



THE CLEVELAND-CLIFFS COMMITMENT TO REDUCE GREENHOUSE GAS EMISSIONS



CLEVELAND-CLIFFS PLANS TO REDUCE GREENHOUSE GAS EMISSIONS 25% BY 2030

Introduction

With Cleveland-Cliffs' acquisitions of AK Steel Corporation and substantially all of the operating assets of ArcelorMittal USA LLC in 2020, we have transformed ourselves into the largest flat-rolled steel producer in North America while maintaining our status as the leading producer of domestic iron ore. As the company transforms, our commitment to operating our business in an environmentally and socially responsible manner remains our priority.

We acknowledge that one of the most important issues impacting our planet is climate change. The American steel industry is already among the cleanest and most energy efficient in the world. That being said, Cleveland-Cliffs plans to do more. With Cleveland-Cliffs' newly expanded footprint, we recognize our increased role in this important mission to address climate change. As a result, Cleveland-Cliffs is proud to announce our plan to **reduce greenhouse gas (GHG) emissions 25% by 2030 from 2017 levels**. This goal represents combined Scope 1 (direct) and Scope 2 (indirect) GHG emission reductions on a mass basis combined across all of our Cleveland-Cliffs operations.

THE CLEVELAND-CLIFFS COMMITMENT

Cleveland-Cliffs plans to reduce Greenhouse Gas (GHG) emissions 25% by 2030 from 2017 levels.

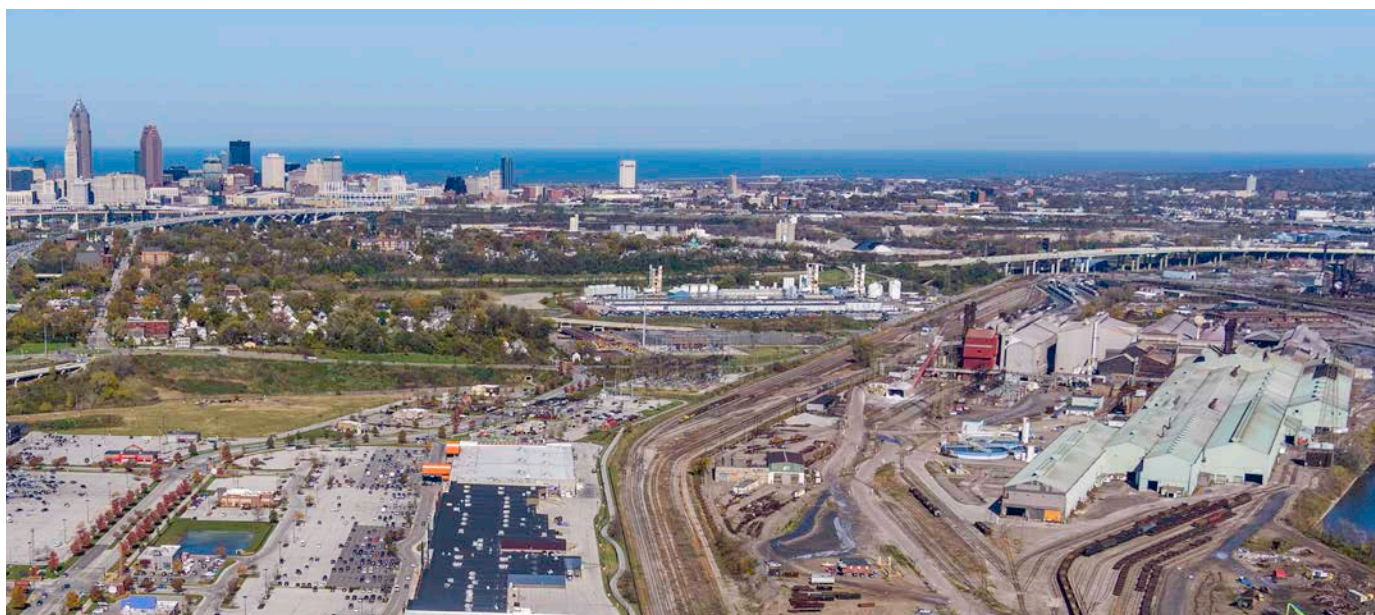


Figure 1: Our Cleveland Works plant produces steel just 2.5 miles from downtown Cleveland while maintaining healthy ambient air quality.

Our history of action and success

Our commitment to sustainability is not new. Cleveland-Cliffs' steel production plants are among the lower GHG-intensive blast furnace operations in the world. Our electric arc furnace (EAF) operations are also characterized by their low carbon footprint. Long before announcing this goal, all of our operations have been working to reduce their overall environmental impact—including GHG emissions.

Specifically, prior to setting this goal with our newly acquired steel assets, we exceeded our previous 26% GHG reduction target at our mining and pelletizing facilities six years ahead of our 2025 goal. In 2019, we reduced our combined Scope 1 and Scope 2 GHG emissions by 42% on a mass basis from 2005 baseline levels. We expect to further reduce those emissions in coming years.

Additionally, many of our steel assets have improved their plant and energy efficiency through participation in programs such as the U.S. Department of Energy's Better Plants program and the U.S. Environmental Protection Agency's Energy Star program. With our focus on plant and energy efficiency at both our mining and pelletizing facilities and our steel operations, we aim to build on our previous successes across our newly acquired footprint.

Our strategy

Our GHG reduction commitment is based on executing the following five strategic priorities:

1. Developing domestically sourced, high quality iron ore feedstock and utilizing natural gas in the production of hot briquetted iron (HBI);
2. Implementing energy efficiency and clean energy projects;
3. Investing in the development of carbon capture technology;
4. Enhancing our GHG emissions transparency and sustainability focus; and
5. Supporting public policies that facilitate GHG reduction in the domestic steel industry.

1. Developing domestically sourced, high quality iron ore feedstock and utilizing natural gas in the production of hot briquetted iron (HBI)

In 2017, Cleveland-Cliffs announced a \$1 billion investment to build our first Direct Reduction Plant. This was a landmark step for one of our key GHG reduction strategies—providing cleaner feedstock for the domestic steel industry. Completed in 2020, it is the most modern, efficient and technologically advanced Direct Reduction Plant in the world, and it makes Cleveland-Cliffs the first producer of HBI in the Great Lakes region.



Figure 2: Direct Reduction Plant site in Toledo, Ohio at first groundbreaking in 2018 (left picture) and the Direct Reduction Plant producing HBI in January 2021 (right picture).

One key environmental aspect of our Direct Reduction Plant is that it uses natural gas. In fact, natural gas and direct reduction-grade (DR-grade) iron ore pellets are the main raw materials used in the process. Using natural gas—both as the reducing gas for the process, as well as providing heat for the process—allows our Direct Reduction Plant to produce significantly less GHG emissions.

The benefits associated with HBI usage are substantial. HBI requires less energy for producing steel and generates lower GHG emissions compared to using traditional feedstocks. HBI can be used in blast furnaces to reduce GHG emissions by improving energy efficiency and reducing the amount of coke required for steel production. HBI can also be used in EAFs to replace foreign-sourced pig iron, thereby reducing the higher GHG emissions associated with pig iron production and transportation.

To further reduce our GHG footprint at the new Direct Reduction Plant, we will evaluate partnering with hydrogen producers to replace natural gas use with hydrogen when it becomes commercially available in significant quantities. Without any modifications to the plant's configuration, we can replace up to 30% of the plant's natural gas consumption with hydrogen to reduce GHG emissions by approximately 450,000 metric tons per year. With limited equipment modifications and investments, we could increase hydrogen usage up to 70% and reduce over 1 million metric tons of GHG emissions per year.

Cleveland-Cliffs' mining and pelletizing operations also continue to innovate by developing iron ore pellet products that enable cleaner steel production. Specifically, in 2019, Cleveland-Cliffs completed a \$100 million upgrade project to produce low silica DR-grade pellets at our Northshore mining facility in Minnesota. It is the only facility in the United States capable of producing both DR-grade and traditional blast furnace iron ore pellets. It now produces DR-grade pellets for our state-of-the-art Direct Reduction Plant in Toledo, Ohio as referenced above.

Also, in 2017 Cleveland-Cliffs completed a \$75 million capital investment project at our United Taconite operation to produce a newly-developed superflux iron ore pellet. This pellet product contains increased levels of calcium oxide which reduces energy usage and GHG emissions for downstream steel production.

All of our various grades of iron ore pellets from Minnesota and Michigan, including standard, fluxed, and DR-grade pellets, contain a high iron content for efficient and cleaner steel production and are the main input materials to our blast furnaces and our new Direct Reduction Plant. Compared to fines or sinter products, usage of our iron ore pellets or HBI results in lower GHG emissions from blast furnace operations (as well as other pollutants such as mercury, sulfur dioxide and particulate matter).

2. Implementing energy efficiency and green energy projects

Identifying and implementing new solutions to reduce energy consumption pays off with both GHG emission reductions and cost savings. We are currently working to implement numerous energy efficiency projects, which include, but are not limited to: improving furnace fuel efficiency; upgrading mobile mining fleet and locomotive engines to high efficiency/low emission models; investing in electrical energy efficiency projects; replacing traditional lighting with LED lamps; and cogenerating electricity from byproduct gases.

Several specific projects further highlight our increased focus on GHG reduction. First, our long-term power purchase agreement in Michigan's Upper Peninsula was the key to replacing the 350-megawatt coal-fired Presque Isle Power Plant with new, right-sized natural gas generating stations in 2019. This agreement was predicated on our energy provider building a cleaner, more efficient power source, which ultimately reduced our Scope 2 GHG emissions by roughly 75% at our Michigan mining operations (as well as reducing sulfur dioxide, mercury and particulate emissions).



Figure 3: With support from Cleveland-Cliffs, WEC Energy Group replaced the Presque Isle coal-fired power plant in Michigan's Upper Peninsula (left picture) with right-sized natural gas-fired power plants (right picture).

Additionally, in Minnesota, Cleveland-Cliffs entered into another long-term power purchase agreement to replace coal-fired power from the on-site generating station at our Northshore mining facility. Northshore now sources its energy with more efficient natural gas power and renewables. The agreement has resulted in GHG reductions of approximately 200,000 metric tons per year.

Lastly, many of our steel and coke production plants send byproduct blast furnace and coke oven gases to on-site power plants to recover heat and energy. Our Burns Harbor operation is currently executing a multi-year capital investment project to rebuild its powerhouse. The powerhouse is designed to use byproduct fuels from coke ovens and blast furnaces as primary fuels for producing steam and cogenerating electricity. Once completed, the powerhouse is expected to provide the Burns Harbor operation with 75% of its total power requirements. This will result in significantly increased energy efficiency, reduced Scope 2 GHG emissions, and cost savings for the plant.

3. Investing in the development of carbon capture technology

Carbon Capture Utilization and Storage (CCUS) technology is a potentially important key to unlocking substantial GHG reductions in the steel industry. In 2021, with funding from the U.S. Department of Energy's Office of Fossil Energy, our Burns Harbor steel production plant will collaborate with two technology partners to complete an engineering and design study for a potential industrial-scale solution to capture GHGs from blast furnace operations. This work will focus on designing a carbon capture system capable of capturing 50% to 70% of GHG emissions from available blast furnace gas. The National Energy Technology Laboratory will oversee the \$1.8 million design project.

We also participate in the Carbon Capture Coalition (CCC), a nonpartisan coalition supporting the deployment and adoption of carbon capture technology. The CCC consists of a broad and diverse range of participants including energy, industrial, and technology companies, labor unions, and environmental and energy policy organizations. It was launched in 2011 to help realize the full potential of carbon capture as a national energy, economic and environmental strategy.

Although much work remains to make CCUS a viable solution in the future, Cleveland-Cliffs is putting resources into action to advance research into CCUS usage in the steel industry and position our operations to reap the benefits when CCUS becomes technically and economically feasible.

4. Enhancing our GHG emissions transparency and sustainability focus

Strong governance is critical to ensuring an effective sustainability and GHG reduction strategy. In 2020, Cleveland-Cliffs' Board of Directors added new responsibilities to its Strategy Committee with an increased focus on sustainability. The Committee has since been renamed the Strategy and Sustainability Committee and has amended its publicly available charter to reflect its new focus on sustainability initiatives.

We also endeavor to be fully transparent to our stakeholders with our sustainability goals and performance. While Cleveland-Cliffs and its predecessor companies have a strong history of sustainability and GHG reporting, we plan to improve that in 2021, highlighted by our plans to produce a company-wide annual sustainability report and improve our CDP score with increased disclosures for 2020.¹

CLEVELAND-CLIFFS' PRO FORMA EMISSIONS PROFILE SCOPE 1 (DIRECT) & SCOPE 2 (INDIRECT)

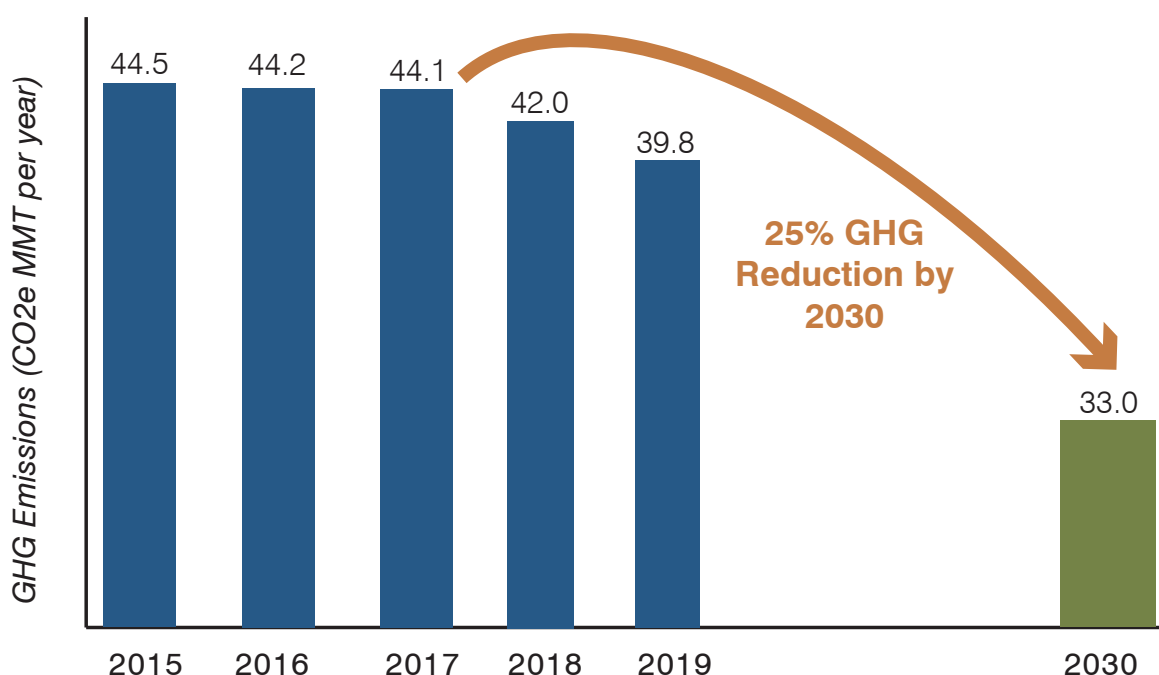


Figure 4: Pro Forma GHG emissions profile of Cleveland-Cliffs' new operating footprint.

¹ CDP is an international non-profit organization that runs a global environmental disclosure system supporting thousands of companies, cities, states and regions to measure their environmental risks and opportunities.

5. Supporting public policies that facilitate GHG reductions in the domestic steel industry

The final component of our GHG reduction strategy is to support public policies that encourage domestic steel production while incentivizing additional GHG reduction opportunities.

- First, we support policies that reflect the importance of maintaining a strong domestic steel industry and create a level playing field for our products. **The domestic steel industry is among the cleanest and most energy efficient of the leading steel industries in the world. Of the seven largest steel producing countries, the U.S. has the lowest CO2 emissions intensity per ton of steel produced.**² Without appropriate measures, such as stringent border adjustment mechanisms, GHG reduction policy will result in a shift toward production of materials and products offshore, a widely-recognized phenomenon known as “carbon leakage.” Carbon leakage results in domestic job losses and net increases in GHG emissions when production shifts to countries with weaker environmental standards.
- Also, given the critical role of the domestic iron ore industry in supporting and sustaining the American steel industry, climate policy should extend all the incentives and carbon leakage protections afforded to steel and manufactured products to domestic iron ore mining and processing. These policy mechanisms will be critical to avoiding a scenario whereby the domestic steel sector becomes reliant on GHG-intensive feedstock from foreign nations, resulting in increased GHG emissions.
- Further, energy-intensive industries (such as iron ore mining/processing and steel production) will need time and assistance to transition into an economy with new policies requiring GHG reduction. The transition measures will largely depend on the underlying policy mechanism pursued, but may include free allocation of emission allowances or carbon tax credits and grant/loan programs for industrial GHG reduction technologies and projects.
- Lastly, we also support policies that enhance progress and access to a greener energy grid and provide incentives for cogeneration projects.

²<https://businessviewmagazine.com/digital-magazines/dec-2020/73/>

GHG emissions at our blast furnaces and EAFs

Cleveland-Cliffs is strategically positioned to provide a wide range of high-grade and specialty steel products from both blast furnace and EAF operations. Each of these operations has its own set of advantages.

Our blast furnace operations are among the lower GHG intensive blast furnace operations in the world. The vast majority of specialized steel products demanded by our customers are made with blast furnace technology using our own high-grade iron ore feedstock. While steel can be continuously recycled, blast furnace steel production makes the highest quality steels that in turn contribute to more sustainable end uses. One important example is our advanced high strength steels which are used in the automotive business. These steels create safer vehicles that are also lighter in weight, thereby aiding car manufacturers' ability to decrease GHG emissions.

Our EAF operations have inherently lower GHG emission profiles—particularly for lower-grade products whose main input is scrap steel. But that lower profile does not fully account for the life cycle emissions of scrap steel feedstock. Further, when EAFs produce higher grade steels, their GHG emissions profile increases with the addition of virgin iron inputs.

Overall, the American steel industry has a more favorable emissions profile than its foreign competitors largely due to its unique 70% market share from EAFs. However, EAFs will continue to rely on prime scrap generated by blast furnace steel plants in order to continue to meet the growing quality demands of their customers. Also, as previously noted, the vast majority of specialized steel products are made with blast furnace technology. As such, both blast furnace and EAF technology are necessary and will continue to have an essential role in the American steel industry. We must look to achieve GHG reductions for both EAF and blast furnace technology across the spectrum of our operations.

Summary

The public announcement of Cleveland-Cliffs' GHG emission reduction goal of 25% by 2030 is an important step as we continue to address the issue of climate change. Although the American steel industry is already among the cleanest and most energy efficient in the world, we recognize our increased role in the mission to address climate change. We will vigorously pursue the additional opportunities outlined herein—highlighted by the production of HBI at our state-of-the-art Direct Reduction Plant and its downstream usage at both EAF and blast furnace steel production operations. Building upon our prior success with reducing GHG emissions, we look forward to regularly updating our stakeholders with reports of our progress towards achieving our goal.

About Cleveland-Cliffs Inc.

Cleveland-Cliffs is the largest flat-rolled steel producer in North America. Founded in 1847 as a mine operator, Cleveland-Cliffs is also the largest producer of iron ore pellets in North America. In 2020, Cleveland-Cliffs acquired two major steelmakers, AK Steel Corporation and ArcelorMittal USA LLC, vertically integrating its legacy iron ore business with quality-focused steel production and emphasis on the automotive end market. Cleveland-Cliffs' fully integrated portfolio includes custom-made pellets and Hot Briquetted Iron (HBI), flat-rolled carbon steel, stainless, electrical, plate, tin and long steel products; as well as carbon and stainless steel tubing, hot and cold stamping and tooling.

Headquartered in Cleveland, Ohio, Cleveland-Cliffs employs more than 25,000 people across its mining, steel and downstream manufacturing operations in the United States and Canada. For more information, visit www.clevelandcliffs.com.



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