Recycling Today for a Sustainable Tomorrow

2019 Sustainability Report
Less Waste. More Resources. Cleaner Air.

As one of North America’s largest recyclers of metal and a manufacturer of steel from 100 percent recycled metal, we work every day to help ensure a future with less waste, more natural resources, and cleaner air. We turn the old into new, enable the obsolete to become reusable, and, in the process, build better communities.
Look at the bridge you cross, the road you drive on, and the building where you work.

Did you know that most of the steel used in today’s infrastructure projects is made from recycled metal? We recycle metal into rebar that finds new life in the construction of vital infrastructure to improve the quality of life for our communities and beyond.

Look at your old washing machine, an end-of-life vehicle, and a demolition project.

Did you know that these are sources of “scrap metal” that our recycling business processes and sells to steel mills, foundries, smelters, or ingot makers around the world? Our business helps extend the life of ferrous metal (which contains iron) and non-ferrous metal (which does not) indefinitely.

Steel made with scrap metal uses fewer resources than steel made with iron ore and coal.

- 90% less virgin material
- 40% less water
- 74% less energy

Since 2015, we have processed and sold more than 20.9 million metric tons of ferrous and non-ferrous scrap metals.

More metal recovery means less scrap in landfills and fewer virgin materials mined from the earth.
Remember that car you traded in years ago?

Our Pick-n-Pull stores make end-of-life vehicles available to consumers who find affordable, reusable components—think headlamps, transmissions, or steering wheels—to use in their vehicles, so they can keep moving and take care of the important things in life.

In Fiscal Year 2019:

What we keep out of landfills adds up.

- 1,702,343 gallons of fuel
- 597,373 tires
- 9.7 million pounds of batteries
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About Schnitzer

CEO Message

Recycling Today for a Sustainable Tomorrow

What sets Schnitzer apart from other businesses is that sustainability has been at the core of what we do and how we operate since our founding in 1906. By recycling ferrous and non-ferrous metal, we divert and reuse millions of tons of materials each year that might otherwise be destined for landfills.

At the same time, we are not the company we were a century ago. Despite our role as a leading recycler, misperceptions remain of scrap yards as places that accumulate junk and of steel mills as places that pollute the environment. But this outdated image doesn’t capture our modern reality. Today, our manufacturing and recycling facilities incorporate state-of-the-art environmental and safety controls that keep employees, natural resources, and local communities safe. In Fiscal Year 2019, for the first time in our long history, our facilities are powered by 90 percent carbon-free electricity, and we recapture and reuse approximately 80 percent of the water used in our steel manufacturing operation.

Moreover, Schnitzer’s entire business portfolio, including Pick-n-Pull and Cascade Steel Rolling Mills, Inc., provides a path out of the unsustainable “cradle-to-grave” cycle of resource extraction and disposal for metals-based consumer and industrial goods that are produced, used, and disposed of around the world. Our sustainable business model has never been more important than it is today. As global trends continue to support the growth of lower carbon-based economies, the demand for metal-based products, especially those produced by recycled materials, will increase significantly in the years ahead.

Our productivity continues to increase as we invest in advanced processing and extraction technologies to increase the amount of metals that we recycle and reduce the amount of materials directed to landfills. We are also investing in environmental control technologies and more efficient material handling equipment which will enable us to reduce emissions and conserve fuel. Underpinning everything we do are our core values of Sustainability, Safety, and Integrity which we put into action every day, and I am proud that Schnitzer has been recognized as a World’s Most Ethical Company by the Ethisphere Institute for the fifth consecutive year.

Despite these achievements, we are continually finding ways to do even more to contribute to a sustainable tomorrow. In Fiscal Year 2019, we raised the bar by establishing a series of sustainability goals that will keep us at the forefront of progress by focusing on three dimensions of sustainability: People, Planet, and Profit. By putting sustainability into action through our daily work, we are striving to meet or beat our ambitious goals by the end of Fiscal Year 2025.

In our Fiscal Year 2019 Sustainability Report, we share the many ways that Schnitzer makes a positive impact on the world. These impacts occur not only through the inherent sustainability of our business model, but also through key operational improvements, effective investments in our workforce, and meaningful engagement with our communities. On behalf of our Board of Directors and our over 3,300 employees, I invite you to read this report to learn more about how our recycling efforts today ensure a sustainable tomorrow for all of our stakeholders.

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Tamara L. Lundgren
President and CEO

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Tamara L. Lundgren
President and CEO
About Schnitzer

Corporate Profile

1906
founded

Portland, Oregon
headquarters

SCHN
NASDAQ ticker symbol

sell to 27 countries across 4 continents

Fiscal Year 2019

$2.1 billion revenue

>3,300 employees

97 operating facilities
96 auto and metals recycling facilities including 6 shredding facilities
1 steel manufacturing facility
Our Core Values

SUSTAINABILITY  SAFETY  INTEGRITY

What We Do

Auto dismantling
Through our Pick-n-Pull brand, we operate an industry-leading chain of 51 self-service used auto parts stores providing recovered, affordable auto parts to retail and wholesale customers. These stores purchased over 385,000 end-of-life vehicles in Fiscal Year 2019. For over 30 years, Pick-n-Pull has offered quality auto parts for a wide variety of makes and models of domestic and foreign cars, vans, and light trucks. After vehicle parts are extracted for resale, remaining auto bodies are crushed and transported to Schnitzer’s metals recycling facilities, or to other metals recycling facilities within North America, to undergo shredding and sorting processes to recover the ferrous and non-ferrous metal content of the vehicles.

Metals recycling
As one of North America’s largest recyclers of scrap metal, Schnitzer’s metals recycling facilities acquire, process, and recycle ferrous and non-ferrous metal. Our strategically located facilities on both the east and west coasts of North America, Puerto Rico, and Hawaii enable efficient sourcing and delivery of recycled metals to mills and foundries around the world. Our direct access to rail, major highways, and deep-water export terminals creates a competitive advantage and allows us to transport our products in a cost-effective and energy-efficient manner. Strategic capital investments in facility infrastructure, equipment, and advanced metal recovery technologies deliver recycling solutions and provide high-quality, efficient scrap metal processing.

Steel manufacturing
Our steel manufacturing business, Cascade Steel Rolling Mills, Inc. (“Cascade Steel”) obtains its scrap metal feedstock from our own metals recycling businesses. At our state-of-the-art electric arc furnace steel mill, we melt and shape recycled metal into rebar, coiled rebar, wire rod, merchant bar, and other specialty products. Cascade Steel sells its products to customers primarily located in the western U.S. and Canada from its mill in McMinnville, Oregon, and a distribution center in City of Industry, California. Our mill has direct access to rail service and close proximity to major highways.
Our Business Value

Without metals recycling, many product life cycles, in industries such as construction and automotive, take resources from the cradle to the grave. In such cases the product life cycle begins with extraction, where virgin ore is mined from the earth. The ore is then manufactured into new products, and products are distributed, sold, and put to use. At the end of their life cycles, these products are sent to landfills.

Thanks to companies like Schnitzer, fewer non-renewable resources are needed. Salvaged materials stay out of landfills and instead become inputs for new products. Each of our businesses contributes to our cradle-to-cradle business model.
Formalizing Our Sustainability Commitments

Why is now the right time for Schnitzer to refresh its sustainability strategy?
Our business has always provided a significant societal benefit. By recycling scrap metal, we divert and reuse millions of tons of materials each year that might otherwise be destined for landfills. That scrap becomes new infrastructure, like roads, bridges, schools, and cars—all the things that make sustainable progress possible.

While this is the core of what we do, we know there’s an opportunity to do even more. That’s why we’re not only setting goals to continually improve upon our sustainability performance, but also changing how we think and talk about sustainability within Schnitzer.

What are the components of this new strategy?
First, our strategy is about more than just the environment. It is designed to positively impact three important dimensions—People, Planet, and Profit. Our strategy includes goals within each of these dimensions that Schnitzer aspires to achieve by 2025. Finally, our strategy includes a focus on increasing employee awareness and engagement. We’ve articulated four Sustainability Principles that will help our people put sustainability into action through their daily work.

Why is employee engagement so important?
Every Schnitzer employee has a meaningful impact on our sustainability performance, from ensuring we comply with applicable regulations to keeping themselves and others safe at work. We want to educate all employees about the important role they play, and empower them to help us reach our goals by the end of Fiscal Year 2025.

What considerations influenced the creation of Schnitzer’s first sustainability goals?
From the outset, we knew that the goals had to be aspirational, holistic, measurable, and attainable. A Fiscal Year 2025 endpoint allows for the opportunity to measure significant performance improvement. We also made sure that the goals we set were right for our business. They connect to the findings of our 2018 Sustainability Materiality Assessment, conducted by a third-party consultant and through in-depth interviews, which ranked the material issues that are most important to the longevity of our Company and success of our stakeholders.

How else is Schnitzer strengthening performance and disclosure?
We’re increasing transparency around our sustainable business practices. This year, we submitted our first Carbon Disclosure Project (CDP) Water Questionnaire, and our third CDP Climate Change Questionnaire. These global benchmarks help investors and others better understand how our impact compares to other major businesses.

And although we’ve only just announced our 2025 sustainability goals, we’re already making steady improvements in our environmental performance. In Fiscal Year 2019, we decreased our total absolute GHG emissions by 5 percent and total energy consumption by 4 percent from the previous year. Also, for the first time, our facilities are powered by 90 percent carbon-free electricity. With our goals and principles now in place, I’m excited about even greater positive impacts we will continue to make in the years ahead.
About Schnitzer

Sustainability Goals and Governance

In Fiscal Year 2019, Schnitzer established its first enterprise-wide sustainability goals. In setting these goals, we had a few guidelines in mind. First, we wanted goals that were holistic—not focused solely on environmental performance. As a result, we’re tracking progress in the areas of People, Planet, and Profit. We also wanted goals to be measurable, yet attainable over several years.

Finally, we wanted the goals to be relevant—aligned with the issues that matter to our stakeholders. The development of our goals was guided by our Sustainability Materiality Assessment. We aim to meet or beat our People and Planet goals by the end of Fiscal Year 2025, and our Profit goal by the end of Fiscal Year 2021. These goals are aligned with Schnitzer’s long-term business success.

### People

- **Safety**
  - Achieve a total case incident rate by end of Fiscal Year 2025

- **Volunteerism**
  - Donate at least 10,000 hours of paid volunteer time off (VTO) for employees by the end of Fiscal Year 2025

### Planet

- **Air Emissions**
  - Reduce absolute GHG emissions from Auto and Metals Recycling (AMR) operations by 25% by the end of Fiscal Year 2025

- **Carbon-Free Electricity Use**
  - Achieve and maintain at least 90% carbon-free electricity use by the end of Fiscal Year 2025

### Profit

- **Growth**
  - Achieve a profitability improvement target of $15/ton using sustainability-based initiatives by the end of Fiscal Year 2021
**Sustainability Principles**

Improving our sustainability performance requires important contributions from every Schnitzer employee. We’re making our core value of Sustainability tangible and actionable for our workforce with a new set of Sustainability Principles. These principles connect with the holistic, triple-bottom-line concept of sustainability, which includes People, Planet, and Profit. Each Principle has an action statement that helps employees put sustainability into action through their daily work.

<table>
<thead>
<tr>
<th>Eliminate Waste</th>
<th>Continuous Improvement</th>
<th>Technology &amp; Innovation</th>
<th>Working with Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>We create sustainable value through safety improvement and operational efficiency.</td>
<td>We continuously explore and pursue practices that promote sustainable operations.</td>
<td>We embrace the sustainable benefits of technology and innovation.</td>
<td>We are committed to positively impacting our communities and supporting a diverse and inclusive workplace.</td>
</tr>
</tbody>
</table>

Waste can include wasted time and productivity, as well as wasted materials sent to landfills. We put the Eliminate Waste principle into action when we:
- Improve safety performance
- Increase operational efficiency
- Decrease waste by-products; send less material to landfills
- Participate in office or facility recycling efforts

The journey to becoming a more sustainable company has no endpoint. We put the Continuous Improvement principle into action when we:
- Identify new opportunities to reduce air emissions
- Identify new opportunities for storm water reuse or recovery, including process water recycling
- Identify opportunities to improve scrap quality to increase market access and market share
- Develop new processes and controls to improve the safety of our work environment

Sustainable technology and innovation protect our environment and the communities where we work and live. We put the Technology & Innovation principle into action when we:
- Acquire new technologies such as advanced metals recovery technology systems
- Construct shredder enclosures at metals yards
- Implement storm water treatment facility upgrades or installations
- Install thermal oxidizers to significantly reduce GHG emissions

Creating a purposeful work environment benefits not only our employees, but also customers, investors, and communities. We put the Working With Purpose Principle into action when we:
- Support a work culture where everyone is treated with respect, fairness, and has an equal opportunity to reach their full career potential
- Positively impact our communities through volunteerism and charitable giving
Sustainability Goals and Governance (cont.)

Sustainability governance

Sustainability is integrated into Schnitzer’s corporate governance and organizational structures, allowing us to embrace change and innovation, and measure our progress across a range of metrics.

Our Chief Sustainability Officer (CSO) reports directly to the CEO and provides updates to our Board of Directors, which oversees our sustainability strategy and execution. The CSO analyzes, builds consensus for, and manages sustainability-related initiatives, projects, and goals that are supported by executive-level leadership and are visible throughout the organization.

Schnitzer also has a Sustainability Leadership Group that collaborates on the development and deployment of sustainable and socially responsible business practices. This cross-functional team engages leadership across business units, geographic regions, and job functions. The group seeks to mobilize our workforce to, for example, apply environmental considerations to equipment procurement decisions and planned operational changes, support our culture of ethical behavior, and lead other stakeholder engagement events such as Earth Day activities.

Sustainability governance at Schnitzer
About this report

This is Schnitzer’s sixth Sustainability Report, covering Fiscal Year 2019, which ended August 31, 2019. It includes relevant updates and metrics within our two operating and reportable segments: the Auto and Metals Recycling (AMR) and the Cascade Steel and Scrap (CSS) businesses.

Since 2014, we have engaged Trucost (part of S&P Global) to provide assurance of selected environmental data, including greenhouse gas emissions, water withdrawal, and waste generated. Trucost undertook this assurance in accordance with AA1000AS (2008) Type 2 moderate-level assurance.

Circumstances may arise in which restatement of data from previous sustainability reports is appropriate. For example, this may be due to, among other things, reconciliation of source data, updates in conversion factors, internal methodology changes, or changes in overall reporting scope. Restatements promote the transparency of our reporting and enable a more accurate assessment of Schnitzer’s progress on its key performance indicators. Even though the restatements do not significantly impact our historic sustainability performance, by retrospectively updating previous figures, we expect that our year-over-year data will remain more consistent over time. Throughout our report, any restatements of previous-year data will be noted.

Other non-financial disclosures

As a participant in the Carbon Disclosure Project (CDP) over the past three years, Schnitzer is committed to voluntary disclosures of relevant climate change and water security-related information on our governance, risks and opportunities, business strategy, targets and performance, GHG emissions, energy use, water consumption, and stakeholder engagement.

As of 2019, Schnitzer Steel Industries received an MSCI ESG Rating of AA, putting us in the top 10 percent within our industry. The evaluation noted Schnitzer’s less carbon-intensive business lines relative to peers, carbon intensity 96% lower than industry average, low toxic emissions and waste intensities, and less water-intensive operations relative to peers, as well as our representation of women on our Board of Directors. And highest overall ESG rating among our industry peers.

Additionally, in 2019, Schnitzer began reporting on relevant disclosures of the Sustainability Accounting Standards Board (SASB) framework for our Primary SICS Sector (Extractives & Minerals Processing) and Primary SICS Industry (Iron & Steel Producers).
About Schnitzer

Industry Engagement

We are an active member of a number of organizations and associations for the recycling and steel manufacturing industries. Schnitzer holds leadership roles in several of these organizations.

Our involvement allows us to learn and share best practices with our peers, as well as develop and shape commonsense policies that protect the environment while promoting sustainable business models. Our Director of Governmental and Public Affairs currently serves as national secretary and treasurer of the Institute of Scrap Recycling Industries (ISRI), and other leaders hold positions in local chapters. In the Southeast, Schnitzer is involved with the Georgia Recyclers Association, the Alabama Recyclers Association, and automotive manufacturers associations in Georgia and Alabama. We are proud to serve in leadership roles, or maintain general membership and representation, with:

- American Wire Producers Association (AWPA)
- Automotive Recyclers Association (ARA)
- Bureau of International Recycling (BIR)
- Business Roundtable (BR)
- Columbia Corridor Association (CCA)
- Concrete Reinforcing Steel Institute (CRSI)
- Institute of Scrap Recycling Industries (ISRI)
- National Association of Manufacturers (NAM)
- Steel Manufacturers Association (SMA)
- U.S. Chamber of Commerce

Clarifying our commitment

In 2019, CEO Tamara Lundgren signed Business Roundtable’s updated Statement on the Purpose of a Corporation. The statement declares that a business’s key stakeholders include not only shareholders and customers, but also employees, suppliers, and communities. This report describes how Schnitzer fulfills our principle of Working with Purpose and upholding our commitments to each of these stakeholders.
The business of sustainability

As most people know, our world has a waste problem. Hundreds of millions of tons of used metal products are added to landfills each year, all while the world continues to mine and drill for virgin materials to make new products.

Most people also understand the solution: limit the extraction of more natural resources by consuming less, and recycle and reuse the materials we already have.

What many people don’t see is what happens in between. How do obsolete materials from one activity become new inputs for another? How does an object get broken down into its component parts so they can be made new again? How can we disrupt the path from extraction to disposal?

Schnitzer knows. For more than 110 years, where others have seen a pile of scrap materials, we see potential and opportunity. Our primary traded material is recycled steel, the most recycled product on earth. Once manufactured from iron ore, steel can be recycled endlessly, so that the body of your car could one day become the beam of a bridge spanning your town. Precise chemical and physical processes make this continuous transformation possible. And our integrated operating platform, which includes auto dismantling, metals recycling, and steel manufacturing using recycled scrap steel, is performing these processes ever more efficiently, ensuring that more materials stay out of landfills and more resources stay in the ground.

Environmental impact

Recycling steel offers many environmental benefits compared with the use of virgin iron ore in steel manufacturing. Beyond its fundamental role in keeping materials out of landfills, recycling scrap is more energy-, emissions-, and water-efficient. As new construction and infrastructure projects are launched around the world, demand for steel is always there. It’s likely to remain strong as the world transitions to a low-carbon economy, with steel and other metals important components to wind turbines, energy-efficient buildings, and more. Recycled steel can meet much of that demand.

Business impact

As one of North America’s largest recyclers of scrap metal and dismantlers of end-of-life vehicles, and a manufacturer of finished steel products from recycled steel, Schnitzer’s business impact is far-reaching and interconnected to daily life. Our strategically located facilities on both the east and west coasts of North America enable efficient sourcing and delivery of recycled metals to mills and foundries around the world for use in new metal product manufacturing. Through our Pick-n-Pull brand, we operate an industry-leading chain of self-service used auto parts stores providing recovered, affordable auto parts to our valued customers. Through Cascade Steel Rolling Mills, Inc., we provide the Western U.S. and Canada with high-quality steel products produced from recycled scrap metal at our state-of-the-art electric arc furnace steel mill. Our products include rebar, coiled rebar, wire rod, merchant bar, and other specialty products.
Economic impact
With operations in 24 states and over 100 communities across the U.S., Puerto Rico, and western Canada, Schnitzer also plays a prominent role as a job creator, economic leader, and environmental steward. In Fiscal Year 2019, our direct and indirect contributions included:

- **18,068** U.S. jobs supported
- **$1.14 billion** in wages earned
- **$439 million** in taxes generated
- **$3.73 billion** total economic impact (based on ISRI economic impact studies and Fiscal Year 2019 scrap production volumes)
Finding a purpose for every part

Schnitzer’s Pick-n-Pull business embodies the idea that end-of-life vehicles are nothing more than resources out of place.

Our self-service auto parts stores receive end-of-life vehicles from many different sources, including tow companies, private owners, auto auctions, city contracts, and charities. Some of these cars can be found in streets, yards, fields, and even bodies of water, causing concerns for the environment and public safety in local communities. Pick-n-Pull provides an effective solution to this problem and, at the same time, offers affordable car parts for those who need them. Beyond the significant cost savings, choosing used parts over new conserves natural resources, energy, and space in landfills.

These auto dismantling facilities recycle everything they possibly can. When a vehicle first enters one of our lots, we begin by removing and recycling fluids and hazardous materials such as lubricating oils, hydraulic fluids, gasoline and diesel fuels, coolants and washer fluids, and refrigerants. Some refrigerants recovered from many of the older vehicles we receive may possess ozone-depleting properties. Ensuring safe recovery and processing of these materials prevents harmful substances from entering the atmosphere and allows our recovery partners to generate valuable carbon credits. Beyond fluids and refrigerants, our removal process also includes batteries, which are tested and resold or recycled depending on their condition. We also remove mercury switches used in the engine compartment and trunk to prevent the release of toxic chemicals.

Next, the car is transferred to our sales yard, where customers can remove the parts they need as a sustainable and cost-effective alternative to purchasing new parts. Once most or all usable parts have been removed, we conduct a final check for parts that can be refurbished, such as transmissions, alternators, and compressors, and remove and sell these for remanufacturing. Finally, the vehicle is crushed and sent to metal shredders, including Schnitzer-owned facilities, where the next phase of recycling begins.

Materials Recovered from End-of-Life Vehicles in Fiscal Year 2019

- 252,052 gallons of coolant
- 1,702,343 gallons of fuel
- 1,347,729 gallons of oil
- 9,654,673 pounds of batteries
- 112,504 pounds of refrigerants
- 12,084,020 pounds of tires
Using sustainable innovation to extract value

An essential part of the metals recycling process happens between the collection of scrap and its transformation into new products. Metals must be sorted, broken down into appropriate sizes for melting, and compacted for delivery to customers.

Schnitzer’s recycling yards and shredding facilities perform this fundamental role. Our principal priority is to identify customers for the metal we process—and thereby enable these materials to be reused. Precise sortation technology is key to achieving this goal.

Schnitzer’s recycling facilities collect both ferrous metals and non-ferrous metals. Ferrous metal makes up the majority of the scrap we receive. We process these metals by shearing, torching, baling, and ultimately sending them through shredders, which break down materials more efficiently than manual processing and yield an end product that is denser and more suitable for use by steel mills.

Non-ferrous metals include stainless steel, aluminum, copper, brass, and zinc, which can also be recycled into new products. In the past, we sold mixed packages of these materials, which we exported for further sortation. Today, as customers demand more defined packages of metals, Schnitzer is adding enhanced separation capabilities to our non-ferrous metal recovery plants, also referred to as joint product plants (JPP). These new capabilities allow us to increase the quality and purity of our product mix, extract a greater volume of non-ferrous material to sell, and reduce the material that we dispose. And, because these higher-quality products can be sold directly to smelters, we eliminate a processing and transportation step and those associated emissions.

The separation technologies we employ include magnets, eddy currents, air jets, and electronic and near-infrared sensors that sort and identify materials down to just a few millimeters in size. The individual materials may be small, but they add up to significant savings. For example, several years ago we upgraded our JPPs to better recover insulated copper wire from the mixed non-metallic and non-ferrous material generated by the metal shredding process, greatly decreasing the amount we send to landfills.

Now, Schnitzer is exploring a state-of-the-art gravity separation process that would sort materials even more finely, expanding our landfill-diversion capabilities even further, and creating a higher-quality product for our customers. As automobiles, one of our main sources of scrap, come equipped with more electronic and plastic components, the importance of leveraging sustainable innovation will only grow.

After we have extracted and diverted as much metal as possible from shredded material, what remains is automotive shredder residue (ASR), a combination of plastic, foam, wood, rubber, glass, and more. Even here, there is potential to create sustainable value. Much of the ASR from our operations is beneficially reused as alternative daily cover by municipal solid waste landfills. Learn more here.

Installed technology upgrades allow us to extract approximately 168,000 pounds of additional insulated copper wire per month.
Where old becomes new

The final stage in Schnitzer’s internal recycling process is the manufacturing of new steel products, which takes place at Cascade Steel Rolling Mills, Inc. in McMinnville, Oregon.

Certain processes involved in steelmaking have been used for generations. Today, 21st-century advancements in technology make this process safer, more streamlined, and more energy efficient than ever before.

Our state-of-the-art electric arc furnace (EAF) and ladle refining furnace technologies use carbon-free electric power to melt scrap, operating with lower emissions than conventional basic oxygen furnaces. What’s more, they are designed to remanufacture steel from scrap metal rather than virgin ore, which contributes to substantial savings of energy, air emissions, and natural resources.

We are continually refining the technologies that support our EAF, including supersonic burners, off-gas recovery systems, and software systems that allow us to manage heat more effectively and efficiently. Cascade Steel also finds sustainable uses for the by-products of our steelmaking process, such as EAF dust and slag, which may be sold for reprocessing and other industrial applications.

When our steel products, including straight and coiled reinforcing bar, are shaped, cooled, and ready for sale, they are transported and used in responsible ways. Our mill has direct access to rail service and deep draft terminals in Portland, Oregon, that provide lower-emission modes of transport than road vehicles. Because our steel products are made from recycled materials that are often sourced within less than 50 miles of our facility, they can be used in construction projects seeking to earn environmental certifications, such as LEED. In these cases, it’s not only the inputs of our steel manufacturing process that are sustainable—the outputs are, too.

Recycling 1 ton of steel conserves:

- 1,400 pounds of coal
- 120 pounds of limestone
- 2,500 pounds of iron ore

Learn more about renewable energy use at our steel mill
Operational Impact
Schnitzer’s business contributes to sustainability with a “cradle-to-cradle” approach. Our process helps keep metal products in circulation, giving these products a new useful life, and prevents additional raw materials from being mined to make new products.

We also make an important contribution by reducing the environmental impact of our own operations—the processes that transform cars, appliances, and other metal products into scrap, and transform that scrap into finished steel products for new construction and manufacturing.

Over the past several years, Schnitzer has implemented several operational improvement projects to meet or exceed regulatory requirements throughout our enterprise. But as we know, the journey to becoming a more sustainable company has no end point. Our Sustainable Principle of “Continuous Improvement” drives us to continuously explore and pursue practices that promote sustainable operations.

We are now in the process of adding state-of-the-art emission control technologies to our shredder facilities throughout the United States. These technologies will significantly reduce greenhouse gas emissions and better protect the air quality in the communities where we work and live.
Schnitzer is continuously focused on ways to improve our energy efficiency and reduce greenhouse gas emissions (GHG), beginning with reliance on energy sources that significantly minimize our carbon footprint.

Abundant, clean, and carbon-free energy in our major operating locations reduces the emissions impact of our energy-intensive industrial processes. For example, approximately 68 percent of the energy we use is attributed to our steel manufacturing operation. Our mill’s location in McMinnville, Oregon enables us to consume electricity largely sourced from carbon-free hydroelectric power generated by the Columbia River Dam System. Likewise, a significant portion of our metals recycling business operates in the Pacific Northwest, which is also largely powered by hydroelectric and other carbon-free energy sources.

In Fiscal Year 2019, Schnitzer, for the first time, increased its carbon-free electricity power mix to 90 percent. We enrolled in the Portland General Electric’s Clean Wind and Green Source programs and San Jose Clean Energy’s TotalGreen service, and remain enrolled in similar services with several other Community Choice Aggregators in California.

A continuously improving equipment fleet

We also reduce our energy use by regularly maintaining and upgrading our mobile and fixed equipment, seeking replacements that offer improved fuel efficiencies. Roughly 21 percent of the energy we consume is fuel used for on-road transportation vehicles, off-road rolling stock, and metalworking equipment. In Fiscal Year 2019, we established a four-year program to replace high-run-hour pieces of front-line equipment, such as material handlers, loaders, hold trucks, and excavators. Schnitzer estimates that we will invest approximately $48 million between Fiscal Years 2019 and 2022 to upgrade hundreds of pieces of equipment to more fuel-efficient models.

As we replace and retool equipment, we ensure compliance with emissions regulations in each of our markets. For example, in California, we purchase EPA-certified Tier IV engines, which offer lower particulate emissions and smog-related emissions, for equipment to support our Oakland, California, shredder, as well as auto and metals recycling yards and Pick-n-Pull facilities in the region. We have also succeeded in converting all car crushers at Pick-n-Pull stores in California from diesel engines to electric models, and are working to make similar changes to car crushers elsewhere across the country. Currently, 58 percent of all our car crushers are electric.

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1 FY15–FY18 values represent restatements to adjust for reconciled Total Energy Consumption.
2 FY15–FY18 values represent restatements to adjust for reconciled Total Scope 1 Emissions.
3 FY15–FY18 values represent restatements to adjust for reconciled Scope 2 (Location and Market – based) Emissions.
4 This graph shows normalized values against the sum of metric tons of finished steel sold, ferrous scrap shipped, and non-ferrous scrap shipped.
Energy Efficiency and Emissions Reduction (cont.)

Air quality compliance
Beyond GHG emissions, in Fiscal Year 2019 Schnitzer began a multi-year project to install enclosures and emission control systems on our shredders to improve air quality in the communities surrounding our shredders. Schnitzer has been working to install such emission control systems at its facilities in Everett, Massachusetts, and Oakland, California, for several years. Schnitzer’s next step will be to upgrade the Oakland emission control system and to complete design and installation of similar emission control systems at other shredding facilities. Some of these new projects will include installation of thermal oxidizers to treat volatile organic compounds (VOCs). VOC treatment protects air quality by both reducing the potential for ozone formation and significantly decreasing GHG emissions. Schnitzer has taken a leadership position within the metal shredding industry by properly quantifying air emissions associated with shredding operations and taking appropriate steps to reduce such emissions.

Schnitzer is also helping to prevent dirt, dust, and debris from impacting local air and water quality by washing and capturing the material off trucks that pass through our metals recycling yards. Custom wheel wash systems remove dirt and dust from trucks’ wheels upon exit from our shredding facilities in Oakland and Tacoma, thus reducing the volume of fine particles tracked onto surrounding roadways. We have also invested in paving projects on unimproved surfaces at some locations to further minimize “track-out” potential while also aiding in storm water management.

Schnitzer estimates that it will invest approximately $48 million to upgrade our equipment, to more fuel-efficient models. (FY2019–FY2022)

Reducing emissions across our value chain
Schnitzer has begun working with major retailers who supply scrap, such as used household appliances, to our metal yards to minimize the emissions associated with their transportation logistics. Before working with Schnitzer, one of our trade suppliers lacked a way to densify its shipments, meaning that it frequently delivered less-than-full truckloads of scrap material. Now, Schnitzer is working with the retailer on a pilot project to loan portable balers and compactor trucks to the supplier’s facilities, allowing for fewer and fuller truckloads—and less fuel required in transit.
**Operational Impact**

**Responsible Water Use**

Water is an essential resource for Schnitzer, particularly in our steelmaking operations. As red-hot metal leaves our electric arc furnace, it is cast into billets and eventually rolled into reinforcing bar and other products. Throughout this process, water is applied to safely cool the product down. Thanks to a state-of-the-art water recycling system, the process water that is not evaporated is retained, recirculated, and reused up to five times.

Within our metal shredding operations, we use water to cool shredding equipment, as well as to reduce air emissions and suppress dust. These operations require approximately 14 gallons of water per metric ton of ferrous scrap produced. Our metal collection depots and Pick-n-Pull facilities, meanwhile, use minimal amounts of water, mainly for dust suppression, landscaping irrigation, and sanitation.

While water availability directly linked to the location of our operations is not a material risk at this time, in the context of climate change and extreme weather events, we are taking steps to assess our potential future water management risks and monitor our current water management performance. In Fiscal Year 2019, Schnitzer conducted a water risk mapping exercise using the World Resources Institute’s (WRI) Aqueduct Global Water Tool for all active operating facilities.

We annually deploy capital to improve our overall water management and conservation capabilities. As air quality pollutant controls evolve, our water usage requirements may increase, making ongoing efficiency improvements even more important. Our water strategy focuses on maximizing direct use of recycled water, reducing direct use of freshwater, and decreasing the amount of water we withdraw. Recent enhancements include the introduction of smart water and foam systems that reduce water waste during shredding operations and the collection of rainwater for supplemental use.

**Managing storm water runoff**

As we work to minimize water that we bring into our operations, we are also keenly focused on the environmental impact of water that leaves our facilities. When it rains, water comes into contact with the vehicles and scrap that have been delivered to our yards. Over the past five years, we have invested $97 million in environmental controls that help us to better capture and remove pollutants from storm water, and in controls for pollutants to air, soil, and within streams, before they are discharged off site.

In 2019, we began design of upgraded storm water treatment systems at eight Pick-n-Pull facilities in California, with capabilities that are expected to meet or exceed regulatory compliance requirements. Each treatment system is unique to the site, depending on its geography, property size, and surface types present, using a combination of technologies—from electrocoagulation, chemical treatment, media (rock, sand, and carbon) filtration, and expanded retention capacity. We expect to extend these upgrades to other auto and metals facilities in the coming years.

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**Total Water Withdrawal**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Water Withdrawal (Metric Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY15</td>
<td>0.288</td>
</tr>
<tr>
<td>FY16</td>
<td>0.287</td>
</tr>
<tr>
<td>FY17</td>
<td>0.249</td>
</tr>
<tr>
<td>FY18</td>
<td>0.208</td>
</tr>
<tr>
<td>FY19</td>
<td>0.229</td>
</tr>
</tbody>
</table>

1. This graph shows normalized values against the sum of metric tons of finished steel sold, ferrous scrap shipped, and non-ferrous scrap shipped.
2. FY15–FY18 values represent restatements to adjust for reconciled water withdrawal volumes.
Operational Impact

Minimizing and Managing Waste

Keeping materials out of landfills is a critical benefit of Schnitzer’s business model, and we aim to achieve the highest beneficial use of all by-products generated by our operations.

For example, a by-product of the metal shredding process is a non-metallic material known as automotive shredder residue (ASR). ASR is a mixture of materials such as seat cushions, insulation, rubber, glass, foam, and plastics. When possible, we send ASR for beneficial reuse as alternative daily cover (ADC) for landfills. ADC is applied at the end of each day to the active portion of landfills to protect wildlife, minimize dust, deter pests, control odors, and isolate wastes. As many landfills traditionally use topsoil as daily cover, using ASR effectively conserves topsoil and prevents the environmental impacts associated with topsoil mining. ASR is also more compactable than soil, which means that its use conserves landfill space. In Fiscal Year 2019, 94 percent of ASR generated by our operations was beneficially used as ADC.

At the same time, we are reducing the amount of ASR we generate through innovations in our joint product plants—Learn more here. New sustainable technologies allow us to extract additional components from non-ferrous raw material, increasing the value we capture and decreasing process waste volumes.

Working greener

Schnitzer’s headquarters were certified at the Gold level in 2019 by the City of Portland’s Sustainability at Work initiative. To earn certification, businesses must complete a set number of environmentally friendly actions, such as providing employee education on proper recycling practices, composting food scraps, and incentivizing employees to choose low-carbon commuting options. This award is not an endpoint, but rather a step in the right direction. We will work to maintain this designation in the years to come.

Process Waste Generated for Beneficial Reuse¹
(Metric Ton)

<table>
<thead>
<tr>
<th></th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
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<tbody>
<tr>
<td>0.117</td>
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<td>0.125</td>
<td>0.129</td>
<td>0.129</td>
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</tr>
</tbody>
</table>

¹ This graph shows normalized values against the sum of metric tons of finished steel sold, ferrous scrap shipped, and non-ferrous scrap shipped.
Workplace Impact
Workplace Impact

Overview

While our technology and processes account for much of Schnitzer’s success, these assets do not define our leadership. What sets us apart from other companies is not what we do, but how we do it—how we conduct ourselves in our daily work, and how we treat our people.

We have an uncompromising culture of safe, inclusive, and ethical behavior that informs every decision we make, from how front-line employees confront workplace hazards, to how we engage with customers, suppliers, contractors, and investors.

Our employees are our most important assets. We are creating a workplace of choice by building a diverse and inclusive workforce, and investing in our employees for the long-term. Focusing on our people has been the foundation of Schnitzer’s success for the past 110 years, and we are confident that it will remain the key to leading our industry well into the future.
Integrity is more than a priority at Schnitzer—it is one of our Core Values. Working with integrity compels us to do the right thing even when no one is watching, or when it would be more convenient or advantageous to take another approach.

Our Core Value of Integrity underscores our commitment to operating from an ethics-based approach, which is why our program goes beyond ensuring compliance with the law to establishing and maintaining the framework for how we treat one another and all our stakeholders.

Maintaining a positive workplace and conducting business according to our Core Values requires a common set of ethical rules, which we present in our Code of Conduct. We also have a Supplier Code of Conduct to guide our relationships with those in our supply chain. Our Codes drive our culture of compliance, ethical decision-making, and accountability.

Our focus on Integrity extends to respect for human rights. As a business that engages in commercial transactions throughout the world, we have a responsibility to respect human rights everywhere we operate. In 2019, we published our first Human Rights Policy, which reinforces our commitment to upholding the internationally recognized human rights as set forth in the United Nations’ Universal Declaration of Human Rights and the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work.

Independent Ethics and Compliance function
Schnitzer has an independent Ethics and Compliance function, led by our Chief Ethics and Compliance Officer, who reports to the CEO and also to the Board of Directors through its Audit Committee. This structure allows for both the independence necessary to be a trusted resource for employees and the integration within the Company to ensure effective communication and coordination with the business.
Ethics program

Schnitzer’s Corporate Ethics and Compliance Program functions to promote the Code of Conduct, communicating and educating employees on the importance of making ethical decisions, and fostering an environment where employees feel free to report concerns.

Schnitzer employees participate in annual training on our Company’s Core Values, which includes instruction on our Code of Conduct and ethical behavior. For the first time, in Fiscal Year 2019, 100 percent of employees, both union and non-union, participated in this training. The training for managers also includes deep dives on important topics such as reporting misconduct, our prohibition against retaliation, diversity and inclusion, and unconscious bias.

100% of employees trained on Code of Conduct

Schnitzer’s employee community is rich in diversity, full of talented people with varied backgrounds and experiences, many of whom speak multiple languages. An ongoing emphasis of our Ethics and Compliance Program is ensuring that communications are inclusive and accessible to all. To this end, we make training content available in both English and Spanish, offer it in both written and audio formats, and produce communications such as posters and flyers to convey bilingual messages clearly.

We empower employees to raise issues and concerns regarding compliance with our Code of Conduct and the law by offering multiple reporting channels, including a third-party, confidential, multilingual hotline. No matter how employees choose to report concerns, we ensure all reports are investigated, tracked, and finalized.

100% of misconduct reports investigated

Anticorruption program

An essential part of operating ethically is ensuring that we follow anticorruption and antibribery laws and regulations. We scrutinize all business units for corruption risks and constantly evolve our program to address those risks. In addition to our Code of Conduct, we have a comprehensive Anticorruption Policy available to all employees that details prohibitions against bribery, money laundering, and engaging with terrorists or other sanctioned entities. The policy prohibits facilitation payments and also requires Schnitzer to maintain accurate books and records.

Our Anticorruption Manual, Anticorruption Controls, and other reference guides help employees understand these prohibitions and requirements and, for those whose job functions are critical to our Anticorruption Program, specifies roles and responsibilities in order to create accountability. Our International Anticorruption Council, chaired by the Chief Ethics and Compliance Officer and comprised of senior leaders in operations, finance, legal, sales, procurement, and audit, monitors the execution of Schnitzer’s Anticorruption Program and promotes it within the organization.

Essential elements of the Schnitzer Anticorruption Program are:

- Accurate and transparent books and records
- Robust third-party monitoring, including due diligence and auditing
- International contract administration
- Anticorruption internal controls
- Wire transfer controls and payment monitoring
- Designated party screening

100% of worldwide commercial representatives are vetted and audited for corruption risk
Global recognition

2019 was the fifth consecutive year in which Schnitzer was named one of the World’s Most Ethical Companies by the Ethisphere Institute. This prestigious award is given to companies that foster a culture of ethics and transparency at every level of the company. Specifically, winners must demonstrate leadership in five key categories: ethics and compliance; corporate citizenship and responsibility; culture of ethics; governance; and leadership, innovation, and reputation.

Sustainability, and its integration into all aspects of business, is emerging as a baseline condition for receipt of this award. Schnitzer is proud to continually raise the bar in all aspects of our business to rank among the World’s Most Ethical Companies, and to remain a leader in the corporate ethics community.

Tamara Lundgren, CEO

More than a continued acknowledgment of Schnitzer’s ethical standards and responsible business practices, the 2019 World’s Most Ethical Companies distinction recognizes our employees’ commitment to acting ethically, safely, and sustainably every day.

Ethics in Action award

Behaving ethically requires courage and a commitment to doing what’s right. Schnitzer’s Ethics in Action award program recognizes employees who demonstrate ethics in their daily work. These actions need not be anything heroic; recent honorees include a Pick-n-Pull employee who makes sure that his colleagues wear their personal protective equipment correctly, and a Melt Shop Operations Foreman at Cascade Steel whose respectful approach has earned him the loyalty of his team. Employees can nominate their colleagues year-round using an online portal. Those who win earn a celebration for their facility.

5 years in a row
World’s Most Ethical Companies
Ethisphere Institute
Workplace Impact

Talent Management

For more than a century, our employees have made Schnitzer’s success possible, and we are building upon this foundation to ensure this continues for years to come. To do so, we must create a workplace where people want to stay and grow, which we do through, among other things, career development opportunities and competitive benefits packages.

Employee development

Schnitzer continually looks for opportunities to develop its employees. For example, we offer apprenticeship programs for key skill areas such as welders and electricians, partnering with local state and community colleges to deliver an accredited program that blends classroom curriculum with on-site job experience. Employees spend eight hours on classroom coursework, followed by four hours of on-site training. We also offer tuition reimbursement for eligible employees interested in furthering their education independently.

Through our talent management portal, employees may partner with their managers in setting annual goals and professional development plans. As part of the annual performance review cycle, our employees assess their performance against the goals and plans established for the performance period, which provides a structured way for managers to assess performance, provide feedback, and prompt ongoing discussions around performance and career progression.

New benefits

We continue to expand benefits we offer to employees. Recent additions include a new high-deductible health savings account that helps incentivize employees to stay healthy and invest money that can be used, tax-free, on eligible medical expenses. To support employees during all stages of life, including when they are welcoming new children into their families, we updated our policies regarding parental leave and adoption support. Schnitzer now provides up to four weeks of paid parental leave to care for a newborn, a newly adopted child, or a newly placed foster child. We also offer an adoption assistance program through which employees may be reimbursed for adoption expenses such as agency fees, legal expenses, and other costs. More details about employee benefits can be found on our careers website.

PTO Donation Program

Schnitzer offers a Paid Time Off (PTO) donation program through which Schnitzer employees make unused PTO available for other employees’ use. This valuable benefit can make a difference in the lives of employees and families facing issues such as serious illness.
Without a foundation of safe behaviors, worksites, and processes, we would not be the Company we are today. While injuries are rare occurrences at our facilities, we remain vigilant to ensure a safe work environment for all our employees and visitors to our sites.

For this reason, our approach to safety must be proactive and comprehensive, incorporating active leadership visibility, regular worksite analysis, hazard identification, and effective health and safety training.

Continuous improvement in our safety culture is another essential component of our success. Strengthening our safety culture means not only reinforcing safe behaviors, but also creating mutual accountability to ensure that people look out for one another. Across our Company, ensuring a work environment that protects workers and surrounding communities is personal.

Even though we were named a charter member of the Institute of Scrap Recycling Industries’ Circle of Safety Excellence, our practices, protocols, and tools to enhance safety are always evolving. Schnitzer’s safety policies and programs are based on leading industry practices and are implemented through the expertise of our safety team. Through industry organizations such as the Institute of Scrap Recycling Industries and the Steel Manufacturers Association, we actively participate in dialogues regarding reporting standards, benchmarks, and safety trends. In Fiscal Year 2019, Schnitzer introduced a new, multi-year safety strategy that emphasizes prevention of serious injuries and fatalities, works toward achievement of zero injuries, and empowers employees to cultivate personal safety leadership. With zero injuries as our ultimate aspiration, we are working toward a near-term goal of a 1.00 total case incident rate by the end of Fiscal Year 2025 (one recordable injury per 200,000 working hours).

| Employees performing Field Level Risk Assessments (FLRAs) |

Schnitzer’s Safety Strategy

- Prevent serious injuries and fatalities
- Achieve zero injuries
- Cultivate personal safety leadership

<table>
<thead>
<tr>
<th>Total Recordable Cases (or Total Case Incident Rate (TCIR))</th>
<th>Days Away, Restricted, or Transferred (or DART Rate)</th>
<th>Days Away from Work (or Lost Time Incident Rate (LTIR))</th>
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<td>3.89</td>
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<td>2.80</td>
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<table>
<thead>
<tr>
<th>TCIR</th>
<th>DART rate</th>
<th>LTIR, measured by days away from work</th>
</tr>
</thead>
<tbody>
<tr>
<td>↓30%</td>
<td>↓27%</td>
<td>↓52%</td>
</tr>
</tbody>
</table>

2015–2019
Serious injury and fatality (SIF) prevention

The first pillar of our safety strategy focuses on eliminating incidents that pose the greatest risks to our employees.

For example, while pedestrian interaction with mobile equipment is a risk at all of our divisions, molten metal is a unique risk for Cascade Steel. For each task with high SIF potential, we establish controls to reduce or eliminate risk. These controls can include both behavioral change and engineering controls, such as automation and ergonomic improvements. Our next step is to reinforce with employees the critical risks they may face on the job and reiterate the necessary controls to help keep them safe. For front-line employees, this means being empowered to stop work and speak to a supervisor at any time if a control is missing or ineffective. For leaders, reducing SIF potential means engaging teams to identify critical risks and verify that controls are in place.

Beyond reducing individual injuries and fatalities, an important goal of this work is to create a shared learning environment that improves safety throughout the Company. We thoroughly investigate all incidents, allowing us to determine whether an incident is linked to a systemic issue that may require change at facilities beyond the one where the incident occurred and learn from these incidents to prevent reoccurrence.

Programs that are helping reduce SIF potential across Schnitzer include:

- A safe driving camera system for over-the-road truck drivers. This system alerts drivers and managers to behaviors like speeding and unsafe braking, as well as driver fatigue.
- A “molten metal pathway” at our steel mill to keep employees, visitors, and vendors safe. When a melt is occurring, people must clear the area for their safety. New signage, floor markings, lights, and alarms send a clear signal to anyone present to clear to a safe area.
- Regular training for rescue teams. For the past nine years, Cascade Steel has maintained an employee-led “confined space rescue team” and “ropes rescue team” who are at the ready to assist a colleague trapped in a confined space or at heights. Team members participate in monthly training and drills, and regularly collaborate with the local McMinnville Fire Department.
Working toward achieving zero injuries

Beyond eliminating the most serious hazards, there are many ways we can help keep our people safe and ready to work. The second pillar of our safety strategy involves creating a culture in which employees understand that being productive does not take priority over being safe. We establish this expectation when new Schnitzer hires are onboarded and trained and reinforce this message to all our employees with actions like daily safety huddles to remind employees how to best protect themselves, as well as monthly Safety and Environmental town halls.

Reporting systems and monitoring processes allow us to ensure our controls are effective and we are on track to meet our goals. For example, we track not only all incidents that occur, but also near misses, allowing us to learn from and respond to potential risks. A new process known as the field-level risk assessment (FLRA) helps maintenance groups and operators prepare for non-routine tasks. To complete an FLRA, an individual or team identifies the risks that exist in the task at hand and documents the controls they will implement to address each of the identified risks.

Another initiative that is proving successful in helping us drive toward zero injuries is the Focus Sites Program, through which sites receive increased support from operations and safety leadership. In Fiscal Year 2019, 19 metals recycling and Pick-n-Pull facilities were part of the first cohort of the program. These facilities saw an overall 49 percent reduction in recordable injuries, and many sites are currently recording an injury-free performance. We will continue to roll out this program to other facilities in the future.

Working toward zero incidents and injuries also requires adopting a holistic view of occupational health. This includes informal actions, such as check-ins at the beginning of a shift to ensure employees appear mentally and physically ready for work. It also includes offerings such as a nurse line, available for free across the Company.

At Cascade Steel, where employees face particular risks due to exposure to heat and potentially hazardous materials, a formal wellness program helps keep health and safety top of mind. The mill offers water and fresh fruit to help employees stay hydrated, with special emphasis on the importance of hydration during summer months. Respirators and showers are provided to workers who are exposed to lead during the steelmaking process. In addition, an on-site fitness coordinator helps to encourage proper stretching and to create an ergonomic work environment that reduces the potential for sprains, strains, or overexertion injuries.

Managing risks at recycling facilities

Ensuring that radioactive materials do not enter our metals shredding facilities is a critical safety priority. We address this risk by using radiation detectors at multiple points throughout the recycling process, including when a scrap delivery vehicle first arrives at a facility and both before and after shredding. In Fiscal Year 2019, we added more points of detection for radiation in our steel manufacturing operations to further strengthen this capability. Likewise, we actively monitor for fire risk by inspecting scrap on delivery and isolating any discovered flammable materials. Forward-looking infrared cameras at some facilities are also used to proactively detect “hot spots” within scrap piles to help mitigate potential fire risks.
Personal safety leadership

We cannot meaningfully reduce major and minor safety incidents across Schnitzer without engaging employees at every level across our Company. For this reason, the third pillar of our safety strategy is to empower employees to take accountability for their own safety and that of others, and to provide tools and programs that can make this possible.

During Fiscal Year 2019, every Schnitzer supervisor and manager participated in a two-day training class on safety roles and responsibilities. The health and safety team conducts infield coaching with supervisors to ensure they are meeting expectations and providing tips on ways they can increase their teams’ engagement.

One way that managers engage their teams is through Layered Safety Observations (LSOs). During an LSO, managers at multiple levels observe a worker performing a task. After the task is complete, the employee and managers have a conversation during which they discuss potential hazards involved in the task and controls that have been put in place. Managers may offer constructive feedback, and employees have the opportunity to share their own concerns or suggestions for further improvement. We expect every facility manager across Schnitzer to conduct at least one LSO per week. As we continue to embed this program within the Company, we are building trust with our employees, who are learning that LSOs are designed to facilitate productive conversations about how everyone can contribute to greater safety.

Approximately 25,000 LSOs Performed in Fiscal Year 2019
Workplace Impact

Diversity, Inclusion, and Cultural Awareness

Maintaining a diverse workforce brings many benefits, including accelerating innovation, productivity, profitability, and employee engagement. Most importantly for Schnitzer, however, is that diversity makes us a company people are proud to work for.

When people are treated with respect, fairness, and equal opportunity, they are better able to reach their full potential both personally and professionally. Our formal Diversity & Inclusion (D&I) program, launched in 2018, is helping us better embrace employees of all backgrounds, actively recruit from diverse talent pools, and create a respectful workplace with a zero-tolerance policy on discrimination and harassment based on race, ethnicity, age, military status, sex, sexual orientation, gender identity, and religion.

As we continue to develop our Diversity & Inclusion program, we are finding ways to integrate D&I into all aspects of our talent ecosystem, weaving key messages and principles into initiatives and communications that are already in place. For example, new training on unconscious bias has been incorporated into annual employee ethics training. In Fiscal Year 2020, we will roll out Employee Resource Groups (ERGs), which are voluntary, employee-led groups designed to celebrate diversity and foster an inclusive workplace. The first group to launch will be a Veterans ERG. Schnitzer was named a Military Friendly® employer for 2020, and this group will help us continue to create a rewarding place to work for those who keep our country safe.

Measuring diversity and inclusion leadership

With more than 3,300 employees, we take pride in our strong and diverse workforce. To better understand our own employee population and identify opportunities to be even more inclusive, Schnitzer has undertaken significant efforts to collect and benchmark diversity statistics against industry averages. We are especially proud of Schnitzer’s representation of women at the executive level and on our Board of Directors. With three women out of eight directors (38 percent), our representation of women on the Board is nearly twice the Russell 3000 average (20 percent).

Additionally, we seek a diverse slate when undertaking searches for Company leadership positions and new Board candidates.
Cultural awareness campaign
To increase cultural awareness, inspire employee engagement, and foster an environment where open and safe conversations can exist, Schnitzer introduced a cultural awareness program in 2018. The campaign covered topics such as unconscious bias and harassment, discrimination, bullying, and the importance of fostering a positive, inclusive culture at work.

Due to the varied nature of Schnitzer’s workforce, there is no single technology that all employees use to communicate. This made it critical to introduce this campaign through multiple communication channels, including posters, monthly videos, newsletters, and flyers, in English and Spanish. All were designed to empower employees to set a positive example and take responsibility for improving our workplace culture.

Other important components of the campaign were town hall meetings, held at all facilities, as well as “town calls” hosted by CEO Tamara Lundgren. Across the more than 120 town hall meetings held over the past year, the top suggestions that employees shared were related to communication and recognition. We are keeping lines of communication open by continuing to hold town halls on a regular basis. In 2019, we held an additional 50 meetings and launched a new initiative, “Engaging Employees Everyday,” or 3Es. We will continue to organize employee meetings through this initiative to engage employees. Schnitzer also introduced a 90-day engagement survey, which is an opportunity for new hires to provide feedback on their experiences with the Company to date, including perceptions related to safety, culture, communication, and the interview and onboarding processes.

To address feedback related to recognition, we have introduced a new suite of recognition programs, including the STAR Finder Program, which rewards employees for referring future team members; the STAR Award Program, a peer recognition program that rewards outstanding performance in the areas of safety, teamwork, attitude, and resourcefulness; and a service award recognition program that will honor employees for reaching milestones in their years of service with the Company.

Joining a movement
In 2019, CEO Tamara Lundgren joined more than 700 CEOs of the world’s leading companies in signing the CEO Action for Diversity & Inclusion. By making this pledge, she commits the Company to, among other things, fostering effective conversations about diversity, implementing unconscious bias education, sharing a strategic diversity plan with our Board, and sharing best practices with other companies. “Promoting diversity and inclusion is a responsibility that every organization should make a priority,” says Tamara. “We are honored to be part of this group pledged to act on supporting inclusion and committed to fostering environments that attract and retain diverse workforces.”
Community Impact
Community Impact

Overview

Over the course of our long history, we have learned the importance of lasting relationships. Schnitzer is more than a recycler and an employer—we are an active member of more than 100 communities across North America. We strive to ensure that everywhere we operate, Schnitzer’s presence positively impacts our local communities.

We take a regional approach to community engagement, tailoring our efforts to local needs and priorities throughout the United States, Puerto Rico, and Canada. An important part of our work involves working with local leaders and chambers of commerce to educate our communities about Schnitzer’s sustainable role as a recycler and share our perspective on business issues. We also support local non-profit organizations through board service, charitable giving, and volunteerism. Employees across Schnitzer are key contributors to this important effort. They are active and engaged in a wide range of local causes, including disaster relief and emergency preparedness, homelessness, hunger relief, K-12 STEM and trade school education, environmental cleanups, and critical habitat restoration. By 2025, we expect to donate at least 10,000 hours of volunteer paid time off to enhance the positive impact we make in our communities.

Cascade Steel in the community

Cascade Steel Rolling Mills, Inc. is not only the largest local metals recycler, but also the largest manufacturing employer in McMinnville, Oregon. What affects our business affects this community and vice versa. Here, our role as a community partner is especially vital.

Cascade is a major supporter of area schools. In the past year, we participated in a job fair at McMinnville High School; donated steel, tools, and personal protective equipment to several high schools; and hosted a charity golf tournament where the proceeds went to the McMinnville School District. We are also a sponsor of Lemonade Day, a program designed to teach kids about the importance and benefits of entrepreneurship.

In addition, Cascade supports local businesses as a member of the McMinnville Chamber of Commerce and participant in the Leadership Mac program for aspiring community leaders. Other outreach includes partnerships with the Yamhill County Watershed Council to help preserve and care for our local parks, sponsorship of the Yamhill County Fair and Turkey Rama, and support for organizations that help underserved community members such as Juliette’s House and the Yamhill Community Action Partnership.

Our Goal:

Volunteer

10,000 hours

by 2025
Community Impact

Community Engagement

Earth Day
As a proud steward of our planet’s natural resources, Schnitzer celebrates Earth Day each year with a day of service in our communities. On Earth Day 2019, many of our employees, along with their families and other community members, businesses, and organizations across all of our facilities and regions participated in the global celebration. Highlights of the day included:

◦ Schnitzer volunteered to clean up local parks across our footprint. Employees and family members from our Portland, Oregon headquarters, as well as facilities in Providence, Rhode Island; Concord and Manchester, New Hampshire; Folsom and Fresno, California; Tacoma, Washington; Surrey, British Columbia; and McMinnville, Oregon, participated in cleanup events.
◦ Schnitzer partnered with Meeker Middle School in Tacoma, Washington, on a scrap drive where students collected 6,260 pounds of recyclable metal. The proceeds were used to purchase uniforms and school supplies.
◦ The Schnitzer Southeast region held their annual customer appreciation cookout, where they gave away seed packets to attendees to encourage tree planting.
◦ All Pick-n-Pull retail stores participated in a reuse awareness campaign through radio public service announcements, and through our website and social media platforms. Messages in both English and Spanish raise awareness about the importance of recycling and share tips for reusing and recycling auto parts.

Disaster relief
When natural disasters strike, employees across the Schnitzer family come together to help colleagues near and far. Our charitable foundation, known as Recycling for a Better Tomorrow, helps employees and their families recover from disasters that occur in areas where we operate. When an event occurs, we notify employees by email, on our internal website, and through flyers posted in our facilities. Employees may make donations to the foundation, which are matched by Schnitzer.

Promoting safety in our communities
Schnitzer’s unique business model allows us to contribute to the safety of local communities. For example, unneeded vehicles at Pick-n-Pull yards can be valuable training tools for police and fire departments. Pick-n-Pull locations regularly host K-9 Certification Training for dogs that assist law enforcement officers. The dogs practice sniffing out various materials and, when training is complete, the materials are safely removed by law enforcement personnel. Our yards also serve as a training ground for fire departments, where trainees learn to use specialized tools and techniques for extracting passengers from vehicles in the event of an auto accident.

We also enhance safety by keeping weapons out of circulation. Since 2009, the Boston Police Department has brought guns from closed criminal cases to our Everett, Massachusetts, shredding facility, where they are destroyed.

Captain Anthony O’Brien
These unique training opportunities are only possible through the valuable, long-term partnership between Schnitzer and the Everett Fire Department.
Community Engagement (cont.)

Hunger relief

Schnitzer’s National Food Bank Initiative has been in place since 2010. Since that time, we’ve raised almost $2.4 million in non-perishable food donations, cash, volunteer time, and Schnitzer matching cash contributions, which amounts to donating more than 7 million meals to more than 40 local food banks. In Fiscal Year 2019, we ran fall and summer food bank fund drives at our Pick-n-Pull stores that raised more than $230,000 in donations, supporting more than approximately 699,000 meals. At our headquarters in Portland, Schnitzer partners with the Oregon Food Bank. We sponsor a truck that distributes food donations and recently held an office machine scrap drive, the proceeds of which went to support the food bank. In September 2019, Schnitzer was selected as the organization’s Corporate Donor of the Month.

Schnitzer’s Tacoma facility partnered with Meeker Middle School to help establish a schoolyard garden that, beyond growing vegetables, is also fostering environmental stewardship and community involvement. A special education teacher proposed creating the garden to help teach her students about garden maintenance. Produce grown is donated to local food banks and sent home with families facing food insecurity. Schnitzer provided funding to help make the garden a reality.

$2.4 million
raised for food banks
since 2010


Education

We understand the importance of educating the next generation about the value of recycling and sustainability. That’s why we support a number of environmental education initiatives in partnership with schools and organizations near our facilities:

◦ Schnitzer is an annual supporter of Civicorps’ Academic & Professional Pathway Program and sponsor of Civicorps’ High School Diploma Graduation for Resilient Young Adults. Civicorps is a charter school located directly across from our Oakland facility and has a recycling program at the school. We’re aligned with their efforts to help Oakland youth find meaningful jobs and promote the value of the recycling industry locally and regionally.

◦ In the Northwest, Schnitzer supports and serves on the board of the Tacoma Youth Marine Foundation, which provides an outlet for local youth to learn maritime skills, leadership, and environmental awareness. We also partner with Citizens for a Healthy Bay on cleanups, patrols, and programs.

◦ Biology and field ecology students from the Lincoln School visited the Everett, Massachusetts, facility in 2019. In their classes, the students had learned about the effect of water quality on marine life, and their visit to Schnitzer allowed them to learn more about real-life applications of water treatment. Students also learned about recycling scrap metal, deepening their knowledge of real-world sustainability practices.

“Monique Valenzuela, Executive Director, Youth Marine Foundation

We are grateful for the support of Schnitzer Steel Industries and members of their leadership team. Schnitzer’s support allows the Youth Marine Foundation to maximize its resources and continue to provide life-changing skills and character development programming to the Puget Sound’s diverse youth population at far below market value or no charge.

“Meghan Hibner, Institutional Giving Manager, Civicorps

Schnitzer Steel is not only Civicorps’ neighbor in West Oakland—they are also one of our key corporate partners and an inspirational example of a company that cares about the local community. Schnitzer has supported the youth we serve by providing internships that serve as stepping stones to living wage careers. In addition, Schnitzer’s financial contributions help us provide the resources our participants need to excel in our program. We are grateful for Schnitzer’s generosity and commitment to young people.
Community Engagement (cont.)

Shelly Kroll,
American Red Cross, Donor Recruitment Account Manager

The support of Schnitzer Steel is an amazing gift to all who receive blood and are associated one way or another with the need.

Natalie McKinney,
Executive Director, Kōkua Hawai‘i Foundation

For over a decade, Schnitzer Steel has been an essential community partner in our work creating a better Hawai‘i through resource recovery. Schnitzer Steel’s generosity has allowed us to help several hundred schools and thousands of community members engage around environmental conservation and recycling through the Aloha ‘Āina Recycling Drives. We are continuously impressed with Schnitzer Steel’s willingness to share resources and support non-profit organizations who are working to preserve this beautiful place.

Our Kapolei, Hawaii, metals recycling yard continues to support Aloha ‘Āina Recycling Drives in partnership with the Kōkua Hawai‘i Foundation, a non-profit specializing in community-based recycling and education programs. Schnitzer donates all proceeds from the drives to local schools, which are used to purchase much-needed classroom supplies. Our Hawaii facility also participates in the Fishing for Energy Program, through which obsolete fishing gear is sorted for metals recycling by Schnitzer, and non-recyclable material is converted to energy at third-party locations.

Our facilities also support schools through donations of needed supplies. For example:

- Schnitzer supports Atlanta-area schools through school supply drives and bookbag donations for students in need. We recently purchased basketball uniforms for a local school and hosted a neighborhood block party.
- We donated bottled water to Etowah High School and Westbrook Christian School in Attalla, Alabama, for students to sell at athletic events to raise money for their booster clubs.
- In Puerto Rico, we support schools in the city of Salinas, particularly Felix Garay Elementary School and the local Escuela Superior by donating air conditioning equipment, school supplies, and toys through a local Toys for Tots program.

Flavia Robles de la Fuente,
Executive Director, The Kidney Foundation of Canada

The partnership between Pick-n-Pull and The Kidney Foundation’s Kidney Car program has been going strong for over 20 years. The program supports research to help find a cure for kidney disease. We are proud to continue working together and are thankful for the partnership that impacts so many lives.

Helping those with less

At Schnitzer’s corporate office in Portland, we’re always looking for ways to help people in need. We held our second annual blood drive in Fiscal Year 2019. We also host an employee giving event during the holiday season. For our giving event in Fiscal Year 2019, we worked with Raphael House, a local domestic violence shelter, to collect basic items to donate to women and children starting new lives. Pick-n-Pull offers a vehicle donation program that allows owners to sell vehicles while directing the proceeds to worthy causes. In Canada, our charity partner is The Kidney Foundation.
Working Toward Tomorrow

Sustainability means making use of today’s resources in a way that ensures they’ll be available tomorrow and for generations to come. This principle is at the heart of our business. By extending the life of metals, we make efficient use of limited resources. Today’s recycled vehicle parts keep people on the road tomorrow.

Today’s scrap metal becomes the foundation for tomorrow’s infrastructure.

As you have read in this Sustainability Report, we are thinking about tomorrow in other ways, too, from building a workforce that can carry us into the future, to giving back to people, especially the next generation, in our communities. Guided by our Sustainability Principles and goals, Schnitzer has its sights set on what’s ahead. We look forward to creating a sustainable tomorrow through all that we do.
### GRI Content Index

This report has been prepared in accordance with Global Reporting Initiative (GRI) Standards: Core Option. The GRI Standards are a global framework for sustainability reporting, providing a clear and transparent way for organizations to report their economic, environmental, and social impacts.

#### General disclosures

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**Anti-Competitive Behavior**

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**GRI 300: Environmental**

**Energy**

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**Emissions**

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<td>The management approach and its components</td>
<td>About Schnitzer / Sustainability Goals and Governance / Sustainability Principles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Workplace Impact / Diversity, Inclusion, and Cultural Awareness</td>
</tr>
<tr>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>Workplace Impact / Diversity, Inclusion, and Cultural Awareness</td>
</tr>
<tr>
<td>405-1</td>
<td>Diversity of governance bodies and employees</td>
<td>Workplace Impact / Diversity, Inclusion, and Cultural Awareness</td>
</tr>
<tr>
<td><strong>Non-Discrimination</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1</td>
<td>Explanation of the material topic and its Boundary</td>
<td>Workplace Impact / Overview</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Workplace Impact / Diversity, Inclusion, and Cultural Awareness</td>
</tr>
<tr>
<td>103-2</td>
<td>The management approach and its components</td>
<td>About Schnitzer / Sustainability Goals and Governance / Sustainability Principles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Workplace Impact / Diversity, Inclusion, and Cultural Awareness</td>
</tr>
<tr>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>Workplace Impact / Diversity, Inclusion, and Cultural Awareness</td>
</tr>
<tr>
<td>406-1</td>
<td>Incidents of discrimination and corrective actions taken</td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Local Communities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1</td>
<td>Explanation of the material topic and its Boundary</td>
<td>Community Impact / Overview</td>
</tr>
<tr>
<td>103-2</td>
<td>The management approach and its components</td>
<td>About Schnitzer / Sustainability Goals and Governance / Sustainability Principles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community Impact / Overview</td>
</tr>
<tr>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>Community Impact / Community Engagement</td>
</tr>
<tr>
<td>413-1</td>
<td>Operations with local community engagement, impact assessments, and development programs</td>
<td>Community Impact / Community Engagement</td>
</tr>
</tbody>
</table>
## Appendix

### Sustainability Accounting Standards Board (SASB) Index

The Sustainability Accounting Standards Board (SASB) created a set of industry-specific sustainability standards that cover financially material issues that may be relevant to companies in each industry. Schnitzer is reporting to SASB’s Iron & Steel Producers Industry Standard.

<table>
<thead>
<tr>
<th>Metric Category</th>
<th>Unit of Measure</th>
<th>Code</th>
<th>Response/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity Metrics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Production Activities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw steel production,</td>
<td>Quantitative</td>
<td>EM–IS–000.A</td>
<td>Not applicable: We do not produce any steel via basic oxygen furnace (BOF) processes.</td>
</tr>
<tr>
<td>percentage from: (1) basic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>oxygen furnace processes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantitative</td>
<td></td>
<td>EM–IS–000.A</td>
<td></td>
</tr>
<tr>
<td>Raw steel production,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>percentage from: (2) electric arc furnace processes</td>
<td>Quantitative</td>
<td>EM–IS–000.A</td>
<td></td>
</tr>
<tr>
<td>Quantitative</td>
<td></td>
<td>EM–IS–000.A</td>
<td></td>
</tr>
<tr>
<td>Finished Steel Products: In fiscal 2019, we sold 478 thousand short tons of finished steel products. <em>(2019 10–K page 2).</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melt shop production: Our melt shop includes an EAF, a ladle refining furnace with enhanced steel chemistry refining capabilities, and a five-strand continuous billet caster, permitting the mill to produce special alloy grades of steel not currently produced by other mills on the West Coast of the U.S. The melt shop produced 537 thousand short tons of steel in the form of billets during Fiscal Year 2019. The substantial majority of these billets are reheated in a natural gas–fueled furnace and are then hot-rolled through the rolling mill to produce finished steel products. The rolling mill has an effective annual production capacity under current conditions of approximately 580 thousand tons of finished steel products. <em>(2019 10–K page 8).</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The primary feedstock for the manufacture of our finished steel products is ferrous recycled scrap metal. Our steel mill obtains substantially all of its scrap metal raw material requirements from our integrated metals recycling and joint venture operations. <em>(2019 10–K page 8).</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Fiscal Year 2019, we sold approximately 4.3 million long tons of ferrous scrap metal (including intercompany sales to our steel mill). To learn more please review the Understanding and Measuring Our Impact section of our 2019 Sustainability Report.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total iron ore production</td>
<td>Quantitative</td>
<td>EM–IS–000.B</td>
<td>Not applicable: We do not consume or sell iron ore in the production of our steel products.</td>
</tr>
<tr>
<td>Total coking coal production</td>
<td>Quantitative</td>
<td>EM–IS–000.C</td>
<td>Not applicable: We do not consume or sell coking coal in the production of our steel products.</td>
</tr>
</tbody>
</table>
### Accounting Metrics

#### Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Metric Category</th>
<th>Unit of Measure</th>
<th>Code</th>
<th>Response/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations</td>
<td>Quantitative Metric tons (t) CO2-e, Percentage (%)</td>
<td>EM-IS-110a.1</td>
<td>171,739 0%</td>
</tr>
<tr>
<td>Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets</td>
<td>Discussion and Analysis</td>
<td>EM-IS-110a.2</td>
<td>In 2019, Schnitzer set our first enterprise-wide sustainability goals, aligned with our long-term business success. For Scope 1 GHG Emissions (these included production process GHG emissions in metric tons CO2-e), we have set a 2025 target, against a 2019 base year and a 2020 start year, to reduce absolute GHG emissions from our AMR operations business segment by 25 percent. Mechanisms for achieving this target may include (1) capital investments in emissions control and air pollutant elimination technologies on our metal shredding operations, (2) capital investments to achieve greater fuel economy by retrofit and/or replacement of on-road transport vehicles and off-road equipment, (3) capital investments to electrify equipment that is currently fuel-consuming, (4) sourcing a greater proportion of fuels with suitable low-carbon fuel alternatives (i.e. biodiesel and ethanol fuel blends), and (5) capital investments in other energy efficiency technologies for water and space heating applications that reduce our consumption of natural gas. Limiting factors to achieving this goal may include (1) a shortfall in or inability to make adequate capital investments, (2) a shortfall in the emission reduction performance of control technologies acquired and deployed, (3) an inability to acquire and deploy adequate emission reduction controls and energy efficiency technologies, and (4) an inability to source suitable low-carbon fuel alternatives. To learn more please review the Sustainability Goals &amp; Governance section of our 2019 Sustainability Report.</td>
</tr>
</tbody>
</table>

#### Air Emissions

<table>
<thead>
<tr>
<th>Metric Category</th>
<th>Unit of Measure</th>
<th>Code</th>
<th>Response/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N2O), (3) SOx, (4) particulate matter (PM10), (5) manganese (MnO), (6) lead (Pb), (7) volatile organic compounds (VOCs), and (8) polycyclic aromatic hydrocarbons (PAHs)</td>
<td>Quantitative Metric tons (t)</td>
<td>EM-IS-120a.1</td>
<td>Not applicable: We do not report on distinct air emissions of the respective pollutants listed. However, we have reported on some of these emissions (i.e. VOCs) within our gross global Scope 1 emissions, in terms of metric tons of CO2-e.</td>
</tr>
</tbody>
</table>
### Energy Management

<table>
<thead>
<tr>
<th>Metric</th>
<th>Category</th>
<th>Unit of Measure</th>
<th>Code</th>
<th>Response/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Total energy consumed</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>EM-IS-130a.1</td>
<td>3,043,150 This figure has received external assurance by Trucost in accordance with AA1000AS Type 2 moderate–level assurance. To learn more please review the Energy Efficiency and Emissions Reduction section of our 2019 Sustainability Report.</td>
</tr>
<tr>
<td>(2) percentage grid electricity</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>EM-IS-130a.2</td>
<td>48% Not applicable: We do not consume coal as a source of fuel.</td>
</tr>
<tr>
<td>(3) percentage renewable</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td></td>
<td>2% The majority of natural gas consumption takes place in our steel manufacturing operations to run its reheat furnace, which is used to reheat billets prior to running them through our rolling mill. (2019 10-K page 9).</td>
</tr>
<tr>
<td>(4) Total fuel consumed</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>EM-IS-130a.2</td>
<td>1,596,903 Total fuels consumed include Diesel, Biodiesel, Gasoline, Ethanol, Fuel Oil, Kerosene, Propane, Propylene, and Acetylene. To learn more please review the Energy Efficiency and Emissions Reduction section of our 2019 Sustainability Report.</td>
</tr>
<tr>
<td>(5) percentage coal</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>EM-IS-130a.2</td>
<td>0% We consume a small amount of a 20 percent–blended biodiesel fuel in our on–road transportation fleet vehicles.</td>
</tr>
<tr>
<td>(6) percentage natural gas</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>EM-IS-130a.2</td>
<td>60%</td>
</tr>
<tr>
<td>(7) percentage renewable</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>EM-IS-130a.2</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

### Water Management

<table>
<thead>
<tr>
<th>Metric</th>
<th>Category</th>
<th>Unit of Measure</th>
<th>Code</th>
<th>Response/Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Total fresh water withdrawn</td>
<td>Quantitative</td>
<td>Thousand cubic meters (m3), Percentage (%)</td>
<td>EM-IS-140a.1</td>
<td>1,175 This figure has received external assurance by Trucost in accordance with AA1000AS Type 2 moderate–level assurance. To learn more please review the Responsible Water Use section of our 2019 Sustainability Report.</td>
</tr>
<tr>
<td>(2) percentage recycled</td>
<td>Quantitative</td>
<td>Thousand cubic meters (m3), Percentage (%)</td>
<td>EM-IS-140a.1</td>
<td>80% This figure is an estimate of water recycled within our steel manufacturing operations only. The percentage of total water recycled at an enterprise level is estimated to range from 50–60 percent, based on particular operating activities within the reporting period, that may differ between individual facilities, where such operating practices and measurements are capable of being tracked. Uncertainty of the percentage of total water recycled at an enterprise level may be related to variables such as a (1) weather–related events (e.g. floods, hurricanes, storms, heat waves, and droughts) and (2) technologies for the collection and management of data on water consumption, usage, recycling, recovery, and re–use. (2019 SR page 25). To learn more please review the Responsible Water Use section of our 2019 Sustainability Report.</td>
</tr>
<tr>
<td>(3) percentage in regions with High or Extremely High Baseline Water Stress</td>
<td>Quantitative</td>
<td>Thousand cubic meters (m3), Percentage (%)</td>
<td>EM-IS-140a.1</td>
<td>27% This figure represents the percentage of total fresh water resources indirectly withdrawn from areas characterized to have high or extremely high baseline water stress, sourced from (1) municipal water utility supplier purchases and (2) on–site well water extractions. Approximately 33 percent of our locations’ water withdrawal footprints make up this figure. At this time, water availability directly linked to the respective locations of our operations is not believed to be of significant concern, as water is not a direct, raw material input of our products, and our water uses in operations are limited in scope to, predominately, cooling and dust suppression. (2019 SR page 25). To learn more please review the Responsible Water Use section of our 2019 Sustainability Report.</td>
</tr>
</tbody>
</table>
### Waste Management

<table>
<thead>
<tr>
<th>Amount of waste generated</th>
<th>Quantitative Metric tons (t), Percentage (%)</th>
<th>752,902</th>
<th>1%</th>
</tr>
</thead>
</table>

This figure has received external assurance by Trucost in accordance with AA1000AS Type 2 moderate-level assurance.

To learn more please review the Minimizing and Managing Waste section of our 2019 Sustainability Report.

<table>
<thead>
<tr>
<th>percentage hazardous</th>
<th></th>
<th>1%</th>
</tr>
</thead>
</table>

| percentage recycled |         | 91% |

### Workforce Health & Safety

(1) Total recordable incident rate (TRIR) for full-time employees

<table>
<thead>
<tr>
<th>Rate</th>
<th>2.80</th>
</tr>
</thead>
</table>

Based on FY19 Total Working Hours across the entire enterprise, all employees (full-time, part-time, temp labor, contract, etc.)

To learn more please review the Safety, Health, and Wellness section of our 2019 Sustainability Report.

(2) Fatality rate for full-time employees

<table>
<thead>
<tr>
<th>Rate</th>
<th>0</th>
</tr>
</thead>
</table>

(3) Near miss frequency rate (NMFR) for full-time employees

<table>
<thead>
<tr>
<th>Rate</th>
<th>79.45</th>
</tr>
</thead>
</table>

### Supply Chain Management

Discussion of the process for managing iron ore and/or coking coal sourcing risks arising from environmental and social issues

<table>
<thead>
<tr>
<th>Discussion and Analysis</th>
<th>n/a</th>
<th>EM-IS-430a.1</th>
</tr>
</thead>
</table>

Not applicable: We do not consume iron ore or coking coal for which a process for managing such sourcing risks would be necessary.

In regards to any existing or projected risks or constraints in obtaining other raw materials: We believe we operate the only mini-mill in the Western U.S. that obtains its scrap metal feedstock from an integrated metals recycler. Our metals recycling operations provide our steel mill with a mix of recycled metal grades, which allows the mill to achieve optimum efficiency in its melting operations. ([2019 10-K page 9](#)).

Our businesses require certain materials that are sourced from third-party suppliers. Although the synergies from our integrated operations allow us to be our own source for some raw materials, particularly with respect to scrap metal for our steel manufacturing operations, we rely on other suppliers for most of our raw material and other input needs, including inputs to steel production such as graphite electrodes, alloys, and other required consumables. ([2019 10-K page 15](#)).
Trucost was engaged by Schnitzer Steel Industries, Inc. to provide assurance of selected environmental data held within its 2019 Sustainability Report.

**Assurance statement: AA1000**

Trucost was engaged by Schnitzer Steel Industries, Inc. to provide assurance of selected environmental data held within its 2019 Sustainability Report.

**Intended users**
The intended users of this assurance statement are the management and stakeholders of Schnitzer Steel Industries, Inc. (hereafter “Schnitzer”).

**Responsibilities of Schnitzer and assurance provider**
The management of Schnitzer has sole responsibility for the preparation and content of its 2019 Sustainability Report. Trucost’s statement represents its independent and balanced opinion on the content and accuracy of the information and environmental data held within.

**Assurance standard**
Trucost undertook the assurance in accordance with AA1000AS (2008 with 2018 addendum) Type 2 moderate-level assurance, covering:
- Evaluation of adherence to the AA1000APS (2018) Principles of inclusivity, materiality and responsiveness and impact (the Principles)
- The reliability of specified environmental performance information (energy consumption, greenhouse gas emissions (GHG), water and waste)

Trucost used the Global Reporting Initiative (GRI) framework, the Sustainability Accounting Standards Board (SASB) materiality map and standards, and the GHG Protocol to evaluate Schnitzer’s performance information and adherence to the Principles.

**Scope and limitations**
Trucost was engaged to assure the data and claims in Schnitzer’s 2019 Sustainability Report. This submission covered the period 01 September 2018 – 31st August 2019. This assurance statement relates specifically to the selected environmental performance information disclosed in the Sustainability Report, and may not be interpreted as validating environmental data reporting from other sources. Trucost verified the following energy. GHG emissions, water and waste data (as calculated by Schnitzer):

<table>
<thead>
<tr>
<th>GHG EMISSIONS</th>
<th>ENERGY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UNIT</td>
</tr>
<tr>
<td><strong>By Scope</strong>&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>GHG Scope 1-Combustion</td>
<td>Metric tons CO2e</td>
</tr>
<tr>
<td>GHG Scope 2-Locaton-based electricity</td>
<td>Metric tons CO2e</td>
</tr>
<tr>
<td>GHG Scope 2-Market-based electricity</td>
<td>Metric tons CO2e</td>
</tr>
</tbody>
</table>

1 The scope 1 emissions included within the assurance do not include production process emissions associated with any of Schnitzer’s steelmaking, metal shredding and recycling, or end-of-life vehicle dismantling operating activities. The following fuels types are included under the scope 1 category: natural gas, as well as transportation and equipment fuels such as Diesel, Biodiesel, Gasoline, Ethanol, Fuel Oil, Kerosene, Propane, Propylene and Acetylene.

2 The value reported under Beneficial Re-use/Recycling category is inclusive of materials for re-use/recycling, materials used for energy recovery, and may include U.S. federal RCRA materials.

3 The value reported under U.S. Federal RCRA may be inclusive of all three disposition types i.e. by landfill disposal, re-use/recycling and materials used for energy recovery.

**Methodology**
Trucost’s assurance activities included the following:
- Review of the processes by which Schnitzer defines the sustainability issues that are relevant and material to its operations and its stakeholders
- Interviews with managers responsible for sustainability performance and data collection
- Assessment of the extent to which Schnitzer’s sustainability activities adhere to the Principles
- Review of processes and systems used to gather and consolidate environmental data
- Verification of data accuracy for a selection of sites, including an audit of conversion factors and calculations
### PRINCIPLE

**Inclusivity: The participation of stakeholders in developing and achieving an accountable and strategic response to sustainability**

Schnitzer’s stakeholders include current and prospective employees, shareholders, regulators, local communities, customers, suppliers, and relevant non-profit associations. The company engages with these stakeholder groups via internal and external communication tools which may include newsletters, emails, in-person and remote conferencing, and surveys. Each of the stakeholder groups may interact with various company functional groups, and relevant communications are reported to an enterprise-level Sustainability Leadership Group (SLG). This communication channel allows for the incorporation of feedback into the company's corporate sustainability strategy. For example, in FY2019 the company received feedback on the topic of long-term goal setting and tracking performance. Based on this feedback, in the FY2019 Sustainability Report, Schnitzer published long-term sustainability goals to be achieved by 2025 or earlier on five topics: safety, volunteerism, greenhouse gas emissions, carbon-free electricity usage, and achieving greater profitability through the implementation sustainability-based business initiatives. These sustainability goals directly connect to the feedback and analysis set forth in the Materiality Assessment, Schnitzer will continue to improve and refine respective initiatives by incorporating feedback from its stakeholder engagements.

**Materiality: Determining the relevance and significance of an issue to an organization and its stakeholders**

Schnitzer conducted a Materiality Assessment in FY2018. The main purpose of the assessment was to ensure the relevance and ranking of the material issues impacting the long-term sustainability of Schnitzer’s operations, and to accommodate the needs of various stakeholder groups. In FY2019, Schnitzer’s Board of Directors had oversight and input in evaluating the frequency of subsequent Materiality Assessments.

**Responsiveness: An organization’s response to stakeholder issues that affect its sustainability performance and is realized through decisions, actions and performance, as well as communication with stakeholders**

Schnitzer perceives its environmental performance as critical to its corporate leadership and longevity as a successful business. The company recognizes that achievements in sustainability help the company improve its competitiveness in its industry, help to preserve a broad and deep customer base, attract and retain high-quality talent, protect the environment, and positively impact the communities where they work and live. Schnitzer ensures that all stakeholder concerns are effectively addressed by the relevant functional groups. Some of the highlights of the company’s sustainability initiatives are: increase of its carbon-free electricity power mix by enrolling in various state led programs on green power sourcing, replacing frontline equipment to fuel-efficient alternatives and upgrading storm water treatment systems across some of its facilities.

**Impact: An organization’s approach to monitor, measure and be accountable for how its actions impact broader ecosystems**

The company’s enterprise-wide sustainability goals for 2025 include long-term commitments on the following material environmental topics: air emissions, and carbon-free energy usage. The company’s governance structure has remained consistent to monitor and track performance on environmental Key Performance Indicators. It also has a management and reporting system in terms of assigning points of accountability at a business segment level, functional unit level, regional level, and facility level. In FY2019, the company trained 100% of its employee population on its company-wide sustainability strategy as part of their mandatory Code of Conduct Assessment training regarding its three core values – Sustainability, Safety and Integrity. The sustainability portion of the training, among other things, encourage its employees to put the Value of Sustainability into action through their daily work and to take ownership of, and connect to, the company’s overall sustainability strategy. Schnitzer is also in the process of developing and publically disclosing policies on topics such as biodiversity, water, and climate change. For example, based on a gap identified by the leadership group, Schnitzer, in FY2019 approved a supplier code of conduct with specific requirements on adherence to, among many other things, environmental compliance and sustainable practices.
Assurance statement: AA1000

Findings, conclusions and recommendations

The principles: Trucost has reviewed sufficient evidence to suggest that Schnitzer’s data and reporting within the Sustainability Report, as covered by the scope and boundary of this statement, adheres to the Principles.

Data reliability:

Schnitzer has implemented rigorous processes to collect and aggregate global energy consumption, GHG emissions, water use, and waste generation. Trucost has been presented sufficient evidence to provide confidence that Schnitzer has effective processes and systems in place to collect and collate environmental data such that the company’s environmental performance is accurately described.

Consumption data on energy, fuels, water, and waste were reviewed from original invoices. Emission factors used in the calculations of Scope 1 and 2 emissions were sourced from nationally or internationally recognized databases. Upon evaluating the data collection systems, Trucost found that the environmental performance data included was accurate and all minor edits were made as necessary. Trucost encourages Schnitzer to continue reviewing and updating GHG emissions factors annually or as available.

Assurance provider

Trucost has been researching, standardizing and validating corporate environmental performance data since 2000. Trucost’s research team has the relevant professional and technical competencies and experience to conduct an assurance to the AA1000 standard. Trucost did not provide any services to Schnitzer during FY2019 that could conflict with the independence of this work. This is the sixth year that Trucost has assured Schnitzer’s environmental data held within its Sustainability Report.

Trucost, part of S&P Global
London, November 2019

Steven Bullock
Global Head of Research
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