made from more sustainable materials – including recycled or bio-sourced plastics such as rPVC, rPET, or PLA1 - and approved through a certification program, in a first move for a payment network. The company will support its global issuing partners through the transition away from virgin PVC.

Mastercard launched its Sustainable Card Program in 2018. Since then, over 330 issuers across 80 countries have signed up, working in partnership with major card manufacturers to transition more than 168 million cards across its network to recycled and bio-based materials.

The rule change will see all newly made cards certified by Mastercard to assess their composition and sustainability claims; this certification will then be validated by an independent third-party auditor. Once a card has been validated it can be imprinted with a Card Eco Certification mark.

"At Mastercard we are leading and shaping our industry's collective pursuit of a more sustainable, more environmentally conscious future," said Ajay Bhalla, president of Cyber & Intelligence at Mastercard. "As our customers respond to increased consumer desire to make more eco-friendly choices, we are making a firm commitment to reducing our environmental footprint – for the benefit of people, planet and inclusive growth."

Ocean Plastic Depot opens in Canada in partnership with Ocean Legacy Foundation

Ocean Legacy Foundation, a Canadian non-profit organization that develops and implements worldwide plastic pollution response programs with the goal to end ocean plastic pollution, announced that in partnership with the Sunshine Coast Regional District (SCRD), they opened a new Ocean Plastic Depot on April 28, 2023, at the Sechelt Landfill. This ocean plastic diversion program is made possible through funding from the Ghost Gear Fund and Department of Fisheries and Oceans. The Sechelt Ocean Plastic Depot will accept materials from shoreline cleanup efforts by the local community, providing essential infrastructure to divert these plastic resources from landfills and reduce ocean pollution.

Plastic debris found along the shoreline and in the forest can now be collected and recycled at the new Ocean Plastic Depot.

"Ocean Legacy is excited to launch another ocean plastic collection depot in British Columbia. This new depot provides an easy and free location for community members to drop off marine plastic debris, and help reduce the pollution in our coastal communities," said Chloé Dubois, executive director, Ocean Legacy Foundation. "Ocean Legacy Foundation continues to look for opportunities to move towards circularity in the waste sector and divert wasted plastics from landfills. This new depot directly addresses this issue."

The new depot is able to accept materials such as abandoned, lost, discarded fishing gear, marine debris, and equipment including netting and rope, polystyrene foam (styrofoam), hard plastic and select buoys. Material collected at the depot is consolidated and then sent to the Ocean Legacy processing centre at Steveston Harbour, BC, where it is further sorted, cleaned, and recycled.

"Currently on the Sunshine Coast, there are no options for recycling ocean plastics and dock foam," said Marc Sole, manager of Solid Waste Services, Sunshine Coast Regional District. "SCRD staff have been pursuing options to recycle ocean plastics and marine debris materials in order to help decrease the amount of plastic washing up on beaches, reduce our carbon footprint, and, importantly, maximize our remaining air space at the landfill".

The Sechelt Ocean Plastic Depot will be the fifth depot of its kind in British Columbia, with others located in Powell River, Ucluelet, Cumberland, 7 Mile, and developments underway in Port Edward. The program forms part of Ocean Legacy Foundation's national strategy in addressing plastic pollution by creating end of life solutions for ALDGF and marine plastics while developing the plastic circular economy.

PLASTICS

New Jersey law limits single-use plastics

One year after New Jersey implemented a law restricting single-use plastic bags and straws and limited use of other products including paper carryout bags and polystyrene foam food containers, the Murphy Administration is celebrating a significant decrease in the use of these products and resulting reductions in litter, according to Environmental Protection Commissioner Shawn M. LaTourette.

Governor Murphy signed the law in 2020 and New Jersey implemented it effective May 4, 2022. The law prevents grocery stores and retail establishments from providing single-use plastic bags to customers, and further restricts grocery stores 2,500 square feet or larger from providing single-us e paper bags. Similarly, polystyrene foam food takeout containers and other polystyrene food service products also may no longer be provided to customers, and single-use plastic straws may only be provided upon a customer's request.

The impact of these restrictions is being hailed as a success just one year after the law went into effect.

"New Jersey's initiative to step up and say no to continued plastics pollution in our communities and waterways is worthy of celebration because we have quickly seen the positive effects of this law," Commissioner LaTourette said. "Removing single-use plastics, paper bags and foam food containers from our waste stream keeps our communities clean and protects aquatic and marine life as well as wildlife. Our next steps will be to continue educating the public about how and why these restrictions have a lasting difference on environmental protection."

Among key metrics measured during the past year:

- The New Jersey Food Council estimates that 5.5 billion single-use plastic bags and 110 million single-use paper bags were eliminated from entering the waste stream and environment by its 2,000 grocery store members between May and December 2022;
- There has been a more than 37 percent decrease in single-use plastics in each of three categories affected by the law, including single-use plastic bags, foam food containers and straws found as litter along the Jersey shore.
- There has been a reduction in the number of plastic straws purchased by convenience stores for distribution to customers, from 17 million to 2 million per month.

The DEP and its partner agencies will continue to focus on educating the public about the value and importance of reducing use of and reliance on plastic products, as well as overall waste reduction, to enhance environmental stewardship.

New Xbox controller made of recycled plastics

Microsoft announced that they've created an Xbox controller that features recovered plastics with one-third of it made from regrind and reclaimed materials.

Mixing post-consumer recycled resins with regrind consisting of previously molded colored parts creates custom, earth-tone colors with subtle variations, swirling, markings and texturing – giving each Remix Special Edition controller its own look and feel.

Regrind is the process of mechanically recycling leftover Xbox One generation controller parts into a raw material that can be used to partially create new controllers – while maintaining durability and performance. Post-consumer recycled resins are incorporated from reclaimed materials like automotive headlight covers, plastic water jugs, and CDs.

By incorporating these regrind materials, post-consumer recycled resins, and including the Xbox Rechargeable Battery Pack – Xbox is exploring ways to use less new plastic and reduce waste.

YOU HAVE CHOICES...

2014 Sennebogen 830
SN: 830.0.2077
$180,000

2017 Sennebogen 835E
SN: 835.0.2381; SN:835.0.2385
$350,000

Doosan DX530LC-5
Sn: DWGCECCEKE1010009
$165,000

Doosan DX350LC-5
SN:DWGCECBDHF1010160, w/Fortress 75R shear
$310,000

Liebherr 944
S/N ZK041492
$99,000

Doosan DX140LCR
SN: 0HKCEBBEH0001518
$85,000

Doosan DX210W-5
SN: DHKCEWARPM5001611
$190,000

2018 Doosan DL300-5K-US11
S/N: 076, Hydraulic Locking Front Differential, Quick Coupler, 4.5 Yard Bucket
$135,000

2019 Doosan DL250-5 US20 "High Lift"
S/N 632, 1645 Hours, Quick Coupler, 3.5 YD Bucket
$105,000

2013 Doosan DL250-5 US20 "High Lift"
S/N 118, 2953 Hours, Quick Coupler, 3.5 YD Bucket
$90,000

2020 Doosan DL200-5 US20 "High Lift"
S/N 007, "Low Hours", Hydrostatic Transmission, Quick Coupler, 2.5 YD Bucket
$114,000

2017 Doosan DL250-5 US11
S/N 362, 1575 Hours, Hydraulic Locking Front Differential, Quick Coupler, 3.5 YD Bucket
$94,000

2007 Doosan DL250 US10
S/N 5155, 14507 Hours, Quick Coupler, 3.5 YD Bucket
$55,000

2018 Doosan DL250-5 US10
S/N 343, 1520 Hours, Quick Coupler, 3.5 YD Bucket
$95,000

Doosan DX225LC-5
SN: DHKCEBBUPF0001153
$114,000

2018 Doosan DL250-5 US10
S/N 519, 1675 Hours, Quick Coupler, 3.5 YD Bucket
$95,000

Doosan DX210W-5
SN: DHKCEWARVI5001224
$180,000

2018 Doosan DL250-5 US10
S/N 522, 2325 Hours, 3.5 YD Bucket
$90,000

2018 Doosan DL300-5K-US10
S/N 108, Quick Coupler, 4.5 Yard Bucket
$145,000

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AUTOMOTIVE

The recycled materials industry calls for stronger laws to curb theft of catalytic converters

The recycled materials industry is calling for Congress and state legislatures to pass stronger laws to help curb theft of catalytic converters, while supporting the legal recycling of these devices that are a renewable source of finite critical minerals. ISRI, The Voice of the Recycled Materials Industry™, worked with law enforcement and other key stakeholder groups to identify potential legislative solutions that would deter the growing problem of catalytic converter thefts.

"The recycled materials industry has a history of working with law enforcement and local authorities to help combat metals theft, including catalytic converters," said ISRI president Robin Wiener. "We are urging lawmakers – at both federal and state levels – to consider taking action to help reduce these crimes, which are impacting consumers and recycling facilities where thefts are becoming all too frequent. In states where similar legislative principles have been put in effect, we have seen positive results."

More than 30 million catalytic converters are legally recycled every year – mainly through the recycling of end-of-life automobiles. Catalytic converters contain critical minerals the Department of Interior deems essential to America's national and economic security. These high-quality materials are used in making electronics, new converters, catalysts, medical devices, and other consumer products.

ISRI recommends putting in place tools to help law enforcement effectively apprehend and prosecute criminals involved in converter thefts. ISRI is calling on Congress and states to require:

- **Identification and National Registry for Catalytic Converters:** ISRI supports the marking and tracking through state and national registries of attached and functioning catalytic converters. This would involve marking the devices with an identifying number in a permanent manner at the time of initial sale of the vehicle. ISRI also supports marking programs on vehicles in continued use, except end-of-life vehicles that should be exempted from marking of the converter. ISRI would work with those states that already have registry requirements in place to tie them into the national registry when it is established.
- **Proof of Legitimacy:** Restrict possession of detached catalytic converters or catalytic converter substrate to entities that which should reasonably be in possession through their normal course of business, or individuals who can provide proof of legitimate ownership. This would provide law enforcement information necessary to identify entities that would be allowed to legitimately purchase detached catalytic converters.
- **Recordkeeping:** Require recordkeeping for all purchases of detached catalytic converters and at every level of purchase. Records should be required for individual and business-to-business transactions, to include the date of sale, the entities involved in the sale, and the volume of converters sold.

ISRI actively works with law enforcement national and local groups, including: the International Association of the Chiefs of Police (IACP), the National Sheriffs' Association (NSA), the International Association of Crime Analysts, multiple state associations of chiefs of police, police departments and Regional Information Sharing Systems (RISS) centers. This includes collaborating on ways to deter metal and catalytic converter theft, as well as offering training to law enforcement groups on how consumers can help protect their vehicles from such theft.

ISRI's policy recommendations came from member volunteers working in ISRI's Catalytic Converter Theft Working Group established in 2020, when America began to see a sharp increase in this type of crime. The working group brings together metal recyclers from around the country to share information on catalytic converter crimes and law enforcement efforts in different jurisdictions and provide training sessions for law enforcement.

The group realized that legislation was needed to establish who should be allowed to possess detached converters, who should be allowed to buy them, and that record keeping requirements need to be in place for law enforcement to have transparency in the marketplace. By putting these steps in place, the goal would be to eliminate the black-market points of entry for the stolen goods, and ultimately to end catalytic converter thefts.

Steve Levetan, executive vice president of Atlanta-based Pull-A-Part, LLC and chairman of the working group said their effort had two objectives. "First, metal recyclers wanted to stop these crimes which are impacting not just consumers but also recycled metals companies falling victim to these thieves. Second, we wanted to leverage the industry expertise to craft solutions that have been proven to bring real results to stopping this type of crime," he said. "We owe it to our communities to take action, and that's exactly what we are doing in state after state.

What did one garbage can say to the other? "I'm rubbish at my job!"

BUSINESS BRIEFS

Covanta acquires Circon

Covanta has entered into a definitive agreement to acquire Circon Holdings, Inc. a portfolio company of Kinderhook Industries, putting into motion the company's most transformative acquisition in its history. The addition of Circon, which is subject to customary regulatory approvals, marks the largest single acquisition for Covanta in two decades, bringing with it more than 600 new employees and 2,500 customers. It is the company's eighth acquisition following its purchase by EQT Infrastructure. It further demonstrates Covanta's commitment to providing carbon negative solutions to its customers.

Headquartered in La Porte, Texas, Circon is a full service provider of environmental services with a customer base across more than 20 waste facilities in the Midwest, Southeast and Gulf Coast. This acquisition is noteworthy for Covanta due to Circon's geographic reach over multiple regions of the country and its suite of circularity offerings in wastewater treatment, and non-hazardous and hazardous waste management. Circon amplifies Covanta's ability to provide more last-mile sustainability solutions to its blue-chip customer base and transform their waste into value-based materials.

The addition of Circon's services specifically doubles Covanta's wastewater footprint, grows its engineered fuels business five-fold, and catapults Covanta into a leading position in the growing alternative fuels field for kilns. It also meaningfully expands the company's footprint in the Gulf Coast and Midwest regions.

Avis Recycling & Waste organization changes

The Recycling & Waste Division of Avis Industrial Corporation announced the retirement of Dave Kowaleski, president and general manager of American Baler company, effective in June.

Other organizational changes reporting directly to D.J. VanDeusen are:

Nate Kuhl was named general manager, American Baler and site leader, Bellevue Ohio operations. Kuhl previously served as plant manager, American Baler and has been with the company for 15 years.

Roger Griffin, president and general manager, International Baler Corporation (IBC) has been named site leader, Baxley Georgia operations while continuing his leadership role for IBC.

Jerry Lott has been named site leader, Cordele, Georgia operations. Lott previously served as plant manager, Harris Cordele and has been with the organization for four years.

Mary Johnson was named director, inside sales and order administration. Johnson previously served as general manager, Harris Baxley, Georgia operations and has been with the company for 30 years.

Jim Huyck promoted to CFO of Community Waste Disposal

Community Waste Disposal (CWD), a large privately owned waste management company, has promoted Jim Huyck to chief financial officer (CFO).

Huyck joined CWD in 2020, bringing with him a long history of executive level account positions.

PETCORE Europe names new executive director

PETCORE Europe has appointed Martin Stephan as executive director, replacing Ermis Panagiotopoulos, who served as interim executive director since January 1, 2023.

Martin Stephan spent his entire career in the chemical industry, in France, Germany, Italy and Switzerland, and has been more recently Deputy chief executive officer of CARBIOS, a French cleantech company developing technologies for the end-of-life of plastics and fibers, including PET. CARBIOS was one of the founding members and co-chair of the Depolymerization working group of PETCORE Europe.

Nucor promotes Brad Ford to executive vice president

Nucor Corporation has promoted Brad Ford to executive vice president of fabricated construction products.

Ford began his career in 2001 as a brokerage representative at The David J. Joseph Company (DJJ), which Nucor acquired in 2008, and later served as district manager and international trading manager. In 2013, he became commercial vice president at DJJ's subsidiary, Trademark Metals Recycling LLC (TMR), and then served as president of TMR from 2015 to 2020. Ford became general manager of Vulcraft-Indiana in 2020. He became a vice president of Nucor Corporation in 2022 and currently serves as vice president and general manager of Nucor Steel Decatur, LLC.

Richard Yep named SWANA interim executive director

Richard Yep, CAE, FASAE, has been named interim executive director of the Solid Waste Association of North America.

Most recently, Yep founded Ocean Vista Advisors, LLC, where he increases organizational performance and develops collaborations by providing training and advice on communication, leadership, and strategic insight. He does this by leveraging the strengths of diversity, equity, inclusion, and belonging.

Before founding Ocean Vista, Yep spent 30 years as the chief executive officer of the American Counseling Association, the world's largest association for counselors with more than 60,000 members, a budget of $15M and a staff of 60.

Under his leadership, he transformed ACA into a profitable, industry-leading association with strong board-staff partnerships.

His volunteer activities include a wide range of key leadership positions with the American Society of Association Executives; member of the United Nations, Global Non-Governmental Organizations Executive Committee; a committee member with the Human Rights Campaign; an advisory council member of Digital Now Advisory Group; and a Board of Trustees member of Excelsior University.

What do you call a can crusher that's afraid of everything? A can't-crusher.

BRIEFS

Yardsmart recognized with Innovation In Cloud Computing Award

Troy Webber, third generation owner of Chesterfield Auto Parts, has been recognized by the Richmond Technology Council (RVATech) for Innovation in Cloud Computing 2022 for the development of Yardsmart. The designation is awarded to a cloud computing project that showcases breakthrough innovation and creativity in the practice and application of cloud computing.

The first cloud-based software for auto recyclers that allows for automation of self-service yards, Yardsmart research and development began in 2019, and completed beta testing this year.

"We debuted Yardsmart at the Automotive Recyclers Association and were inundated with demo requests because we are the only software like it available worldwide. I'm really proud of creating something that moves the industry forward into the 21st Century and helps other owners" said Webber.

Yardsmart, a SAAS product, is available for a monthly subscription, and owners can request a demo at yardsmartapp.com.

The software features an integrated Hollander interchange cross matched to any self-service yard, with customizable point of sale features for credit cards, cash and specific products. In addition, there are options for extended warranties, labor services, aftermarket parts sales, integrated pricing from several core buyers, it provides an operator the ability to track scrap and core sales and process the sale of cars from a resale lot. Yardsmart employs a team of product managers, developers and engineers who regularly communicate with users about features or improvement they would like to see, as well as a support team to assist with any issues or problems installing or utilizing the product.

Casella Waste Systems to acquire Select Solid Waste Operations

Casella Waste Systems, Inc., a regional solid waste, recycling and resource management services company, signed an equity purchase agreement on April 21, 2023, to acquire collection, transfer and recycling operations in Pennsylvania, Delaware, and Maryland from GFL Environmental Inc. for a purchase price of $525 million. The proposed acquisition includes nine hauling operations, one transfer station, and one material recovery facility with aggregate annualized revenues of approximately $185 million. The acquisition is expected to close by the third quarter of 2023, subject to customary closing conditions, including regulatory approvals.

The acquisition was unanimously approved by Casella's board of directors and is expected to close by the third quarter of 2023, subject to customary closing conditions, including regulatory approvals.

FOCUS on
METALS

SECTION B AmericanRecycler.com JUNE 2023

The recovering aluminum market

by MAURA KELLER
mkeller@americanrecycler.com

A pile of scrap aluminum awaits its next life as a sustainable and valuable resource.

The aluminum recycling industry is showing improved conditions, leading recyclers to feel upbeat about the future of the market as the expectations for recycled aluminum demand is on the rise. However, according to Joe Pickard, chief economist and director of commodities at the Institute of Scrap Recycling Industries, aluminum recyclers have faced a number of challenges this year – such as downward price pressure in the first quarter across the aluminum supply chain, including the Midwest aluminum premium and recycled aluminum products.

"In terms of domestic market conditions, transportation issues and trucking, in particular, are still a major factor – although some market participants report that transportation bottlenecks have been improving," Pickard said. "The economy overall and recycled commodity markets are still recovering from some of the longer-term impacts of the pandemic, including labor shortages, supply chain disruptions, and rising costs."

Market conditions improved significantly in the immediate aftermath of the pandemic, but more recently, the industry has seen a slowdown in U.S. manufacturing output and rising interest rates that impact end-use demand of aluminum.

"Global factors are also playing a part as sanctions have been imposed on Russia (a major aluminum producer) including 200 percent tariffs on Russian aluminum imported into the U.S.," Pickard said. "Market participants remain concerned that Russian aluminum producers are dumping large volumes of aluminum – including into London Metal Exchange (LME) warehouses –that could further depress prices."

As Nick Mize, vice president of global recycling at Novelis, a global leader in the production of innovative aluminum products and solutions and the world's largest recycler of aluminum, explained, the aluminum recycling market has always been a strong one, given the value of aluminum.

"As companies and consumers become more concerned with sustainability and carbon reduction, the focus on aluminum recycling continues to increase. Novelis' and the entire industry's investments attest to this trend," Mize said.

Novelis has invested more than $1 billion in recycling assets since 2011, including the ones being built now in Guthrie, Kentucky, and Bay Minette, Alabama. When the recycling center in Bay Minette comes online, Novelis will be able to recycle an additional 15 billion used beverage cans (UBC) each year.

"But our efforts alone cannot fix the general industry problem. The entire value chain needs to come together to ensure more scrap availability," Mize said. To do this, the industry needs to make sure aluminum stays out of landfills and instead is recycled. And, ideally, the aluminum is recycled back into the same high-value product and not downgraded into a lower-value application.

As Mize further pointed out, U.S. recycling rates lag far behind the rest of the world. The beverage can recycle rate in the U.S. has stagnated around 50 percent for the past 20 years, a stark contrast with other countries such as Brazil, Germany and Finland that have successfully increased recycling rates to 98 percent or higher. In the U.S., approximately $800 million worth of aluminum goes to landfills each year.

"There is less cultural emphasis on recycling for many American consumers, however we need to take a page from the rest of the world," Mize said. "Perceptions around recycling need to change, especially as much of the actual recycling is done in the U.S., creating jobs, adding economic value for the country and lowering carbon emissions."

This is why Novelis, continues to build more recycling assets. The environmental and economic benefits of increasing aluminum recycling are undeniable.

"Increasing the aluminum recycling rates to 90 percent in the U.S. would generate billions of dollars for our economy and add tens of thousands of jobs," Mize said.

Bjørnulf Østvik, the chief executive officer and founder of Ecogensus, a company focused on delivering sustainable waste management solutions, said that just as was the case with plastics recycling, the scrap aluminum market in the U.S. has grown to become quite dependent on exports.

"Although there is increased demand from some countries, sharp decline in demand from big markets like India and Mexico have caused an imbalance in supply and demand," Østvik said. "There was a year-over-year decline in U.S. exports and this trend was continuing through the end of last quarter."

According to Mark Leder, co-owner Leder Brothers Metal in Minneapolis, the aluminum market is open and functioning, things seem balanced, and there are not large price moves, rather just incremental moves.

"Scrap is being produced and it's being consumed. There doesn't seem to be any big pushes for material – just the ability to sell what you want. Although delivery appointments sometimes are further out than what makes for easy business," Leder said.

Østvik added that a lot was going on in 2020 that created some challenges. Østvik's understanding is that there was a sharp drop in collections of used cans that actually created supply issues.

See ALUMINUM MARKET, Page B6

Novelis commits to sustainability goals

In March 2021, Novelis successfully completed an issuance of a 500 million EURO Green Bond to finance projects that will help the company meet its stated goals of reducing its carbon footprint by 30 percent by 2026 and being carbon neutral by 2050 or sooner.

As of March 31, 2023, Novelis has allocated $280 million of the net proceeds of this issuance to finance new or existing projects to increase aluminum recycling capacity and reduce primary aluminum use, with efforts focused on countries including the U.S., Brazil, South Korea, the United Kingdom and Germany. In total, the Green Bond investments are expected to reduce carbon emissions by more than three million tons annually once they are all fully up and running.

"These projects demonstrate that Novelis is successfully carrying out its purpose of 'Shaping a Sustainable World Together' by funding investments that significantly lower the carbon emissions of our manufacturing operations and enable us to continue to increase the recycled content of our products, which are already at industry-leading levels," said Steve Fisher, president & chief executive officer, Novelis Inc. "Innovation is the driving force behind change as Novelis and our customers work together to create a more circular economy for aluminum."

The following highlights some of the featured projects listed in the Novelis Green Bond Report:

- New and expanded recycling centers that will provide low-carbon aluminum:
- Construction of the $365 million Automotive Recycling Center in Guthrie, Kentucky
- Novelis is constructing a new recycling plant in Bay Minette, Alabama. This highly advanced facility is expected to increase the number of used beverage cans (UBCs) the company recycles per year by 15 billion
- The investment of $1.2 million to install nearly 1,000 photovoltaic solar panels across 14 UBC collection centers in Brazil. The panels are expected to reduce carbon emissions by 230 tons per year and can generate 600 MWh per year of clean energy, which will make collection centers self-sufficient for energy

The projects highlighted in the Novelis Green Bond Report demonstrate the company's commitment to driving innovation, creating a circular economy for aluminum and building a more sustainable future.

Worldsteel 2023 steel sustainability champions

The World Steel Association (worldsteel) has recognized 10 companies as Steel Sustainability Champions for their work in 2022. Now in its sixth year, the Steel Sustainability Champions Program commends those worldsteel members that are most clearly demonstrating their commitment and action to sustainable development through their involvement in worldsteel activities.

The 2023 Steel Sustainability Champions are:

ArcelorMittal
HBIS Group Co., Ltd.
HYUNDAI Steel Company
JFE Steel Corporation
JSW Steel Limited
Nippon Steel Corporation
POSCO
Tata Steel
Tenaris
Ternium

Recognized for the sixth consecutive year this year, Tata Steel and Tenaris have been Champions every year since the program launch in 2018. HBIS Group Co., Ltd. in China and HYUNDAI Steel Company in South Korea are recognized for the first time this year. In the program's first year worldsteel recognized only six members, so this group indicates a steady increase in the number of members qualifying for the demanding sustainability recognition.

All members must do the following to be recognised as Sustainability Champions:

- Sign the worldsteel Sustainability Charter. Provide evidence of meeting the 20 criteria covering the fields of environment, social, governance and economics (ESGE).
- Provide Life Cycle Inventory (LCI) data to worldsteel's data collection programme. The data for LCI should cover more than 60 percent of the company's crude steel production and should be less than 5 years old.
- Be shortlisted in one of the six categories of the worldsteel Steelie Awards or be recognized in the worldsteel Safety and Health Recognition Program. The Steelie categories are: Excellence in low-carbon steel production, Innovation of the year, Excellence in sustainability, Excellence in Life Cycle Assessment, Excellence in education and training, and Excellence in communications programs.

Champions were presented with certificates at the April Special General Meeting (SGM) of the Board of Members.

The Recycling Partnership reports impact to date on aluminum recycling

The Recycling Partnership reported on the impact of its Aluminum Recycling Initiative. Under the Initiative five grants have been issued for the continued advancement and improvement of aluminum recycling. To date, the grants have captured three times more aluminum than original projections estimated, ultimately resulting in an additional 4.1 million new pounds of aluminum captured annually, equal to more than 18,750 metric tons of greenhouse gas emissions avoidance.

The Initiative's efforts have focused on stimulating investment in sorting equipment and process improvements. Although materials like aluminum have a long history of recycling and are currently recycled at relatively high recycling rates, there are meaningful opportunities for improvement. To date, the Initiative has received support from the Can Manufacturers Institute, the Alcoa Foundation, and Arconic Foundation. While great strides have been made, there is a continued need for this type of impactful investment by all companies and organizations who share the vision of a more circular system for aluminum packaging.

One illustration of how this Initiative drives measurable progress is with recent grantee Curbside Management in Asheville, North Carolina. Funding from the Initiative catalyzed investment in a larger eddy current separator, allowing the facility to capture 1.3 million new pounds of recycled aluminum per year.

"Through the Aluminum Recycling Initiative grant, we were able to upgrade our aluminum capture process and maximize our annual tonnage. Adding a larger eddy current separator was essential in increasing the capture and improving the quality of aluminum from the container line," said Barry Lawson, president of Curbside Management.

Other grantees have boosted aluminum capture through approaches ranging from replacing hand sortation with automated sortation to installing equipment that detects and captures aluminum missorted into the plastic container stream.

"There is a growing need to modernize MRFs to enhance sortation, increase capture rates, and improve bale quality," said Adam Gendell, director of materials advancement at The Recycling Partnership. "These grants prove that investment can drive meaningful improvement, but we need continued support to achieve full-scale change." The Initiative will continue to unlock opportunities for increased aluminum capture and is pleased to continue to make grant funds available to MRFs.

Nucor leads effort to develop carbon emissions standard

A coalition of steel companies and industry partners founded by Nucor Corporation and five other organizations released for comment a draft global standard to measure and report carbon emissions from steel companies. The Steel Climate Standard, which was developed by the Global Steel Climate Council (GSCC), offers a single, technology-neutral protocol that would apply equally to all steel producers globally.

"Nucor is one of the cleanest steel producers in the world and the North American leader in reducing greenhouse gas emissions in the steel industry," said Leon Topalian, chair, president and chief executive officer of Nucor Corporation. "Using a single standard that is ambitious, auditable, inclusive and transparent is needed to accelerate further greenhouse gas emission reductions in our industry and to drive investment in lower emission technology."

Nucor produces steel by recycling scrap metal in electric arc furnaces (EAF), also known as circular steelmaking, a process that has a greenhouse gas emissions (GHG) intensity that is less than half the global average and one-third of the average blast furnace steel producer. Last year, the company achieved its lowest Scope 1, 2 and 3 GHG intensity in company history. Nucor was the first steel company in North America to report Scope 3 emissions.

"The bottom line is that customers using steel from a recycled source are choosing to reduce the world's greenhouse gas emissions by a factor of two to four," said Greg Murphy, executive vice president of business services and general counsel at Nucor Corporation, and Chair of the GSCC. "We have competitors making investments now to reduce their emissions in the future to levels Nucor already achieves today."

There are several organizations and companies proposing global emissions standards for the steel industry, in addition to GSCC. Some of these proposals include applying different standards for blast furnace steel producers and EAF steel producers. A dual standard that favors higher-emitting extractive steelmaking technology at the expense of lower embodied carbon steel would delay making meaningful emission reductions in the steel sector.

"Steel is a critical material for our infrastructure, automotive, energy systems and overall economy. The technology exists today to make significant reductions in global emissions from the steel industry, and Nucor is living proof of this," said Murphy. "That is why we believe it is common sense to use a single steel standard that is focused on actual embodied carbon emissions and does not favor one technology over another."

Nucor is a founding member of the GSCC, which is comprised of steel manufacturers, associations and other organizations in the steel supply chain that have a presence in 79 countries around the world.

Porsche and Hydro work together to further decarbonize the supply chain of sports cars

Porsche AG and Norsk Hydro ASA will work together to further reduce the carbon footprint of Porsche car models by using low-carbon aluminium and extrusions from Hydro. In addition, the two companies will collaborate on an innovative value chain concept for battery materials and recycling. The German luxury sports car maker and the Norwegian industrial company have signed an agreement in Oslo to strengthen the sustainability strategies of both companies.

Hydro will deliver Porsche and several Porsche component suppliers with its low-carbon aluminum, which has one of the lowest CO2 footprints on the market today, covering emissions from the mine to the metal. By 2025 Hydro will enable Porsche to reduce the footprint of the aluminum in future vehicle projects to around 3.5 kilograms of CO2 per kilogram aluminum used. This is approximately 60 percent lower than the average primary aluminum consumed in Europe currently.

"Porsche is working towards a net carbon-neutral value chain of our vehicles in 2030. Aluminum and materials for battery production play a key role in our sustainability strategy. With Hydro's aluminum we aim to substantially reduce CO2 emissions deriving from this important material," says Barbara Frenkel, executive board member for procurement at Porsche AG.

"To reduce global warming, we need to decarbonize energy systems, produce for circularity and recycle resources already in use. Aluminum is a key enabler in a 'green' transition, but supply chains must become emission free. The industry needs to partner up to make this happen and we are pleased to work with a pioneer like Porsche in our common task to create a nearly carbon-free car," said Hilde Merete Aasheim, president and chief executive officer of Hydro.

Due to its superior properties in pliability, light weight and strength, the ratio of aluminum in Porsche cars has been increasing steadily. Aluminum is one of the key elements in the transformation of an electrical vehicle into a sports car. Aluminum already constitutes around 30 percent of the total weight of the Porsche Taycan, the brand's first fully electric sports car. As part of the ambitious decarbonization plans of both companies, Hydro aims to supply Porsche and Porsche component suppliers with aluminum targeting CO2 neutrality in 2030. Hydro will do this by increasing the use of renewable energy in aluminum production, recycling post-consumer scrap to increase circularity,and reduce the footprint of aluminum produced.

Another important part of the agreement between the two companies will be the proof of concept for building a sustainable battery value chain in Europe. Porsche and Hydro will cooperate in the development of a roadmap to recycle battery materials in Europe. One of the key elements of this project will be to investigate how to build efficient closed loop solutions for Porsche EV batteries.

"Access to sustainably sourced raw materials is a key challenge for the automotive industry. Hydro has extensive experience in the recycling of battery raw materials. At Porsche we have a clear commitment to increase the usage of recycled materials in our vehicles. The principle of a circular economy is something we share with Hydro. We aim to secure our supply chain in the long run and therefore expect valuable input from our recycling project with Hydro," says Frenkel.

The European supply chain for materials, vital for battery production, is still in its early stage. Recycling is expected to play a crucial part in meeting the rising demand for automotive batteries in the future. Collaborations across traditional industries will be required to succeed. Porsche and Hydro are committed to exploring opportunities for joint contributions in this field. Both companies expect the first feasibility results of joint battery recycling in 2025.

AIST board of directors appoints new members to foundation board of trustees

Glenn A. Pushis, senior vice president, strategic projects, Steel Dynamics Inc., Fort Wayne, Indiana, and AIST Foundation board of trustees president, welcomed new officers to the AIST Foundation board of trustees at the organization's annual conference and exposition, AISTech 2023.

The AIST Foundation officers include:

- Past president: Theodore F. Lyon, vice president, regional managing director – Hatch Associates Consultants Inc., Pittsburgh, Pennsylvania.
- President-elect: Terry G. Fedor II, executive vice president, operations east, Cleveland-Cliffs Inc., West Chester, Ohio.
- Treasurer: Mark L. Fedor, president and chief executive officer, Morgan, Alliance, Ohio.
- Secretary: Ronald E. Ashburn, executive director, Association for Iron & Steel Technology, Warrendale, Pennsylvania.

New Trustees include:

- Benjamin E. Kowing, vice president and chief technical officer, SSAB Americas, Muscatine, Iowa.
- Lee P. Morgan, president, The Systems Group, Little Rock, Arkansas.

Trustees include:

- James F. Dudek.
- Jennifer J. Durbin, vice president human resources, Commercial Metals Company, Southlake, Texas.
- Joseph Dzierzawski, vice president of sales and strategy, Primetals Technologies USA LLC, Canonsburg, Pennsylvania.
- Charles E. Greene, president and chief operating officer, AM/NS Calvert LLC, Calvert, Alabama.
- Mark R. Olson, vice president of mill operations, Pacific Steel Group, San Diego, California.

AISTech 2023 encompassed 445 technical presentations and 595 domestic and international exhibiting companies.

March 2023 crude steel production

World crude steel production for the 63 countries reporting to the World Steel Association (worldsteel) was 165.1 million tonnes (Mt) in March 2023, a 1.7 percent increase compared to March 2022.

Crude steel production by region

Africa produced 1.4 Mt in March 2023, up 8.4 percent on March 2022. Asia and Oceania produced 124.8 Mt, up 4.1 percent. The EU (27) produced 11.9 Mt, down 5.6 percent. Europe, Other produced 3.5 Mt, down 14.1 percent. The Middle East produced 3.1 Mt, down 17.5 percent. North America produced 9.3 Mt, down 2.6 percent. Russia & other CIS + Ukraine produced 7.6 Mt, up 3.0 percent. South America produced 3.5 Mt, down 7.6 percent.

Top 10 steel-producing countries

China produced 95.7 Mt in March 2023, up 6.9 percent on March 2022. India produced 11.4 Mt, up 2.7 percent. Japan produced 7.5 Mt, down 5.9 percent. The U.S. produced 6.7 Mt, down 2.1 percent. Russia is estimated to have produced 6.6 Mt, up 0.4 percent. South Korea produced 5.8 Mt, up 1.9 percent. Germany is estimated to have produced 3.3 Mt, down 0.5 percent. Brazil produced 2.7 Mt, down 8.7 percent. Turkey produced 2.7 Mt, down 18.6 percent. Italy produced 2.2 Mt, up 2.7 percent.

Nucor approves share repurchase program

The Board of Directors of Nucor Corporation has approved the repurchase of up to $4.00 billion of the company's outstanding common stock. This new authorization replaces the previously authorized $4.00 billion repurchase program (which was terminated by the board of directors in connection with the approval of the new authorization), under which approximately $3.79 billion of the company's common stock had been repurchased since its authorization in December 2021. The company expects share repurchases will be made from time to time in the open market at prevailing market prices or through private transactions or block trades. The timing and amount of repurchases will depend on market conditions, share price, applicable legal requirements and other factors. The new share repurchase authorization is discretionary and has no expiration date.

EQUIPMENT SPOTLIGHT

Magnets

by MARY M. THORNTON
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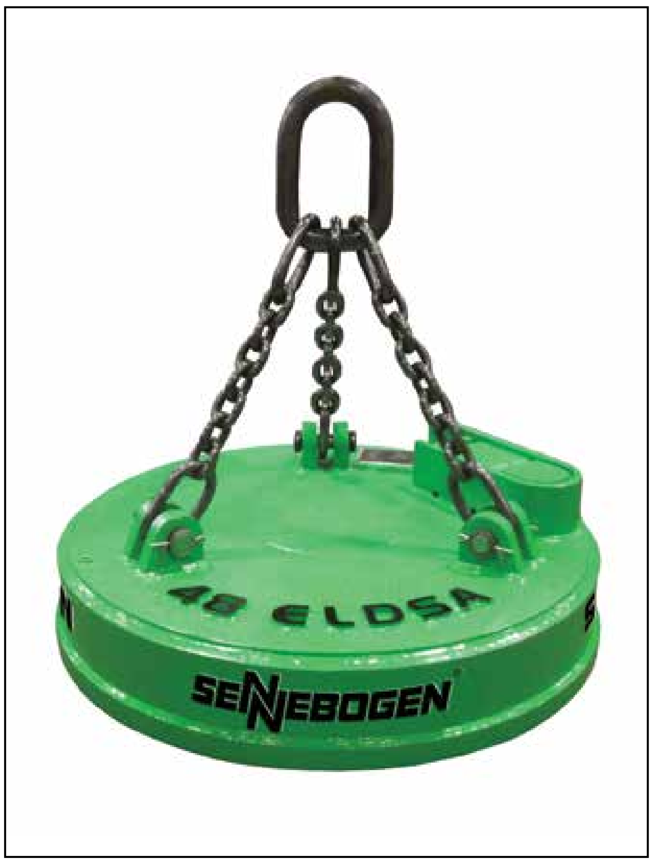
Allied Market Research projects the global construction and demolition (C&D) waste recycling market to reach just over $149 million by 2027. In the C&D process, a variety of equipment is used in the recovery of recyclable materials such as steel, wood, drywall, plaster, brick and clay tile, asphalt shingles, concrete, and asphalt concrete. Magnets are commonly used to lift out large and small metals components and magnets are available in a variety of configurations due to the varying stages of recovery that may be involved.

Dave Smith, product manager at Dings Company Magnetic Group, reports that the firm has engineered and manufactured magnetic separation equipment since 1899. "C&D recyclers rely on Dings for durable, reliable electro and permanent overhead magnets and magnetic pulleys. Our self-cleaning Dura-Belt product, equipped with stainless steel plates and cleats, meets the specific needs of C&D recyclers processing crushed concrete with rebar. This unique self-cleaning belt design prevents damage to the belt caused by rebar being pulled to the magnet and damaging the rubber self-cleaning belt in the process. The Dura-Belt feature eliminates the cost and down time associated with replacing standard rubber self-cleaning belts that have been pierced by rebar," Smith explained.

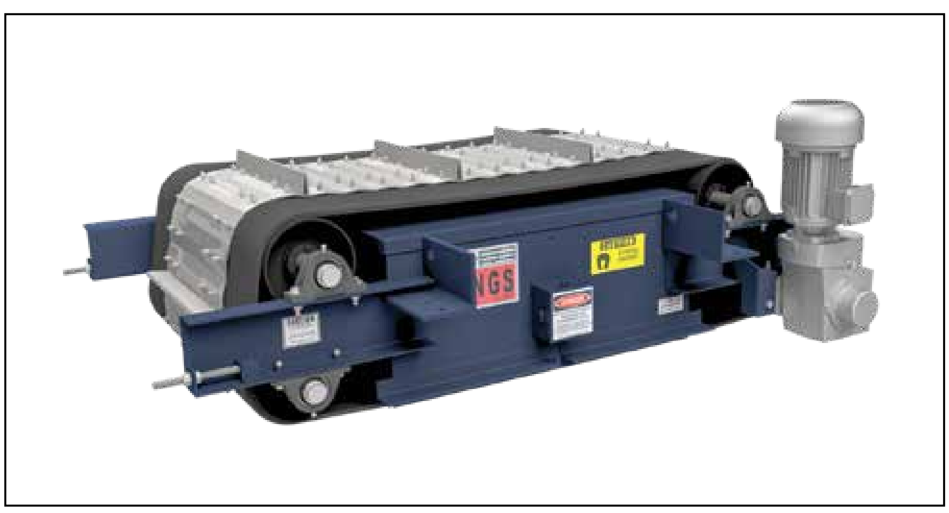
He also commented that increased national spending for infrastructure is driving demand for aggregate and increasing the volume of concrete being recycled. "These aggregate producers and concrete recyclers need high quality, durable magnetic separation equipment to ensure consistent material production and to prevent downtime due to equipment damaged by metal in the production stream. During the past two and a half years we've seen fewer supply issues and have also managed to return to our desired manufacturing rate too, so this has improved lead times in product delivery. The trend in national infrastructure spending will likely sustain strong market demand and pressure to increase the production of material. High quality magnetic separators shipped from U.S. manufacturing facilities like ours will certainly play a large role in supplying the quality products required to meet market demand."



Sennebogen

Sennebogen has been manufacturing purpose-built material handling equipment for over 70 years and offers a variety of lifting magnets designed to maximize performance and production for their customers. These magnets range in size from 30" (762 mm) to 84" (2,134 mm). Also, in order to support specific applications, Sennebogen has developed custom lifting magnets. "Our magnets are optimized for true duty cycle operation to meet the demanding workload our customers experience daily. As a manufacturer, it's crucial we listen to our customers and design products that enhance their operations," said Constantino Lannes, president & chief executive officer. He added, "To address some of the challenges for lifting magnets, such as deterioration, damage to magnet surface, and decreased lifting capacity over time, Sennebogen magnets incorporate a wear-resistant layer of hard facing on pole shoe surfaces and a standard high alloy steel chain. Additional standard features include Class "H" insulations, an easy access terminal box, and water-resistant construction. Our products are engineered to achieve optimal lift-to-weight ratios and duty cycle. All sizes use deep field aluminum wound coils and deliver continuous cycle throughput, providing users with extended magnet service life without sacrificing strength and durability." Sennebogen also offers optional features such as special voltages and other customer-specified requirements.

Lannes said the Sennebogen series of lifting magnets complete the line of 4-tine and 5-tine scrap grapples and mag-grapples. These industry leading grapples are widely used in scrap and recycling operations globally. Sennebogen attachments are designed to maximize the lifting capacity of the material handling equipment as well as service life. They are built to meet the processing capacity, material densities, and duty-cycle profile of each customer's specific operation.


Dings Co. Magnetic Group

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Magnets

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SIEB Sales & Engineering, Inc. specializes in manufacturing magnet systems for the scrap, steel and railroad industries. "Our circular, 230 VDC electro-lifting magnets range in size from 30" in diameter, up to 78" in diameter. All are heavy duty fabricated housings designed for wear and long life. Features include 75 percent duty cycle coils with high strength tested alloy steel chains coupled to the magnet with double ears and chain pins for greater safety. We have been in the magnetic material handling business since 1967," said Ronald Sieb, president.

Sieb added, "Bear in mind, there is much more to hanging a magnet off the end of a crane than some may realize. A lifting magnet is typically used in very rigorous conditions and demands steady, reliable voltage and the controls to match, depending on the application variables involved. We have industry leading experience in working with all types of magnetic material handling systems. Tell us about your specific requirements. Then we will provide suggestions that ensure your machine is equipped with the most productive and cost-effective system, specifically designed for your needs. Once you have what you need in place, our service expertise will be available to you as well. We offer unmatched technical support and stock parts for all manufacturers and types of magnet system equipment. Superior customer service is an integral part of who we are."

SIEB Sales & Engineering, Inc.

Leon J. Topalian named AIST Steelmaker of the Year

Leon J. Topalian, chair, president and chief executive officer of Nucor Corp., was named the Association for Iron & Steel Technology (AIST) Steelmaker of the Year at AISTech 2023 – The Iron & Steel Technology Conference and Exposition. One of AIST's highest honors, the Steelmaker of the Year Award is given to an industry leader who has had a significant impact on the industry and on his or her business.

Topalian is awarded Steelmaker of the Year in recognition of his leadership of Nucor Corp. as one of the world's safest steel companies, his dedication to sustainable steelmaking, and his commitment to American steel manufacturing. Under Topalian's leadership, Nucor has reached record profitability, taken a leadership role in the world's transition to 24/7 clean energy while also achieving exemplary safety performance. He has overseen the strategic growth of Nucor's product capabilities and expansion into new markets and has championed substantial investments in low-emission steel production. And as one of the strongest advocates for the passage of the Infrastructure and Jobs Act of 2021, Topalian has worked tirelessly to ensure steel will remain a key building block for America's future.

Topalian is president and chief executive officer of Nucor Corp. He joined Nucor in 1996 as a project engineer at Nucor Steel–Berkeley in Huger, S.C., USA, and was promoted to cold mill production supervisor in 1998. From 2002 to 2009, he held various leadership positions throughout Nucor in Australia, at Nucor Steel–South Carolina and Nucor Steel Kankakee Inc. He was promoted to general manager of Nucor Steel Kankakee in 2011 and vice president in 2013. In 2014, Topalian was named vice president and general manager of Nucor-Yamato Steel Co. In May 2017, he was appointed executive vice president of beam and plate products for Nucor Corp. In September 2019, he was appointed president and chief operating officer. On 1 January 2020, Topalian became president and chief executive officer of Nucor Corp. He serves on Nucor's board of directors and also serves as a board member for the American Iron and Steel Institute and World Steel Association. Topalian graduated from Massachusetts Maritime Academy with a B.S. degree in marine engineering.

Aluminum market

■Continued from Page B1

"So, even though the absolute volumes of waste – and recyclables – didn't necessarily decline (although it shifted to residential origins), can collection was affected. There had been a demand transition going on in the U.S. away from can sheet and toward automotive sheet – this was occurring in 2019 already – but it was still underway and the pandemic came at a difficult time," Østvik said.

Leder further pointed out that the pandemic not only hurt world economies but with transportation, employee illness and employee reluctance to participate outside of the home for work, the ability to move scrap was difficult.

"Production facilities (the mills), at the height of COVID had extremely tough weeks of trying to function, resulting in sluggish pricing and reluctance to purchase material at the rates prior to the COVID pandemic," Leder said.

From a U.S. perspective, Østvik pointed to the production of aluminum in Asia and the Middle East, which is depressing prices and a continued reliance upon export markets and creates risk for domestic recyclers.

"The absolute global demand for aluminum is rising though, with shifting trends in some product categories away from plastics and to aluminum," he said. "There is an opportunity for recyclers to focus on innovations that bring costs down and to work with manufacturers on new applications that can spur demand."

Ongoing Initiatives

Organizations are using innovative techniques to entice consumers to recycle aluminum. For example, Proud Source Water and Replenysh recently launched The Infinite Bottle Project at Hyatt Centric Key West to raise funds to support protecting the barrier reef off the coast of the Florida Keys. The initiative will reclaim and recycle aluminum collected on the Hyatt Centric Key West property and the surrounding Key West community. One hundred percent of the funds received from the recycled aluminum will be donated to protect and preserve the largest barrier reef in North America.

"We have a responsibility as a consumer-packaged goods company to collect what we put out into the world," said CJ Pennington, president of the Proud Source Water, in a recent press release. "The Infinite Bottle Project is a progressive and innovative program designed to promote true circularity, as aluminum collected at Hyatt Centric Key West and every future partner is infinitely recycled, including some eventually becoming Proud Source Water bottles."

To date the project has collected nearly 400 pounds of aluminum for recycling and continues to track the progress to ensure all aluminum cans and bottles collected are sorted properly so they can be recycled and reused.

Looking Ahead

Leder expects further consolidation in the aluminum recycling industry whereby more mills are owned by large groups, and investment bankers will put deals together and then, after a period of 8 to 12 years, these will be sold to another group.

"There is no question that we will still have an aluminum recycling industry," Leder said. "I think the companies that remain will be larger, rely on technology as opposed to the friendly face that you recognized visiting your facility."

That said, there's room for improvement on the recycled aluminum production side in terms of environmental impact. "As relative costs are improved for the overall recycling market – and they can be through innovation – that will provide an opportunity that will spill over to the aluminum recycling industry as well," Østvik said. "I think the more powerful lesson for U.S. recyclers here is that the business model cannot rely upon scrap sales to international markets – this was a problem for plastics (and remains one) and we see it in aluminum recycling too."

Looking forward, Pickard said there are significant aluminum production capacity expansion plans underway, with CRU noting planned greenfield projects and brownfield expansions will add 11 percent rolled products capacity as the new mills begin to come online in 2025 to 2029.

Both Novelis and ADI also have broken ground on their new facilities and this is expected to increase domestic demand for recycled aluminum.

"As a result, an increasing share of the aluminum recycled in the U.S. is likely to go to domestic mills, as compared to export markets. U.S. exports of recycled aluminum, including used beverage containers and remelt scrap ingot, during January through February 2023 slipped 0.6 percent year-on-year to 319,104 metric tons on weaker demand from India, Mexico, Hong Kong, and Indonesia," Pickard said. "In a reversal of last year's pattern, Malaysia reclaimed the top destination spot for U.S. recycled aluminum exports during January through February 2023 with shipments totaling 61,760 metric tons, a 13.1 percent increase from the corresponding period last year. Besides Malaysia, other growth markets for U.S. recycled aluminum exports during the first two months of 2023 included Thailand (+127 percent), Taiwan (+114 percent), and Japan (+21 percent)."

In contemplating the furthering of the aluminum recycling market, Mize said investing in innovative technologies around sorting and segregation is essential, as more material segregation is needed to preserve the value of alloys.

"In the automotive industry, end-of-life recycling is a source for scrap that has not been explored yet at its full potential," Mize said. Combined with sorting technology, the separation into the appropriate material value streams, including wrought, cast and extruded products, allows for less prime and reduces the industry's overall carbon footprint.

"We continue to research and innovate more recycling-friendly alloys that can incorporate higher recycling content without changing specifications," Mize said. "And ultimately, designing for dismantling means building with circularity in mind and allows for seamless recycling after disassembling."

Finished import market share estimated at 23 percent in April

Based on the Commerce Department's most recent Steel Import Monitoring and Analysis (SIMA) data, the American Iron and Steel Institute (AISI) reported that steel import permit applications for the month of April totaled 2,292,000 net tons (NT). This was a 17.6 percent decrease from the 2,782,000 permit tons recorded in March and a 12.4 percent decrease from the March final imports total of 2,615,000. Import permit tonnage for finished steel in April was 1,928,000, up 1.1 percent from the final imports total of 1,906,000 in March. For the first four months of 2023 (including April SIMA permits and March final imports), total and finished steel imports were 9,805,000 NT and 7,584,000 NT, down 12.6 percent and 14.6 percent, respectively, from the same period in 2022. The estimated finished steel import market share in April was 23 percent and is 23 percent year-to-date (YTD).

Steel imports with large increases in April permits vs. March final imports include reinforcing bars (up 63 percent), hot rolled bars (up 60 percent), heavy structural shapes (up 57 percent), cold finished bars (up 22 percent) and wire drawn (up 11 percent). Products with significant year-to-date (YTD) increases vs. the same period in 2022 include oil country goods (up 54 percent), black plate (up 25 percent), line pipe (up 25 percent), standard rails (up 22 percent) and hot rolled bars (up 21 percent).

In April, the largest steel import permit applications were for Canada (575,000 NT, down 13 percent from March final), Mexico (340,000 NT, down 22 percent), South Korea (179,000 NT, down 4 percent), Japan (119,000 NT, up 1 percent) and China (114,000 NT, up 98 percent). Through the first four months of 2023, the largest suppliers were Canada (2,366,000 NT, up 2 percent), Mexico (1,613,000 NT, down 17 percent) and Brazil (1,324,000 NT, up 8 percent).

March steel shipments up 6.6 percent

The American Iron and Steel Institute (AISI) reported that for the month of March 2023, U.S. steel mills shipped 7,372,430 net tons, a 5.9 percent decrease from the 7,835,600 net tons shipped in March 2022. Shipments were up 6.6 percent from the 6,917,842 net tons shipped in the previous month, February 2023. Shipments year-to-date in 2023 are 21,438,542 net tons, down 6.1 percent vs. 2022 shipments of 22,826,084 net tons for three months.

A comparison of shipments year-to-date in 2023 to the first three months of 2022 shows the following changes: corrosion resistant sheet and strip, down 5 percent, hot rolled sheet, down 8 percent and cold rolled sheet, down 8 percent.

AR Scrap Metals MarketWatch

Commodity		Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
FERROUS						
#1 Bushelings	per gross ton	$470.00	$492.00	$493.00	$499.00	$500.00
#1 Bundles	per gross ton	452.00	470.00	473.00	491.00	480.00
Structural	per gross ton	370.00	384.00	384.00	381.00	405.00
#1 & #1 Mixed Steel	per gross ton	330.00	325.00	340.00	331.00	365.00
Crushed Auto Bodies	per gross ton	207.00	209.00	214.00	210.00	268.00
Shredded Auto Scrap	per gross ton	425.00	440.00	479.00	461.00	465.00
NON FERROUS						
#1 Copper Bare Bright	per pound	3.62	3.64	3.72	3.84	3.73
#2 Copper Wire & Tubing	per pound	3.43	3.44	3.45	3.73	3.53
Aluminum Cans	per pound	.72	.74	.71	.73	.76
Al/Cu Radiators	per pound	1.71	1.75	1.85	1.85	1.94
Aluminum Radiators	per pound	.58	.61	.66	.62	.64
Heater Cores	per pound	1.45	1.52	1.59	1.58	1.59
Stainless Steel	per pound	.63	.63	.66	.67	.69

All prices are expressed in USD. Printed as a reader service only.

DISCLAIMER: American Recycler (AR) collects pricing and other information from experienced buyers, sellers and facilitators of scrap metal transactions throughout the industry. All figures are believed to be reliable and represent approximate pricing based on information obtained by AR (if applicable) prior to publication. Factors such as grades, quality, volumes and other considerations will invariably affect actual transaction prices. Figures shown may not be consistent with pricing for commodities associated with a futures market. While the objective is to provide credible information, there is always a chance for human error or unforeseen circumstances leading to error or omission. As such, AR is not responsible for the accuracy or completeness of the information provided, or for outcomes arising from use of this information. American Recycler disclaims any liability to any person or entity for loss or damage resulting from errors or omissions, including those resulting from negligence of AR, its employees, agents or other representatives.

Novelis reports reduced income for fourth quarter

Novelis Inc., a sustainable aluminum solutions provider and the leader in aluminum rolling and recycling, reported results for the fourth quarter and full fiscal year 2023.

"Novelis continues to deliver solid performance in a challenging environment, enabled by our diversified product mix, operational efficiencies and financial discipline," said Steve Fisher, president and chief executive officer, Novelis Inc. "While macroeconomic headwinds are muting near-term performance, we believe these are transitory and that the long-term market outlook for our business remains robust. With our market-leading position and strong balance sheet, we remain committed to our transformational organic growth plan to further our position as a leading global provider of low-carbon, sustainable aluminum solutions."

Fourth Quarter Fiscal Year 2023 Results

Net sales decreased 9 percent to $4.4 billion for the fourth quarter of fiscal year 2023, primarily driven by lower average aluminum prices and a 5 percent decrease in total flat rolled product shipments to 936 kilotonnes, partially offset by increased product pricing and favorable product mix. The decrease in shipments is mainly due to lower beverage can shipments driven by short-term headwinds, primarily customer inventory reduction actions, as well as macro-economic impacts on specialties products, mainly in building & construction. Partially offsetting these declines were higher aerospace shipments, and record automotive shipments due to higher OEM build rates driven by pent-up demand.

Adjusted EBITDA decreased 6 percent to $403 million in the fourth quarter of fiscal year 2023, compared to $431 million in the prior year period, driven by less favorable metal benefit from recycling, higher energy costs and other cost inflation, and lower volume, partially offset by higher product pricing and favorable product mix.

Net income attributable to our common shareholder decreased 27 percent versus the prior year to $156 million in the fourth quarter of fiscal year 2023, due mainly to lower Adjusted EBITDA, as well as higher restructuring, interest expense, and favorable metal price lag in the prior year that did not recur. Net income from continuing operations, excluding special items, decreased 7 percent versus the prior year to $175 million.

Full Year Fiscal Year 2023 Results

Net sales increased 8 percent to $18.5 billion in fiscal year 2023, primarily driven by higher average aluminum prices, higher product pricing and favorable product mix, partially offset by a 2 percent decrease in total flat rolled product shipments to 3,790 kilotonnes. The decrease in shipments is mainly due to lower beverage can shipments driven by customer inventory reductions in the second half of the fiscal year as the broader beverage supply chain normalized post-pandemic, as well as softer demand for specialties products in a weaker macro-economic environment. Conversely, easing supply chain constraints, including higher semiconductor availability, resulted in record automotive shipments, while aerospace shipments also grew as demand turned toward pre-pandemic levels.

Adjusted EBITDA decreased 11 percent to $1.8 billion in fiscal year 2023, compared to $2.0 billion in fiscal 2022, driven by an extraordinary inflationary environment, higher energy costs due to geopolitical instability, and less favorable metal benefit. Results were also impacted by unfavorable foreign exchange, lower volume, and a non-recurring prior year tax litigation settlement in Brazil. These headwinds were partially offset by higher product pricing, including some cost pass-throughs to customers, and favorable product mix.

Fiscal 2023 net income attributable to common shareholder decreased 31 percent versus the prior year to $658 million. The decrease is mainly driven by lower Adjusted EBITDA and negative current year metal price lag compared to favorable metal price lag in the prior year. This was partially offset by a lower income tax provision in the current year and prior year losses from discontinued operations and extinguishment of debt that did not recur. Net income from continuing operations, excluding special items, decreased 16 percent to $781 million.

Adjusted free cash flow from continuing operations was $443 million in fiscal year 2023 compared to $649 million in the prior year. The decrease is due primarily to significantly higher capital expenditures, as well as unfavorable metal price lag in the current year compared to a favorable lag in the prior year, and lower Adjusted EBITDA, partially offset by a favorable release in working capital. Total capital expenditures increased 76 percent over the prior year to $786 million in fiscal 2023, as the company begins to ramp up spending associated with a number of announced strategic, sustainability-focused, capital investment projects that support increased long-term customer demand.

"While our results continue to be muted by near-term challenges, we have demonstrated that our business is resilient, with fourth quarter Adjusted EBITDA per ton improving significantly on a sequential basis compared to the third quarter and very strong free cash flow generation even as we increase capital investments for future growth," said Dev Ahuja, executive vice president and chief financial officer, Novelis. "We are well positioned to navigate current market headwinds and will continue to maintain a disciplined approach to managing cash efficiently as we embark on our next phase of transformational growth."

Steel imports up 14.2 percent in March VS. February

Based on preliminary Census Bureau data, the American Iron and Steel Institute (AISI) reported that the U.S. imported a total of 2,614,000 net tons (NT) of steel in March 2023, including 1,906,000 NT of finished steel (up 14.2 percent and 9.0 percent, respectively, vs. February 2023). Total and finished steel imports are down 11.5 percent and 14.5 percent, respectively, year-to-date vs. 2022. Over the 12-month period April 2022 to March 2023, total and finished steel imports are down 10.3 percent and 2.5 percent, respectively, vs. the prior 12-month period. Finished steel import market share was an estimated 22 percent in March and is estimated at 23 percent over the first three months of 2023.

Key steel products with a significant import increase in March compared to February are cut lengths plates (up 53 percent), tin plate (up 44 percent), hot rolled sheets (up 41 percent), ingots and billets and slabs (up 31 percent) and oil country goods (up 29 percent). Products with a significant increase in imports over the 12-month period April 2022 to March 2023 compared to the previous 12-month period include line pipe (up 46 percent), oil country goods (up 42 percent), standard pipe (up 29 percent), heavy structural shapes (up 20 percent) and tin plate (up 11 percent).

In March, the largest suppliers were Canada (660,000 NT, up 23 percent vs. February), Brazil (457,000 NT, up 30 percent), Mexico (437,000 NT, up 14 percent), South Korea (187,000 NT, down 17 percent) and Japan (117,000 NT, up 117 percent). Over the 12-month period April 2022 to March 2023, the largest suppliers were Canada (6,950,000 NT, no change compared to the previous 12-months), Mexico (5,018,000 NT, down 6 percent), Brazil (2,787,000 NT, down 32 percent), South Korea (2,670,000 NT, down 6 percent) and Japan (1,278,000 NT, up 11 percent).

U.S. Imports of Steel Mill Products by Country of Origin
(thousands of net tons)

COUNTRY	MAR. 2023 PRELIM	FEB. 2023 FINAL	% VAR. MAR. VS. FEB.	YTD 2023 (3 MON.)	YTD 2022 (3 MON.)	% VAR. 2023 VS. 2022	APR. 2022 TO MAR. 2023	APR. 2021 TO MAR. 2022	% VAR.
Canada	660	538	22.8%	1,791	1,700	5.3%	6,950	6,940	0.2%
Mexico	437	382	14.4%	1,274	1,558	-18.2%	5,018	5,355	-6.3%
Brazil	457	353	29.7%	1,205	986	22.2%	2,787	4,103	-32.1%
South Korea	187	225	-17.2%	551	698	-21.1%	2,670	2,844	-6.1%
Japan	117	54	116.7%	307	289	6.0%	1,278	1,155	10.6%
Germany	87	79	9.7%	266	223	19.4%	1,170	1,254	-6.7%
Taiwan	85	58	46.6%	213	286	-25.4%	965	1,024	-5.8%
Turkey	22	59	-62.4%	110	242	-54.5%	868	1,057	-17.9%
Vietnam	45	41	10.4%	128	382	-66.5%	683	1,242	-45.1%
China	58	53	9.2%	181	160	13.1%	672	543	23.7%
India	40	41	-2.0%	100	188	-46.7%	596	554	7.6%
Netherlands	9	50	-81.9%	90	105	-14.8%	579	609	-4.9%
Italy	43	24	83.4%	128	85	50.0%	494	293	68.7%
Romania	6	60	-90.6%	94	126	-25.6%	451	437	3.2%
Algeria	44	56	20.9%	137	208	-33.9%	439	531	-17.4%
All Other	317	217	46.1%	936	1,246	-24.9%	4,257	5,380	-20.9%
Total	2,614	2,289	14.2%	7,512	8,484	-11.5%	28,877	33,321	-10.3%
memo EU-27	261	317	-17.8%	986	900	9.6%	4,496	3,942	14.0%