

# SUSTAINABLE SUPPLY

**RANDY CHARLES**, founder of **Greenway Steel**, talks with *Modern Metals* about the future of green steel

## Q • What is green steel?

**A:** First, on a relative basis, green steel could be considered steel with embedded carbon (CO<sub>2</sub>e emissions associated with production) below limits being specified for purchase. We are seeing this today with global warming potential (GWP) limits being specified by both California's Buy Clean California Act, as well as the Federal GSA construction materials purchasing supported by Inflation Reduction Act spending.

Second, on an absolute basis, green steel is that which demonstrates the lowest possible embedded carbon, as close to zero, as possible with current technology. Good examples of this would be the steel produced using hydrogen (H<sub>2</sub> Green Steel and HYBRIT) or that uses carbon capture in the process (Nucor and U.S. Steel). The value for this steel will be for end users wanting to decarbonize their supply chains.

## Q • Will there be a green premium for green steel?

**A:** Yes and no. H<sub>2</sub> Green Steel has raised billions of euros in capital and debt financing to build a new steel production facility. The company did this by securing offtake agreements for future production at a premium to the market—before the mill was even built.

Granted, this happened in the regulated economy of the EU operating under ETS (emissions trading system) with a price for carbon. That contrasts with what we would consider a voluntary market in the U.S.—the domestic market for steel is generally at a premium to the global market, and American producers are already producing some of the greenest steel in the world.

The reality is that U.S. steelmakers continue to invest considerably in further reducing the



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GHG emissions associated with their production. And steel-consuming sectors will be meeting a market for sustainable products represented by a decarbonized supply chain. To think that this would not be a value-added supply chain might be naïve.

That said, if you are starting up a new rebar mill and fighting for market share, already competing against some of the most efficient steelmakers (efficiency equates to low emissions), and the largest independent consumer of your product is building their own mill, you might not be collecting a premium for your rebar.

## Q • What can influence the future market for green steel?

**A:** Currently, the GWP limits in place for GSA, and being established by Federal Highway Administration through support of EPA, are only applicable for spending associated with the IRA. After 2026, will these limits be further embedded into general federal

buying specifications? That will depend on the new administration coming to power in 2025.

On the regulatory side of the equation, states other than California plan to implement Buy Clean requirements that echo California's Buy Clean Act. There also is a federal partnership initiative under the Biden administration that support similar requirements for Washington, Oregon, Michigan and other states.

Keep in mind that bipartisan support helped to push the PROVE-IT Act through the Senate and into Congress. AISI and SMA support that legislation. Critics of the bill believe it lays the groundwork for a carbon tax. A future carbon liability for American manufacturers could certainly create demand for green steel.

While EU's Carbon Border Adjustment Mechanism is being implemented, U.S. producers may find themselves in a competitive position to supply the EU market with low carbon embedded steel with lower cost production—thanks to relatively low U.S. energy costs.

## Q • How can companies prepare for joining a green steel market?

**A:** Listening to your customers is an obvious first step. That starts with asking the right questions about their needs and forecasts and associating your company as part of a supply chain in support of sustainable products. Know your carbon footprint or direct emissions, which is essentially a laser focus on energy consumption, so it should be part of regular business consideration, regardless. Simply convert this understanding into the right messaging and branding. Consider the markets you are supplying. Not unlike the development of requirements for quality systems back in the 1990s, automakers are taking the lead with regards to sustainability. Are you in the markets for fabrications that ultimately make their way into federally funded projects? Are you supplying European manufacturers operating in the U.S.? If your eyes and ears are open, you are likely to find opportunities for value-added business. ■

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