

**U.S. General Services Administration
Inflation Reduction Act
Low Embodied Carbon Steel Requirements**

December 12, 2023

Preface

The Inflation Reduction Act of 2022 (IRA), Pub. L. No. 117-169, was enacted in August 2022. The IRA made the single largest investment in climate and energy in American history. The IRA will help the United States tackle the climate crisis, advance environmental justice, and secure our Nation's position as a world leader in domestic clean energy manufacturing. This law puts the United States on a pathway to achieving the Administration's climate goals, including a net zero operational emissions federal building portfolio by 2045, and net zero emissions procurement by 2050. IRA Section 60503 provides the U.S. General Services Administration (GSA) with \$2.15 billion for acquisition and installation of construction materials and products with substantially lower levels of embodied greenhouse gas emissions as compared to estimated industry averages, as determined by the Administrator of the U.S. Environmental Protection Agency (EPA). EPA issued its [Interim Determination](#) in December 2022.

In line with the Interim Determination, and consistent with standard GSA and Federal Acquisition Regulation processes for defining agency requirements, GSA has developed these IRA Low Embodied Carbon Steel Requirements to specify some material attributes that are necessary to satisfy the agency's steel needs when contracting for construction services that are funded in whole or in part by GSA's IRA Low Embodied Carbon appropriation. These IRA Low Embodied Carbon Steel Requirements apply to Section 60503-funded purchases of steel; construction product assemblies qualify for IRA funding if at least 80% of the assembly's total cost or total weight comprises steel that meet these Requirements. These IRA Low Embodied Carbon Steel Requirements do not apply to all procurements and only apply after a contracting officer exercises their discretion to incorporate IRA Section 60503-qualifying steel into a procurement contract. Additionally, these IRA LEC Steel Requirements do not supersede existing laws such as the Buy American Act of 1933 or the Trade Agreements Act of 1979. All steel procured for GSA projects must meet these laws. For IRA Section 60503-funded procurements, existing trade-related laws will be applied first, then GSA's IRA LEC Steel Requirements will be applied.

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Steel

● **Material Type**

- Steel is an alloy of iron and carbon. It often contains small quantities of silicon, phosphorus, sulfur, and oxygen. Steel can be repeatedly recycled without losing its properties, and may contain high recycled content. Steel products are often plated or coated, e.g. zinc-galvanized.
 - Steel can be made into product categories including hot rolled structural steel, fabricated steel plate, fabricated hollow steel structural sections (cold-formed welded steel tubing produced in round, square, and rectangular shapes), steel reinforcing bars (rebar), and cold-formed steel framing.
- Construction product assemblies (such as fabricated steel products including handrails, conduit, ductwork, pipes, metal raceways, etc.) qualify for IRA funding if at least 80% of the assembly's total cost or total weight comprises materials that meet these Requirements.

● **GSA IRA LEC Material Requirements**

	GSA IRA Limits for Low Embodied Carbon Steel (EPD-Reported GWPs, in kilograms of carbon dioxide equivalent per metric ton - kgCO _{2e} / t)		
Steel Product Category	Top 20% Limit	Top 40% Limit	Better Than Average Limit
Rebar (fabricated)	728	794	850
Rebar (unfabricated)	611	716	760
Hollow Structural Sections (fabricated)	1,778	1,854	1,898
Hollow Structural Sections from Electric Arc Furnaces (unfabricated)	1,580	1,620	1,652
Hollow Structural Sections from Integrated Mills* (unfabricated)	TBD	TBD	TBD
Hot-Rolled Sections (fabricated)	1,022	1,128	1,163
Hot-Rolled Sections (unfabricated)	686	713	869
Cold-Formed and Galvanized (stud, track, framing, etc.)	2,228	2,324	2,408

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Structural Steel Plate from Electric Arc Furnaces (unfabricated)	987	1,152	1,190
Structural Steel Plate from Integrated Mills* (unfabricated)	TBD	TBD	TBD

- *GSA recognizes merit in separate GWP limits for integrated mill and electric arc furnace steel production methods in these product categories. Once adequate data is available (e.g. from EPDs), GSA may develop and issue one or more limits for materials made via integrated steel mills.

● **Compliance Documentation**

- A product-specific Type III (third-party verified) EPD that: (i) is based on the PCRs used to develop these limits: [UL's PCR Guidance for Building-Related Products and Services, Part B: Designated Steel Construction Product EPD Requirements](#) (8/2020, version 2.0) or [SCS Global Services' PCR for Designated Steel Construction Products](#) (5/2015, version 1.0); and (ii) conforms with ISO 14025 and ISO 21930.
 - Where feasible, EPDs must also rely on facility-specific data, including for the supply chain's associated unit processes, such as fabricated steel's upstream steel mill(s), rather than industry or manufacturer average data. If an EPD containing facility-specific data for the material's most greenhouse-gas intensive processes is unavailable, an EPD without such data that meets Compliance Documentation criteria (i) and (ii) is sufficient.
- If steel originates from an integrated steel mill (not an electric arc furnace): [ENERGY STAR Energy Performance Score for supplying integrated steel mill](#), the manufacturing plant name(s) and location(s), and the data period of the Energy Performance Score(s) at the time of purchase. Please see "ENERGY STAR Energy Performance Score Explained" at bottom for more information.

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ENERGY STAR Energy Performance Score Explained

ENERGY STAR Energy Performance Scores (EPS) show how efficiently a manufacturing plant uses energy on a 100-point scale. A score of 50 reflects average performance, 1 shows poor performance, and 100 reflects highest performance.

Contractors obtain Energy Performance Scores by requesting producers of steel (from integrated mills only) to provide the score. Or, contractors may request it from material suppliers (e.g. steel producers).

Manufacturers of steel (from integrated mills only) produce a plant's score by inputting 12 months of energy and production data in the industry-specific Energy Performance Indicator (EPI) tool available at www.energystar.gov/epis. The score will show on the Statement of Energy Performance section of the EPI.

Energy Performance Scores can currently be produced for integrated steel mills.