



Essex Furukawa Magnet Wire LLC

# Sustainability Report

AUGUST 2022



*Vision 2030: A Sustainable Future, Our Driving Force*

# Letter from the CEO



Sustainability is not just *our* future, it is *the* future.”

As Essex Furukawa Magnet Wire continues to move into the future, we realize that to reach our ultimate destination we must be driven there by sustainability. I am personally excited to continue the work that has already been started toward *Vision 2030: A Sustainable Future, Our Driving Force* as well as bear witness to how we lead our industry into the next decade and beyond. Vision 2030 is our holistic sustainability program launched in 2021 and it continues to be an exciting opportunity for our company, our customers, and our planet.

Essex Furukawa is committed to sustainability through Disruptive Innovation, Agile Digitization and Green Production. Our teams have been meeting the need for increasingly efficient and demanding specifications. We have embraced the challenge from our customers and are motivated to develop new technologies, utilize more sustainable materials, as well as explore green production methods. Essex Furukawa will continue to find ways to innovate and manufacture more efficiently, with less environmental impact.

We are pleased to announce our global sustainability goals as outlined here in our first annual Sustainability Report. This report reflects our efforts to date since first announcing Vision 2030 in April of 2021 and outlines our path to achieve these goals. We look forward to meeting not only our expectations but exceeding those of our customers’ on our shared sustainability journey.

A handwritten signature in blue ink, appearing to read 'Daniel Choi'.

**Daniel Choi**  
Chief Executive Officer  
Superior Essex Inc.

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# Company Overview

As a globally diverse powerhouse in the magnet/winding wire industry, Essex Furukawa consistently pushes the boundaries of innovation and engineering. We lead these efforts across the globe to foster lasting success for the customers we serve. Built on more than 120 years of expertise, our teams form mutually beneficial relationships with members of the automotive, commercial, residential, industrial, and energy markets to provide the products and services they need to flourish, and in turn, inspire their customers to thrive. From the newest electric vehicles, power transformers, and commercial generators, we produce the magnet/winding wire that powers the future.

Across North America, Europe, and Asia Pacific, Essex Furukawa provides a broad range of copper and aluminum magnet wire —enameled, wrapped, and extruded in both gauge and metric sizes. We are the only magnet wire manufacturer that is vertically integrated, allowing seamless design, development, sourcing, production, delivery, and availability of products on three continents.

Today we continue to expand our product portfolio globally, thanks to strategic acquisitions centering on enamel and wire development, distribution, and a focus on automotive sector expansion. Essex Furukawa has positioned itself as the leader in magnet wire product innovation and manufacturing.



# A Sustainable Future, Our Driving Force

## VISION 2030



Lead efforts in sustainability by reducing our carbon footprint and implementing Zero Waste to Landfill operations globally



Develop market changing products and services in partnership with, and in support of, our customers



Be a digitally savvy organization by being fully integrated, sustainably automated, and socially responsible

In April 2021, Essex Furukawa announced, *Vision 2030: A Sustainable Future, Our Driving Force*, an initiative that will shape the future of Essex Furukawa. Each decision, partnership, and investment we make as a company will be driven by this common goal. Ultimately, we look to support the needs of current generations without sacrificing the needs of future ones. Our Core Values of Green Production, Disruptive Innovation, and Agile Digitization are the pillars through which we strive to achieve this Vision.

For Essex Furukawa, Green Production is the common thread that is woven through all the core values. It not only positively impacts our own production but influences our supply chain while supporting and aligning with our customers' green production to support their achievement of carbon reduction targets as well.

The goal of Disruptive Innovation is to change the magnet wire industry by introducing product, equipment, and production methods to support and drive technology advancements through the supply chain. What that means is that Essex Furukawa will develop new technology to disrupt the 100+ year old magnet wire technology, support our customers with disruptive technology for materials, products and equipment, as well as use our technology to help aid our customers in enhancing their product performance and thereby support sustainability efforts up and down the supply chain.

Our Agile Digitization core value is to become a world class digitally savvy company with a technology environment that seamlessly enables business in collaboration with our employees, customers, suppliers, and partners. As Essex Furukawa moves forward with Vision 2030 our internal teams are focused on turning valuable data into information and providing people in production with insights to make better decisions to increase our competitive edge.



# Green Production

Our Vision 2030 mission for green production is to be the recognized leader in creating sustainable solutions within magnet wire manufacturing—globally, to meet the needs for now as well as for the future and support our customers in their ongoing sustainability efforts.

Green Production will meet Vision 2030 goals by aligning with four definitive connections:

- > Achieving and maintaining Zero Waste to Landfill status at all facilities globally
- > Establishing and committing to utilizing Renewable Energy
- > Establishing and committing to Energy Reduction targets
- > Establishing and committing to Carbon Reduction targets

INITIATIVE	3-YEAR GOAL (2023)	7-YEAR GOAL (2027)	10-YEAR GOAL (2030)
<b>Zero Waste to Landfill (ZWTL)<sup>1</sup></b>	Achieve ZWTL status at all of our plants globally	Monitor and maintain ZWTL operations globally	Monitor and maintain ZWTL operations globally
<b>Renewable Energy<sup>1</sup></b>	17% renewable energy utilized	27% renewable energy utilized	32% renewable energy utilized
<b>Energy Reduction<sup>1</sup></b>	3% energy reduction	6% energy reduction	10% energy reduction
<b>Carbon Reduction<sup>2</sup></b>	N/A	N/A	20% carbon reduction <sup>3</sup>

<sup>1</sup> Utilized a 2019 baseline

<sup>2</sup> Utilized a 2021 baseline

<sup>3</sup> Carbon goals are pending SBTi validation



## Zero Waste to Landfill

Continuing on a path to a sustainable future remains a focal point for Essex Furukawa. Our effort to refine green production includes achieving Zero Waste to Landfill (ZWTL) across our magnet wire plants, metals processing facilities as well as chemical processing locations. For a plant to achieve ZWTL status, at least 98% of all waste leaving the facility must be diverted from landfill as well as from the downstream material management organization accepting the waste stream.

### Progress

- > 8 plant locations have achieved ZWTL status



## Energy Reduction

Energy reduction initiatives include all anticipated reductions from Essex Furukawa plants' Scope 1 and Scope 2 energy sources (i.e. fuels and electricity) over the next 2023, 2027, and 2030 milestone years. All energy reduction calculations were benchmarked to production to show the plants increase in energy efficiency to production.

### Progress

- > Achieved 1.3% reduction in energy in 2021 compared to 2019 baseline



## Renewable Energy

Essex Furukawa defines renewable energy as clean energy that comes from natural sources or processes that are easily replenishable. Examples of renewable energy under investigation include solar, hydro, and wind power. Unlike our energy reduction goal, our renewable energy progress is based on total energy consumed. We are continually researching possibilities to implement renewable energy projects at each site, globally, to reduce our Scope 2 carbon impact as well as enable green energy production where feasible.

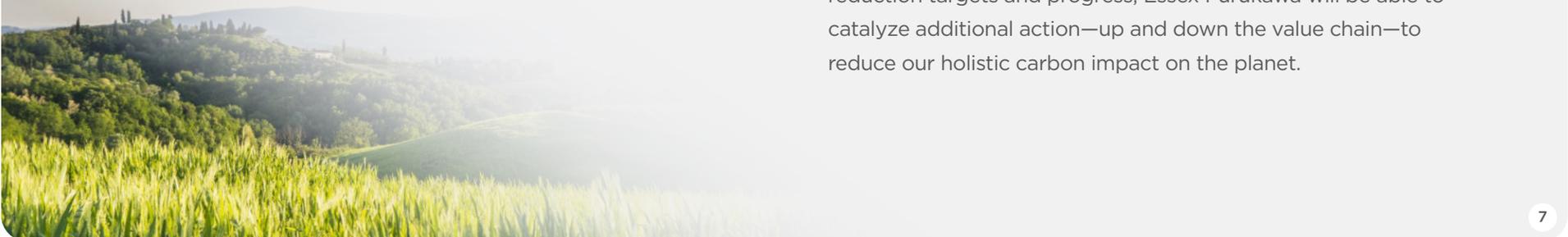
### Progress

- > Utilized 0.13% renewable energy in 2021



## Carbon Reduction

In establishing our Scope 1 and 2 carbon reduction goals, Essex Furukawa has clearly stated its intention to reduce Greenhouse Gas emissions across our global footprint. We now have a defined path to that reduction as an organization as well as in support of our customers' carbon reduction targets. Essex Furukawa is establishing Science Based Targets following the Greenhouse Gas Protocol and aims to meet a 20% reduction of Scope 1 and 2 emissions by 2030. In communicating these reduction targets and progress, Essex Furukawa will be able to catalyze additional action—up and down the value chain—to reduce our holistic carbon impact on the planet.





# Disruptive Innovation

Essex Furukawa will measure itself against its ability to create disruptive innovation in material and production methods. That means, by 2030 we want:

- > New, disruptive products that do not use harmful solvents
- > Innovation of process and expansion of new production methods
- > Reduce carbon dioxide emissions by 50% for new products and new production methods developed specifically in our Japanese R&D Innovation Center

In addition, we look at 2050 as an opportunity to be carbon neutral for all our new products and production methods developed in our Japanese R&D Innovation Center.

Essex Furukawa is committed to supporting a sustainable future for all through Disruptive Innovation. By collaborating with our customers to support the Energy, Commercial & Residential, Industrial, and Automotive markets in new technology we can support a lower carbon economy to reduce overall impact across these industries

We feel that our connection points internally can lead to improvements across the value chain, by being able to:

- > Enable the proliferation of Electric Vehicles (EVs) and support efficiencies in various modes of transportation
- > Support the advancement of the energy & utility sectors by enabling renewable energy technology
- > Support the electrification of buildings through energy efficient technology
- > Support industries to reduce their environmental impact throughout the life cycle





# Agile Digitization

The digitization of buildings, communications, technologies now and into the future will enable the interconnectivity of all infrastructure to support a more sustainable world through the following measures:



## FULL INTEGRATION

Full integration enabling connected digital ecosystems, supporting data and supply chains that are securely connected to interoperable systems, aligned to global industry standards



## GREEN TECHNOLOGY

Defining Green IT (Information Technology) as well as Green OT (Operational Technology), and developing platforms and technologies that enable 100% e-waste recycling and power efficient operations



## SUSTAINABLE AUTOMATION

Streamlining the process of data collection and generating sustainability-related metrics to leverage green recycling, enabling harmonious human-to-machine interaction



## SOCIAL IMPACT

Bringing social value to the communities we serve with commitments to United Nations Sustainable Development Goals (UN SDGs)

To accomplish our goals, we are expanding implementations of transformational operational analytics in a global effort to make real time, data guided decisions creating operational efficiencies. We are also currently implementing several technologies for operational insights and data integration together with leveraging cloud-based technologies to reduce our carbon footprint.

Essex Furukawa is focused on delivering multiple accomplishments to complete our Vision 2030 mission with advanced operational technologies over the next decade, including:

- > Implementing best of breed cyber security capabilities to keep our data, information and systems cybersafe
- > Implementing Agile Ways of Working and empowering local teams with technology & knowledge to best serve our customer's needs
- > Converging IT and OT to leverage synergies and deliver world class IT/OT capabilities to our business
- > Leveraging data collection of sustainability metrics to inform strategic decision making
- > Utilizing artificial intelligence and machine learning to improve efficiencies of our production systems across all facilities globally
- > Utilizing blockchain to develop supply chain transparency and end-to-end product life cycle analysis

# Holistic Sustainability

To achieve our Vision 2030 goals, Essex Furukawa has given further definition to its holistic approach in achieving a sustainable future to include seven petals that create specific and measurable action items that will help measure the successes as well as identify opportunities for improvement within the organization.





# Accountability, Reporting, & Governance

As a corporation, Essex Furukawa places a high value on sustainability and environmental conservation. Our compliance with multiple environmental directives and regulations is a testimony to our commitment. Through consistent communication efforts of our data, goals, and metrics, we are able to establish transparency both internally and externally. We created a Sustainability Leadership Council to track ongoing impact reductions, develop a Corporate Sustainability Report and further our commitments to social responsibility.

## Accountability & Reporting

- > Carbon Disclosure Project (CDP): Essex Furukawa reports metrics to customers through the CDP—a global disclosure system to manage environmental impacts of companies.
- > EcoVadis: Essex Furukawa reports to many customers through EcoVadis, a sustainability assessment tool for evaluation of a company’s integration of sustainability into business.
- > The Copper Mark Partnership: The Copper Mark is an assurance framework to promote responsible production practices within the copper industry. Superior Essex, parent company of Essex Furukawa, became the eighth corporate partner of The Copper Mark in May 2021.
- > The Copper Mark Semis-Fabricator Pilot Certification: Essex Furukawa expanded its relationship with The Copper Mark in October 2021 to join as semis-fabricator partners committed to participate in a pilot certification program.
- > Environmental Certifications: Being conscious of our environmental impact is important at Essex Furukawa. Many of our plants have received environmental certifications of compliance all around the world. Details can be found in the Appendix.
- > UN Sustainable Development Goals Alignment: The UN SDG program was launched in 2015 as part of its 2030 Agenda for Sustainable Development, set forth by the organization, and includes 17 Sustainable Development Goals. These SDG’s are an urgent call for action by all countries—developed and developing—in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth—all while tackling climate change and working to preserve our oceans and forests.
- > Setting and publicly committing to waste, energy, renewable energy, and carbon reduction goals.
- > Completing customer requests for surveys and questionnaires.<sup>1</sup>

<sup>1</sup> SupplyOn, Carbon Disclosure Project, EcoVadis, Supplier Assurance Self-Assessment Questionnaire (SAQ), Assent

## Governance

Essex Furukawa has earned the reputation of a company with the highest integrity—producing and delivering quality products with outstanding customer service. We are proud not only of what we are accomplishing, but of how we are achieving success. This reputation is one we want to protect. To protect this reputation, we continually strive to serve the best interests of our customers, employees and shareholders, while behaving as a responsible corporate citizen. This commitment requires, among other things, that we act with the highest ethical and legal standards.

Our commitment to the highest standards of integrity begins with ensuring that everyone across Essex Furukawa understands our core values—values that define how we conduct ourselves. These values are the foundation of our *Code of Ethics*. Additional information and guidance is available in our *Standards of Business Conduct*.

- > **Supplier Code of Conduct** | Essex Furukawa is committed to ensure that sustainability and the vision of the company are at the forefront of all of our material and supplier decisions. Our updates to our Supplier Code of Conduct and Sourcing Strategy will focus on reducing the overall impact of waste, increasing the recycling and reuse capabilities of our products, holding our suppliers environmentally responsible, and reducing our overall environmental and carbon footprint.
- > **Human Rights Policy** | Essex Furukawa, including its subsidiaries, are committed to acting with integrity in everything we do. We are dedicated to conducting business in a manner that respects, protects, and supports the advancement of human rights around the globe. We strive to uphold the global standards outline in the United Nations’

Universal Declaration of Human Rights for responsible, integrity-based business, including non-discrimination, equal opportunity, the freedom to associate and bargain collectively, the elimination of modern slavery, human-trafficking and harmful or exploitative forms of child labor.

- > **Conflict Minerals Policy** | Essex Furukawa, including its subsidiaries, supports the humanitarian goal of ending violence in the Democratic Republic of Congo (DRC) and is committed to the responsible sourcing of conflict minerals throughout its supply chain. Accordingly, Essex Furukawa has adopted this conflict minerals policy (“Policy”) and expects all of its suppliers to adopt a similar policy and meet the expectations set forth herein. In support of this Policy, Essex Furukawa will only purchase products containing conflict minerals that are DRC conflict free. Essex Furukawa has conducted due diligence regarding all of the products it manufactures and distributes to determine the presence of any conflict minerals and where they are sourced.
- > **Environmental Policy** | It is the established policy of Essex Furukawa to conduct its affairs in an environmentally responsible manner. We are committed to reduce the environmental impacts of our activities, products and services to preserve and protect the natural environment including the air, water, land and other natural resources.
- > **Dollars for Doers** | Essex Furukawa features a program when employees volunteer during their personal time. When employees donate volunteer hours with an eligible nonprofit 501 (c) (3), Essex Furukawa will give a grant to that qualifying nonprofit organization. The flexibility of the program allows employees to focus on areas of volunteerism that are most important to them as individuals.



## Zero Waste to Landfill

In 2021, Zero Waste to Landfill (ZWTL) assessments were conducted by a sustainability consulting organization in a joint effort with Essex Furukawa at all our plants, and the results were encouraging as three North American locations; all three European locations, as well as operations in China and Japan have achieved ZWTL based on the above definition.

In North America, three locations were able to achieve Zero Waste to Landfill.

- > Franklin, IN (U.S.) Magnet Wire Plant already achieved 100% diversion rate, meaning no waste is being sent to a landfill.
- > Torreón (Mexico) Magnet Wire Plant achieved a 99% diversion rate, with multiple recommendations to close the loop on the remaining 1% that is going to landfill.
- > The Chemical Processing Facility in Fort Wayne, IN (U.S.) achieved a 98% diversion rate.

Of the other plants in North America, two magnet wire plants—Fort Wayne, IN (U.S.) and Simcoe (Canada)—both just missed the threshold with 97% and 96% diversion rates, respectively. Fort Wayne discovered the remaining 3% of its waste was attributed to oversight and will be corrected through better plant management processes. Simcoe had 1% of waste being erroneously sent to landfill and can be recovered moving forward, with another 2% being identified as available for mitigation and reduction practices.

The Metals Processing Center (MPC) located in Columbia City, IN (U.S.) had a diversion rate of 96%. Additionally, MPC further reduced its water waste by nearly 75% in 2021 by implementing another layer to its filtration system, a side-stream filter that aids in removing impurities and reduces water waste.

Lastly, the Franklin, TN (U.S.) Magnet Wire plant achieved a diversion rate of 83% on its ZWTL assessment. It was found that 14% of its plant waste is water waste, and there is currently a study being done to identify methods to further reduce and divert that waste stream.



In Europe, all three locations have achieved Zero Waste to Landfill.

- > Zrenjanin (Serbia) and Bramsche (Germany) were determined to be at 100% diversion rate.
- > Bad Arolsen (Germany) achieved a 98% diversion rate, with 1.47% waste being created by downstream waste management and identified an opportunity to reach over 99%.

The Asia Pacific markets that were able to be analyzed both were determined to have achieved Zero Waste to Landfill. Analysis on two plants in Malaysia are pending third-party verification.

- > Kameyama (Japan) assessment was returned with a 100% diversion rate.
- > Suzhou (China) was analyzed to have a 99% diversion rate. Almost the entirety of its 1% remaining was perishable waste and a recommendation to begin composting was made.
- > While Penang (Malaysia) has tentatively achieved 95%, and Kuala Lumpur (Malaysia) tentatively achieved 94%, their assessments have not yet been verified by the third-party material management organization due to delay resulting from the COVID-19 pandemic.



**Franklin, IN**  
Magnet Wire Plant



**Torreón, Mexico**  
Magnet Wire Plant



**Fort Wayne, IN**  
Chemical Processing Plant



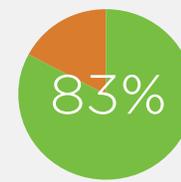
**Fort Wayne, IN**  
Magnet Wire Plant



**Simcoe, Canada**  
Magnet Wire Plant



**Columbia City, IN**  
Metals Processing Center



**Franklin, TN**  
Magnet Wire Plant



**Zrenjanin, Serbia**  
Magnet Wire Plant



**Bramsche, Germany**  
Magnet Wire Plant



**Bad Arolsen, Germany**  
Magnet Wire Plant



**Kameyama, Japan**  
Magnet Wire Plant



**Suzhou, China**  
Magnet Wire Plant



**Penang, Malaysia**  
Magnet Wire Plant



**Kuala Lumpur, Malaysia**  
Magnet Wire Plant

\* Preliminary. Final assessments on hold due to COVID-19 pandemic.



# Carbon Reduction Targets

The reduction of greenhouse gases is of keen interest to the future of Essex Furukawa and the future of the planet. We are researching and developing actionable plants to reduce our CO<sub>2</sub> emissions at our global magnet wire facilities. We have set carbon reduction targets using the recommended standards from the Greenhouse Gas Protocol (GHG) and have submitted these targets for validation to Science Based Targets Initiative (SBTi). These targets will help shape our path to reduce greenhouse gas emissions as an organization. We believe communicating our carbon reduction targets to employees and customers will catalyze additional action up and down the value chain.



Essex Furukawa has aligned its sustainability efforts with those of the UN Sustainable Development Goals, committing to 11 out of the 17 UN SDG's.<sup>1</sup> This partnership will enable our organization to identify common purposes and opportunities for action with other entities, while collaborating to achieve a better and more sustainable future for all.

<sup>1</sup> Committed at the parent company level as Superior Essex.



# 11 Goals

OF SUSTAINABLE DEVELOPMENT

<p><b>Goal 3</b></p>	<p><b>GOOD HEALTH AND WELLBEING</b></p> <ul style="list-style-type: none"> <li>• Environmental Policy</li> </ul>	<p><b>Goal 5</b></p>	<p><b>GENDER EQUALITY</b></p> <ul style="list-style-type: none"> <li>• Human Rights Policy</li> </ul>		
<p><b>AFFORDABLE AND CLEAN ENERGY</b></p> <ul style="list-style-type: none"> <li>• Renewable Energy Goals</li> </ul>	<p><b>Goal 7</b></p>	<p><b>DECENT WORK AND ECONOMIC GROWTH</b></p> <ul style="list-style-type: none"> <li>• Copper Mark</li> <li>• Disruptive Innovation</li> <li>• Human Rights Policy</li> </ul>	<p><b>Goal 8</b></p>	<p><b>INDUSTRY, INNOVATION AND INFRASTRUCTURE</b></p> <ul style="list-style-type: none"> <li>• Energy Reduction Goals</li> <li>• Renewable Energy Goals</li> <li>• Disruptive Innovation</li> </ul>	<p><b>Goal 9</b></p>
<p><b>Goal 10</b></p>	<p><b>REDUCED INEQUALITY</b></p> <ul style="list-style-type: none"> <li>• Human Rights Policy</li> <li>• Copper Mark</li> </ul>	<p><b>Goal 11</b></p>	<p><b>SUSTAINABLE CITIES AND COMMUNITIES</b></p> <ul style="list-style-type: none"> <li>• Environmental Policy</li> <li>• Air Permitting</li> <li>• Disruptive Innovation</li> <li>• Torreón Grey Water Reuse</li> </ul>	<p><b>Goal 12</b></p>	<p><b>RESPONSIBLE CONSUMPTION AND PRODUCTION</b></p> <ul style="list-style-type: none"> <li>• Copper Mark</li> <li>• ZWTL</li> <li>• Accountability &amp; Reporting</li> <li>• Sustainable Sourcing Policy</li> <li>• Torreón Grey Water Reuse</li> </ul>
<p><b>CLIMATE ACTION</b></p> <ul style="list-style-type: none"> <li>• Energy Reduction Goals</li> <li>• Renewable Energy Goals</li> <li>• Carbon Reduction Goals</li> </ul>	<p><b>Goal 13</b></p>	<p><b>PEACE, JUSTICE AND STRONG INSTITUTIONS</b></p> <ul style="list-style-type: none"> <li>• Human Rights Policy</li> <li>• Copper Mark</li> <li>• Sustainable Sourcing Policy</li> </ul>	<p><b>Goal 16</b></p>	<p><b>PARTNERSHIPS FOR THE GOALS</b></p> <ul style="list-style-type: none"> <li>• Alignment with 11 of the 17 UN SDGs</li> </ul>	<p><b>Goal 17</b></p>



## Supply Chain Transparency

Essex Furukawa will hold itself accountable to understanding the environmental and societal impacts of our supply chain, both downstream and upstream, and communicate this knowledge internally and externally. By doing so, Essex Furukawa can reduce their impact while supporting their customer's impact reduction goals. Our team is mapping the supply chain, collecting information on practices and performance as well as investigating potential risks, opportunities for improvement, and information gaps.

One way we have been achieving this initiative is through our expanded relationship with The Copper Mark as we've joined as semi-fabricator partners committed to participate in a pilot certification program. This certification will ensure that our magnet wire products are produced in an ethical and responsible way.



# Responsible Sourcing

Once we've achieved supply chain transparency, we can then make educated decisions on who we choose to work with. Essex Furukawa is focused on the responsible sourcing of materials used in our manufacturing processes, including that of copper. This approach is one that is actively conscious about procuring products in ethical, sustainable and socially conscious ways.

One of these options is our existing partnership with The Copper Mark. Recognizing some of our largest impacts in our products come from copper extraction, we've partnered with The Copper Mark to better define what sustainability in the copper value chain looks like. Currently 83% of the copper that is sourced in North America is certified by The Copper Mark. And we're actively seeking sources globally as well.

Additionally, we are uniquely positioned—through a strategic sourcing partnership with a low-carbon copper supplier—to offer an innovative solution to customers in Europe to address and improve the carbon footprint of their supply chain. By sourcing from this strategic supplier, Essex Furukawa can ensure we're providing socially responsible resources through deeply rooted safety culture.

Our low-carbon copper supplier produces a copper cathode with less than 1.5kg of CO<sub>2</sub> emissions per kg which is less than half of the global average presented by the International Copper Association (ICA).

We are working to develop a fully integrated sustainable purchasing policy to implement responsible sourcing through all operations, drive reduced impacts of our supply chain and enable innovation.





# Circular Economy

Essex Furukawa looks at a circular economy as an economic system that tackles global challenges like climate change, biodiversity loss, waste, and pollution. We feel that aligning the pillars of our Vision will naturally create this system that improves the life cycle of our products, contributes to our carbon reduction goals, and aligns with our customer values.

Essex Furukawa takes special care to ensure the seamless delivery of magnet wire to our customers' manufacturing floors. As a sustainability minded business, the packaging used to deliver our products is made from up to 30% recycled materials. We also strive to fine-tune the resource cycle through the removal of empty pallets, reels and spools. These packages are fully reusable via the *Essex Furukawa Packaging Return Program*.



# Sustainability Leadership Council

The Essex Furukawa Sustainability Leadership Council (SLC) was created to further advance the initiatives of Vision 2030. The SLC includes key stakeholders from across the organization selected to offer well-rounded but differing perspectives on the business. The group meets regularly to provide insights from internal and external communications as well as make suggestions regarding the future of our holistic sustainability efforts. The goal of the SLC is to ensure that Vision 2030 is ever-present in our decision making.

In addition to the SLC, two subcommittees were developed in 2021—Innovation and Responsible Sourcing. A future subcommittee is planned to track progress of the Agile Digitization pillar.



## **Innovation Subcommittee**

The SLC recognized the importance of a subcommittee focused on Disruptive Innovation. Masakazu ‘Mike’ Mesaki, SVP, Global R&D, leads the subcommittee to look at Disruptive Innovation from a lens that gives specific attention to reducing the impact of the materials used in production. “We aim to change the magnet wire industry by introducing product, equipment and production methods to support and drive technology advancements.” Mesaki said.

Matt Leach, VP of New Product Introduction and Innovation, was added to the subcommittee to research and develop sustainable products and find ways to apply Green Production to plants across the globe.

## **Responsible Sourcing Subcommittee**

Essex Furukawa will hold itself accountable to understanding the environmental and societal impacts of our supply chain, both downstream and upstream, and communicate this knowledge internally and externally. Our team is mapping the supply chain, collecting information on practices and performance as well as investigating potential risks, opportunities for improvement, and information gaps.

Scott Wilde, Global VP, Strategic Sourcing, leads the subcommittee to ensure that sustainability and Vision 2030 are at the forefront of all of our material and supplier decisions. Wilde and his team are addressing the current gaps and the future potential of our sustainable sourcing strategy.

# More for the Future

The holistic sustainability journey that Essex Furukawa has set out on does not stop with our first report. This is just an initial outpost on a journey that we are excited to take. Hitting this marker is an acknowledgement of what has been done, benchmarking it, and then setting our course of action for the future. Vision 2030 will lead the next decade with new initiatives, additional developments, and refinements to our process.

Here are just a few things on the horizon:

- > Achieve Zero Waste to Landfill status at all plants in 2023
- > Develop a Sustainable Purchasing policy
- > Complete a Scope 3 carbon assessment and reduction strategy
- > Investigate tools for Life Cycle Assessment of products
- > Investment in renewable energy
- > Form Agile Digitization subcommittee
- > Further focus on Social Sustainability and Human Rights



# Appendix

## Resources

Several initiatives in support of Vision 2030 are underway including:

- > [Participation in The Copper Mark's Semis-Fabricator Pilot](#)
- > [Agile Digitization Solutions Implemented in Europe](#)
- > [Phenolic Process Improves Environmental Impact, Meets Call of Vision 2030](#)
- > [Packaging Decisions Put Circular Economy Front-and-Center for Vision 2030](#)
- > [Short Reel Initiative](#)
- > [New MagForceX® Innovation Center in Suzhou, China](#)
- > [30,000 gallon reduction in water usage at Metals Processing Center \(MPC\)](#)
- > [Zero Waste to Landfill \(ZWTL\) Findings](#)
- > [Alignment with UN SDGs](#)
- > [Use of Grey Water at Our Torreón, Mexico Facility](#)

Visit our [website](#) for the latest sustainability news

Sign up for our quarterly [newsletter](#).

Click to Navigate to External Resources



### > Assurance Process

- SMS Collaborative, LLC
- Keramida, Inc.

### > Environmental Certifications

- *ISO 14001-2015*
  - Bramsche (Germany) Magnet Wire Plant
  - Bad Arolsen (Germany) Magnet Wire Plant
  - Zrenjanin (Serbia) Magnet Wire Plant
  - Kuala Lumpur (Malaysia) Magnet Wire Plant
  - Penang (Malaysia) Magnet Wire Plant
  - Suzhou (China) Magnet Wire Plant
  - Torreón (Mexico) Magnet Wire Plant
  - Columbia City, IN (U.S.) Metal Processing Center
  - Franklin, IN (U.S.) Magnet Wire Plant pending, expected 2022
- *ISO 50001-2018/2011*
  - Bramsche (Germany) Magnet Wire Plant
  - Bad Arolsen (Germany) Magnet Wire Plant
- *ISO 45001-2018*
  - Suzhou (China) Magnet Wire Plant
  - Penang (Malaysia) Magnet Wire Plant

# Appendix—cont.

## Performance Data Tables<sup>1</sup>

### > Green House Gas Emissions (GHG)<sup>2</sup>

	2021
Scope 1 (CO <sub>2</sub> e tonnes)	94,965
Scope 2 (CO <sub>2</sub> e tonnes)	136,742
Scope 3 (CO <sub>2</sub> e tonnes) <sup>3</sup>	3,874,458
Total (Scope 1 & 2) (CO <sub>2</sub> e tonnes)	231,707

### > Energy Consumption (MWh/MT)

	2019	2020	2021
Non-renewable Fuels Purchased and Consumed	1.460	1.470	1.410
Non-renewable Electricity Purchased	0.840	0.860	0.860
Total Non-renewable Energy Consumed	2.290	2.500	2.270
Total Renewable Energy Purchased or Generated	0.004	0.004	0.003
Total Energy Consumption	2.300	2.500	2.270

<sup>1</sup> Values include air emissions, water usage, and energy consumption at our magnet wire manufacturing locations only

<sup>2</sup> Following Greenhouse Gas Protocol Market-Based Approach

<sup>3</sup> Estimated screening value

### > Waste Diversion

	2019
Global Waste Diversion Rate	96.7%

### > Air Emissions

	2019	2020	2021
Organic Compounds (MT)	134	160	189

### > Water Usage and Utilization (m3)

	2019	2020	2021
Total Water Withdrawn	588,055	551,677	539,155
Total Water Discharged	420,110	402,936	369,808

### > Environmental Events

	2019	2020	2021
Reportable Spills or Releases of Hazardous or Toxic Chemicals	0	0	0
Number of Significant Environmental Events	0	0	0

# Appendix—cont.

## > Health and Safety Performance

	2019	2020	2021
Total Workplace Fatalities	0	0	0
Total Workforce Recordable Incident Rate <sup>4</sup>	12.1	10.8	11.0

## > Workforce Demographics<sup>5</sup>

	2019	2020	2021
Number of Employees	1,711	2,062	2,112
Aged <30	—	—	18%
Aged 30 - 50	—	—	52%
Aged >50	—	—	31%
Total Women Employed	—	—	13%
Total Women in Leadership Positions (Managers and Above)	—	—	25%

<sup>4</sup> International Incident Rate

<sup>5</sup> Age and Women Employed information not tracked in 2019 and 2020

## > Human Rights

	2019	2020	2021
Gross Human Rights Violations	0	0	0



08-2022  
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