

## **Electra Partners with Nucor to Usher in a New Era of Green Steelmaking**

***The green iron startup works with largest steel producer in the U.S. to scale green steel production***

**Boulder, CO – December 8, 2022** – [Electra](#), a green iron company, announced it has partnered with Nucor Corporation (NYSE: NUE), the largest steel producer in the U.S. Through this partnership, Electra will scale its Low-Temperature Iron (LTI) solution that emits zero carbon dioxide emissions using low-grade ores and intermittent renewable electricity. In addition, through this partnership, Nucor, the largest EAF steelmaker and steel scrap recycler in North America, will use Electra's iron to further lower the carbon emissions of its industry-leading sustainable steel and steel products. *Along with an equity investment in Electra*, Doug Jellison, Executive Vice President of Raw Materials at Nucor, has joined Electra's market advisory board, bringing over 30 years of steel industry operational and management experience to the startup.

Electra has created a novel process to electrochemically refine iron ore into pure iron at 60 degrees Celsius (140 degrees Fahrenheit), or colder than a cup of coffee, from low-grade ores using intermittent renewable electricity. With zero gangue, zero embedded carbon emissions, and competitive with prime-grade scrap and ore-based metallic iron produced by fossil fuels, Electra's iron is an ideal feedstock for electric arc furnace (EAF) steelmaking.

For over 50 years, Nucor has used EAF steelmaking to recycle scrap metal into new steel products, making it one of the cleanest steel producers in the world. The new partnership with Electra builds on Nucor's commitment to a 35% reduction in the GHG intensity of its steelmaking by 2030.

“As part of our commitment to further reduce our GHG intensity, we are investing in a number of emerging technologies to help reduce our Scope 3 emissions for the raw materials mix we use to make advanced grades steel,” said Doug Jellison, Executive Vice President of Raw Materials at Nucor. “Electra’s process to produce carbon-free iron has the potential to transform the steel industry.”

**Sandeep Nijhawan, CEO and co-founder of Electra**, said: "Today, as deployed renewable energy increases and the supply of higher-grade iron ores decreases, we see a significant opportunity for Electra's ironmaking process to drive sustainable iron and steelmaking. Electra's solution to remove gigatons of carbon dioxide emissions from steel production and other hard-to-abate industries goes hand-in-hand with Nucor's commitment to a sustainable future. We are grateful for partners like Nucor who are helping to scale Electra's process of green iron production."

For centuries, steel has been predominantly produced by burning coal, emitting about two tons of carbon dioxide per ton of steel and causing 10% of the global carbon dioxide emissions annually. In collaboration with Nucor, Electra's cost-effective green iron method, when paired

with EAF steelmaking, presents a unique path to electrify and decarbonize the entire mine-to-metal value chain of the steel industry.

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#### About Electra

Electra, a green iron company, is bending the trajectory of climate change by electrifying iron refining. Our products — pure green iron and other green feedstocks — remove gigatons of carbon dioxide emissions from steel production and other hard-to-abate industries, accelerating a return to a healthy carbon balance on earth. The company is headquartered in Boulder, CO with a development facility in Boston, MA. To learn more about Electra's mission, visit: [www.electra.earth](http://www.electra.earth).

#### About Nucor

Nucor and its affiliates are manufacturers of steel and steel products, with operating facilities in the United States, Canada and Mexico. Products produced include: carbon and alloy steel -- in bars, beams, sheet and plate; hollow structural section tubing; electrical conduit; steel racking; steel piling; steel joists and joist girders; steel deck; fabricated concrete reinforcing steel; cold finished steel; precision castings; steel fasteners; metal building systems; insulated metal panels; overhead doors; steel grating; and wire and wire mesh. Nucor, through The David J. Joseph Company, also brokers ferrous and nonferrous metals, pig iron and hot briquetted iron / direct reduced iron; supplies ferro-alloys; and processes ferrous and nonferrous scrap. Nucor is North America's largest recycler.

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