Steel Dynamics®

Solutions That Drive Change

BIOEDGE™ is redefining what's possible in sustainable steel.

Our boldest step yet in sustainable steelmaking, BIOEDGE is formulated utilizing renewable energy certificates and renewable biocarbon, delivering meaningful reductions in Scope 1 and 2 greenhouse gas (GHG) emissions.

By leveraging our use of electric arc furnace (EAF) technology, our circular manufacturing model, cutting-edge innovation, and biocarbon production using sustainably sourced raw materials, we're empowering companies to decarbonize their supply chains while maintaining uncompromised quality and performance.

Butler Flat-Rolled Steel Products

GLOBAL WARMING POTENTIAL

Total greenhouse gas emissions from cradle to gate (A1-A3)

Declared Unit = 1 metric ton

PRODUCT	EDGE™ $kgCO_2e/t$	BIOEDGE™ $kgCO_2e/t$
Hot-Rolled Steel Sheet	677	611
Processed, Hot-Rolled Steel Sheet	704	636
Pickled & Oiled, Hot-Rolled Steel Sheet	742	673
Pickled, Hot-Rolled, Annealed Steel Sheet	846	776
Temper-Passed, Pickled, Hot-Rolled Steel Sheet	776	705
Cold-Rolled, Full-Hard Steel Sheet	746	677
Cold-Rolled, Fully Processed Steel Sheet	888	814
Cold-Rolled, Full-Hard, Temper-Passed Steel Sheet	791	718
Metallic-Coated, Hot-Rolled Steel Sheet	1,005	935
Metallic-Coated, Cold-Rolled Steel Sheet	1,030	958
Post-Annealed, Metallic-Coated, Cold-Rolled Steel Sheet	1,128	1,056
Prepainted, Cold-Rolled, Full-Hard, Temper-Passed Steel Sheet	989	921
Prepainted, Cold-Rolled, Fully Processed Steel Sheet	1,090	1,020
Prepainted, Metallic-Coated, Cold-Rolled Steel Sheet	1,311	1,237
Prepainted, Post-Annealed, Metallic-Coated, Cold-Rolled Steel Sheet	1,396	1,322





Electric Arc Furnace

- BIOEDGE™ and EDGE™ are lower-embodied-carbon steel products
- Produced exclusively using EAF technology
- Recycled ferrous scrap is the single largest raw material input
- Generates significantly fewer GHG emissions compared to global averages[1]
- Requires approximately 75% less energy compared to global averages[1]

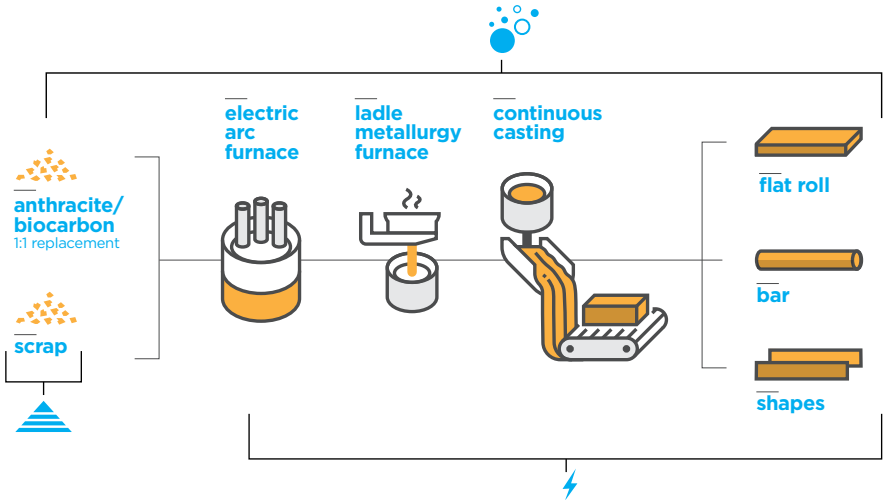
Renewable Electricity

- BIOEDGE and EDGE are paired with Green-e® Energy certified renewable energy certificates
- These certificates reduce Scope 2 emissions to "zero"
- The Canyon Wind Energy Center investment created over 1 TWh of new energy generation on the grid

Renewable Biocarbon

- Renewable biocarbon reduces embodied carbon in the EAF steelmaking process when used as a replacement for anthracite
- This replacement significantly reduces Scope 1 GHG emissions
- The renewable biocarbon used to produce BIOEDGE is sourced exclusively from SDI Biocarbon Solutions

[1]Steel Dynamics steel mills' 2025 data compared to World Steel Association 2024 data from their Sustainability Indicators 2025 Report



BIOCARBON IN THE EAF PROCESS

- **No significant modifications** necessary for EAF
- **Trialed and verified** in multiple SDI facilities
- **No impact** on chemistry/ properties of the final product
- **Feedstock procured** with third-party-verified Programme for the Endorsement of Forest Certification (PEFC)

Bringing advanced and verifiable GHG emission-reduction solutions to industries worldwide, BIOEDGE is the next frontier in lower-embodied-carbon steel products. Learn more at **steeldynamics.com/valuing-the-environment**.

SDI Steel Dynamics®