2018 SUSTAINABILITY REPORT
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$1.5M DONATED MORE THAN MILLION THROUGH THE AK STEEL FOUNDATION

66% WASTE RECYCLED

CONTINUED HIGH RATINGS FOR CORPORATE GOVERNANCE PRACTICES

77% OF WATER UTILIZED RECYCLED OR REUSED

1200+ EMPLOYEES VOLUNTEERING IN 100+ EVENTS IN OUR COMMUNITIES

SAFETY RECORD 2.3X BETTER THAN INDUSTRY AVERAGE

99.9% WATER COMPLIANCE

99.9% AIR COMPLIANCE
Human Rights, Diversity and Community

Our Workplace

AK Steel is an equal opportunity employer, and is committed to providing a respectful workplace that is free of discrimination and harassment. AK Steel strictly prohibits and does not tolerate discrimination or harassment in the workplace based on race, color, religion, national origin, age, military status, disability, sex, sexual orientation, gender identity, genetic information, or any other characteristic protected by law across the company at all locations.

Our policy applies to all terms and conditions of employment, including hiring, training, promotion, discipline, compensation, benefits, and discharge. All employment decisions are based only on legitimate business objectives and are made in accordance with the principles of equal employment opportunity.
We provide equal benefits to different- and same-sex spouses. In addition, we do not distinguish between different- and same-sex domestic partners in regard to benefits. Our employees’ health care coverage includes transgender-related expenses for numerous physical and mental health services, such as hormone therapy and surgery, and we pay wage and salary continuance in the event an employee experiences disability leave in connection with those services.

It is the policy of AK Steel that business enterprises owned and controlled by minority individuals and or women-owned business enterprises shall have the maximum practicable opportunity to participate in supplying materials and services to AK Steel. We work to actively, diligently and fairly promote procurement of facilities, equipment, supplies and sources from these business enterprises.

We are committed to fostering an environment that encourages diversity and inclusion. In order to ensure that our management and Board of Directors is adequately focused on diversity and inclusion, every meeting of the Management Development and Compensation Committee of the Board includes at least one agenda item related to these topics and our ongoing initiatives to improve on these fronts at each level of our company, from the executive management to the plant floor. On an annual basis, AK Steel benchmarks our diversity statistics to U.S. and industry data. Our efforts allow us to track our diversity profile and create opportunities to enhance it. In addition, we track diversity among our leadership groups to help ensure we are paving the way for increased diversity among future company leaders.

We prepare location-specific analyses of our workforce with respect to local demographics. The analysis reviews our employment data at each of our sites by race, gender, disability, and veteran status. It compares our data to the demographic statistics of the corresponding geographic area in which the plant or office is located. This helps determine whether or not our workforce generally reflects the local population with respect to gender and minority status. If the analysis identifies areas that could be improved, we develop location-specific outreach accordingly.
In 2017, AK Steel created a new position, Manager of Talent Acquisition. Responsibilities of this position include increasing promotion of our career opportunities to diverse candidates, including women, minorities, and veteran groups.

Throughout the year, we identify and sponsor employees to participate in diversity leadership programs; for example, the Urban League’s Urban Leader Institute and WE Lead, a Cincinnati USA Regional Chamber of Commerce program for high potential female employees. Both of these programs offer nine to 10 months of leadership development for employees.

In 2016, AK Steel was recognized with the Corporation of the Year Award by the Michigan Minority Supplier Development Council. The award honored AK Steel as an ambassador championing excellence in minority supplier development.

In addition, along with local schools, chambers of commerce and other area organizations, we work to develop opportunities to promote careers in manufacturing. In 2018, nearly 900 students and 80 educators toured AK Steel facilities as part of the National Association of Manufacturers’ Manufacturing Day to introduce students to careers in manufacturing. Also, each year we provide a variety of internship and co-op opportunities to students in high school and college.

Human Rights

We are committed to respecting the human rights of all workers and treating all people with dignity. We maintain a Human Rights Policy that is consistent with the United Nations Universal Declaration of Human Rights, the United Nations Human Rights Council Guiding Principles on Business and Human Rights, and the Organization for Economic Cooperation & Development Guidelines for Multinational Enterprises.

This policy guides our principles for human rights, including complying with all applicable laws and regulations, promoting the health and
safety of all workers, preventing harassment and discrimination against minority groups, preventing the use of child and slave labor, respecting the rights of workers to associate freely in accordance with applicable laws, promoting the communities in which we work and live, and recognizing the importance of environmental considerations in our business. Our Human Rights Policy applies to all of our company operations, regardless of geographic location.

Community Investment

As a responsible corporate citizen, AK Steel invests in the communities where our employees work and live. Through the AK Steel Foundation, the company is able to make a positive difference in the lives of others, donating more than $1.5 million in 2018 to nonprofit programs, scholarships and grants.

Through the AK Steel Foundation, grant funding is distributed to non-profit organizations serving our communities, focusing on efforts to support education, youth and families. In recent years, the AK Steel Foundation has provided support to numerous nonprofit organizations, including those below and many others:

- American Heart Association
- Cincinnati ArtsWave
- Boys and Girls Club
- Downs Syndrome Association of Greater Cincinnati
- Habitat for Humanity
- Junior Achievement
- March of Dimes
- Middletown Community Foundation’s READY Initiative
- Salvation Army
- United Way

In addition to providing direct support to nonprofits, the AK Steel Foundation offers a generous Matching Gift Program to help employees increase the value of their charitable contributions each year. Employee gifts are matched dollar for dollar to a maximum level annually. Numerous qualifying organizations benefit from the program, including universities, arts and culture organizations and health and human service agencies.
Scholarships and Awards

The AK Steel Foundation also offers a variety of scholarship opportunities to support graduating high school seniors. These programs help develop the future workforce and demonstrate our strong support of education. This includes the AK Steel Sons and Daughters Scholarship Program, which offers competitive college scholarships to children of company employees. The Middletown, Ohio Community Foundation independently selects each recipient based on academic achievement, leadership and community involvement. From 2003 through 2018, the AK Steel Foundation has awarded more than 300 Sons and Daughters Scholarships valued at more than $6,000,000.

Along with the Sons and Daughters Scholarship Program, the AK Steel Foundation underwrites the Louie F. Cox Memorial AK Steel African American Scholarship Program, which benefits African American students in Butler and Warren Counties in Ohio. Similar to the Sons and Daughters Program, the Louie F. Cox scholarships are funded by the AK Steel Foundation and are valued at up to $20,000 each.

Lastly, Self-Reliance Awards have been distributed for more than 60 years to students in the counties near AK Steel’s Ashland Works facility in Kentucky. These financial awards salute high school seniors who have displayed self-reliance and strong time-management skills.

In addition to the financial support provided by the company and employees, employees volunteer in a variety of ways for United Way agencies through the United Way’s Day of Caring initiative.
United Way

AK Steel and the AK Steel Foundation are proud supporters of the United Way. Through the AK Steel Foundation, annual contributions are made to United Way efforts in our plant communities. Over the years, the AK Steel Foundation, joined by AK Steel employees, has donated millions of dollars to the United Way — helping the organization support childhood education programs, improve the health and independence of people in the community and support families in need achieve financial stability.

Steel Magnolia Awards

In recognition of women who have overcome obstacles to make a difference in the lives of others, the AK Steel Foundation underwrites the Steel Magnolia Awards. The annual awards honor women who have faced personal adversity and shown exceptional strength, courage, compassion and leadership in the communities in which we operate. Sixty-eight Steel Magnolia Awards have been presented to inspirational women since the program’s inaugural year in 2009.
Launched in 2016, the AK CARES Program was created to support and encourage employees to give back to their community through a variety of volunteer efforts. Through the program, employees have donated countless hours to local charitable efforts to help show that AK CARES about our neighbors and communities. In 2018, more than 1,200 employees volunteered for over 100 activities, donating more than 3,200 hours to programs to better the communities where our employees live and work. Employees made improvements at local parks and schools, provided mentoring opportunities to area youth, helped to serve food to the less fortunate and provided educational experiences through a variety of health and social services and community programs.
Annually, employees across each site join together to make a difference in our neighborhoods through our AK Steel Souper Bowl Food Drive. Each location hosts a food collection drive to support a local pantry in their community. In 2018, employees donated more than 29,000 pounds of food. This accomplishment was more than 9,000 pounds over the collection in 2017 and helped to provide thousands of meals to those in need.
Environmental Responsibility and Climate Change

2018: A Record Year

AK Steel is committed to operating in an environmentally responsible manner, and building a sustainable future. We are fully focused on environmental compliance and we take our responsibility seriously.

Our company’s Environmental Management System is the backbone of our compliance process. Every significant environmental aspect of our operations has been identified with detailed work instructions in place to manage the specific activity. We have created a program in which our employees are well trained to execute their...
respective responsibilities, and the effectiveness of our Environmental Management System was apparent in 2018.

2018 was a record year at our sites for air and water compliance, which is a product of a truly incredible effort by both our employees and members of our supply chain.

AK Steel’s Environmental Management System has been certified by an independent auditor at most of our facilities since 2001. Developing and maintaining an environmental management system is also required by many of our suppliers, and is an important tool used to document work practices, train employees and audit system performance.

The company takes a proactive approach to environmental management by following its comprehensive environmental policy to:

- Commit necessary resources to comply with all applicable environmental laws, regulations, permits and agreements to which AK Steel subscribes.
- Reduce environmental risks through operating practices and emergency preparedness programs.
- Encourage recycling, recovery and reuse of residual materials, as well as the reduction and prevention of emissions and releases to the extent demonstrated feasible.
- Participate in the development and implementation of environmental laws and regulations.
- Evaluate on a routine basis compliance with applicable environmental laws and regulations.
- Strive for continual improvement in the effectiveness of its environmental management efforts.

AK Steel transitioned to the most recent ISO 14001 standard prior to the September 2018 deadline at all of our steelmaking facilities.
Supplier Guidelines and Impact on Environmental Management System

AK Steel has a Supplier Requirements Manual that is posted on our website and shared with our suppliers. The intent of the policy is to reflect commitment by AK Steel to comply with all applicable environmental laws and regulations, evaluate its performance relative to these laws and regulations and improve where it is practical. Suppliers are expected to comply with AK Steel’s Environmental Policy where applicable.

Suppliers of goods and services have a significant impact on AK Steel’s ability to achieve the policy requirements, as well as the implementation of AK Steel’s Environmental Management System. These impacts are evaluated routinely by AK Steel’s Environmental Affairs staff. If the potential environmental impact of supplied goods and services is significant, those specific items are defined within the environmental plan or layout at each facility as “significant aspects.” Those significant aspects are subject to both internal and external audits under AK Steel’s ISO 14001 Environmental Management System. To see the entire AK Steel Supplier Requirements Manual, please visit our website at www.aksteel.com.

AK Steel randomly surveyed our suppliers in early 2018, and of the 300 responding to the survey, approximately 40% have an Environmental Management System or ISO 14001 certification. We strongly encourage all of our suppliers with moderate or significant environmental risk to pursue an Environmental Management System.

Water Compliance

AK Steel conducts analyses on thousands of water discharge samples every year throughout the company at our nine major production plants. Each plant’s water discharge permit is slightly different depending on the type of operation being conducted at each facility.
In 2018, the compliance rate for water discharges was outstanding, setting or matching company records at many facilities. The company collected over 24,000 samples – resulting in a compliance rate of over 99.96%.

Six plants – Butler Works, Coshocton Works, Dearborn Works, Mansfield Works, Mountain State Carbon and Zanesville Works – all set or tied their previous records, having zero water discharge exceedances. This is a remarkable accomplishment for each of these major facilities.

AK Coal’s compliance performance improved by over 70% in 2018 compared to 2017. Middletown Works had one exceedance out of more than 4,000 tests conducted on site in 2018, which is extraordinary performance.

Air Compliance

In 2018, the company had 91 air permit deviations combined across our 9 major production plants for an air compliance rate over 99.99%. For perspective, AK Steel has more than 2,500,000 permit requirements to comply with each year, within 9 different air permits across our sites. That is an average of five permit requirements every minute.

- Two plants – Zanesville Works and Coshocton Works – tied previous site records with zero deviations.
• Our Dearborn Works had only 23 deviations at the facility, with approximately 1,150,000 air permit requirements annually. AK Steel purchased the facility in 2014. The transition from the prior owner’s program to AK Steel’s Environmental Management System is complete, and the compliance performance is now in line with AK Steel’s heightened expectations. In 2013, the year before AK Steel acquired the facility, the site recorded more than 20,000 air permit deviations.

• Mansfield Works set a new record low with 3 deviations at the facility compared to the previous best performance record of 4 set in 2010. This facility has approximately 40,000 air permit requirements annually.

Water and Land Conservation and Water Usage

Some of the production units in our operations are inherently water-intensive. However, we continuously seek opportunities to reduce water usage and increase water reuse at our production plants. In addition, our production facilities are located near abundant sources of water and we do not believe that any of those operations are located in regions that experience high baseline water stress.

All of our steelmaking facilities are located in the United States. We also have a steel tube mill located in Mexico and six steel toolmaking and stamping facilities located in Canada that use minor amounts of water that total well under 1% of the company’s total usage.

In 2018, across our nine major plants, AK Steel utilized approximately 208 billion gallons of water.

Approximately 48 billion gallons, or 23%, of this water was from fresh water sources, including river water, ground water, city water, and storm water. The rest, totaling 77% of water used, was recycled.
Water Discharged and Recycled

The total water discharged for the company in 2018 was 42 billion gallons.

AK Steel’s production processes require a significant amount of water, generally for cooling purposes. We strive to conserve water whenever possible and, as a result, we use a substantial amount of recycled and reused water in lieu of fresh water. In 2018, 77% of the water utilized, or approximately 160 billion gallons, was recycled or reused. 160 billion gallons of water is enough water to fulfill the annual water needs of over 4 million people. As a part of the company’s sustainability initiative, we will continue to look for opportunities to use more recycled water and also reduce overall water consumption 5 billion gallons by 2025.

Biodiversity and Greenfield Sites

It is unusual for AK Steel to have expansion projects on “greenfield” sites. We have not done so since the construction of our Rockport Works in Indiana more than 20 years ago. During that project, careful consideration was given to the critical habitats. As an example, we constructed an Ohio River discharge pipeline that took into account the mussel population, and also constructed a sizable wetland just south of the plant to replace existing habitats.
Over the last several years, AK Steel remediated a substantial portion of Dicks Creek located near our plant in Middletown, Ohio. The company continues to monitor the creek in order to evaluate the habitat for various aquatic species.

Most expansion projects executed by the company are done so on brownfield sites and take advantage of the company’s existing footprint, resulting in zero impact to habitat.

AK Steel has a Biodiversity Program that is administered through the ISO 14001 system. It provides a clear framework for evaluating projects in critical habitats and other areas of high biodiversity value. Major projects require an assessment of forest ecosystems, mountain ecosystems, grassland ecosystems, wetland ecosystems, vegetation, species diversity and any legal protection established for habitats.

Assessment of species diversity includes fungi, lichens, algae, flora, invertebrates, fish, amphibians, reptiles, birds and mammals. If these assessments were to result in the identification of possible issues, our policy is that the findings would be communicated to members of our executive management team to assist in the decision making process to ensure that all stakeholders are considered.
Disturbed Lands

AK Steel has a Disturbed Lands Reclamation Strategy that incorporates the following practices:

* We follow all applicable environmental regulations to ensure that the soil, surface water, groundwater, ponds and tailing wastes from disturbed lands do not pose an unacceptable risk to the environment. This can include work within a regulatory framework or other voluntary means. Currently, AK Steel does not have any tailing wastes or underground reinjection operations.

* When practical and financially viable, we work to redevelop property with ceased operations either directly or by selling it to interested parties. Recently, we sold a portion of the former Kansas City Works site to a group that is in the process of redeveloping the property.

* Our Environmental Affairs organization monitors and manages disturbed lands with ceased operations. Lands with defined environmental liability are accounted for within AK Steel’s balance sheet.

* The implementation timeline for reclamation is often dictated by regulatory programs. Those timelines and targets are established within AK Steel’s annual business plan.

Across all nine of AK Steel’s currently operating facilities, the total land disturbed is roughly 5,194 acres. At three of these sites we continue to lease land to local farmers, allowing over 1,000 acres to be used for crop production.
Waste Management Program

AK Steel’s Hazardous, Non-Hazardous, and Chemical Waste Management Program is a significant component of our company’s Environmental Management System. All of the areas where waste is created are identified as significant environmental aspects within the ISO 14001 system and require detailed work instructions to manage the storage, transportation and disposal of hazardous, non-hazardous and chemical waste.

Our employees involved in hazardous waste management are trained at least annually and AK Steel complies with all applicable Resource Conservation and Recovery Act (RCRA) regulations. The RCRA creates the framework for the proper management of waste. We also have extensive containment systems in place at our sites as needed to keep waste from migrating off site. As a result, AK Steel did not have any significant spills in 2018.

Additionally in 2018, AK Steel entered into an agreement with Heritage Environmental Services for implementation of a Total Waste Management Program. Heritage’s commitment to innovation with waste is aligned with AK Steel’s innovation with steel products. Heritage will work with the company to find ways to reduce waste volumes and costs with both minimization practices and recycling opportunities.

Waste and Recycling

No hazardous waste from AK Steel was generated outside of the United States. There were 49,972 tons of hazardous waste generated in 2018, making up roughly 3% of the total waste generated by the company.

In 2018, AK Steel generated 1.9 million tons of non-hazardous waste and recycled approximately 66% of that waste.
AK Steel incinerated less than 1% of its total waste in 2018. During that time, AK Steel landfilled approximately 623 thousand tons of waste.

Consistent with the company’s environmental policy, AK Steel recycled roughly 1.3 million tons of waste.

In 2018, Middletown Works recycled significantly more acid from the pickling operation. The site also reduced the volume of electrogalvanizing waste generated due to the completion of outage work in 2017. In total, Middletown Works decreased hazardous waste disposal by about 40%, or 7,000 tons.

Waste Reduction and Recycling Targets

Waste Reduction and Recycling Targets
Waste reduction targets, using 2017 as a baseline, include:
- A 5% reduction in hazardous waste generation by 2022 - Completed.
- A 2,600 ton reduction in hazardous waste generation by 2022 - Completed.
- A 31,000 ton reduction in non-hazardous waste generation by 2022 - In Process.
- AK Steel also had a 2018 target to increase its recycling percentage to 56%, or approximately 15,000 tons. Both of these goals were achieved. AK Steel’s new target is to increase its recycling percentage to 70%, or approximately 70,000 tons.
Climate Change

Our company has elected to pursue a path of enhanced disclosure on greenhouse gas emissions from our steelmaking operations and to take action to target emissions reductions, consistent with the Paris Climate Agreement and its “two degree” scenario.

During 2018, we completed an inventory of scope 1 greenhouse gas emissions at our steelmaking plants and adopted time-bound, quantitative targets for reducing scope 1 greenhouse gas emissions at those plants. Scope 1 emissions are generally defined as direct emissions from owned or controlled sources.

Beginning this year and moving forward, we intend to publicly disclose annually our scope 1 greenhouse gas emissions and targeted reductions, along with our efforts to reach them. We also plan to expand our efforts on scope 2 greenhouse gas emissions over time, as we develop our internal systems for tracking and targeting scope 1 reductions. By the end of 2021, we will complete an inventory of our scope 2 greenhouse gas emissions at our steelmaking plants and by the end of 2022 we will publicly disclose that information annually.

In addition, by the end of 2021 we will adopt time-bound, quantitative targets for reducing scope 2 greenhouse gas emissions at our steelmaking plants and share those scope 2 targets annually. Scope 2 emissions are generally defined as indirect emissions from purchased energy. So, to the extent we complete our scope 2 inventory and or our scope 2 greenhouse gas emissions reduction targets before 2021, we would intend to disclose those items publicly at that time and then on an annual basis. We also intend to annually assess science-based targets for reducing greenhouse gas emissions and reasonably consider the adoption of such targets on an ongoing basis.

As with other companies engaged in the production of steel, certain aspects of our production process are carbon-intensive and current technology does not currently afford us the ability to dramatically lower our direct greenhouse gas emissions without significantly reducing the
scope of our operations. However, our company, and other steel producers in the United States, are actively participating in research and development to create technology, processes and approaches to reduce emissions during the steelmaking processes, but these developments are likely to occur over the longer term.

We continue to educate and share the data broadly with governments, the automotive industry—our core market—and other key stakeholders, that steel is the most sustainable metal to reduce greenhouse gas emissions through the life cycle of a vehicle.

The production phase of steelmaking is less carbon-intensive than the processes for producing certain other competing materials, such as aluminum. While the Corporate Average Fuel Economy, or CAFE, standards have motivated some automotive manufacturers to use aluminum in certain vehicles to help achieve lightweighting goals, new leading edge products like our advanced steel products for lightweighting provide solutions for those willing to look at other important factors beyond vehicle tailpipe emissions alone.

Greenhouse Gas (GHG) Emissions and Reduction Targets

Steel manufacturing is an energy intensive process, and our steelmaking facilities generated approximately 6,697,836 metric tons of carbon dioxide equivalents (CO2e) scope 1 emissions in 2018. These emissions are covered under a regulatory program and a third party has been secured to conduct a verification of scope 1 GHG emissions. AK Steel has historically calculated its GHG emissions utilizing the U.S. EPA’s GHG reporting rule. Therefore, the company expects some adjustments to the scope 1 emission calculations during the new verification process.
AK Steel’s total scope 1 CO2e emissions are listed in the accompanying table by sector. This information includes GHGs from our nine major steel manufacturing facilities. The sectors are integrated steel manufacturing, electric arc furnace steel manufacturing and steel finishing facilities.

AK Steel’s Greenhouse Gas reduction targets for its steelmaking plants are as follows:

- We have targeted a 10% reduction of scope 1 GHGs by 2025 based on a 2015 baseline. This equals roughly 800,000 CO2e metric tons.
- Both the electric arc furnace (EAF) at our Butler Works and finishing sectors make up a small portion of the overall scope 1 GHG footprint, at less than 10%. Therefore, no targets have been set in those sectors for scope 1 GHGs due to low overall impact.
- We have targeted a 10% reduction of scope 1 GHGs by 2025 based on a 2015 baseline in our integrated sector.

### Air Emissions and Reduction Targets

Quantitative significant air emissions from our nine steel producing facilities are listed for 2018 in the following chart.

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<th>Pollutant</th>
<th>2018 EMISSIONS (tons)</th>
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<td>54 HAPs</td>
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</tbody>
</table>

#### 2018 EMISSIONS 5 POLLUTANTS (tons)
The only location with a major production facility in a high population density (> 50,000 people) is Dearborn Works. Dearborn has nearly 4,000 people per square mile based on 2016 census data.

Dearborn Works has made substantial reductions in sulfur dioxide emissions since AK Steel purchased the facility in September 2014. Sulfur dioxide emissions are down more than 100 tons despite increased production at the plant.

AK Steel has set aggressive targets to reduce air emissions from our nine steelmaking facilities. Using a 2015 baseline, our company is targeting and on track to achieve these goals by 2025:

- A 20% reduction in NOx, SOx, VOCs, particulate matter and hazardous air pollutants.
- A 1,400 ton reduction of NOx.
- A 1,000 ton reduction of SOx.
- A 250 ton reduction of VOCs.
- A 530 ton reduction of particulate matter.
- A 10 ton reduction of hazardous air pollutants.
Sustainable Projects and Energy

AK Steel’s focus on environmental compliance and stewardship goes well beyond the steel we make, and includes the way we operate at every site, every day.
Recycling to Reduce and Reuse Across our Sites

There are numerous examples across our sites where we capture and reuse, or capture and sell for reuse, materials that in the past would have gone to landfills.

**Total Waste Management Partnership with Heritage Environmental** – In 2018, AK Steel and Heritage Environmental Services joined forces to find a more efficient way to manage AK Steel’s waste. Like AK Steel, a cornerstone of the Heritage business model is innovation, and they are tasked with finding ways to help reduce AK Steel’s waste generation rate, manage it more efficiently and find innovative recycling opportunities.

**Mountain State Carbon - City Water Reduction Project** – In 2018, Mountain State Carbon began construction on a water clarification project that will reduce the amount of city water necessary to operate the facility. At times, river water becomes too muddy to use and the facility is forced to purchase city water to feed the boiler house. Once completed in 2019, the new clarifier will allow the boiler to stay on river water and reduce city water purchases by $400,000 to $575,000 annually.

**Middletown Works Concrete Recycling** – The plant had accumulated concrete and pavement debris that had been removed from other parts of the site in recent projects. One of our employees developed a recycling strategy in order to avoid procurement of raw materials as well as disposal costs. A rental concrete crusher was brought to the facility and yielded 15,200 tons of crushed stone that was used to rehabilitate an outside coil storage area. The project also yielded 50 tons of scrap rebar, which we could use as feedstock for our steelmaking process. We also recycled 20,000 tons of asphalt, using the product to help repair some of the on-site roads. In total, 35,200 tons of material were recycled in lieu of costly disposal. By recycling the material, we eliminated the need to purchase new raw materials for $600,000. Additionally, we avoided waste transportation and disposal costs of over $2 million.
Middletown Works Hot Strip Mill Recycling – The mill recycles approximately 52 billion gallons of water annually. This equates to roughly 100,000 gallons every minute. The average American uses approximately 32,000 gallons of water each year.

AK Steel is involved in a number of ongoing sustainability projects, some of which include:

- Furnace tube recycling
- Oil recycling
- Compressed air and steam reductions
- Heat reduction project
- Cooling tower replacement project
- Paper recycling

Additional Progress

Precision Partners – In 2017, AK Steel acquired Precision Partners, which provides advanced-engineered solutions, tool design and build, hot- and cold-stamped steel components and complex assemblies for the automotive market. Precision Partners specializes in manufacturing lightweight, complex components and assemblies, and it offers a broad portfolio of highly engineered solutions.

Our research and technical experts, along with AK Tube and Precision Partners engineers, have already begun numerous collaborative projects aimed at accelerating adoption of our innovative steel product by automotive manufacturers. Part of Precision Partners’ new collaboration with AK Steel includes work to review sustainability processes and share best practices. For example, in the fourth quarter of 2018, an energy audit was performed of the Precision Partners’ hot-stamping and laser cutting facilities in Windsor, Canada.

The energy audit is the first step towards gaining a better understanding of the facilities’ utility consumption. The audit evaluated both natural gas and electrical consumption and identified which processes have the largest effects on each form of energy. The audit
identified 16 areas for potential improvement, the implementation cost of each, and the projected savings. Precision Partners will begin working on key projects this year.

**Research and Innovation Center Energy Monitoring System** – AK Steel held the grand opening for its new Research and Innovation Center in Middletown, Ohio, in spring 2017. The 135,000 square foot facility includes state-of-the-art laboratories and pilot steelmaking facilities, and creates a collaborative environment for employees, customers and suppliers for enhanced technical collaboration to bring new steel solutions to the marketplace.

As part of this effort, the company is currently equipping the building’s infrastructure with an energy monitoring system. This system is our first step in testing technologies capable of measuring different forms of energy. The long term goal is to install similar systems at each of our plants. The small scale system will be used in conjunction with the building ventilation and lighting controls. The real time data will be used to identify the equipment that has the largest effect on electrical consumption, helping us avoid peak charges during times of high demand on the utility, and ultimately reduce the overall electrical usage at the Center.

**Carbon Capture Coalition** – AK Steel recently joined the Carbon Capture Coalition (CCC). The CCC is a nonpartisan coalition supporting the deployment and adoption of carbon capture technology. The coalition consists of a broad and diverse range of participants including energy, industrial, and technology companies, labor unions, and environmental and energy policy organizations. The CCC was launched in 2011 to help realize the full potential of carbon capture as a national energy, economic and environmental strategy.
Looking Ahead:

With the help of Nalco Water, an Ecolab Company, another significant project is underway at the Dearborn Works Hot Strip Mill. This project is focused on reducing the amount of city water necessary at the operation. Our partnership with Nalco Water and utilization of their water treatment expertise will eliminate the need for city water at the hot mill. In the summer months, the mill utilizes roughly 130 gallons per minute of city water. Installation of the water treatment system will allow the mill to eliminate the need for city water. The anticipated savings over the first five years are projected to be $700,000.

Dearborn Works employees will begin work on a water savings project at the Hot Strip Mill.
Energy Highlights:

In 2018, AK Steel utilized approximately 120 million gigajoules (GJ) of total energy from the following sources: gasoline, diesel fuel, electricity, natural gas, steam, coke, and coal. This includes both renewable and non-renewable sources. From that total 814 thousand GJ was derived from renewable sources and the remaining 119 million GJ was derived from non-renewable sources. The chart below shows the consumption by sector. A sector is defined based on the state in which the operation is located.
ENERGY USAGE (GJ)

- 2015: 119,395,528
- 2016: 120,211,546
- 2017: 120,240,476
- 2018: 123,018,805

RENEWABLE ENERGY (GJ)

- 2015: 534,783
- 2016: 593,077
- 2017: 624,167
- 2018: 631,469
Total Electric Power Use by State

In 2018, AK Steel used 13 million GJ of total electric power. The total normalized electrical power usage was 1.25 GJ per ton produced. From the overall total, 814 thousand GJ was consumed from renewable energy sources. 11% of our consumed energy comes from the grid. Total electric power use by state is shown below.
Health and Safety

The safety of our employees is our first priority and one of our core values.
Our occupational health and safety policies and programs are the cornerstone of our operating philosophy and are integrated into all of our daily operations and activities. We rigorously manage, control and focus on eliminating or minimizing potential exposure to the hazards associated with making and working with steel. Our industry-leading low recordable injury rate, based on U.S. Occupational Safety and Health Administration (OSHA) criteria, reflects our effectiveness in our safety program. Here is a review of our Safety Program in 2018.

Safety Performance

Workplace safety is essential to the sustainability of any organization, its workforce and the families that rely on its employees. At AK Steel, the company’s value proposition starts, first and foremost, with an unrelenting commitment to employee safety.

In 2018, three of our facilities — Ashland, Zanesville and AK Tube — tied their best annual records with zero DART (Days Away and Restricted/Transferred cases). With a total recordable injury rate of 0.64 for the full-year 2018, AK Steel’s safety performance was more than 2.3 times better (lower) than the steel industry average, according to OSHA recordable data provided to the American Iron and Steel Institute (AISI) by its reporting member companies.
Safety Awards

Since receiving the inaugural Green Cross for Safety Medal from the National Safety Council in 2000, AK Steel has continued to earn significant, consistent recognition from industry trade associations and government agencies for its safety performance throughout the years. For example, in 2018:

- Zanesville Works received the “Special Award for Safety” from the Ohio Bureau of Workers’ Compensation, Division of Safety and Hygiene for their outstanding safety performance for working from April 21, 2003 to December 31, 2017 without a lost-time injury case.

- Coshocton Works received a “Special Award for Safety” for outstanding safety performance from the Ohio Bureau of Workers’ Compensation, Division of Safety and Hygiene and the Coshocton County Safety Council and Coshocton Chamber of Commerce. The site received the special award for operating 1,115,151 hours without a lost-time injury between April 26, 2016 and September 27, 2017.

- AK Tube won the Rusty Demeules Award for Safety Excellence by the Fabricators and Manufacturers Association.

Zanesville Works accepts AK Steel’s “Iron Man” award for the Specialty Steel plant with the best record for OSHA recordables.
• AK Steel’s “Iron Man” award is presented to our Specialty Steel plant with the best record for OSHA recordables, OSHA Days Away and Restricted/Transferred (DART) cases rate, incident decreases, contractor incidents, and best safety initiative for the year. Mansfield Works received the “Iron Man” award in 2016 and Zanesville Works earned the award in 2017 and 2018.

• Middletown Works’ coke plant received the Max Eward Safety Award, from the American Coke and Coal Chemicals Institute (ACCCI), in recognition of the best safety record for the year among ACCCI-member coke plants. The ACCCI recognition marks the 17th time in 22 years that an AK Steel coke plant received the Max Eward Safety Award.

The company continues to be the American steel industry safety leader, surpassing ten years with a total OSHA recordable injury rate better than the industry average, as published by the American Iron and Steel Institute (AISI).
Plant Specific Metrics and Accomplishments

ZANESVILLE WORKS
- Tied their annual record with zero OSHA recordable cases.
- Achieved a new record of 5,733 days as of year-end 2018 without an OSHA DART injury case.

ASHLAND WORKS
- Tied their annual record with zero OSHA recordable cases and zero first aid cases.
- Established a new record of 1,295 days without an OSHA recordable injury as of December 31, 2018.

AK TUBE
- Tied their annual record of zero DART cases.

Safety Training Programs

At AK Steel, safety is one of our Key Values. It is the foundation of all we do, because what matters most is having our employees end their work days as safely as they started. In late 2015, the company invested in three slip simulators, an innovative training tool that simulates the challenges of walking on slick surfaces. Routinely, trained safety experts show employees how to walk most safely to reduce slip, trip, and fall injuries. During 2018, we conducted another round of training at all of our sites. Since training began more than 6,400 employees have been trained, helping the company reduce slip, trip and fall accidents by 35%.
Contractor Safety Program Requirements

AK Steel values the safety of the contractors who work on our sites, just as we do our own employees. Contractors working on AK Steel sites must first be pre-qualified through a third-party contractor safety management service (ISNetworld) to ensure they have an acceptable safety record and safety program that meets AK Steel’s expectations.

Each contract employee receives four to six hours of site-specific safety training and must complete a competency test that includes:

- AK Steel General Safety Orders
- Safety Standard Practice Instructions
- Site-Specific Hazards

Before beginning on-site work, contract employees must complete a job safety orientation form, where potential hazards of the work and necessary controls are specifically identified. This is reviewed with the employees, and approved by an AK Steel manager.
We believe that an important component of sustainability is managing the company’s business in line with best practices for corporate governance and by operating ethically. Our view is that by upholding strong principles in governance, ethics and shareholder rights, we will be able to sustain a better business over the long run that can create and sustain shareholder value. This section illustrates some of the ways in which we ensure that our business is sustainable through first-class corporate governance and an unflagging focus on compliance and ethical decision making.
Corporate Governance Highlights

10 of 11 Director nominees are independent

Independent leadership of the Board through our Non-Executive Chair

All Committees comprised entirely of independent Directors

4 of 11 Director nominees (36%) are diverse in terms of gender, race and or ethnicity

Annual election of Directors

Majority voting for Directors

Mandatory retirement age for Directors and Executive Officers

Robust risk oversight by the Board and its Committees

Executive compensation clawback policy

Regular Board and Committee self-evaluations

Regular Executive Sessions of independent Directors

Shareholder outreach program

Stock retention guidelines for Directors and Executive Officers

Majority of Director compensation in the form of restricted stock units

Policy prohibiting insider trading, hedging transactions and pledging of securities

Proxy access rights

Shareholders’ Rights

We believe that we should provide our shareholders with an unobstructed ability to participate in their role as an owner of the company. We are constantly striving to improve shareholder communication and access and to follow best practices for shareholder rights. Some examples of this commitment are:

- Proxy access By-law provisions that allow shareholders to utilize the company’s proxy materials for director nominations, as well as other By-law rights that allow proper matters to be considered by the company and its shareholders.
• Our stock structure allows for one vote per share, so we provide 100% proportional voting rights.

• Annual shareholder meetings are virtual, broadening the ability to participate by eliminating the time and expense of traveling to a physical meeting, along with reducing environmental impact.

• Our By-laws provide that each Director in an uncontested election shall be elected by the vote of the majority of votes cast at any meeting for the election of Directors. The By-laws also include a Director resignation procedure consistent with the majority vote standard requiring an incumbent Director who does not receive the requisite affirmative majority of the votes cast for the Director’s re-election to tender his or her resignation to the Board within 30 days. Director nominees in contested elections are elected by the vote of a plurality of the votes cast.

• We maintain a shareholder outreach program whereby each year we contact many of our largest shareholders and offer to meet with them to solicit their direct input on our corporate governance practices and executive compensation program. We share the shareholders’ perspectives and feedback from these meetings directly with our Board. From time to time, we also offer our largest shareholders the opportunity to speak directly to the Chair of the Management Development and Compensation Committee to discuss our executive compensation program. In addition, we provide a means for direct communication from our shareholders to the Non-Executive Chair of the Board.

**Listening to Our Shareholders:**

In addition to our regular, ongoing shareholder engagement efforts, we have significant, targeted outreach campaigns during the year. The principal purpose of these outreach sessions is to hear directly from our shareholders by providing them with the opportunity to discuss and ask questions about our corporate governance and
executive compensation program. Shareholder feedback gleaned from these discussions is shared directly with our Board and various Committees for consideration. For example, in 2017, the Management Development and Compensation Committee considered shareholder input from these outreach sessions regarding a variety of subjects, including suggestions to consider utilizing other and or additional categories of performance-based goals under our incentive plans in the future and to evaluate whether the Board and Executive Management are considering ESG principles in a strategic, long-term way.

In response to this feedback, in January 2018 the Management Development and Compensation Committee recommended, and our Board approved, the inclusion of a sustainability component, measured by an environmental performance metric, in our annual management incentive plan for 2018. The Committee selected air permit deviation events as a new category in the annual incentive plan in recognition of the views shared by shareholders on this subject, to drive continued progress on environmental matters, and to reinforce our focus on sustainability.

Conformance with ISG Principles

The Nominating and Governance Committee and the Board evaluate our governance practices against key institutional frameworks. Among these frameworks are the Corporate Governance Principles for U.S. Listed Companies promulgated by the Investor Stewardship Group (ISG). ISG is a collective of some of the largest U.S.-based institutional investors and global asset managers, along with several of their international counterparts, which in the aggregate invest over $31 trillion in the U.S. equity markets as of the date of this report. The following chart summarizes these ISG Corporate Governance Principles and our conformance with and commitment to each principle.
<table>
<thead>
<tr>
<th>ISG Principles</th>
<th>Implemented by AK Steel</th>
<th>Highlights of AK Steel Commitment to Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principle 1</strong></td>
<td>✓</td>
<td>• Annual Board elections for all Directors</td>
</tr>
<tr>
<td>Board Accountability</td>
<td></td>
<td>• Majority voting and tendered resignation upon failure to receive majority of votes cast</td>
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<td></td>
<td></td>
<td>• Proxy access By-laws</td>
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<td></td>
<td></td>
<td>• Extensive disclosure of corporate governance and Board practices</td>
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<tr>
<td><strong>Principle 2</strong></td>
<td>✓</td>
<td>• One share, one vote</td>
</tr>
<tr>
<td>Voting Rights Proportional to Economic Interest</td>
<td></td>
<td>• No disparate voting rights</td>
</tr>
<tr>
<td><strong>Principle 3</strong></td>
<td>✓</td>
<td>• Stockholder outreach program</td>
</tr>
<tr>
<td>Responsiveness to Shareholder Proposals</td>
<td></td>
<td>• Track record of responsiveness to stockholder feedback and proposals</td>
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<td></td>
<td></td>
<td>• Independent Directors available to directly engage with stockholders</td>
</tr>
<tr>
<td><strong>Principle 4</strong></td>
<td>✓</td>
<td>• Independent Chairperson with clearly defined and robust leadership role</td>
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<tr>
<td>Strong, Independent Leadership Structure</td>
<td></td>
<td>• All Committees chaired by and comprised of independent Directors</td>
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<td></td>
<td></td>
<td>• Regular “executive sessions” of the Board and Committees with independent Directors only</td>
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<td></td>
<td></td>
<td>• Board periodically reviews leadership structure</td>
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<tr>
<td><strong>Principle 5</strong></td>
<td>✓</td>
<td>• Ten of 11 Directors are independent</td>
</tr>
<tr>
<td>Board Structure that Enhances Effectiveness</td>
<td></td>
<td>• Experienced, well-rounded, diverse Board membership</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Appropriate Committees and high level of attendance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Direct Board and Committee dialogue with, and participation by, independent auditors and mid-level Management</td>
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<tr>
<td></td>
<td></td>
<td>• Robust annual self-evaluations by the Board and each Committee</td>
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<td></td>
<td></td>
<td>• Board self-evaluation in 2018 utilized a corporate governance expert as a third-party facilitator</td>
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<tr>
<td><strong>Principle 6</strong></td>
<td>✓</td>
<td>• Combination of short- and long-term performance goals, with reasonable cash and equity mix, under Management compensation program</td>
</tr>
<tr>
<td>Long Term, Logical Management Incentive Structures</td>
<td></td>
<td>• Pay-for-performance compensation program with incentives linked to sustainable economic value creation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Compensation plans clearly and fully disclosed</td>
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</tbody>
</table>
Board of Directors Oversight, Diversity and Skills

Our Board of Directors

A key component of sustainability is maintaining strong oversight, principally through a Board of Directors comprised of skilled, experienced and diverse members who are focused on oversight of key risks and opportunities. We are proud to have a Board of Directors comprised of a diverse group of distinguished and highly accomplished individuals, all of whom are independent except for Roger Newport, our Chief Executive Officer. Collectively, our Directors bring a wide range of viewpoints and backgrounds to the Board, rooted in a broad base of complementary experience and expertise. They share a record of substantial achievements and extraordinary service in the public and private sectors and in charitable endeavors.

As with all boards of directors, our Board composition changes over time, as new Directors replace those whose service on the Board has ended. Our Nominating and Governance Committee is responsible for identifying, screening and recommending persons for nomination by the Board to serve as a Director. Directors are selected on the basis of, among other things, the following criteria listed in our Corporate Governance Guidelines:

• personal qualities and characteristics, such as judgment, integrity, reputation in the business community and record of public service;
• business and or professional expertise, experience and accomplishments;
• ability and willingness to devote sufficient time to the affairs of the Board and our company;
• diversity of viewpoints, backgrounds and experience;
• the company’s and Board’s needs at the time; and
• the fit of a particular individual’s skills and personality with those of other Directors in building a Board that is effective and responsive to our needs.
One of the explicit criteria listed above for selection as a Director is the diversity of viewpoints, backgrounds and experience the potential nominee will bring to the Board. The Nominating and Governance Committee specifically considers diversity when identifying, screening and reviewing individuals qualified to serve as Directors. The Committee does not, however, apply a narrow definition of diversity that would limit it to an individual’s gender, race, ethnic background or other such personal characteristics. Rather, the Committee views diversity more expansively to encompasses differing backgrounds, perspectives, personal qualities, technical skills, professional experience, expertise, education and other desired qualities. It utilizes this inclusive view in the context of identifying and evaluating nominees whose viewpoints, attributes and experiences will complement the other Board members.

In 2017, Savoy Magazine, which celebrates African-American culture, recognized two of our Directors, Sheri H. Edison and Dwayne A. Wilson, in its 2017 Most Influential Black Corporate Directors. This prestigious recognition honors accomplished executives, their distinguished careers and the corporations that demonstrate inclusive board of directors composition.

The charts below graphically provide some aspects of the diversity profile of our Board members:
Board and Committee Oversight of Sustainability

The Board of Directors has five standing committees, all of which play a role in governance and sustainability: an Audit Committee, a Finance Committee, a Management Development and Compensation Committee, a Nominating and Governance Committee, and a Corporate Sustainability Committee.

Our Board’s Corporate Sustainability Committee has primary oversight of the company’s approach to sustainability matters, including our key policies and procedures related to these areas. The Corporate Sustainability Committee’s principal areas of oversight include, among others:

• our strategy on corporate sustainability and social responsibility matters to create and preserve shareholder value, including those activities pertaining to energy consumption, climate change, greenhouse gas and other emissions, waste disposal, and social matters;

• the responsibilities of good corporate citizenship with respect to sustainability, public policy, trade, environmental matters, legal, health and safety issues;
• contemporary and emerging public policy and trade issues;
• environmental policies, procedures and performance;
• health and safety policies, procedures and performance;
• the national and international developments in political, legislative, regulatory and other matters involving public policy that may impact our business, including trade matters; and
• the activities of the AK Steel Foundation and its charitable contributions.

Code of Business Conduct and Ethics

A key component of our approach to sustainability is nurturing and encouraging an ethical culture. Part of that process is having a strong, principled Code of Business Conduct and Ethics that we consistently reinforce. Our Code serves as a blueprint for making the right decisions in the best interests of the company and our customers, shareholders, employees and communities. Among many other items, AK Steel’s Code of Business Conduct and Ethics addresses conflicts of interest, corporate opportunities, confidentiality, fair dealing, protection and proper use of company assets, compliance with laws, rules and regulations, insider trading, and the reporting of any illegal or unethical behavior.
While the tone at the top is set by our Board and Executive Management, we reinforce this focus throughout our organization. As part of this effort, we train our employees on our business standards and expectations. For example, employees complete annual training and certification on the company’s Code of Business Conduct and Ethics and we convey the key principles of our Code to all employees. Further, our employees are trained regularly on a variety of other important ethics and compliance subjects, including anti-corruption, workplace harassment, antitrust and cybersecurity.

The company also maintains a Code of Ethics that provides specific guidance to our CEO and principal financial and accounting officers in the performance of their duties, particularly with respect to full and accurate financial disclosure and maintaining our financial records in accordance with applicable accounting policies and generally accepted accounting principles.

Additional information regarding AK Steel’s corporate governance is available on the company’s website at www.aksteel.com. We also encourage you to review the governance matters addressed in our 2019 Proxy Statement, a copy of which you can find under “SEC Filings” in the “Investors” section of our website.