

AGENCY: U.S. Environmental Protection Agency (EPA). Office of Chemical Safety and Pollution Prevention, Office of Pollution Prevention and Toxics.

TITLE: Reducing Embodied Greenhouse Gas Emissions for Construction Materials and Products

ACTION: Notice of Funding Opportunity (NOFO)

FUNDING OPPORTUNITY NUMBER: EPA-R-OCSPP-OPPT-FY2023-001

ASSISTANCE LISTING NO: 66.721

KEY DATES:

FALL 2023 Visit [here](#) for webinar information sessions

NOVEMBER 15, 2023 Optional Notice of Intent to Apply

JANUARY 16, 2024 NOFO CLOSING – APPLICATIONS DUE BY JANUARY 16, 2024 11:59PM

SPRING 2024 (ET) ANTICIPATED NOTIFICATION OF FUNDING SELECTION

SUMMER 2024 ANTICIPATED AWARD

APPLICATION SUBMISSIONS DEADLINE: Application packages must be submitted electronically to the EPA through grants.gov (www.grants.gov) no later than January 16, 2024 at 11:59 p.m. (ET) in order to be considered for funding.

To allow for efficient management of the grant competition process, EPA requests submittal of an optional Notice of Intent (NOI) to Apply by November 15, 2023 to embodiedcarbon@epa.gov. Please include your approximate funding request amount and one to two sentences about the scope of your project. The submission of a Notice of Intent to Apply is optional, confidential, and not binding (applicants may choose to take a different approach/scope in the final proposal). The NOI is a process management tool that will allow EPA to better anticipate the total staff time required for efficient review, evaluation, and selection of submitted applications.

NOTE: Applicants must be registered and have an active SAM account (<https://sam.gov>) prior to applying for federal assistance.

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Section I – Program Goals & Objectives

A. Background and Summary

In the United States, billions of tons of concrete, asphalt, steel, glass and other construction materials and products are required to construct, maintain, and operate the built environment. Construction materials and products, while yielding many social and economic benefits, also result in substantial social, economic, and environmental costs. The U.S. industrial sector is linked to nearly a third of annual U.S. greenhouse (GHG) emissions,¹ and the manufacturing of construction materials and products accounts for 11% of annual global GHG emissions.²

While much has been done over past decades to decarbonize the built environment through addressing the operational and use phases of buildings, roads, and other infrastructure, more support and effort are needed to reduce embodied GHG emissions (also known as embodied carbon) of construction materials and products. Embodied carbon refers to the amount of GHG emissions associated with upstream – extraction, production, manufacturing, and transport – stages of a material or product’s lifecycle.

Full life cycle analyses of products and materials include addressing downstream GHG emissions associated with the use and disposal stages of a construction material or product’s life. As such, and per the Inflation Reduction Act, the U.S. Environmental Protection Agency (EPA) is also considering how to address GHG emissions associated with the use and disposal stages of a construction material or product’s life, where relevant.

In the coming decades, billions of additional tons of construction materials and products will be needed to maintain, update, and expand the nation’s infrastructure, including new construction to build the clean energy economy and strengthen communities’ resilience to the impacts of climate change. New strategies and solutions are needed to make more efficient use of resources and reduce the embodied carbon of these materials.

The U.S. federal government is the world’s largest buyer of goods and services with more than \$694 billion spent on procurement in FY2022³. More than 30% of construction-related embodied GHG emissions in the U.S. are estimated to be for government-funded projects. Federal, state, and local governments purchase nearly 50% of the concrete poured in the U.S. each year.⁴ Furthermore, with historic investments funded by the Bipartisan Infrastructure Law and the Inflation Reduction Act, there is more demand than ever to purchase American-made materials.

To help achieve net zero emissions procurement for the federal government by 2050, the Biden-Harris Administration launched the Federal Buy Clean Initiative, which leverages federal procurement and funding to catalyze markets for lower embodied carbon construction materials used to upgrade and invest

¹ U.S. Environmental Protection Agency, “Sources of Greenhouse Gas Emissions 2021.”

<https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

² International Energy Agency, “Global Status Report for Buildings and Construction 2019.” <https://www.iea.org/reports/global-status-report-for-buildings-and-construction-2019>

³ U.S. Government Accountability Office, “A Snapshot of Government-Side Contracting for FY 2022.”

<https://www.gao.gov/blog/snapshot-government-wide-contracting-fy-2022>

⁴ Sustainable Facilities Tool, U.S. General Services Administration, “Embodied Carbon.”

<https://sftool.gov/learn/about/658/embodied-carbon>

in U.S. transportation, buildings, and energy infrastructure. EPA will serve as the “Data & Technical Assistance Center of Excellence” for lower embodied carbon construction materials and products within the Federal Buy Clean Initiative, collaborating with twelve other agencies representing 90% of all federally financed and purchased construction materials. This grant program and the contributions of grant recipients are key elements of EPA’s role as the Data & Technical Assistance Center of Excellence.

Increasingly, states, local governments, and large public and private sector institutions have also adopted their own “Buy Clean”⁵ initiatives and policies to reduce GHG emissions—including embodied carbon—from their construction and infrastructure investments. Many of these Buy Clean policies require supply chain disclosures of the environmental impacts of construction materials and products. Disclosure of these impacts is typically done through Environmental Product Declarations (EPDs). (Note: EPDs provide quantified environmental data related to the manufacturing of specific products or materials. They are developed using Product Category Rules (PCRs), which provide a set of specific rules, requirements, and guidelines for developing EPDs for one or more product categories. See Key Terminology section for additional information.)

Over the past two decades, there has been significant effort in the U.S. to improve the quality of PCRs to advance the use and usability of EPDs⁶. However, these efforts have not yet yielded standards that are specific in several areas, including but not limited to, rules regarding prescribed datasets, disclosure of additional environmental impacts, and knowledge requirements for EPD reviewers. Furthermore, there are concerns surrounding the alignment with foreign standards that may not be fit for use in the U.S. market without additional harmonization.

As purchasers, investors, policy makers, and the public are increasingly demanding more information from manufacturers about environmental impacts throughout the entire lifecycle of their products, these gaps in the EPD standards landscape have led to a) inconsistencies in Buy Clean initiatives and policies across federal, state, and local governments, as well as in the private sector; and b) data disclosures with varying data quality and formatting, making it difficult to accurately make comparisons for design and procurement decisions.

To address these challenges and further strengthen efforts to reduce the embodied carbon of construction materials and products through procurement, the Inflation Reduction Act (Pub. L. 117-169) passed by the U.S. Congress and signed into law in August 2022, includes six sections that address the procurement and funding of lower embodied carbon of construction materials, summarized here:

- Sec. 60112 – \$250 million to EPA to develop a program to support reporting and measurement of embodied carbon of construction materials/products (grants, technical assistance (TA), etc.)
- Sec. 60116 – \$100 million to EPA to develop a program to identify and label construction materials/products that have substantially lower embodied carbon (in coordination with General

⁵ The term “Buy Clean” is used to signal that it is not an overarching multi-attribute, multisector “green” purchasing program but focused on embodied carbon in construction materials/products.

⁶ Some of the key standards and guidance documents that have been instrumental in catalyzing EPD development are International Organization for Standardization’s (ISO) 14025:2006 “Environmental labels and declarations — Type III environmental declarations — Principles and procedures” and ISO 21930:2017 “Sustainability in buildings and civil engineering works — Core rules for Environmental Product Declarations of construction products and services” and the EPA-co-authored 2013 Guidance for Product Category Rule Development, Version 1.0.

Services Administration (GSA) and Department of Transportation's Federal Highway Administration (FHWA)

- Sec. 60503 – \$2.15 billion to GSA's Federal Buildings Fund to acquire and install materials/products for use in the construction or alteration of buildings that have substantially lower embodied carbon (as determined by EPA)
- Sec. 60506 – \$2 billion to FHWA to reimburse/incentivize eligible recipients for use of construction materials/ products that have substantially lower embodied carbon (as determined by EPA)
- Sec. 30002 – \$837.5 million to Housing and Urban Development (HUD) for direct loans and grants to improve climate resilience of affordable housing, including low emission building materials/processes
- Sec. 70006 – Authority for Federal Emergency Management Agency (FEMA) to provide financial assistance for costs associated with low carbon materials

In support of section 60503 and section 60506 above, in December 2022, EPA issued an [Interim Determination](#) to provide GSA and FHWA and other agencies with preliminary, actionable determinations that GSA and FHWA can use to qualify construction materials and products as having substantially lower embodied carbon. EPA's Interim Determination focused on interpreting "substantially lower" for four newly manufactured materials that the Federal Buy Clean initiative had chosen to prioritize based on high embodied emissions and significant government procurement: cement/concrete, glass, asphalt, and steel. In addition, the Interim Determination identified Minimally Processed Salvaged and Reused Materials/Products and Associated Services as qualifying as "substantially lower."

To further carry out its responsibilities under the Inflation Reduction Act sections related to embodied carbon—to make the requisite determinations that enable other federal agencies to carry out responsibilities and to support other broader market initiatives to measure, disclose, and reduce embodied carbon of construction materials— EPA is designing two programs:

- EPD Assistance Program, arising from Inflation Reduction Act Section 60112; and
- Label Program for Substantially Lower Embodied Carbon Construction Materials, arising from Inflation Reduction Act Section 60116. (Note that Section 60116 does not have grantmaking authority and is therefore not discussed further in this Notice of Funding Opportunity.)

The goal of the EPD Assistance Program, as outlined in Inflation Reduction Act Section 60112(a), is "to support the development, enhanced standardization and transparency, and reporting criteria for Environmental Product Declarations that include measurements of the embodied greenhouse gas emissions of the material or product associated with all relevant stages of production, use, and disposal, and conform with international standards, for construction materials and products by:

1. providing grants to businesses that manufacture construction materials and products for developing and verifying Environmental Product Declarations, and to States, Indian Tribes, and nonprofit organizations that will support such businesses;
2. providing technical assistance to businesses that manufacture construction materials and products in developing and verifying Environmental Product Declarations, and to States, Indian Tribes, and nonprofit organizations that will support such businesses; and

3. carrying out other activities that assist in measuring, reporting, and steadily reducing the quantity of embodied carbon of construction materials and products.

This Notice of Funding Opportunity is situated within the grantmaking workstream outlined in Inflation Reduction Act Section 60112(a) (1) above. Per Sections 60112(a) (2) and (3), EPA is also advancing EPDs through direct investments in data improvements, engagement in Product Category Rules (PCRs), and contractor-based technical assistance. See [here](#) for more information on the full array of EPA’s evolving EPD Assistance activities.

In January 2023, as part of the process for establishing its Inflation Reduction Act-funded efforts to address embodied carbon of construction materials, EPA issued a [Request for Information](#) (RFI docket #EPA-HQ-OPPT-2022-0924) to invite stakeholder feedback on the following questions related to EPD Assistance:

- What construction materials/products should EPA prioritize in implementation of Inflation Reduction Act Sections 60112?
- What data accessibility and improvement approaches should EPA consider?
- What PCR and EPD standardization, measurement, verification, and reporting approaches for use in procurement decision-making should EPA consider?
- What other factors should EPA consider for EPD Assistance?

Respondents included academia, advocacy groups, industry, local/state government, federal agencies, and others. Recurring themes and areas of agreement included, but are not limited to:

- Broad support for EPA prioritizing EPDs for cement/concrete, asphalt, steel, glass, and salvaged materials, but also for supporting additional material sectors’ EPD efforts to “level the playing field” and provide all US-based manufacturers a competitive advantage.
- Recognition that significant investment – in data, standardization, verification, education, etc. – is needed to improve the robustness and usability of EPDs.
- Manufacturers’ need for assistance to create EPDs and for EPDs to be used by purchasers in a fair and equitable way.
- Desire to support life cycle stages beyond the production phase and environmental impacts beyond Global Warming Potential (GWP), which will need measurement and reporting assistance if EPDs are to fulfill their potential as a procurement tool.
- Interests in addressing other methods for reducing GWP of construction beyond prioritizing EPDs for procurement of newly manufactured materials/products (e.g., salvage & reuse and Whole Building/Project Life Cycle Assessment, adaptive reuse, dematerialization, alternative material selection).

In response to this input, and aligned with [EPA’s Strategic Plan](#) and Inflation Reduction Act Section 60112 authorities, EPA plans to award up to 40 grants and/or cooperative agreements in FY2024, including:

- Grants and/or cooperative agreements to businesses that manufacture construction materials and products for developing and verifying Environmental Product Declarations, and to States, Indian Tribes, and nonprofit organizations that will support such businesses.
- Cooperative agreements to pass-through entities that will collaborate with EPA to design and build their own processes to receive and evaluate subaward applications from businesses that manufacture construction materials and products for developing and verifying Environmental Product Declarations, and to States, Indian Tribes, and nonprofit organizations that will support such businesses. Per the Code of Federal Regulations (2 CFR 200.74), a pass-through entity is defined as a non-Federal entity that provides a subaward⁷ to a subrecipient to carry out part of a federal program. See Sections I.B, III.A, IV.E for more details on pass-through entities.

Some applicants may seek to provide subgrants to subrecipients through a pass-through cooperative agreement. These pass-through entities may propose projects that offer construction material and product manufacturers assistance in producing robust EPDs.

EPA expects to select top ranked applicants in both grants and/or cooperative agreements; and cooperative agreements to pass-through entities, ensuring both tracks are represented.

Including partnerships in applications is encouraged where they can strengthen the application in terms of EPD technical assistance or other aspects of the merit evaluation criteria described in Section I. C. and V.A., Merit Evaluation Criteria.

Federal awards through this funding opportunity in FY2024 are anticipated to total up to \$100 million and are anticipated to be in the range of \$250,000 to \$10 million for individual grant and cooperative agreements for periods of performance of up to 5 years. In addition, EPA will consider subranges of grants in the amounts of \$250,000 to \$749,999; \$750,000 to \$4.99 million dollars; and \$5 million to \$10 million dollars. Eligibility criteria, merit evaluation criteria, reporting requirements, example projects, and other critical, related information are set forth in the sections that follow.

B. Program Goals and Objectives

The Reducing Embodied Greenhouse Gas Emissions for Construction Materials and Products grant program will advance the goals of EPA’s EPD Assistance Program as follows:

- Increase the robustness of greenhouse gas emissions data associated with the production, use, and disposal of construction materials and products;
- Assist businesses in disclosing and verifying these data via robust EPDs, as well as states, Indian tribes and non-profit organizations that assist these businesses; and
- Spur market demand for construction materials and products that have lower embodied greenhouse gas emissions.

Applicants interested in applying for funding under this grant program should describe in their project narratives how projects will advance these goals.

⁷ If grants will involve contracts and/or subawards, applicants are strongly advised to consult the applicable rules for using contracts and issuing subawards in federal assistance agreements. Applicants will find a discussion of the applicable rules in *Section IV of the EPA Solicitation Clauses* website at: <https://www.epa.gov/grants/epa-solicitation-clauses>.

As more businesses develop and improve EPDs, they will gain a better understanding of key contributors to the embodied carbon of construction materials and products and be better positioned to drive reductions of GHG emissions and other pollutants that are often co-produced with GHG emissions. Thus, it is an aspirational goal of this grant program that businesses will take steps to lower their GHG emissions and reduce emissions of hazardous and other locally impacting pollutants. Such reductions have the potential for significant positive impacts in disadvantaged communities⁸ (including any geographic area within Tribal lands as included in [EJScreen](#)), and the Territories, as many construction material manufacturers are located in or near these communities.

Funding from this program may also help U.S. businesses better compete in supplying federal and other institutional construction projects, creating jobs and other economic opportunities, and furthering the development of a workforce educated in embodied carbon skills (e.g., life cycle assessment, GHG measurement, data standardization, and industrial decarbonization).

As indicated in Section V. Table I, this grant program will prioritize—but not limit—assistance to small businesses, business who are producing EPDs for the first time, and to projects that focus on materials that have greatest potential to support lower embodied carbon construction (e.g., concrete, asphalt, steel, glass, salvaged materials⁹ and other materials with one or more attributes described in Section V.A., Merit Evaluation Criteria 1.d.). Furthermore, the grant program seeks to enable national coverage for assistance to support robust EPDs across the construction materials and products sector.

EPA reserves the right to fund projects one year at a time, approving subsequent years based on the performance of a grantee and projects in the earlier years as well as on the state of the market and inspection of EPDs produced and published.

This grant program is associated with [Federal Assistance Listing 66.721](#), Reducing Embodied Greenhouse Gas Emissions for Construction Materials and Products.

C. Scope of Work and Eligible Projects

The Reducing Embodied Greenhouse Gas Emissions for Construction Materials and Products grant program will advance standardization and transparency in EPDs which will support procurement decisions accounting for embodied carbon of construction materials and products. Applicants should demonstrate how they will invest in projects and activities that provide support for industry data preparation, reporting, and analysis; provide financial and technical assistance to develop, update, digitize, and verify EPDs; improve standards and verifications for PCRs and EPDs; provide financial support for mid-cycle updates to PCRs to reflect new datasets/guidance; and amplify EPD educational resources.

EPA envisions funded projects to fall under five broad categories:

⁸ See Key Terminology section for definition.

⁹ Note: Salvaged and reused materials/products do not refer to recycled content in manufactured materials/products nor surplus materials/products sourced from over ordering or unrealized use (e.g., canceled construction project). See Key Terminology section for definitions for both “salvage” and “reuse”.

- **Robust Data for EPDs:** Projects that contribute new and/or improve critical data, analysis, or feedback for producing robust EPDs.
- **Robust Product Category Rule (PCR) Standard Development, PCRs, and Associated Conformity Assessment Systems:** Projects that encourage the development of robust, standardized PCRs, including identifying what data needs to be collected for EPDs, how that data should be collected, how it should be reported in EPDs, and what transparency and verification needs to be in place to ensure credible EPDs.
- **Robust Tools & Resources to Support & Incentivize Development and Verification of EPDs:** Projects that contribute to the development of tools and resources to make it easier, faster, and more cost effective to produce and disclose robust EPDs.
- **EPD Development and Verification:** Projects that offer construction material and product manufacturers assistance in producing robust EPDs, or in which a construction material or product manufacturer is producing robust EPDs.
- **Robust EPD Data Platforms and Integration:** Projects that support EPD reporting, availability, and verification; support the standardization of disparate EPD systems; and support future EPD integration into construction design and procurement systems.

Please see Appendix B for an expanded list of example eligible projects in these categories. Projects described in Appendix B are intended to provide examples of the range of the types of projects and activities that may be eligible for funding under this funding opportunity. Please see Section I.D. for the definition of “robust,” as used in this section and throughout the document.

An applicant may focus on one or more projects within each application. The list of project examples is not exhaustive – projects that do not fit into one of these categories may be considered and will be subject to the same merit evaluation criteria.

Applicants may propose project work in the form of a 1) direct grant (or cooperative agreement) 2) a pass-through cooperative agreement, or 3) a combination of the two as explained below. Depending on the nature of EPA’s involvement in a project, an applicant may be awarded a “cooperative agreement,” as described in Section II.D. All pass-through programs will be issued as cooperative agreements.

The following are the categories of assistance agreements that will be awarded under this funding opportunity:

1. Direct Grants and Cooperative Agreements: Grants or cooperative agreements may be made to eligible entities to directly carry out the proposed work. These applications would not include a plan to manage a subaward program to carry out the work. Direct grants and cooperative agreements may utilize contracted services to support discrete technical aspects of the project workplan.
2. Pass-through Cooperative Agreements: Pass-through cooperative agreements would develop a subaward program to carry out the proposed work, in accordance with their subaward plan. Subawards must be consistent with the definition of that term in 2 CFR 200.1 and comply with EPA’s Subaward Policy.

Applicants should demonstrate how the proposed project will achieve the expected outputs and outcomes, as defined in [EPA Order 5700.7A1, Environmental Results under EPA Assistance Agreements](#) and in

Section I.D. Examples of possible outputs and outcomes can be found in the discussion of reporting in Section VI.C.

Ineligible Activities

Please note that the following types of activities are not eligible for funding because they are beyond the scope of Inflation Reduction Act Section 60112(1)(a) (in some cases, other federal grant programs are funding these projects):

- Projects that focus on construction materials and products that do not have the potential to significantly address embodied GHGs either because of barriers to adoption in the U.S., and/or their use in limited amounts (i.e., weight or volume)
- Research, development, demonstration, and testing of advanced, not-yet-commercialized, technologies to reduce emissions from construction materials/products;
- Projects that allow funds to be used outside the U.S. (Funds can still be provided to entities that are owned by a foreign company. However, those funds can only be used to support U.S.-based facilities and/or that support U.S.-based EPD verifiers, Program Operators, Conformity Assessment Bodies, manufacturers, etc.);
- Projects that fund the physical act of construction/deconstruction or procurement of construction materials/products.

D. Key Terminology

For the purposes of this NOFO, please refer to the terminology and definitions below.

Background Data: Background data include energy and materials that are delivered to the foreground system as aggregated data sets in which individual plants and operations are not identified. This is consistent with the definition in [EPA’s Lifecycle Assessment Principles and Practices Glossary](#).

Baseline: Baseline, in the context of Whole Building LCA (WBLCA), refers to the initial set of criteria and/or conditions describing the material(s) prior to any action occurring to address the embodied greenhouse gas emissions associated with the project.

Buy Clean: Buy Clean refers to a policy – federal, state, local, private, or other – that prioritizes the purchase of construction materials and products with lower embodied greenhouse gas (GHG) emissions, taking into account the life cycle emissions associated with the production of those materials.

Built Environment: Built Environment refers to the part of the physical surroundings that are people-made or people-organized, such as buildings and other major structures, roads, bridges, and the like, down to lesser objects such as traffic lights. This is consistent with the EPA’s Enterprise Vocabulary from April 2018.

Circular Economy: Circular Economy refers to an economy that uses a systems-focused approach and involves industrial processes and economic activities that are restorative or regenerative by design; enables resources used in such processes and activities to maintain their highest values for as long as possible; and aims for the elimination of waste through the superior design of materials, products, and systems (including business models). This is consistent with the Save our Seas 2.0 Act.

Construction Material: Construction material refers to the supplies used in building. This is consistent with the definition in the EPA's [Enterprise Vocabulary](#).

Deconstruction: Deconstruction refers to the systematic dismantling of a structure, typically in the opposite order it was constructed, to maximize the salvage of materials for reuse, in preference over salvaging materials for recycling, energy recovery, or sending the materials to the landfill. This is consistent with the definition of deconstruction from City of Portland (OR) City Code 17.106.020.

Disadvantaged Community: Under this NOFO, disadvantaged communities are defined as any community that meets at least one of the following characteristics:

- Is identified as disadvantaged by the [Climate and Economic Justice Screening Tool \(CEJST\)](#); Any census block group that is at or above the 90th percentile for any of [EJScreen's Supplemental Indexes](#) when compared to the nation or state; and / or Any geographic area within Tribal lands as included in [EJScreen¹⁰](#).

Within EJScreen, EPA's IRA Disadvantaged Community layer can be found in the "Places" tab by clicking on the "Justice40/IRA" category, and then selecting "EPA IRA Disadvantaged Communities".

Embodied Carbon: See definition for embodied greenhouse gas emissions.

Embodied Greenhouse Gas (GHG) Emissions: Embodied Greenhouse Gas (GHG) Emissions are synonymous with embodied carbon; both refer to the amount of GHG emissions associated with the extraction, production, transport and manufacturing of materials. Inflation Reduction Act Sections 60112 also directs EPA to consider the use and disposal stages, where relevant. This is consistent with the definition found on [EPA's Low Embodied Carbon Webpage](#).

Environmental Product Declaration (EPD): Environmental Product Declaration refers to an environmental report providing quantified environmental data using predetermined parameters and, where relevant, additional environmental information. An EPD also includes additional product and company information. This is consistent with the definition found in ISO 14025:2006.

Facility-Specific EPD: Facility-Specific EPD refers to an EPD in which the environmental impacts are based on data from one industrial facility at which a specific product that is represented by the EPD is manufactured. This is in contrast to an industry-wide EPD where the data is based on industry averages across many industrial facilities.

Global Warming Potential (GWP): GWP is a unit of measurement that refers to the index used to translate the level of emissions of various gases into a common measure in order to compare the relative radiative forcing of different gases without directly calculating the changes in atmospheric concentrations. GWPs are calculated as the ratio of the radiative forcing that would result from the emissions of one

¹⁰ The Tribal Lands category in EJScreen to use for this purpose includes Alaska Native Allotments (EPA Metadata Record), Alaska Native Villages (EPA Metadata Record), American Indian Reservations (EPA Metadata Record), American Indian Off-reservation Trust Lands (EPA Metadata Record), Oklahoma Tribal Statistical Areas (EPA Metadata Record)

kilogram of a greenhouse gas to that from the emission of one kilogram of carbon dioxide over a period of time (usually 100 years). Gases involved in complex atmospheric chemical processes have not been assigned GWPs. This is consistent with the definition found in the EPA's Greenhouse Gas Emissions & Sinks Glossary.

Greenhouse Gas (GHG): Greenhouse Gas refers to the air pollutants carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride. This is consistent with the definition found in the Inflation Reduction Act, Section 60112.

Industry-Wide EPD: Industry-Wide EPD refers to an EPD that is reflective of the average production impacts for a given declared unit of product within one category spanning multiple production facilities and companies.

Life Cycle Assessment (LCA): Life Cycle Assessment (LCA) refers to the compilation and evaluation of the inputs, outputs, and the potential environmental impacts of a product system or whole building throughout its life cycle. This is consistent with the definition found in ISO 14044:2006.

Life Cycle Impact Assessment (LCIA): Life Cycle Impact Assessment refers to the phase of LCA aimed at understanding and evaluating the magnitude and significance of the potential environmental impacts for a product system throughout the life cycle. This is consistent with the definition found in ISO 21930:2017.

Life Cycle Inventory (LCI): Life Cycle Inventory refers to a set of input and output data of a process. All of them are related to the same reference of this process. Usually, an inventory dataset also contains metadata describing, for example, geography, time reference, and ownership of the dataset. The process can be a unit process or an aggregated process. This is consistent with the definition of used in the United Nations Environment Programme Global Guidance Principles for Life Cycle Assessment Databases.

Life Cycle: Life Cycle refers to all consecutive and interlinked stages in the life of the object under consideration. This is consistent with the definition found in ISO 21930:2017.

Material Category: For this competition, please reference the definition of Product Category.

Material Type: Material Type refers to a specific breakdown within a Material Category that adds specificity to indicate what subgroup of a material category is being referred to in a given context.

Metadata: Metadata refers to the summary information about data, such as format, structure, version, or quality of the data. This is consistent with the definition found in EPA's [Emissions Inventory System Glossary](#).

Outcome: The term "outcome" means the result, effect or consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective. Outcomes may be environmental, behavioral, health-related or programmatic in nature, must be quantitative, and may not necessarily be achievable within an assistance agreement funding period.

Output: The term "output" means an environmental activity, effort, and/or associated work products related to an environmental goal or objective, that will be produced or provided over a period of time or

by a specified date. Outputs may be quantitative or qualitative but must be measurable during an assistance agreement funding period.

Pass-through Entity: Per the Code of Federal Regulations (2 CFR 200.74), a pass-through entity is defined as a non-Federal entity that provides a subaward to a subrecipient to carry out part of a federal program. See Sections I.B, III.A, IV.E for more details on pass-through entities.

Primary Data: Primary Data refers to quantified value of a unit process or activity obtained from a direct measurement, or a calculation based on direct measurements at its original source. This is consistent with the definition found in ISO 21930:2017.

Product Category Rules (PCRs): Product Category Rules refers to a set of specific rules, requirements, and guidelines for developing EPDs for one or more product categories. This is consistent with the definition found in ISO 14025:2006.

Product Category: Product Category refers to a group of construction products, construction elements, or integrated technical systems that can fulfil equivalent functions. This is consistent with the definition found in ISO 14025:2006.

Program Operator: Program operator refers to the body or bodies that conduct an EPD Program. A program operator can be a company or a group of companies, industrial sector or trade association, public authority or agency, or an independent scientific body or other organization. Program Operators are typically the organizations that develop Product Category Rules. This is based on the definition found in ISO 14025:2006.

Recycle: Recycle refers to the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. This is consistent with [EPA's definition of recycle](#).

Reuse: Reuse refers to a previously utilized material or product that requires limited to no processing for reinstallation and use on a different project. Reuse extends the life cycle of a material or product and avoids many of the production-related impacts associated with newly manufactured materials or products.

Robust: Robust, in reference to data, PCRs, EPDs and associated tools and resources, refers to the following characteristics: conformance with international, voluntary consensus standards, and/or other standards that are effective and otherwise suitable for the U.S. market; third-party verification; facility and supply-chain specific data; inclusion of relevant stages of production, use, and disposal; inclusion of additional environmental and human health impact categories beyond GWP; interoperability via digitization; transparency via disclosure of background dataset(s), upstream data source(s), and uncertainty/assumptions; readily and publicly available (free of charge) via an open data platform(s); and potentially other characteristics as the market develops.

Salvage: Salvage refers to the deliberate reclamation of reusable materials from the disassembly, deconstruction, or demolition of buildings or structures.

Small Business: Businesses that meet size requirements set by the Small Business Administration (SBA). The SBA assigns a size standard to each NAICS code. Most manufacturing companies with 500

employees or fewer and most non-manufacturing businesses with average annual receipts under \$7.5 million will qualify as a small business. Exceptions by industry can be found in Title 13 Part 121.201 of the Code of Federal Regulations (CFR) or in the SBA's table of small business size standards. For more information see the [SBA's Size Standards Tool](#).

Supply Chain Specific Data: Supply Chain Specific Data refers to data representative of a construction product input originating from a single plant along a product's supply chain.

Technical Assistance: For the purposes of this grant program, technical assistance is defined as providing advice and support, in the form of specialized knowledge, to a person or organization with the goal of guiding them with developing EPD and related EPD topics.

Toxicity: Toxicity refers to the degree to which a substance or mixture of substances can harm humans or animals. Acute toxicity involves harmful effects in an organism through a single or short-term exposure. Chronic toxicity is the ability of a substance or mixture of substances to cause harmful effects over an extended period...usually upon repeated or continuous exposure sometimes lasting for the entire life of the exposed organism. Subchronic toxicity is the ability of the substance to cause effects for more than one year but less than the lifetime of the exposed organism. This is consistent with the definition of toxicity in [EPA's Terms of Environment](#).

Whole Building LCA (WBLCA): Whole Building LCA refers to an LCA of a building's or project's environmental impacts, usually from a GHG emissions perspective, or focused on the GHG emissions a building or project is responsible for throughout its life cycle. WBLCA can be updated to reflect project specific data during construction. This is consistent with the definition used by the [U.S. GSA's Sustainable Facilities' Tool](#).

E. Strategic Plan Linkage

Pursuant to Section 6.a. of EPA Order 5700.7A1, "Environmental Results under EPA Assistance Agreements," EPA must link proposed assistance agreements with the Agency's Strategic Plan.

Awards made under this funding opportunity will support the following goals and objectives of the [FY 2022-2026 EPA Strategic Plan](#):

- Goal 1: Tackle the Climate Crisis
 - Objective 1.1: Reduce Emissions that Cause Climate Change
 - Objective 1.3: Advance International and Subnational Climate Efforts
- Goal 2: Take Decisive Action to Advance Environmental Justice and Civil Rights
 - Obj 2.2: Embed Environmental Justice and Civil Rights into EPA's Programs, Policies, and Activities

- Goal 4: Ensure Clean and Healthy Air for All Communities
 - Objective 4.1: Improve Air Quality and Reduce Localized Pollution and Health Impacts

All applications must demonstrate how the work proposed will support at least one strategic plan goal and at least one of the objectives identified above and should include an explanation for how they will achieve relevant outputs and outcomes (examples can be found in the discussion of reporting in Section VI.C).

Outputs and Outcomes

Applicants should demonstrate how the proposed project will achieve the expected outputs and outcomes, as defined in EPA Order 5700.7A1, Environmental Results under EPA Assistance Agreements and in Section I.D. Examples of possible outputs and outcomes can be found in the discussion of reporting in Section VI.C.6.

F. Statutory Authority & Assistance Listing

EPA is issuing this Notice of Funding Opportunity under the statutory authority of Section 60112 of the Inflation Reduction Act (Pub. L. 117-169), consistent with Assistance Listing No. 66.721.

G. Performance Reporting

In accordance with 2 CFR § 200.329 and pursuant to [EPA Order 5700.7A1, Environmental Results under Assistance Agreements](#), EPA requires applicants to adequately describe their plan for reporting progress and performance under assistance agreements.

Applicants should discuss the plan for performance and progress reporting on their proposed project/program(s) in their Project Narrative as described in Section IV.E. Performance measurement examples that align with eligible projects and the objectives of EPA's EPD Assistance program arising from Inflation Reduction Act Section 60112, are detailed in Table II in Section VI.C.6. EPA will further describe the required performance results, as well as how grantees will gather data to measure, track, and report those results in the reporting requirements defined in the grant's terms and conditions. Section VI.C.6. details initial guidance on these anticipated requirements. The reporting plan must provide a comprehensive plan for gathering and reporting on relevant performance measures. Grantee reporting will allow EPA to collect metrics and data to verify the results of each grant project.

The grantee will be required to submit semi-annual updates and annual reports throughout the lifetime of the program within 30 days of the end of each reporting period, as well as a final program report, within 120 days after the end of the project period. EPA will use information from these reports as part of program-wide public reporting, except to the extent such information includes confidential business information (CBI) or personally identifiable information (PII) pursuant to 2 CFR § 200.338.

For funding requests that exceed \$2.5 million, EPA expects applicants to integrate program evaluation activities. Relevant applications should include plans and funding for conducting evaluations of program administration and project portfolios. Program evaluations should include assessments of effectiveness, efficiency, and equity in achieving objectives and performance results as described. All evaluations must be conducted in adherence with [ORDER 1000.33 03/25/2022 U.S. Environmental Protection Agency Policy for Evaluations and Other Evidence-Building Activities](#), including timely publication of findings.

Grantees required to include program evaluation activities will also be expected to report on an ongoing basis the underlying methodologies, technologies, data sources, inputs and assumptions, and other significant analytical choices used to calculate or estimate performance results in their annual reports. EPA will work with grantees to ensure standardized program evaluation reporting requirements and identifying tools to support reporting.

H. Additional Provisions for Applicants Incorporated into the Solicitation

Additional provisions that apply to sections III, IV, V, and VI of this solicitation and/or awards made under this solicitation, can be found at [EPA Solicitation Clauses](#). These provisions are important for applying to this solicitation and applicants must review them when preparing applications for this solicitation. If you are unable to access these provisions electronically at the website above, please contact the EPA point of contact listed in this solicitation in Section VII to obtain the provisions.

I. Minority Serving Institutions

EPA recognizes that it is important to engage all available minds to address the environmental challenges the nation faces. At the same time, EPA seeks to expand the environmental conversation by including members of communities which may have not previously participated in such dialogues to participate in EPA programs. For this reason, EPA strongly encourages all eligible applicants identified in Section III.A, including minority serving institutions (MSIs), to apply under this opportunity.

Minority serving institutions must fall under eligible applicants under Section III.A which includes MSIs who are non-profit organizations and/or agencies or instrumentalities of States. Private universities can demonstrate that they qualify as non-profits based on the nature of how they are incorporated under State law or through their federal tax-exempt status.

For purposes of this solicitation, the following are considered MSIs:

1. Historically Black Colleges and Universities, as defined by the Higher Education Act (20 U.S.C. § 1061(2)). A list of these schools can be found at [Historically Black Colleges and Universities](#)
2. Tribal Colleges and Universities (TCUs), as defined by the Higher Education Act (20 U.S.C. § 1059c(b)(3) and (d)(1)). A list of these schools can be found at [American Indian Tribally Controlled Colleges and Universities](#)
3. Hispanic-Serving Institutions (HSIs), as defined by the Higher Education Act (20 U.S.C. § 1101a(a)(5)). A list of these schools can be found at [Hispanic-Serving Institutions](#)
4. Asian American and Native American Pacific Islander-Serving Institutions; (AANAPISIs), as defined by the Higher Education Act (20 U.S.C. § 1059g(b)(2)). A list of these schools can be found at [Asian American and Native American Pacific Islander-Serving Institutions](#); and
5. Predominately Black Institutions (PBIs), as defined by the Higher Education Act of 2008, 20 U.S.C. 1059e(b)(6). A list of these schools can be found at [Predominately Black Institutions](#)

Section II – Federal Award Information

A. Amount of Funding Available

EPA anticipates awarding up to \$100 million in FY2024, subject to the availability of funds, the quantity and quality of applications received, Agency priorities, and other considerations. Awards will be issued and managed by the Environmentally Preferable Purchasing program within EPA’s Office of Chemical Safety and Pollution Prevention.

B. Number and Amount of Awards

EPA anticipates awarding up to 40 grant and/or cooperative agreement awards under this announcement. Federal funding amounts for individual grant and cooperative agreements are anticipated to be in the range of \$250,000 to \$10 million. In addition, EPA will consider subranges of grants in the amounts of \$250,000 to \$749,999; \$750,000 to \$4.99 million dollars; and \$5 million to \$10 million dollars.

1. Partial Funding - In appropriate circumstances, EPA reserves the right to partially fund applications by funding discrete portions or phases of proposed projects. If EPA decides to partially fund an application, it will do so in a manner that does not prejudice any applicants or affect the basis upon which the application, or portion thereof, was evaluated and selected for award, and therefore maintains the integrity of the competition and selection process.
2. Additional Awards - EPA reserves the right to make additional awards under this solicitation, consistent with Agency policy and guidance, as additional funding becomes available after the original selections are made. Any additional selections for awards will be made no later than 6 months after the original selection decisions.
3. Award Funding and Incremental/Full - Awards may be fully or incrementally funded, as appropriate, based on funding availability, satisfactory performance, and other applicable considerations.

C. Award Type

EPA anticipates that awards will be issued in the form of grants and/or cooperative agreements under this solicitation. Successful applicant(s) will be issued a grant or cooperative agreement as appropriate.

For the purposes of this announcement, a grant is an award of financial assistance by the federal government to an eligible recipient in the form of money, property or in-kind assistance in lieu of money by the federal government to an eligible recipient. The term does not include technical assistance from federal employees or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct appropriations. Also, the term does not include assistance to fund fellowships. EPA will not be substantially involved in the performance of grants.

A cooperative agreement is an assistance agreement that is used when there is substantial federal involvement with the recipient during the performance of an activity or project. EPA awards cooperative agreements for those projects in which it expects to have substantial interaction with the recipient throughout the recipient’s performance of the project. EPA will negotiate the precise terms and conditions of “substantial involvement” as part of the award process. Federal involvement may include close monitoring of the recipient’s performance; collaboration during the performance of the scope of work; in accordance with 2 CFR 200.317 and 2 CFR 200.318, as appropriate, review of proposed procurements, reviewing qualifications of key personnel, and/or review and comment on the content of printed or electronic publications prepared. EPA does not have the

authority to select employees or contractors employed by the recipient. The final decision on the content of reports rests with the recipient.

Any contracts for services or products funded with EPA financial assistance must be awarded under the competitive procurement procedures of 2 CFR Part 200 and/or 2 CFR Part 1500, as applicable. The regulations at 2 CFR 1500.10 contain limitations on the extent to which EPA funds may be used to compensate individual consultants. Refer to the [Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements](#) for guidance on competitive procurement requirements and consultant compensation. Do not name a procurement contractor (including a consultant) as a “partner” or otherwise in your application unless the contractor has been selected in compliance with competitive procurement requirements.

D. Period of Performance

The estimated period of performance for awards resulting from this solicitation will be up to five years.

Section III – Eligibility Information

Note: Additional provisions that apply to this section can be found at [EPA Solicitation Clauses](#).

A. Eligible Applicants

Entities eligible to apply for this funding opportunity include businesses that manufacture, remanufacture, and refurbish construction materials and products, and States, Indian Tribes, and nonprofit organizations that will support such businesses.

Consistent with Assistance Listing No. 66.721 and EPA’s Policy for Competition of Assistance [Agreements \(EPA Order 5700.5A1\)](#), competition under this solicitation is available to the following:

- Businesses (for profit or nonprofit) that manufacture, remanufacture, or refurbish construction materials and products.
- States, including the District of Columbia, the Commonwealth of Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any agency or instrumentality thereof (including port authorities) exclusive of local governments.
- Indian tribes are defined as any Indian tribe, band, nation, or other organized group or community, including any Alaska Native Village or regional or Village Corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. Chapter 33), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians ([25 U.S.C. 450b\(e\)](#)). See annually published Bureau of Indian Affairs list of Indian Entities Recognized and Eligible to Receive Services.” Note that Alaskan Native Corporations are *Indian tribes* for the purposes of 2 CFR 200.1.
- Nonprofits, consistent with the definition of *Nonprofit organization* at 2 CFR § 200.1, mean any corporation, trust, association, cooperative, or other organization that is operated mainly for scientific, educational, service, charitable, or similar purpose in the public interest and is not organized primarily for profit; and uses net proceeds to maintain, improve, or expand the operation of the organization. The term includes tax-exempt nonprofit neighborhood and labor organizations. Note that 2 CFR 200.1 specifically excludes Institutions of Higher Education from the definition of non-profit organization because they are separately defined in the regulation. While not considered to be a non-profit organization(s) as defined by 2 CFR 200.1, public or nonprofit Institutions of Higher Education are, nevertheless, eligible to submit applications under this NOFO. Private universities who can demonstrate that they qualify as nonprofits based on the nature of how they are incorporated under state law or through their federal tax-exempt status are eligible.

Ineligible applicants include entities who are not incorporated in the United States, for profit firms who do not manufacture construction materials and products (e.g., consulting firms and individual consultants, management firms, architectural and engineering firms, information technology vendors, proprietary colleges, universities and trade schools), and *Local governments* as defined in 2 CFR § 200.1.

Subawards: Applicants administering a pass-through cooperative agreement must be an eligible entity under this NOFO. Subrecipients must also be eligible entities under this NOFO. The pass-through entity will provide subawards to subrecipients according to their submitted subaward plan. *Subawards* must be consistent with the definition of that term in 2 CFR 200.1 and comply with EPA’s [Subaward Policy](#). The pass-through entity that administers the grant and subawards will be accountable to EPA for proper expenditure of the funds and reporting and will be the point of contact. As provided in 2 CFR 200.332, subrecipients are accountable to the pass-through entity for proper use of EPA funding.

B. Cost Sharing or Matching

Cost sharing is not a requirement to be eligible to apply to this solicitation.

C. Threshold Eligibility Criteria

All applications will be reviewed for eligibility and must meet the eligibility requirements described in Sections III.A., B., C., and D. to be considered eligible. Applicants deemed ineligible for funding consideration as a result of the threshold eligibility review will be notified within 15 calendar days of the ineligibility determination.

1. Applications must substantially comply with the application submission instructions and requirements set forth in Section IV of this solicitation or else they will be rejected. Applicants are advised that readability is of paramount importance and should take precedence in application format, including selecting a legible font type and size for use in the application. However, where a page limit is expressed in Section IV with respect to the application, or parts thereof, pages in excess of the page limitation will not be reviewed.
2. Initial applications must be submitted through Grants.gov as stated in Section IV of this solicitation (except in the limited circumstances where another mode of submission is specifically allowed for as explained in Section IV) on or before the application submission deadline published in Section IV of this solicitation. Applicants are responsible for following the submission instructions in Section IV of this solicitation to ensure that their application is timely submitted. Please note that applicants experiencing technical issues with submitting through Grants.gov should follow the instructions provided in Section IV, which include both the requirement to contact Grants.gov and email a full application to EPA prior to the deadline.
3. Applications submitted outside of Grants.gov will be deemed ineligible without further consideration unless the applicant can clearly demonstrate that it was due to EPA mishandling or technical problems associated with Grants.gov or SAM.gov. An applicant's failure to timely submit their application through Grants.gov because they did not timely or properly register in SAM.gov or Grants.gov will not be considered an acceptable reason to consider a submission outside of Grants.gov.

D. Additional Threshold Criteria

Applications must meet the following additional threshold criteria to be considered eligible:

1. **Statutory Criteria:** Applications must adhere to the statutory criteria of Inflation Reduction Act Section 60112, ensuring proposed projects are designed to support the development, enhanced standardization and/or for transparency, and reporting criteria for EPDs that include measurements of the embodied greenhouse gas emissions of the material or product associated with all relevant stages of production, use, and disposal, and conform with international standards, for construction materials and products.
2. **Link to EPA Strategic Plan:** Applications must specify how the grant activity is linked to and supports at least one of the following goals and one of the following objectives of the FY 2022-2026 EPA Strategic Plan.
 - Goal 1: Tackle the Climate Crisis

- Objective 1.1: Reduce Emissions that Cause Climate Change
 - Objective 1.3: Advance International and Subnational Climate Efforts
 - Goal 2: Take Decisive Action to Advance Environmental Justice and Civil Rights
 - Obj 2.2: Embed Environmental Justice and Civil Rights into EPA’s Programs, Policies, and Activities
 - Goal 4: Ensure Clean and Healthy Air for All Communities
 - Objective 4.1: Improve Air Quality and Reduce Localized Pollution and Health Impacts
3. **Ineligible activities:** If an application is submitted that includes any ineligible tasks or activities, that portion of the application will be ineligible for funding and may, depending on the extent to which it affects the application, render the entire application ineligible for funding. Ineligible activities are the following:
- a. Projects that focus on construction materials and products that do not have the potential to significantly address embodied GHGs either because of barriers to adoption in the U.S., and/or their use in limited amounts (i.e., weight or volume)
 - b. Research, development, demonstration, and testing of advanced, not-yet-commercialized, technologies to reduce emissions from construction materials/products.
 - c. Projects that allow funds to be used outside the U.S. (Funds can still be provided to entities which are owned by a foreign company. However, those funds can only be used to support U.S.-based facilities and/or that support U.S.-based EPD verifiers, Program Operators, Conformity Assessment Bodies, manufacturers, etc.)
 - d. Projects that fund the physical act of construction/deconstruction or procurement of construction materials/products
4. Proposed projects must take place within the U.S., a U.S. Territory, or on Tribal land.
 5. Applications must not request less than \$250,000 or more than \$10,000,000.
 6. The project’s period of performance must be no greater than five years.

Section IV – Application and Submission Information

Note: Additional provisions that apply to this section can be found at [EPA Solicitation Clauses](#).

A. Grants.gov Submission Instructions

Complete application instructions for applying through [Grants.gov](#) can be found in Appendix A of this announcement.

B. Application Submission Deadline

The submission deadline is **January 16, 2024, 11:59 pm (ET)**. To apply, the applicant's **Authorized Organizational Representative (AOR)** must submit a complete application package electronically to EPA through Grants.gov (<https://www.grants.gov>). Instructions for applying through Grants.gov are provided in Appendix A of this announcement.

Please reserve enough time to successfully submit your application in the event unexpected submission errors require you to resubmit your application.

Applications submitted through Grants.gov will be time and date stamped electronically. If you have not received a confirmation of receipt from EPA (not Grants.gov) within 30 days of the application deadline, please contact the EPA representative listed in Section VII. Failure to do so may result in your application not being reviewed.

C. Prior to Applying through Grants.gov – Applicants must:

1. BE REGISTERED AND HAVE AN ACTIVE SAM ACCOUNT (<https://sam.gov>) TO APPLY FOR FEDERAL ASSISTANCE.
2. Designate an Authorized Organization Representative (AOR) as the individual who will submit the application through Grants.gov.
3. Be registered in Grants.gov (<https://www.grants.gov/>).

Note: The registration process for applying through Grants.gov **may take a month or more to complete**. **Please register early**. The electronic submission of your application must be made by the AOR of the organization who is registered with Grants.gov and is authorized to sign applications for federal funding assistance. If you do not have the technical capability to apply electronically through [Grants.gov](#) because of limited or no Internet access which prevents you from being able to upload the required application materials to [Grants.gov](#), an alternate submission exception request may be made – see Appendix A for instructions.

If you submit more than one application for the identical project (either in error or to replace a previously submitted application), EPA will only review the most recently submitted application, unless you notify EPA by email at embodiedcarbon@epa.gov and specify which application you want EPA to review.

D. Content and Forms for Application Submission

Submit *all* materials as described below.

The following forms and documents are applicable under this NOFO:

A. Mandatory Forms and Documentation: Instructions for preparing forms are provided under E. below.

- Standard Form 424 – Application for Federal Assistance (SF-424).
- Standard Form 424A, Budget Information – Non-Construction Programs.
- EPA Form 4700-4, Pre-Award Compliance Review Report for All Applicants Requesting Federal Financial Assistance. (Tips for filling out the pre-award form can be found here: <https://www.epa.gov/grants/tips-completing-epa-form-4700-4>)
- EPA Key Contacts Form 5700-54.
- Grants.gov Lobbying Form.
- Project Narrative Attachment Form: Use this form from grants.gov to submit your Project Narrative. Follow the guidance as described in Section IV.E.1 and clearly demonstrate how the proposed project meets the threshold eligibility criteria (Sections III.C. and III.D.) and the merit evaluation criteria (Section V). The Project Narrative should be 15 pages or less.
- Other Attachment Form – Use this form from Grants.gov to attach:
 - Itemized Budget Table: Upload the budget table.
 - Resumes of Key Staff and Personnel: Resumes must reflect the knowledge, experience and/or expertise to conduct proposed work.
 - Pass-Through Proposal for Subaward Management (if applicable): If the applicant will apply for pass-through activities, applicant must describe how they will operate the subaward process, subaward ranges, and type of work subaward recipients would conduct.
 - Partnership Agreements (if applicable): For applications involving partnerships, the applicant must include the signed partnership agreement(s) at time of application.

B. Optional Attachments:

- a. Letters of Support
- b. Disclosure of Conflict of Interest

Note: The “Other Attachment Form” is to be used to attach the mandatory and optional documents as listed above.

E. Instructions for Preparing Mandatory Forms and Documentation

The following documents are required for all application packages. In addition to the mandatory forms listed in Section IV.D.1., all applications must contain a Project Narrative, an Itemized Budget Table, and Resumes of Key Staff and Personnel.

1. **Project Narrative:** The project narrative describes the work to be performed during the performance period. The Project Narrative must explicitly describe the applicant’s proposed project(s) and specifically address the threshold eligibility criteria in Section III.C and each of the evaluation criteria disclosed in Section V.A. The project narrative, including the Project Summary Page, Project Narrative Workplan, Anticipated Performance Results, and Programmatic Capability and Past Performance, must not exceed fifteen (15) single-spaced, typewritten, 8.5” x 11” pages. It is recommended that the applicants use a standard font (e.g., Arial or Calibri) and a minimum 11.5-point font is required. Any pages submitted in excess of the page limit will not be reviewed. Applications which do not meet these requirements will not be reviewed. Other attachments as listed in Sections IV.E.2. through 6. below should be submitted as attachments and are not included in the 15-page Project Narrative limit. These attachments should be uploaded as separate documents on Grants.gov and will not count toward the Project Narrative’s 15-page limit.

I. Project Summary Page. Recommended not to exceed one page and include:

- i. Project Title
- ii. Funding Opportunity Number

- iii. Applicant Name: Identify the name of the organization submitting the application.
- iv. Eligible Entity Type: Identify your organization type from Section III.
- v. SAM.gov registration date
- vi. UEI Number: List the organization's Unique Entity Identifier number issued by SAM.gov.
- vii. Contact Information: Include name, title, address, email address, phone number Applicant can list both a primary and an administrative contact.
- viii. Funding Amount Requested: Specify the amount of Federal funding requested from EPA.
- ix. Pass-Through: State whether the applicant plans to administer subawards through a pass-through cooperative agreement
- x. Project Geographic Area
- xi. Project Period. Provide estimated beginning and ending dates.
- xii. Partner(s), if applicable
- xiii. State the EPA Strategic Plan goal(s) and objective(s) which this proposal supports
- xiv. Project Abstract – Include a brief description of the main objective(s), activities, project category(ies) addressed (see Appendix B)

II. **Project Narrative Workplan:** The workplan should provide the information below on how the applicant will implement and conduct the project and discuss how the proposal addresses each of the evaluation criteria in Section V of this announcement. The Narrative Proposal Work Plan must include:

- i. **Description of Proposal:** Provide a clear and detailed description of the project(s) and project goals including a description of how the project will meet the objectives of the grant program as described in Section I.B as well as how the projects relate to the Scope of Work and any of the five Eligible Project categories under Section I.C. Note: For assistance in developing projects, applicants may refer to Appendix B to view a broad offering of possible project examples.
- ii. **Strategic Plan Linkages:** Provide a clear and detailed explanation of how the proposed project addresses each goal and objective in Section I.E.
- iii. **Project Workplan:** Provide a clear and detailed workplan including project tasks and subtasks, key personnel roles and responsibilities, milestones, and anticipated results.
- iv. **Response to Threshold Criteria:** Demonstration of the **threshold criteria** included in Section III.C and III.D.
- v. **Response to Merit Evaluation Criteria:** Respond to **all merit evaluation criteria** included in Section V.A.
- vi. **Timeline and Project Estimate(s):** The timeline must include the following components: project tasks; anticipated dates (from start to completion of each task); milestone markers (including the timing and approaches used to follow up with business); a brief explanation for achieving project goals and objectives by the end of the project. If a proposal contains multiple projects, include an estimated cost per project.

III. **Anticipated Performance Results.** Provide a well-conceived strategy for addressing the requirements and plan for achieving and reporting project results in Section VI.C. Identify the expected performance results, including those described in Section VI.C. of this announcement and describe how you will track and measure your progress towards achieving the expected results. Include qualitative and quantitative anticipated results when applicable.

IV. **Programmatic Capability and Past Performance:** Submit a list of federally and/or non-federally funded assistance agreements (assistance agreements include federal grants and cooperative agreements but not federal contracts) that your organization performed within the last three years (no more than 5 agreements, and preferably EPA agreements) and describe:

- i. **Past Performance – project management:** Provide a clear and detailed description of your past performance and outcomes in successfully completing and managing projects of similar size, scope, and relevance.

- ii. **Past Performance – reporting:** Provide a clear and detailed description of your history of meeting the reporting requirements under previous assistance agreements. Demonstrate how you adequately and timely reported on your progress towards achieving the expected results under those agreements and if such progress was not being made, describe why not.
- iii. **Organizational Capability:** Provide a clear and detailed description of the organizational experience and plan for timely and successfully achieving the objectives of the proposed project. This could include staff expertise/qualifications, staff knowledge, and resources or plan to obtain them, to successfully achieve the goals of the proposed project.

In evaluating applicants under these factors in Section V.A, EPA will consider the information provided by the applicant and may also consider relevant information from other sources, including information from EPA files and from current/prior grantors (e.g., to verify and/or supplement the information provided by the applicant). If you do not have any relevant or available past performance or past reporting information, please indicate this in the application and you will receive a neutral score for these factors (a neutral score is half of the total weight available). If you do not provide any response for these items, you may receive a score of 0 for these factors.

Note: A Project Narrative Example is included in Appendix C. Applicants may choose to use the structure and format of this Project Narrative Example to assure that the components of the Project Narrative listed above (cover page, threshold criteria demonstration and merit evaluation criteria responses) are effectively addressed and organized within their project narrative submission. Applicants are not required to follow the structure and format of the example and will not be penalized if they do not.

2. **Itemized Budget Table** (not counted in 15-page limit): Applicants should provide a budget table to illustrate project cost categories. Please refer to the [Budget Development Guidance](#) to develop the budget. The budget table should be uploaded as a separate document on Grants.gov and will not count toward the 15-page limit. The budget must account for the full period of performance of federal grant funding. Applicants should consider the costs of the entire project implementation including reporting on performance measures. Budgets are expected to include expenses to travel and attend EPA Grantee meetings of recipients focused on the same program area, for at least two meetings during the period of performance. The budget totals provided here **MUST** match the funds requested on the SF424 and the SF-424A. Applicants should itemize costs and budget categories according to the Budget Development Guidance. Applicants should provide further detail on any contracts and subawards that have been budgeted (including the types of activities that will be supported and procurement plan), as well as a brief description of the intended use of any equipment or supplies budgeted.

In addition to the line-item budget by cost category described above, applicants are to provide a cost breakout by activity, portion, or phase of the project. When making funding decisions, EPA reserves the right to partially fund applications. Partial funding considerations will be informed by the cost breakout.

3. **Resumes of Key Staff and Personnel** (not counted in 15-page limit): Applicants should attach a resume or curricula vitae (CV) for the PM and other key personnel named on the Key Contacts List. These are not subject to the Project Narrative page limit although individual resumes should not exceed 2 pages in length. Resumes should be uploaded as a separate single document on Grants.gov and will not count toward the 15-page limit.
4. **Pass-Through Proposal for Subaward Management** (not counted in 15-page limit): If the applicant will apply as a pass-through entity, the applicant must describe how they will manage the subaward

process. The parameters of administering the subaward program can involve a non-competitive approach. Pass-through activities are limited to subawards for assistance in EPD development and verification activities. The pass-through applicant must identify which construction material sector(s) they intend to provide subawards to and proposed subaward ranges. The applicant must also provide their approach to making, managing, and monitoring subawards to ensure they are awarded and performed efficiently and effectively including how the applicant will select subawards for funding in a fair manner; how they will award subawards and what criteria will be used to ensure program effectiveness; how they will expeditiously make the subawards and oversee and monitor the subawards; and how they will help ensure that the subawards achieve the expected outcomes and outputs including those identified in Section I.D. The thoroughness of the system in place or under development for making, monitoring, and managing subawards as well as the thoroughness of the internal controls and internal control review process in place to ensure that the subaward management system is working as designed, will be evaluated along with any past experience the applicant has in making and managing subawards. Pass-through applicants must address how they will ensure a streamlined process for awarding subawards, as well as managing these transactions in compliance with regulatory requirements. See Section III.A. for reference to pass-through entity eligibility to administer subawards.

5. **Partnership Agreements** (not counted in 15-page limit): Some projects and activities may best be carried out by more than one eligible entity. In this case, a partnership application between two or more eligible entities may make sense to account for the activities that additional partners may carry out. If there are eligible entities who would like to partner on specific projects, one entity would submit one application and include partner organization(s) as appropriate. The lead partner applicant would be accountable for all components of application submission, project implementation, and reporting. Partners should provide letters of commitment in the lead application as well as consider entering into a Memorandum of Agreement which would commit a partner to carrying out tasks identified for them in the application. A partnership agreement must be signed by all parties and specify which member of the partnership will enter into the assistance agreement with EPA for the purposes of accountability for the proper expenditure of federal funds, performance of the assistance agreement, liability for claims for recovery of unallowable costs incurred under the agreement and must specify roles in performing the proposed scope of work for the assistance agreement.
6. **Optional Attachments** (not counted in 15-page limit):
 - I. Letters of Support, while not required, may benefit the application via evaluation under Criterion X in Section V. Letters of Support describe the project collaborators that will be engaged in the project and the service(s) they will provide to help carry out and enhance the project activity.
 - II. **Disclosure of Conflict of Interest:** If the non-Federal entity has a parent, affiliate, or subsidiary organization that is not a State, local government, or Indian tribe, the non-Federal entity must also maintain written standards of conduct covering organizational conflicts of interest. Organizational conflicts of interest means that because of relationships with a parent company, affiliate, or subsidiary organization, the non-Federal entity is unable or appears to be unable to be impartial in conducting a procurement action involving a related organization. Please see this link for more info: <https://www.epa.gov/sites/default/files/2020-11/documents/rain-2018-g03-r.pdf>
 - i. All COI disclosures must be in writing preferably through email communication.
 - ii. In addition to describing the COI, applicants and recipients must provide EPA with any information regarding measures to eliminate, neutralize, mitigate or otherwise resolve the COI. <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part->

F. Pre-Application Webinars and Frequently Asked Questions

EPA will host informational webinars for potential applicants and interested stakeholders on this funding opportunity. Additional information including a Frequently Asked Questions (FAQs) document, webinar links, webinar recordings, and presentation materials will be available at this [website](#).

If necessary, EPA may schedule additional webinars. In accordance with EPA's Assistance Agreement Competition Policy (EPA Order 5700.5A1), EPA staff will not meet with individual applicants to discuss specific draft applications or project proposals, provide informal comments on draft applications, or provide advice to applicants on how to respond to ranking criteria.

Applicants are responsible for the contents of their applications. However, consistent with the provisions in the announcement, EPA will respond to questions from individual applicants regarding threshold eligibility criteria, administrative issues related to the submission of the application, and requests for clarification about the announcement. In addition, EPA will respond to questions about whether a proposed project appears to meet the criteria for eligibility for consideration for these awards.

Section V – Application Review Information

Note: Additional provisions that apply to this section can be found at [EPA Solicitation Clauses](#).

A. Merit Evaluation Criteria

Eligible applications that pass the threshold eligibility review described in Section III.C will be reviewed and scored by a review panel(s) comprised of EPA staff and subject matter experts using all the criteria below. Please note that certain sections are weighted more than others (see Weight column in the table below). Applicants must ensure that their Workplan and application materials address the evaluation criteria below. Applications will be evaluated and scored based on how well they address the merit evaluation criteria in the table below.

Table I. Grant Application Merit Evaluation Criteria and Weighting

Criterion	Description	Weight
1. Strategy & Approach	<p>a. Description of Proposed Project(s) and/or Technical Assistance Approach</p> <p>Applications will be evaluated on the quality and extent to which the project narrative provides a clear description of the project. Clear descriptions include details regarding how the project will contribute to the improvement and/or advancement of EPDs in the construction materials and products sector.</p>	7
	<p>b. Advancing Robustness of EPDs</p> <p>Applications will be evaluated on the quality and extent to which the applicant describes how the project(s) will advance the robustness of EPDs. Explanation for how the project(s) will support the advancement of robust EPDs <i>may include but is not limited to:</i></p> <ul style="list-style-type: none"> • Degree to which the project generates EPDs in conformance with international standards, voluntary consensus standards, and/or other standards that are effective and otherwise suitable for the U.S. market • Degree to which the project supports third-party verification • Degree to which the project will result in facility and supply-chain specific data in EPDs • Degree to which the project supports inclusion of relevant stages of production, use, and disposal in EPDs • Degree to which the project supports inclusion of additional environmental and human health impact categories beyond GWP in EPDs • Degree to which the project will leverage public datasets • Degree to which the project supports transparency by disclosing background dataset(s), upstream data source(s), and uncertainty/assumptions in EPDs • Degree to which the project supports interoperability via digitization • Degree to which the project supports making EPDs readily and publicly available (free of charge) via an open data platform(s) 	13

Criterion	Description	Weight
	<p>c. Maximizing Efficiency and Reach Per Resources Requested Applications will be evaluated on the quality and extent to which the applicant describes how funding will be implemented to maximize results. Explanation for how projects maximize efficiency and reach <i>may include but is not limited to</i>:</p> <ul style="list-style-type: none"> • Number of EPDs produced by material or product type per grant funding requested • Number of manufacturers new to producing EPDs the project will reach per grant funding requested • Number of specific entities aided with educational resources or assistance per grant funding requested • Number of relevant PCR updates project contributes to per grant funding requested • Explanation of the scale of data improvement or quality per grant funding requested to achieve robust EPDs • Number of relevant stakeholders in the production of EPDs that conform to their respective PCRs • Number of stakeholders posting, accessing, and using EPDs via open, public, free-to-use EPD data platform(s) • Explanation of how actions taken increase the generation capacity of entities producing EPDs and PCRs 	11
	<p>d. Prioritizing Material Categories and Material Types Applications will be evaluated on the quality and extent to which the applicant describes the degree to which the project will impact material(s) or product(s) with <i>one or more of the following attributes (recognizing no materials are likely to satisfy all of these attributes)</i>:</p> <ul style="list-style-type: none"> • Represent a significant share of the construction sectors' embodied carbon contributions or has the ability to significantly reduce the embodied carbon from construction • Are used in large quantities in U.S. construction projects • Do not have significant representation in the existing EPD market • Are associated with a high frequency of replacement (e.g., remodels and tenant improvements) • Have inherently lower embodied carbon emissions or have the potential to: <ul style="list-style-type: none"> ○ promote a circular economy ○ act as a low embodied carbon substitute for higher-impact materials ○ be modular, easily removed intact, and/or easily reusable ○ utilize carbon from either natural or anthropogenic sources 	12
	<p>e. Supporting Geographic Diversity of EPD Development Applications will be evaluated on the degree to which project(s) address the following geographical concerns:</p> <ul style="list-style-type: none"> • EPD availability in regions of the U.S. that have few or no existing EPDs in a material/product category • Improving background data to incorporate better regional representation in EPDs • Ensuring a geographically diverse distribution of funds in both physical geography and locality attributes of material production facilities. Considerations of this include, but are not limited to: <ul style="list-style-type: none"> ○ Rural, Suburban, and Urban representation 	8

Criterion	Description	Weight
	<ul style="list-style-type: none"> ○ Transportation challenges ○ Proximity to source materials 	
	<p>f. Supporting EPD Development Across Enterprises with Varied Production Volumes</p> <p>Applications will be evaluated on how the project(s) furthers the implementation and creation of EPDs for small enterprises. Explanation for how project(s) will further the implementation and creation of EPDs for small enterprises <i>may include but is not limited to:</i></p> <ul style="list-style-type: none"> ● Creating EPDs for small manufacturers, targeting small manufacturers that have few or no existing EPDs in the material/product category ● Improving background data to incorporate better representation of material producers of a wide range of sizes and production ability ● Ensuring a diverse distribution of EPDs or data improvement by manufacturer size or production volume ● Supporting small manufacturers in participating in the EPD system 	5
	<p>g. Advancing Equitable Workforce Development</p> <p>Applications will be evaluated on the quality and extent to which the project(s) supports a diverse workforce including training and recruitment of workers from disadvantaged communities (see Key Terminology section for definitions).</p>	3
	<p>h. Addressing Additional Environmental Impacts and/or Benefits</p> <p>Applications will be evaluated on the quality and extent to which the applicant describes how the project will address gaps in EPD reported data associated with additional environmental impacts beyond global warming potential, e.g.</p> <ul style="list-style-type: none"> ● Ozone depletion potential ● Acidification potential ● Eutrophication potential ● Smog formation potential ● Primary energy use ● And other significant environmental and human health impacts (e.g., toxicity) 	3
	<p>i. Ensuring Long-term Success</p> <p>Applications will be evaluated on the quality and extent to which the applicant describes the strategy for how the project and its results will remain effective and relevant beyond the grant term.</p>	3
	<p>j. Leveraging Expertise and Furthering Standardization Through Partnerships</p> <p>Applications will be evaluated on the quality and extent to which the project narrative describes a plan to leverage the expertise of partners and stakeholders in the project or explains why partnerships are not needed for the proposed work. NOTE: <i>Partners may include States, Tribes, other technical assistance providers, businesses, communities, trade associations, nonprofit organizations, etc. (i.e., both eligible and ineligible entities for grants under this NOFO).</i></p>	5

Criterion	Description	Weight
2. Reporting	<p>a. Quality of reporting plan as described in Section VI.C. as relevant to the proposed project. Applications will be evaluated based on the quality and extent that the reporting plan provides a comprehensive and effective approach to reporting performance results relevant to the proposed project category(ies), as described in Section VI.C</p>	8
	<p>b. Publish and ensure results as described in Section VI.C.6. are available to the larger efforts. Explanation for how project output and outcome information will be made accessible for the advancement of the Environmental Product Declaration marketplace for construction materials <i>may include but are not limited to the degree to which:</i></p> <ul style="list-style-type: none"> • Reporting could be publicly available and accessible. • EPDs generated may be posted to public EPD repositories. • PCRs may be publicly posted and accessible. • EPDs and supporting data may be easily used in determining industry averages. • EPDs and supporting data may be easily used to determine and report facility and manufacturer averages. • 	5
3. Programmatic Capability & Environmental Results Past Performance	<p>a. Project Completion and Reporting History. Applications will be evaluated based on their ability to manage the proposed project considering their (See NOTE at the end of this table below):</p> <p>Past performance in successfully completing and managing assistance agreements identified in response to Section IV.E.1.d. Past performance also includes the successful completion of large state or local grants, or large state/local/private construction contracts.</p> <p>History of meeting the reporting requirements under prior federal and non-federal assistance agreements identified in response to Section IV.E.1.d. The applicant submitted acceptable final technical reports under those agreements. Weight value are assessed based on the extent to which the applicant adequately and timely reported on their progress toward achieving the expected results. In the event adequate progress was not made, whether the applicant adequately reported why not.</p>	3
	<p>b. Organizational Experience and Plan. Organizational experience and plan for timely and successfully achieving the objectives of the proposed project.</p>	4
	<p>c. Staff Experience. Includes senior management with the expertise, skills, and track record to efficiently and effectively execute the program plan.</p>	4
4. Timeline	Applications will be evaluated based on the quality and extent to which applicants set forth a reasonable time schedule and sequence of work for executing tasks associated with the project.	3

Criterion	Description	Weight
5. Budget	Under this criterion, the application will be evaluated based on the extent to which the proposed estimated costs are eligible, appropriate, reasonable, and realistic to implement the project and clearly correlate with the proposed tasks and activities; and the applicant’s approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner.	3
6. Subaward Plan (only applicable to pass-through applications)	Applicants will be evaluated on the quality and extent to which the subaward plan (if applicable) provides a clear description of how they will implement the subaward process, including approach to choosing subrecipients, subaward ranges, and type of work subaward recipients would conduct. Applications will not be penalized if a subaward component is not included in the proposed project.	5
<p>Note:<i>In evaluating applicants for Programmatic Capability & Environmental Results Past Performance in merit evaluation sub-criterion 3.a. above, EPA will consider the information provided by the applicant and may also consider relevant information from other sources including agency files and prior/current grantors (e.g., to verify and/or supplement the information supplied by the applicant). If you do not have any relevant or available past performance or past reporting information, please indicate this in the application and you will receive a neutral score for a of Criterion 3 (a neutral score is half of the total weighting value available). If you do not provide any response for these items, you may receive a score of 0 for these factors.</i></p>		

B. Review and Selection Process

Applications will be reviewed and scored under the following process:

1. **Threshold Eligibility Review Process:** All applications will be evaluated for eligibility using the threshold eligibility criteria described in Section III.C: Threshold Eligibility Criteria.
2. **Review Panel and Evaluation Process:** Review panel(s) will review, score, and rank all eligible applications that pass the threshold eligibility review based on the merit evaluation criteria listed above. Applicants will be ranked in three separate ranking lists based on funding ranges outlined in Section I and V.B.3. below. Based on merit evaluations, awards will be made from the top ranked from each list. The review panel(s) will include EPA staff and may also include staff from other federal agencies and external subject matter experts who are free from any actual or apparent conflicts of interest.
3. **Final Selection Process and Other Factors:** EPA will make selections based on merit evaluations and within the following subranges:
 - a) \$250,000 to \$749,999
 - b) \$750,000 to \$4.99 million dollars
 - c) \$5 million to \$10 million dollars

The review panel will present final rankings and selection recommendations to the Selection Official, who will then make the final selections for awards. The Selection Official expects to make selections to ensure both direct and pass-through tracks as described in Section I.C. are represented, in accordance with current EPA priorities.

In addition to this information, the Selection Official may also consider any of the following “other factors” in making final selection decisions from among the high-ranking applications including:

- a) Programmatic Priorities –as laid out in Section I.B.;
- b) EPA strategic goals and objectives;
- c) Availability of funds.

The Selection Official may also consider the “other factors” across the multiple ranking lists described above and may only be considered by the Selection Official when determining final selections after the scoring and ranking process is complete. EPA reserves the right to make no awards in any of the subranges above.

4. **Anticipated Announcement and Federal Award Date:** EPA anticipates it will announce selection decisions in Spring 2024 and tentatively plans to issue awards by Summer 2024.

Section VI – Award Administration Information

Note: Additional provisions that apply to this section can be found at [EPA Solicitation Clauses](#).

A. Award Notification

EPA anticipates notification to successful applicants will be made via electronic mail (email) to successful applicants by May, 1 2024. The notification will be sent to the original signer of the application or the project contact listed in the application. This notification, which informs the applicant that its application has been selected and is being recommended for award, is not an authorization to begin work. The official notification of selection for an award will be made by EPA’s Division Director within the Office of Pollution Prevention and Toxics (OPPT) of the Office of Chemical Safety and Pollution Prevention’s (OCSPP). Applicants are cautioned that only an EPA grants officer is authorized to bind the Government to the expenditure of funds; selection does not guarantee an award will be made. For example, statutory authorization questions, funding issues or other issues discovered during the award process may affect the ability of EPA to make an award to an applicant. EPA reserves the right to fund projects one year at a time, approving subsequent years based on the performance of grantee and projects in the earlier years as well as on the state of the market and EPDs produced and published. The award notice, signed by an EPA grants officer, is the authorizing document and will be provided by email. The successful applicant may need to prepare and submit additional documents and forms (e.g., work plan), which must be approved by EPA, before the grant can officially be awarded. The time between notification of selection and award of a grant can take up to 90 days or longer.

B. Submission Requirements

All application forms must be filled out in their entirety, prior to being considered for an award (refer to 2 CFR Part 200, as applicable).

C. Administrative Requirements

1. Awards Management:

Awards are anticipated to be issued by August 1, 2024. Awards issued under this announcement are subject to the requirements of the Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards; Title 2 CFR, Parts 200 and 1500.

2. Quality Assurance – Quality Management Plans (QMP) and Quality Assurance Project Plans (QAPP):

Quality assurance documentation is required for awards that involve environmental information operations as specified in 2 CFR 1500.12 Quality Assurance, EPA’s Quality Policy, and EPA’s Quality Procedure. If selected for an award, EPA will work with the applicant to determine if a QMP and/or QAPP is required for the project. Applicants will develop the required QA document(s) and submit for EPA’s approval. Selected applicants cannot begin environmental information operations until EPA approves the QMP and/or QAPP.

Note: Applicants are not required to verify that they have an approved QMP or QAPP when submitting applications under this NOFO. The terms and conditions of the official award document will provide details on monitoring the grant recipient’s QMP and QAPP obligations.

Environmental Information Operations: A collective term that encompasses the collection, production, evaluation, or use of environmental information and the design, construction, operation, or application of environmental technology. Environmental information includes data and information that describe environmental processes or conditions. Examples include but are not limited to: direct measurements of

environmental parameters or processes, analytical testing results of environmental conditions (e.g., geophysical, or hydrological conditions), information on physical parameters or processes collected using environmental technologies, calculations or analyses of environmental information, information provided by models, information compiled or obtained from databases, software applications, decision support tools, websites, existing literature, and other sources, and development of environmental software, tools, models, methods, and applications.

Quality Assurance Project Plans (QAPP): If the award involves environmental information operations, the recipient is required to develop a QAPP(s). A QAPP describes how environmental information operations are planned, implemented, documented, and assessed during the life cycle of a project. Requirements for QAPPs are found in the most recent version of EPA's [Quality Assurance Project Plan Standard](#).

Quality Management Plan (QMP): In addition to a QAPP(s), the recipient may also need to develop a QMP. The QMP describes an organization's Quality Program. Requirements for QMPs are found in the most recent version of EPA's [Quality Management Standard](#). The QMP must also document all technical activities to be performed under the Quality Program and how the program will integrate QA, quality control, and QAPPs into all its environmental information operations.

Note: As the environmental impacts disclosed on EPDs are estimated and not always measurable, the QA/QC process will include the clear and present reporting of underlying background datasets and the product data associated with the development of the EPDs.

3. **Guidance on Reporting:**

Reporting is integral for grant oversight, demonstrating the results and value of the grant program, and documenting and sharing data and information on the lessons learned from the activities carried out under each grant. The reporting required for grant recipients will be finalized during the development of the workplan. Individual grantee reporting requirements will be based on the scope of their workplan and will be finalized with their workplan. This section provides a suggested format for performance reporting so applicants fully understand the scope of reporting should they be selected as recipients. This information can also inform the Reporting Plan that applicants must include in their Project Narrative as described in Section IV.E. Guidance on the suggested reporting timing, methods, as well as particular performance indicators are detailed in this section.

Outputs and Outcomes: Grant recipients will be expected to provide performance reporting on activities, efforts, and/or associated work products that will be produced or provided (i.e., outputs) and the results, effect or consequences that occurred from carrying out the project (i.e., outcomes). Outputs may be an activity, effort, and/or associated work products related to the program's goals and objectives. Examples outputs would include technical assistance guidance documents, datasets, or tools/resources. Outcomes may be environmental, behavioral, or programmatic in nature, and may not necessarily be achievable within an assistance agreement funding period. Example outcomes would include a description of how the project has increased capacity to generate robust EPDs and PCRs and how the project has improved standard practices regarding the development of PCRs and EPDs. If there are additional output and outcome measures beyond those listed below, applicants are encouraged to include those measures in the reporting plan and reporting.

EPA is seeking Information Collection Request (ICR) approval from Office of Management and Budget (OMB) under the Paperwork Reduction Act for a webform-based system for collecting reporting information from grant recipients. This webform-based system will be designed to make it more effective and efficient for EPA and grant recipients to submit this information. When that ICR is approved, grant recipients will be encouraged to submit reporting information using this webform-based system. EPA will notify grant recipients when this webform-based system has been posted to EPA's Inflation Reduction Act [Grant Reporting page](#). EPA will use this information to determine if workplan requirements are being met, to track progress of the grant program overall, to share results of the work, and to build a repository of EPD-related practices that can be widely shared and replicated.

Note: Recipients should not work with businesses that are not willing to provide information to support the reporting described below. Recipients may omit reporting the affiliated business name and location if a business has confidentiality concerns with providing the information needed for the required reporting.

4. Progress Reports and Final Technical Reports:

Recipients are required to submit midyear updates and annual progress reports using the guidance below. EPA may also require additional progress reports, e.g., sharing information on milestones, and deliverables beyond these required reports. If a grant is extended, applicants may be expected to submit additional midyear updates and annual progress report(s), dependent on the length of extension.

i) The following general information is required on all grant reports:

- (1) Recipient name
- (2) Grant project number
- (3) Grant award date
- (4) Recipient contact name
- (5) Recipient contact phone number
- (6) Recipient contact email address
- (7) For projects involving partners (optional):
 - (a) Name of organization, entity or group
 - (b) Point of contact name and email
 - (c) Partnership description/role
- (8) EPA Project Officer name
- (9) EPA Project Officer email address

ii) Midyear Update Guidance:

Submission: Recipients are expected to email the update to the EPA Project Officer 6 months after the grant award date and six months following each annual report.

Content: Provide a narrative update including any available performance metrics and progress towards delivering work products relative to your project(s). Report any changes to the project timeline, the reason for the changes, and the updated timeline. Discuss any barriers to progress and ways that your Project Officer may assist.

iii) Annual Progress Report Guidance:

Submission: Reports must be submitted annually to the EPA Project Officer within 60 days after the anniversary of the grant award and should include the grant award number. As the program evolves, applicants should expect to report in an online webform or another standardized format.

Content:

- Responses to project category specific performance reporting requirements listed in the **Performance Reporting by Project Category table**.
- Within the annual progress reporting, the recipient should report on all work completed within the reporting period.
- Any changes to the project timeline, the reason for the changes, and the updated timeline.
- If applicable, provide an explanation of how program activities are being evaluated, including related materials, and report how information gathered during this process has influenced changes to project planning and decision making.

- Report how the project leveraged the expertise of partners and stakeholders.
- Report on any barriers encountered as well as efforts to overcome them.
- Projects funded through this grant have the potential to result in significant positive impacts in disadvantaged communities (including any geographic area within Tribal lands as included in EJScreen), and Territories. Applicants are encouraged to provide technical assistance to businesses within or impacting disadvantaged communities as well as to small businesses and businesses owned and operated by underserved populations, such as the Territories. Grantees should identify geographically defined disadvantaged communities by using the [Climate and Economic Justice Screening Tool \(CJEST\)](#); any census block group that is at or above the 90th percentile for any of [EJScreen’s Supplemental Indexes](#) when compared to the nation or state; and/or any geographic area within Tribal lands as included in [EJScreen](#). In addition to reporting locational information required in the Performance Reporting by Project Category table, describe how your project resulted in the following:
 - Support for a diverse workforce including training and recruitment of workers from underserved communities.
 - Disclosure on EPDs of environmental impacts that disproportionately impact disadvantaged communities.
 - Support for the involvement of disadvantaged communities, persons with disabilities, and related community groups in the TA and business environmental decision-making process.

iv) Final Technical Report Guidance:

Submission: Recipients are expected to email a final technical report to the EPA Project Officer within 120 days after the grant activities have concluded and should include the grant award number.

Content: In addition to the annual reporting requirements detailed above, grantees will be asked to submit a brief narrative report and related materials for the purposes of helping EPA improve the program as well as communicate grantee success stories. This may involve the production of case studies and other communication materials.

5. EPD Reporting

All EPDs generated with support from this grant must be submitted to and accessible on an open, public, free-to-use EPD data platform that is reliable, secure, 508 compliant in terms of accessibility (see <http://www.section508.gov/>) with data discoverability via APIs, and with robust search and filtering capabilities. Grantees must notify EPA that such EPDs were submitted to an open, public, and cost-free EPD data platform within ten business days of submitting them and include in the notification to EPA links to these EPDs, along with copies of the EPDs to ensure that all fields are properly captured and provided to EPA.

6. Performance Reporting Requirements by Project Category

EPA encourages applicants to consider reporting on performance measurement elements that align with eligible project categories and the objectives of EPA’s EPD Assistance program arising from Inflation Reduction Act Section 60112, as detailed below.

Table II Performance Reporting by Project Category

ROBUST DATA: For projects that contribute new and/or improve critical data, analysis or feedback for producing robust¹¹ EPDs, please provide, as applicable:

For each dataset for which industry or salvaged material data are provided please include:

- The name and description of the product category.
- The six-digit 2022 NAICS code(s) of the industry(ies) providing the data.
- The reference unit for the product of interest (e.g., 1 metric ton) used to normalize the data.
- Time period for data collection.
- The geographic (county names and Federal Information Processing System (FIPS) Codes), market, and technological representation in data collection.
- A permanent hyperlink for the dataset.
- A description of how data were collected by manufacturers (and/or their consultants/academic partners) and reported to the grantee, including how data conform to defined standards (if available), the verification method used for the dataset, how data was aggregated and summarized, what the data explicitly excluded within the product category, and any weighting and allocation procedures used.
- A description of data attributes, including quality control methods, how regionalized data was incorporated, improvements to data to account for various sizes and production abilities of manufacturers, and the size/capacity distribution of manufacturers served by the project.
- A list of descriptive statistical information for data products including representativeness data, weighting and allocation procedures, and summary statistics.
- A description of the barriers encountered in accessing, compiling, or reporting data and how they were addressed (or plans to address them in the future).
- Additionally for each data point within a dataset, please provide:
 - Name of each flow or emission (e.g., electricity or carbon dioxide), with elementary flows using the correct flow nomenclature from the latest Federal LCA Commons Elementary Flow List.
 - Description of the distribution of data, such as the mean, median and measures of spread (e.g., standard deviation; 20th and 80th percentiles).
 - Unit of each flow or emission (per reference unit).
 - Flow-level data quality scores for all 5 flow-level data quality indicators as described in EPA’s Guidance on Data Quality Assessment for Life Cycle Inventory Data (EPA/600/R-16/096, 2016).

For each tool for data aggregation or data integration please include:

- A description of the functionality of the tool, the intended audience, and its potential role in making EPDs more robust and/or efficient.
- A software life cycle management plan including planned development stages, testing and piloting plans include plans on coordination and/or feedback collection from the intended users or core data providers, and planned release schedule.
- A description of the extent to which the tool is based on open-source code, which software licenses will be used, where and how the code is maintained.
- A description of how the tool/software will be maintained following the exhaustion of the grant funding.
- For software with a fee-based use structure, describe the structure and an estimate of the use fees.

¹¹ Please see Section I.D. for the definition of “robust,” as used in this section and throughout the document.

For each data analysis study please include:

- A published report or copy of a manuscript submitted to a peer-reviewed journal including a brief background, detailed methods, results, interpretation and discussion of results, recommendations relevant to improving background data for EPDs, and links to any available source code and datasets that can be used to further apply the methods, reproduce the work, or provide further insight in the research question.

For each project assisting with data workgroup processes please include:

- A description of the organization, workplan, and objectives of the data workgroup.
- A description of progress in developing data development resources including standards documents, guidance documents, data evaluation procedures, web tools, or needs assessments.
- A description of how the project has increased users' capacity to generate EPDs and PCRs or will improve the robustness of EPDs that use the provided data, tools, or findings.

ROBUST PRODUCT CATEGORY RULE (PCR) STANDARD DEVELOPMENT, PCRs, AND

ASSOCIATED CONFORMITY ASSESSMENT SYSTEMS: For projects supporting PCRs to support data collection means, methods, and reporting, grantees will be expected to report the following annually, as applicable:

For each PCR committee assisted:

- The name, program operator, funding source, link to published PCR, description of changes made or suggested.
- A description of the process undertaken for ensuring adequate stakeholder participation in PCR standard development and procedures to ensure a transparent development process.
- List of participating stakeholders and affiliations.
- Number of meetings held, and attendance of each meeting.
- A list of standards, referenced underlying LCA(s), and guidance documents met by the PCR.
- An explanation of how the PCR is consistent with EPA's definition of "robust".

For each PCR-related resource:

- Name of the resource.
- A description of the type of resource developed (i.e., PCR toolkit, guidance document, etc.), the development procedure undertaken, including challenges and successes.
- A description of projects undertaken to increase resource adoption by relevant stakeholders.
- A description of projects undertaken to align the resource with international activities to support EPD and PCR generation.

For each PCR please provide:

- Links to resource developed or updated, a description of the changes made, conformity assessment report file, and date*.
- A description of how the grantee developed resource is consistent with EPA's definition of "robust", as well as its prescriptiveness of data collection means, methods, and reporting of EPDs.
- A description of how the resource has improved PCRs, transparency, and effectiveness.
- Results of conformity assessments against international standards, voluntary consensus standards, and/or other standards that are effective and otherwise suitable for the U.S. market, as applicable.
- A description of how the project supported 3rd party verification.

* In the case of conformity assessments, the assessment report may be included with the report.

ROBUST RESOURCES TO SUPPORT, INCENTIVIZE, AND VERIFY EPDS: For projects supporting development of tools and resources to make it easier, faster, and more cost effective to produce EPDs, grantees will be expected to report the following, as applicable:

For each tool and/or resource in-development please provide:

- A description of the tool/resource including tool/resource type (e.g., template, generator tool, calculator tool, etc.) and how the resource will support the development of EPDs by manufacturers.
- A description of how resource customers/end-users have been or plan to be included/engaged in the resource development process.
- The number of users (drawn from a pool of target users) who tested or plan to be engaged in a beta version of the resource.
- A description of the plan for marketing the resource and integrating it into user processes as well as a discussion of progress towards meeting planned milestones and objectives.
- A description of efforts or planned efforts to make the resource open, free-to-use, accessible and available as well as efforts made to incentivize the development of EPDs.

For each tool and/or resource developed please provide:

- A link to resource, or attached file(s), and describe how/where customers/end-users can find it.
- The number of material types/categories served by the resource.
- The percent of a representative sample of target users indicating that they are satisfied with the tool and the percent that would recommend the tool to their colleagues after trying the tool.
- Number of resource users/adoption rates before and after project completion/implementation.
- As appropriate, the share of users/experts/stakeholders who report that the resource meets EPA NOFO definition of robust and complete for background data, PCR standard/guidance, and PCRs.
- A description of efforts to ensure availability for individual with disabilities and efforts to make resources available in multiple languages.
- A description of how the resource addresses geographic gaps in EPD numbers/quality and improves capacity for users, including for small manufacturers/businesses to generate EPDs and PCRs.
- A description of how the resource will be maintained and updated over time to ensure continued relevancy and usability.

EPD DEVELOPMENT AND VERIFICATION: For projects that develop EPDs or are supporting EPD development by businesses that manufacture construction materials and products, grantees will be expected to report the following, as applicable.

For each manufacturer, please provide:

- A description of the TA approach including a description of the process undertaken to develop TA materials and a link or file attachment of TA materials.
- The production capacity of manufacturers served by the TA, including small manufacturers.
- The number of EPD training sessions, workshops, ask the expert sessions, etc. completed within the reporting period.
- The number of target individuals (e.g., representatives from manufacturers interested in having EPDs developed) who participated in such training sessions, workshops, ask-the-expert sessions, etc.

Technical Assistance Results:

- The number of EPDs generated that align with the definition of “robust” and/or meet EPA criteria (if available), the number generated by small manufacturers, the type of EPDs generated, and the estimated volume of material sales covered.
- An estimate of the U.S. production capacity represented by the manufactures assisted (total production

capacity of all manufacturers assisted divided by the U.S. sector total).

- A description of how the EPDs developed under the project address gaps for small businesses and businesses in disadvantaged communities.
- A summary outlining which environmental and human health impact categories, beyond GWP, are accounted for in EPDs generated as a result of the TA. This should include a list organized by product category (e.g., Of the 1000 asphalt EPDs generated under this grant, 500 included reporting on 'consumption of fresh water' impact category).
- The number of manufacturers assisted with EPDs and generating EPDs, by size of manufacturer (small or first time EPD), and its associated material type category.
- The estimated number of EPDs intended to be developed by manufacturers who were assisted in the next five years.

For each EPD generated as a result of TA:

- A link to the EPD generated as a result of the TA or attachment.
- The manufacturing facility name, facility census tract Federal Information Processing System (FIPS) Codes, material type/category, the primary facility NAICS code, the manufacturer trade association membership name, and whether the facility is a participant in the EPA Energy Star Industrial Program.
- A description of lifecycle stages covered beyond production.
- The geographic market reach (counties and Federal Information Processing System (FIPS) Codes) of materials/products.
- The EPD verification method, standard, and name of the third-party verifier.

ROBUST EPD DATA PLATFORMS AND INTEGRATION: For projects supporting EPD reporting, availability, and verification; and the standardization of disparate EPD systems, grantees will be expected to report the following, as applicable:

For projects to increase the number of robust EPDs reported to or made available in EPD or other platforms

- The name of the platform(s) targeted.
- A description of efforts made to increase the number of EPDs reported to or available in the platform(s) (e.g., designed a feature allowing a BIM tool access to EPD info via API).
- A link or file attachment to materials developed to support this effort.
- The number of outreach and/or technical assistance activities conducted and description of participants.
- A description of efforts made to improve and align user interfaces and functionality (e.g., material comparisons) with customer needs.
- A description of efforts made to digitize the results of the EPDs and integrate database with existing platforms and EPD generator tools.

For projects supporting the verification of EPDs reported to EPD platforms, and data quality of platforms:

- The name of the EPD platform targeted.
- A description of efforts made to support the verification of EPDs reported to EPD platforms including, if applicable, a list of the material types/categories expanded.
- A description of the platform's data quality protocol and how it's been enhanced, for example, processes put in place and resources devoted to reducing duplicate data, appropriate classification of data, data aggregation and reporting, etc.
- The number of EPDs reviewed and verified as a result of the project.
- A description outlining the various development scenarios covered by whole building life cycle analysis (WBLCA) platform(s), as applicable.

- The geographic (counties names and Federal Information Processing System (FIPS) Codes) areas covered by the platform.

For projects supporting the standardization of disparate EPD generation platforms and LCA generation systems:

- A list of systems targeted.
- A description of the procedures, documents, or other activities that were standardized.
- A description of the standardization effort
- A description of technical assistance provided or planned to be provided.
- An explanation of how interoperability between platforms and/or systems is being or has been addressed.
- A description of the barriers to standardization encountered and addressed.
- The number of local, state and federal agencies with updated procedures.

7. Data Access, Information Release, and Copyright

Additional provisions that apply to data access, information release, and copyright can be found in Sections VI.c and VI.n. of the [EPA Solicitation Clauses](#).

Section VII – Contact Information

Further information, if needed, may be obtained by emailing embodiedcarbon@epa.gov.

Appendix A: Grants.gov Instructions and Limited Exception Procedures

A. Requirement to Submit Through Grants.gov and Limited Exception Procedures

Applicants must apply electronically through [Grants.gov](https://www.grants.gov) under this funding opportunity based on the Grants.gov instructions provided in this appendix. If your organization has no access to the Internet or access is very limited, you may request an exception for the remainder of this calendar year by following the procedures outlined [here](#). Please note that your request must be received at least fifteen calendar days before the application due date to allow enough time to negotiate alternative submission methods. Issues with submissions with respect to this opportunity only are addressed in Section C *Technical Issues with Submission* below.

B. Submission Instructions

1. SAM.gov (System for Award Management) Registration Instructions

Prior to submitting your application to Grants.gov, organizations applying to this funding opportunity must have an active SAM.gov registration. If you have never done business with the Federal Government, you will need to register your organization in SAM.gov. If you do not have a SAM.gov account, then you will create an account using [login.gov](https://www.sam.gov) to complete your SAM.gov registration.¹

SAM.gov registration is FREE. The process for entity registrations includes obtaining Unique Entity ID (UEI), a 12-character alphanumeric ID assigned an entity by SAM.gov, and requires assertions, representations and certifications, and other information about your organization. Please review the [Entity Registration Checklist](#) for details on this process.

If you have done business with the Federal Government previously, you can check your entity status using your government issued UEI to determine if your registration is active. SAM.gov requires you renew your registration every 365 days to keep it active.

Please note that SAM.gov registration is different than obtaining an UEI. Obtaining an UEI only validates your organization's legal business name and address. Please review the [Frequently Asked Questions](#) to learn the difference between obtaining Sam.gov registration versus obtaining an UEI for your organization.

Organizations should ensure that their SAM.gov registration includes a current e-Business (EBiz) point of contact name and email address. The Ebiz point of contact is critical for Grants.gov Registration and system functionality.

Contact the [Federal Service Desk](#) for help with your SAM.gov account, to resolve technical issues or chat with a help desk agent: (866) 606-8220. The Federal Service desk hours of operation are Monday – Friday 8am – 8pm ET.

2. Grants.gov Registration Instructions

Once your SAM.gov account is active, you must register in Grants.gov. Grants.gov will electronically receive your organization information, such as e-Business (EBiz) point of contact email address and UEI. Organizations applying to this funding opportunity must have an active Grants.gov registration. Grants.gov registration is FREE. **If you have never applied for a federal grant before, please review the [Grants.gov Applicant Registration](#) instructions.**

As part of the Grants.gov registration process, the Ebiz point of contact is the only person that can affiliate and assign applicant roles to members of an organization. In addition, at least one person must be assigned as an Authorized Organization Representative (AOR). Only person(s) with the AOR role can submit applications in Grants.gov. Please review the [Intro to Grants.gov- Understanding User Roles and Learning Workspace – User Roles and Workspace Actions](#) for details on this important process. **Please note that the registration process can take a month or more for new registrants. Applicants must ensure that all registration requirements are met in order to apply for this opportunity through**

Grants.gov and should ensure that all such requirements have been met well in advance of the application submission deadline.

Contact [Grants.gov](https://www.grants.gov) for assistance at 1-800-518-4726 or support@grants.gov to resolve technical issues with Grants.gov. Applicants who are outside the U.S. at the time of submittal and are not able to access the toll-free number may reach a Grants.gov representative by calling 606-545-5035. The Grants.gov Support Center is available 24 hours a day 7 days a week, excluding federal holidays.

3. Application Submission Process

To begin the application process under this grant announcement, go to [Grants.gov](https://www.grants.gov) and click the red “Apply” button at the top of the view grant opportunity page associated with this opportunity.

The electronic submission of your application to this funding opportunity must be made by an official representative of your organization who is registered with Grants.gov and is authorized to sign applications for Federal financial assistance. If the submit button is grayed out, it may be because you do not have the appropriate role to submit in your organization. Contact your organization’s Ebiz point of contact or contact [Grants.gov](https://www.grants.gov) for assistance at 1-800-518-4726 or support@grants.gov.

Applicants need to ensure that the Authorized Organization Representative (AOR) who submits the application through Grants.gov and whose UEI is listed on the application is an AOR for the applicant listed on the application. Additionally, the UEI listed on the application must be registered to the applicant organization’s SAM.gov account. If not, the application may be deemed ineligible. Save completed application PDF file with two file names. Applicants should save the completed application package with two different file names before providing it to the AOR to avoid having to re-create the package should submission problems be experienced, or a revised application needs to be submitted.

4. Application Submission Deadline

Your organization’s AOR must submit your complete application package electronically to EPA through [Grants.gov](https://www.grants.gov) no later than January 16, 2024 11:59 PM ET. Please allow for enough time to successfully submit your application and allow for unexpected errors that may require you to resubmit.

Applications submitted through Grants.gov will be time and date stamped electronically. Please note that successful submission of your application through Grants.gov does not necessarily mean your application is eligible for award. Any application submitted after the application deadline time and date deadline will be deemed ineligible and not be considered.

C. Technical Issues with Submission

If applicants experience technical issues during the submission of an application that they are unable to resolve, follow these procedures **before** the application deadline date:

1. Contact Grants.gov Support Center **before** the application deadline date.
2. Document the Grants.gov ticket/case number.
3. Send an email with EPA-R-OCSPP-OPPT-FY2023-001 in the subject line to embodiedcarbon@epa.gov **before** the application deadline time and date and **must** include the following:
 - Grants.gov ticket/case number(s)
 - Description of the issue
 - The entire application package in PDF format

Without this information, EPA may not be able to consider applications submitted outside of Grants.gov. Any application submitted after the application deadline time and date deadline will be deemed ineligible and **not** be considered.

Please note that successful submission through Grants.gov or email does not necessarily mean your application is eligible for award.

EPA will make decisions concerning acceptance of each application submitted outside of Grants.gov on a case-by-case basis. EPA will only consider accepting applications that were unable to submit through Grants.gov due to [Grants.gov](#) or relevant [SAM.gov](#) system issues or for unforeseen exigent circumstances, such as extreme weather interfering with internet access. Failure of an applicant to submit prior to the application submission deadline date because they did not properly or timely register in SAM.gov or Grants.gov is not an acceptable reason to justify acceptance of an application outside of Grants.gov.

See Section IV.D and IV.E for all Application Materials

Appendix B: Examples of Projects that May Be Funded Under this Grant Program

Appendix B is intended to define project categories and provide examples of the range projects and activities that may be eligible for funding under this funding opportunity. See Section II.C. for description of Award Types.

A. Robust Data for EPDs

Description: Projects that contribute new and/or improve critical data, analysis or feedback for producing robust EPDs.

- Project examples include, but are not limited to:
- **Industry data.** Provide data that reflect industry distributions of inputs and outputs that can be used to build life cycle inventory unit process datasets for processes that are part of construction material/product value chains (upstream and downstream).
- **Industry data collection/aggregation tools.** Develop privacy-preserving tools for confidential data submission, collection and aggregation to support industry distributions for data points in a life cycle inventory dataset.
- **Data analysis.** Conduct technical/scientific evaluations of candidate life cycle inventory and life cycle impact assessment datasets that could be used in construction product EPDs including data sources used, life cycle inventory methodologies and assumptions, and data quality aspects.
- **Tools for data integration.** Develop tools or workflows to facilitate the incorporation of data from the Federal LCA Commons or associated open-source tools into EPD generators or associated LCA software.
- **Organize data user group.** Organize, convene, moderate and synthesize output from a Data User Group, composed of a representative set of stakeholders including, at a minimum, LCA data experts, EPD tool developers, PCR program operators, and industry associations to provide regular and continual feedback on data-related documents and datasets in development for potential use in EPDs.
- **Salvaged material data:** Develop methods and incentives for collecting primary, regionally specific deconstruction/salvage data including transportation distances and modes, recovery rates for reuse/recycling/energy recovery, and processing requirements.

B. Robust Product Category Rule (PCR) Standard Development, PCRs and Associated Conformity Assessment Systems

Description: Projects that encourage the development of robust, standardized PCRs including identifying what data needs to be collected for EPDs, how that data should be collected, how it should be reported in EPDs, and what transparency and verification needs to be in place to ensure credible EPDs.

Project examples include, but are not limited to:

- **PCR Standard development.** Development of a more comprehensive standard for construction material/product PCRs, including expectations and prescriptive instructions that could include: measuring primary data and emissions; using more facility and supply chain specific data; measuring and reporting material impacts across a product's life cycle; accreditation requirements for EPD verifiers; and, requirements for third party verification of EPDs.
- **Conformity assessment for PCRs.** Carry out conformity assessment activities for ensuring conformance of existing PCRs against relevant international standards, voluntary consensus standards, and/or other standards that are effective and otherwise suitable for the U.S. market, Program Operator General Program Instructions, PCRs, and any supplemental standard that is developed to support low embodied

carbon procurement (e.g., per the example project above). These activities can range from strengthening existing conformity assessment requirements for PCRs to developing a separate but complementary program that aligns with existing standards, to developing capacity and expertise of existing and/or new conformity assessment bodies to enable provision of these types of conformity assessment activities. Any new standards developed should consider aligning their development process with Section I of the [EPA's Framework for Assessing Environmental Performance Standards and Ecolabels for Federal Purchasing](#).

- **PCR updates and representation.** Improve, via midcycle updates or regular updating period, existing PCRs to align with potential additional criteria as determined by EPA to support a more reflective accounting and disclosure of environmental impacts associated with construction materials and products. Further, funding to support a more representative PCR committee to allow for small businesses, or other stakeholders who many not currently be represented on PCR committees to be seated accordingly.
- **New PCR development.** Develop new PCRs where current gaps exist for priority construction materials and products.
- **Salvaged material PCR development.** Develop new or modify existing PCRs that reflect the unique characteristics and variables of salvaged building materials (e.g., emissions associated with deconstruction/salvage activities), accounts for percent composition of salvaged material and allows comparison to newly produced or extracted materials. This could include convening salvage industry experts to gather guidance and develop recommendations.

C. Robust Tools & Resources to Support & Incentivize Development and Verification of EPDs

Description: Projects that contribute to the development of tools and resources to make it easier, faster, and more cost effective to produce robust EPDs.

Project examples include, but are not limited to:

- **Conformity assessment and verification of EPDs and related LCAs.** Develop activities for ensuring EPDs and related LCAs for construction materials conform to relevant PCRs and any complementary standards being developed. This could include capacity building of conformity assessment / accreditation program for verifiers of LCAs and EPDs. This could also take the form of additional resources, such as data collection forms, checklists, and tools for clear and transparent data in LCAs and EPDs.
- **LCA and EPD templates.** Develop an open source LCA model and EPD template that can be easily adopted by LCA practitioners, LCA software and EPD generators to reduce different and conflicting interpretations of PCRs.
- **Robust EPD tools.** Develop, enhance, or increase access to EPD generators and related tools to produce digitized/machine-readable and publicly available EPDs that conform to international, voluntary consensus, and/or other standards that are effective and otherwise suitable for the U.S. market and utilize, the LCA Commons, USLCI and facility-specific EPDs/LCIs from unit processes along the supply chain, and where applicable, integrate the algorithms for calculating the ENERGY STAR Energy Performance Score (EPS) from open source ENERGY STAR Energy Performance Indicators so an EPS can be generated automatically for plants that produce EPDs.
- **Salvaged material EPD generator.** Develop an EPD generator tool (modify existing or new) specifically for salvaged materials that accounts for regional variables, content percentage, and degree of processing.

D. EPD Development and Verification

Description: Projects that offer construction material and product manufacturers assistance in producing robust EPDs, or in which a construction material or product manufacturer is producing robust EPDs.

Project examples include, but are not limited to:

- **EPD Technical Assistance.** Provide technical assistance to manufacturers in developing EPDs (including industry-wide EPDs, and database enhancements if needed) and streamlining the collection of material inputs, production, energy, and emission related data across their facilities across a range of material producer size and firms that are producing EPDs for the first time.
- **Administering funding and/or reimbursement for the development of EPDs.** Administer funding for or the reimbursement of the development and verification costs of LCAs and EPDs.
 - **Industry-wide EPD Development.** Develop new and update existing industry-wide EPDs to conform with existing and any supplemental standards developed through EPA support of low embodied carbon activities. Such projects can include collecting data from manufacturers to develop industry-wide EPDs.
- **Update of EPDs under new criteria.** Development and publishing of improved EPDs under a new or updated PCRs, or with the intention to improve data quality and conformance with EPA criteria. This includes if a construction materials or product currently has an existing & valid EPD but that EPD was developed under a previous PCR or used less stringent data quality/specificity in its development.
- **Salvaged material EPDs.** Develop new EPDs for salvaged materials and products, including materials and products that may contain a mix of salvaged and newly extracted material.

Note: Recipients should not work with businesses that are not willing to provide information to support the reporting described in Section VI.C.

E. Robust EPD Data Platforms and Integration

Description: Projects that support EPD reporting, availability, and verification; support the standardization of disparate EPD systems; and support EPD integration into construction design and procurement systems.

Project examples include, but are not limited to:

- **Salvage materials marketplace integration.** Integrate EPDs for salvaged materials and products into new or modified digital marketplace(s) allowing for impact comparisons to similar newly produced materials or products. This could also include mapping and other components that facilitate acquisition of regionally available materials and addressing the time-sensitive nature of material acquisition.
- **WBLCA standardization & baselines.** Develop a study of current WBLCA use. Development of standard WBLCA methodology including setting baseline impacts, assumptions for life cycle stages, and WBLCA types to be used throughout phases of design vs. “as-built” conditions.
- **Whole building/project platforms.** Develop or refine tools that harness EPDs to measure, report, and compare whole building or whole project embodied carbon reduction strategies to baseline impacts of new construction. This could include whole building/whole project strategies such as alternative material comparison/selection, adaptive reuse, material-efficient design, minimum use of salvaged material, extended material replacement timelines (e.g., durability), and design for flexibility/adaptability/disassembly.
- **Support Buildings & Infrastructure as Material Banks.** Develop guidance and digital platforms for cataloguing EPDs and other construction material attributes at the whole project level that detail composition, connections, quality, function, past uses, and recoverability (recycle/reuse) to facilitate disclosure and preservation of environmental product data and to increase the likelihood of material reuse at the end of a building’s or infrastructure project’s life.

Appendix C: Project Narrative Example

The following example is provided to support applicants in preparing their Project Narrative submissions. The example provides instructions and guidance in italicized text that should be removed from the final application. While the use of this example is optional and applicants will not be penalized if they do not use this example format, it will help applicants assure that all the required components of the project narrative are addressed, and the project proposal aligns with threshold and merit evaluation criteria. Eligible applications will be evaluated and scored based on the applicant’s project narrative, which consists of application documentation listed under Section IV.E.

Disclaimer: This Project Narrative Example does not supersede the requirements in this announcement. Applicants must meet all criteria outlined under Section IV of the announcement.

Preparing the Narrative Submission

Text formatting and page limits: The project narrative cannot exceed **15** single-spaced pages with a minimum font size of 11.5. Any pages submitted in excess of the page limit will not be reviewed. **All** information requested below will count toward the 15-page limit **except** the itemized budget table, resumes of key staff and personnel, letters of support or partnership, and if applicable, the pass-through proposal for subaward management and/or a disclosure of conflict of interest, which should be submitted as separate attachments. The example provided below is the recommended format for the project narrative.

File Type: Applicants are strongly encouraged to combine their mandatory forms, project narrative, and cover page into one (1) Adobe .pdf document file. Rename and save the file as “[Organization] Project Narrative”.

Upload the one (1) Adobe .pdf file to the “Project Narrative Attachment” form in Grants.gov. The budget table should be uploaded as a separate document and will not count toward the 15-page project narrative limit. See the application submission guidance in Appendix A for more details.

Section I. Project Summary Page

Cover Page: Applicant & Proposal Information: *To assist in the review of applications, applicants are advised to complete the following chart with proposed grant details, removing the italicized text:*

Applicant and Proposal Information	
Project Title: <i>FY 2024– FY 2029 Reducing Embodied Greenhouse Gas Emissions for Construction Materials and Products</i>	
Funding Opportunity Number: EPA-R-OCSP-OPPT-FY2023-001	
Applicant Name: <i>Organization Name</i>	
Eligible Entity Type:	<i>Example: State, state entity, federally recognized tribe etc. [Note: See – Section III.A for a full list of eligible entities]</i>
System for Award Management (SAM) registration date:	<i>MM/DD/YYYY</i>
Unique Entity Identifier (UEI) Number:	<i>Number issued by SAM.gov</i>
Primary Contact	Administrative Contact (if applicable)

<p><i>Jane Doe</i> <i>Organization Name</i> <i>1234 General Drive</i> <i>Springfield, XX 00000</i> <i>Tel: 222-222-2222</i> <i>Email: jane.doe@state.us</i></p>	<p><i>John Doe</i> <i>Organization Name</i> <i>1234 General Drive</i> <i>Springfield, XX 00000</i> <i>Tel: 222-222-2222</i> <i>Email: john.doe@state.us</i></p>
EPA Funding Requested:	<i>Example: \$300,000</i>
Pass-Through:	<i>State whether the applicant plans to administer subawards through a pass-through cooperative agreement</i>
Geographic Area (Location where the work will be performed)	<i>Example: Any state/tribe</i>
Project Period	<i>Provide estimated beginning and ending dates</i>
Partners (if applicable)	<i>Provide partner organization names</i>
State the EPA Strategic Plan goal(s) and objective(s) which this proposal supports:	<p><i>Select 1 or more:</i></p> <p><i>Goal 1: Tackle the Climate Crisis</i></p> <ul style="list-style-type: none"> • <i>Objective 1.1: Reduce Emissions that Cause Climate Change</i> • <i>Objective 1.3: Advance International and Subnational Climate Efforts</i> <p><i>Goal 2: Take Decisive Action to Advance Environmental Justice and Civil Rights</i></p> <ul style="list-style-type: none"> • <i>Obj 2.2: Embed Environmental Justice and Civil Rights into EPA's Programs, Policies, and Activities</i> <p><i>Goal 4: Ensure Clean and Healthy Air for All Communities</i></p> <ul style="list-style-type: none"> • <i>Objective 4.1: Improve Air Quality and Reduce Localized Pollution and Health Impacts</i>

<p>Project Abstract – recommend fewer than 900 characters</p>
<p><i>This summary should include a brief description of the applicant's proposed approaches.</i></p>

All applications must contain the following (see also Section IV.E.):

Section II. Project Narrative Workplan: The workplan should provide the information below on how the applicant will implement and conduct the project and discuss how the proposal addresses each of the evaluation criteria in Section V of this announcement. The Narrative Proposal Work Plan must include:

- **Description of Proposal:** Provide a clear and detailed description of the project(s) and project goals including a description of how the project will meet the objectives of the grant program as described in Section I.B as well as how the projects relate to the Scope of Work and Eligible Projects under Section I.C. and Appendix C.

- **Strategic Plan Linkages:** Provide a clear and detailed explanation of how the proposed project addresses each goal and objective in Section I.E.
- **Project Workplan:** Provide a clear and detailed workplan including project tasks and subtasks, key personnel roles and responsibilities, milestones, and anticipated results.
- **Response to Threshold Criteria:** Demonstration of the **threshold criteria** included in Section III.C and III.D.
- **Response to Merit Evaluation Criteria:** Respond to **all merit evaluation criteria** included in Section V.A. (Applicant may use the format included below.)
- **Timeline and Project Estimate(s):** The timeline must include the following components: project tasks; anticipated dates (from start to completion of each task); milestone markers (including the timing and approaches used to follow up with business); a brief explanation for achieving project goals and objectives by the end of the project. If a proposal contains multiple projects, include an estimated cost per project.

Merit Evaluation Criteria

Applicants may organize their Project Narrative using the example below to help ensure they describe how their work will address the merit evaluation criteria. Please see [Section V.A.](#) of this NOFO for the merit evaluation criteria descriptions.

Applicants are encouraged to use the format below. Applicants that use a different format are encouraged to include the identical headers in the same sequence, thereby identifying the criteria being addressed (For example, Criteria 1a. Description of Proposed Project and Technical Assistance Approach). **Applicants that choose to use the formatting provided below should remove the italicized text prior to submitting their application. Note: Applicants can expand the response areas below where they need to include more content.**

Criteria 1: Strategy and Approach
1a. Strategy and Approach: Description of Proposed Project(s) and/or Technical Assistance Approach (weight of 7)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
1b. Strategy and Approach: Advancing Robustness of EPDs (weight of 13)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
1c. Strategy and Approach: Maximizing Efficiency and Reach Per Resources Requested (weight of 11)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
1d. Strategy and Approach: Prioritizing Material Categories and Material Types (weight of 12)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
1e. Strategy and Approach: Supporting Geographic Diversity of EPD Development (weight of 8)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
1f. Strategy and Approach: f. Supporting EPD Development Across Enterprises with Varied Production Volumes (weight of 5)

Criteria 1: Strategy and Approach
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
1g. Strategy and Approach: Advancing Equitable Workforce Development (weight of 3)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
1h. Strategy and Approach: Addressing Additional Environmental Impacts and/or Benefits (weight of 3)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
1i. Strategy and Approach: Ensuring Long-term Success (weight of 3)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
1j. Strategy and Approach: Leveraging Expertise and Furthering Standardization Through Partnerships (weight of 5)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>

Criteria 2: Reporting
2a. Reporting: Performance Results (weight of 8)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
2b. Reporting: Publish and Ensure Results are Available to the Larger Efforts (weight of 5)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>

Criteria 3: Programmatic Capability & Environmental Results Past Performance
3a. Programmatic Capability & Environmental Results Past Performance: Project Completion (weight of 3)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
3b. Programmatic Capability & Environmental Results Past Performance: Organizational Experience and Plan (weight of 4)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>
3c. Programmatic Capability & Environmental Results Past Performance: Staff Experience (weight of 4)
<i>Please describe how the proposed project meets this criterion as described in Section V.A.</i>

Criteria 4: Timeline (weight of 3)

Please provide a timeline that meets this criterion as described in [Section V.A.](#)

Criteria 5: Budget (weight of 3)

Please describe how the proposed project meets this criterion as described in [Section V.A.](#) Include your responses here and not in the budget table attachment. **The budget table should be submitted as a separate attachment, where it will not be counted toward the 15-page limit.** Whether using the example budget table, or another format, the information provided should be broken out by budget category. For further information on filling out this section, refer to the [Budget Development Guidance](#)

Note: The budget table provided as part of the applicant's proposal is separate from and is meant to supplement information provided on SF-424A, Budget Information – Non-Construction Programs. This form is noted in Section IV.D.1.

Criteria 6: Subaward Plan (for pass-through applications only) (weight of 5)

Please describe how the proposed project meets this criterion as described in [Section V.A.](#)

Section III. Anticipated Performance Results. Provide a well-conceived strategy for addressing the requirements and plan for achieving and reporting project results in Section VI.C.6. Identify the expected performance results, including those described in Section VI.C.6. of this announcement and describe how you will track and measure your progress towards achieving the expected results. Include qualitative and quantitative anticipated results when applicable.

Section IV. Programmatic Capability and Past Performance. Submit a list of federally and/or non-federally funded assistance agreements (assistance agreements include federal grants and cooperative agreements but not federal contracts) that your organization performed within the last three years (no more than 5 agreements, and preferably EPA agreements) and describe:

- **Past Performance – project management:** Provide a clear and detailed description of your past performance and outcomes in successfully completing and managing projects of similar size, scope, and relevance.
- **Past Performance – reporting:** Provide a clear and detailed description of your history of meeting the reporting requirements under previous assistance agreements. Demonstrate how you adequately and timely reported on your progress towards achieving the expected results under those agreements and if such progress was not being made, describe why not.
- **Organizational Capability:** Provide a clear and detailed description of the organizational experience and plan for timely and successfully achieving the objectives of the proposed project. This could include staff expertise/qualifications, staff knowledge, and resources or plan to obtain them, to successfully achieve the goals of the proposed project.

In evaluating applicants under these factors in Section V, EPA will consider the information provided by the applicant and may also consider relevant information from other sources, including information from EPA files and from current/prior grantors (e.g., to verify and/or supplement the information provided by the applicant). If

you do not have any relevant or available past performance or past reporting information, please indicate this in the application and you will receive a neutral score for these factors (a neutral score is half the weight available). If you do not provide any response for these items, you may receive a score of 0 for these factors.

ADDITIONAL COMMENTS

Use the remaining space to provide any additional comments or information on your application that has not been addressed above.