Reducing Embodied Greenhouse Gas Emissions for Construction Materials and Products Notice of Funding Opportunity - Public Webinar



November 2023





Disclaimer: The information presented in this webinar does not supersede the statute, regulations, or Notice of Funding Opportunity.

Zoom Housekeeping

- Audio is available through your computer's speakers or by telephone
- All attendees have been muted upon entry to minimize background noise
- Use the Chat box to contact Zoom Support or email <u>Morgan.Collins@erg.com</u> with technical issues
- Type questions into the Q&A box in the bottom dashboard. You may type questions at any time during the presentation





Grant Program Objectives

- 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 supporting States, Indian tribes and non-profit organizations that assist these businesses
- Spur market demand for construction materials and products that have lower embodied greenhouse gas emissions



Webinar Objectives and Agenda

Webinar Objectives

- Provide an overview of the Notice of Funding Opportunity (NOFO) for Reducing Embodied Greenhouse Gas (GHG) Emissions for Construction Materials and Products funded by the Inflation Reduction Act 60112
- Answer questions about the application and review process to help potential applicants submit high quality applications for funding consideration

Agenda

- Grant Program Objectives
- Background
- Grant Program Overview and Timeline
- Eligible Projects
- Eligible Applicants
- Award Types
- Application Review: Merit Evaluation Criteria
- Preparing Applications
- Review and Selection Process
- Q & A Session
- Resources



EPA Low Embodied Carbon Construction Material Program Approach

Key elements to reducing embodied carbon from construction materials



What is an Environmental Product Declaration?

Why are EPDs important in reducing embodied carbon of construction materials?

....but without a lab test for all impacts and Discloses the "lifecycle" environmental without the "recommended values" impacts of a product similar to a nutrition label Up to "buyer" to specify thresholds trition Facts ENVIRONMENTAL IMPACTS Serving Size 2/3 cup (55g) Servings Per Container 8 **Declared Product:** Plant name **Amount Per Serving** Compressive strength: 3000 PSI at 28 days Calories 230 Calories from Fat 70 % Daily Value* Declared Unit: 1 m³ of concrete Total Fat 8g 129 5% Saturated Fat 1g Global Warming Potential (kg CO2-eq) 281 Trans Fat 0g Ozone Depletion Potential (kg CFC-11-eq) 7.8E-6 Cholesterol Omg % Acidification Potential (kg SO2-eg) 0.84 Sodium 160mg Eutrophication Potential (kg N-eq) 0.37 7% 29 Total Carbohydrate 37g 16.9 Photochemical Smog Creation Potential (kg O3-eq) 16% **Dietary Fiber 4g** Sugare 12g ⊞n TRANSPORT MANUFACTURING TRANSIT CONSTRUCTION DISPOSAL EXTRACTION USE (A2) (A3) (A5) **(B)** (A1) (A4) (C)



Advancing a Robust EPD System

A main component of EPA's Low Embodied Carbon Construction Material Program approach

ROBUST ENVIRONMENTAL PRODUCT DECLARATIONS (EPDs)



"Robust" – in relation to data, Product Category Rules (PCRs), EPDs and associated tools and resources – refers to the following characteristics:

- Conformance with international standards, voluntary consensus standards, and / or other standards that are effective and otherwise suitable for the U.S. market
- Third-party verification
- Product, 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 global warming potential (GWP)
- Interoperability via digitization
- Transparency via disclosure of background dataset(s), upstream data source(s), and uncertainty/assumptions
- Potentially other characteristics as the market develops



Timeline of Grant Program Rollout

- September 28, 2023 NOFO posted
- November 14, 2023 Next Outreach Webinar
- **November 15, 2023** Optional Notice of Intent due (extended from Oct 27)
- January 16, 2024 Applications due (extended from Jan 8)
 - Late January 2024 Applicants expected to be notified of threshold ineligibility
 - Notifications of selections expected
- July/August 2024 Awards expected
- September 2024 Projects anticipated to begin
- September 2029

• May/June 2024

Expected completion of projects



Scope of Work and Eligible Projects

- Advance standardization and transparency in EPDs
- Support procurement decisions accounting for embodied carbon of construction materials and products
- Demonstrate how applicant 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
- Amplify EPD educational resources





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

EXAMPLE PROJECTS

- Data collection of upstream and downstream flows related to a specific material for submission for inclusion into Federal LCA Commons, and a data collection/aggregation tool to support the maintaining of privacy in data collection
- Cooperative Agreement organizing a data user group to focus on identifying and improving the data in the Federal LCA Commons*

*A central point of access to a collection of data repositories for use in Life Cycle Assessment - <u>www.lcacommons.gov</u>





Project Categories

Funded projects are expected to fall under five broad categories:

- A. Robust Data for EPDs
- B. Robust PCR Standard Development, PCRs, & Associated Conformity Assessment Systems
- C. Robust Tools & Resources to Support & Incentivize Development & Verification of EPDs
- D. EPD Development
- E. Robust EPD Data Platforms & Integration

Salvage and Reuse project examples are found in each of the 5 project categories





Project Category: 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

- Mid, or normal, cycle updates to PCRs that yield Robust PCRs and include the payment of small businesses to join PCR committees (EPA requirements will be outlined in the Terms & Conditions)
- New PCR development where an existing gap is found
- Building a new PCR referencing updated construction material PCR(s), focused on construction product category
- Development of a Salvage Material PCR to account for the environmental impacts of salvage materials



Project Category: 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

- Conformity Assessment activities and tools to verify EPDs against standards and PCRs
- Cooperative Agreements for template development for open source LCA Models and/or EPD standardized formatting
- Development of industry-wide available EPD generation tools to shorten the time to produce an EPD





Project Category: 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

- EPD Technical Assistance to aid manufactures and producers in creating EPDs and collecting needed data
- Funding/Reimbursement for the development of [x] amount of EPDs
 - For industry wide tools, funding and access must be available to all producers regardless of association membership
- Industry-wide EPD Development and Benchmark establishment
- Updating of existing EPDs to conform to new EPA criteria
- Updating of existing EPDs to align with an updated PCR



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

- Whole building / whole 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



Project Category: Salvaged and Reused Material

Salvaged material data	Develop methods and incentives for collecting primary, regionally-specific deconstruction/salvage data	
Salvaged material PCR development	Develop new or modify existing PCRs that reflect the unique characteristics and variables of salvaged building materials	
Salvaged material EPD generator	Develop an EPD generator tool specifically for salvaged materials	
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	
Salvage material marketplace integration	Integrate EPDs for salvaged materials and products into new or modified digital marketplace(s)	
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 facilitate disclosure and increase the likelihood of material reuse at a building's end of life	



Eligible Applicants

Businesses that manufacture, remanufacture, and refurbish construction materials and products, and States, Indian Tribes, and nonprofit organizations <u>that will support such businesses</u>:

- Businesses (for profit or nonprofit) that manufacture, remanufacture, or refurbish construction materials and products
- States (including the District of Columbia and U.S. Territories) and any agency or instrumentality thereof
- Indian tribes
- Nonprofits
- Public or nonprofit Institutions of Higher Education
- 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
- EPA strongly encourages all eligible applicants identified in Section III.A, including minority serving institutions (MSIs), to apply under this opportunity



Ineligible Applicants

Ineligible applicants include the following:

- 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, and proprietary colleges, universities and trade schools)
- Local governments as defined in 2 CFR § 200.1





Ineligible Activities

If your application includes any of these <u>ineligible activities</u>, <u>that portion</u> of the application will not be considered:

- 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 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.)



If your application includes any of these <u>ineligible activities</u>, that portion of the application will not be considered:

- Projects that fund the physical act of construction/deconstruction or procurement of construction materials/products
- Proposed projects which take place outside the U.S., a U.S. Territory, or Tribal land

Note: Restrictions on use of EPA funding for ineligible activities apply to subrecipients





Threshold Eligibility Criteria

Applications must:

- Be from eligible applicants (Section III.A)
- Comply with submission instructions
- Be submitted through Grants.gov or an accepted alternative method
- Adhere to 15-page limit which includes cover page and project narrative
- Be submitted on time, by the due date of January 16th, 2024, by 11:59pm ET

Additionally, applications must:

- Adhere to the statutory criteria of the IRA Sec. 60112
- Link to EPA FY2022-26 Strategic Plan: Specify how the grant activity is linked to and supports at least one of the goals and one of the objectives
- Not include ineligible activities or those activities will not be considered for funding
- Take place within the U.S., a U.S. Territory, or on Tribal land
- Request funding within the range of \$250,000 or \$10,000,000
- Include a project period of performance that is not greater than 5 years





Award Types

- The applicant will determine whether they plan to apply as a Pass-through Entity or for a Direct Grant
- Applicants will be ranked in three separate ranking lists based on funding ranges outlined in Section II.B and below
- Awards will be considered for eligible projects in **both** categories within **each** subrange
- Based on merit evaluations, awards will be made from the top ranked from **each** list
- EPA reserves the right to make no awards in any of the subranges below

Pass-through/Cooperative Agreements	Direct Grant and/or Cooperative Agreements
\$250,000 to \$750,000	\$250,000 to \$750,000
\$750,000 to \$5,000,000	\$750,000 to \$5,000,000
\$5 to \$10 million	\$5 to \$10 million





Award Types: Direct Grant and/or Cooperative Agreements

- To eligible entities to directly carry out the proposed work
- Would <u>**not</u>** include a plan to manage a subaward program</u>
- If there are eligible entities who would like to partner on specific projects, 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
- * 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

Direct Grant and/or Cooperative
Agreements
\$250,000 to \$750,000
\$750,000 to \$5,000,000
\$5 to \$10 million





Award Types: Pass-through Cooperative Agreements

- Limited to subawards for assistance in EPD development and verification activities
- Applicant must identify which construction material sector(s) they intend to provide subawards to and proposed subaward ranges
- 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
- Subrecipients must also be eligible entities under this NOFO
- 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

Pass-through Cooperative Agreements
\$250,000 to \$750,000
\$750,000 to \$5,000,000
\$5 to \$10 million

Collaborator Connections – Coming Soon!

- Since some EPD assistance projects may be less than \$250,000, so ineligible as a standalone project, or so large/diverse that there could be multiple entities collaborating, EPA is providing a way for applicants to connect and collaborate with other entities
- An optional form is being created to help interested entities identify each other
- Please complete the optional form by December 8, 2023
- Note:
 - By completing the form, you consent to sharing your contact information with everyone else who completes the form
 - EPA will not match you with anyone; you will need to reach out to others
 - In the event of a collaboration among multiple entities, there would need to be one lead applicant who would be responsible for management and submission of the grant application

Coming soon! Check the Grant Program website for a link to the form in the coming days.



Application Review: Merit Evaluation Criteria

Criterion		Description	Weight
1. Strategy & Approach	a.	Description of Proposed Project(s) and/or Technical Assistance Approach	7
	b.	Advancing Robustness of EPDs	13
	c.	Maximizing Efficiency and Reach Per Resources Requested	11
	d.	Prioritizing Material Categories and Material Types	12
	e.	Supporting Geographic Diversity of EPD Development	8
	f.	Supporting EPD Development Across Enterprises with Varied Production Volumes	5
	g.	Advancing Equitable Workforce Development	3
	h.	Addressing Additional Environmental Impacts and/or Benefits	3
	i.	Ensuring Long-term Success	3
	j.	Leveraging Expertise and Furthering Standardization Through Partnerships	5





Application Review: Merit Evaluation Criteria (continued)

Criterion	Description		Weight
2. Reporting	a.	Quality of reporting plan as described in Section VI.C. as relevant to the proposed project	8
	b.	Publish and ensure results as described in Section VI.C.6. are available to the larger efforts	5
3. Programmatic Capability & Environmental Results Past Performance	a.	Project Completion and Reporting History	3
	b.	Organizational Experience and Plan	4
	c.	Staff Experience	4
4. Timeline			3
5. Budget			3
6. Subaward Plan (only applicable to pass-through applications)			5



Application Review: Merit Evaluation Criteria (continued)

- Applications will be evaluated and scored based on how well they address the merit evaluation criteria
- Please note that certain sections are weighted more than others
- Pass through entities will be scored out of 105, all other applicants out of 100



Merit Evaluation Criteria: Reporting Plan

- 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
- 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



Merit Evaluation Criteria: 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 <u>www.section508.gov</u>) 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





Merit Evaluation Criteria: Advancing Equitable Workforce Development

Applicants are encouraged to outline strategies for expanding diversity and representation within their workforce, such as:

- Paid internships or fellowships for undergraduate or graduate students, including students from disadvantaged communities or those enrolled at Minority Serving Institutions
- Paid internships or training opportunities for students at community colleges
- Conduct outreach about your work to high schools and higher education institutions, especially in underserved communities, to expand awareness of career opportunities in reducing embodied GHGs
- Have clear hiring goals for your organization and/or this project that emphasize diversity and representation

- Invest in supportive services for employees, such as childcare and long-term care, that address common barriers to employment
- Invest in a formal company or project mentorship program focused on professional and skills development for employees from underrepresented backgrounds or with barriers to employment
- Conduct pay equity audits by gender, race, and ethnicity
- Communicate to employees the organization's paysetting practices and structures



Preparing Applications

Start early!

- Applicants must have an active SAM.gov account
 - If you do not have one, you will create an account using login.gov to complete your SAM.gov registration
 - This process includes obtaining a Unique Entity ID (UEI)
 - Requires assertions, representations and certifications, and other information about your organization
 - Review the Entity Registration Checklist for details on this process
- Applicants must have an active Grants.gov account
 - If you do not have one, register!
 - The registration process for Grants.gov may take a month or more to complete. Please register early!
- For more information on how to apply for EPA grants please see EPA's How to Apply for Grants:
 - Website: <u>https://www.epa.gov/grants/how-apply-grants</u>



Preparing Applications: Content and Forms

Mandatory Forms and Documentation

- 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: <u>www.epa.gov/grants/tips-completing-epa-form-4700-4</u>
- EPA Key Contacts Form 5700-54
- Grants.gov Lobbying Form

Optional Attachments

- Letters of Support
- Disclosure of Conflict of Interest



- Other Attachment Form Use this form from Grants.gov to attach:
 - Itemized Budget Table
 - Resumes of Key Staff and Personnel
 - Pass-Through Proposal for Subaward Management (if applicable)
 - Partnership Agreements (if applicable)

€>EPA



Preparing Applications: Project Summary

Project Summary is recommended not to exceed one page and should include:

- Project Title, Funding Opportunity Number, Applicant Name
- Eligible Entity Type: Identify your organization type from Section III.
- SAM.gov registration date
- UEI Number: List the organization's Unique Entity Identifier number issued by SAM.gov
- Contact Information: Include name, title, address, email address, phone number
- Funding Amount Requested

- Pass-Through: State whether the applicant plans to administer subawards through a passthrough cooperative agreement
- Project Geographic Area
- Project Period: Provide estimated beginning and ending dates
- Partner(s), if applicable
- State the EPA Strategic Plan goal(s) and objective(s) which this proposal supports
- Project Abstract



Preparing Applications: Project Narrative

- Describe the work to be performed during the performance period
- Explicitly describe the proposed project(s) and 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

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 <u>Section V.A.</u> 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). <u>Applicants that choose to use the formatting provided below should remove the italicized text prior to submitting their application. Note:</u> 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)	
Please describe how the proposed project meets this criterion as described in <u>Section V.A.</u>	
1b. Strategy and Approach: Advancing Robustness of EPDs (weight of 13)	
Please describe how the proposed project meets this criterion as described in <u>Section V.A.</u>	
1c. Strategy and Approach: Maximizing Efficiency and Reach Per Resources Requested (weight of 1	l)
Please describe how the proposed project meets this criterion as described in <u>Section V.A.</u>	
1d. Strategy and Approach: Prioritizing Material Categories and Material Types (weight of 12)	
Please describe how the proposed project meets this criterion as described in <u>Section V.A.</u>	
1e. Strategy and Approach: Supporting Geographic Diversity of EPD Development (weight of 8)	
Please describe how the proposed project meets this criterion as described in <u>Section V.A.</u>	
1f. Strategy and Approach: f. Supporting EPD Development Across Enterprises with Varied Production Volumes (weight of 5)	





Preparing Applications: Project Narrative Workplan

- Response to Merit Evaluation Criteria: Respond to all merit evaluation criteria included in Section V.A.
- Timeline and Project Estimate(s): project tasks; anticipated start and end dates of each task); milestone markers; 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
- Project Narrative Example
 - Provided in Appendix C to help applicants efficiently and effectively address and organize the required elements of the Project Narrative and Merit Evaluation Criteria
 - Use of the example will also help expedite EPA's review of grant applications
 - Applicants are encouraged but not required to use this Project Narrative Example





Preparing Applications: 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





Preparing Applications: Itemized Budget Table

- Uploaded as a separate document on Grants.gov (will not count toward the 15-page limit)
- The <u>Budget Table</u> must account for the full period of performance of federal grant funding
- Consider the costs of the entire project implementation including reporting on performance measures
- 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
- MUST match the funds requested on the SF424 and the SF424A
- Provide details on any contracts and subawards that have been budgeted (including the types of activities that will be supported and procurement plan)
- 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.



Review and Selection Process

- All applications will be evaluated for eligibility using the threshold eligibility criteria
- Review panel(s) will review, score, and rank all eligible applications that pass the threshold eligibility review based on the merit evaluation criteria
- Applicants will be ranked in three separate ranking lists based on funding ranges outlined below
- 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, ensuring both direct and pass-through tracks are considered
- Selection decisions are targeted for Spring 2024 and awards targeted in Summer 2024





Q & A Session



Resources & Program Contact Information

Program Information

- Reducing Embodied Greenhouse Gas Emissions for Construction Materials and Products Grant Program website: www.epa.gov/greenerproducts/grantprogram-reducing-embodied-greenhouse-gasemissions-construction-materials-and
- **NEW!** NOFO FAQs are posted on the EPA site above!
- Notice of Funding Opportunity:

www.grants.gov/web/grants/viewopportunity.html?oppId=350373

Program Contact Information

- Sign-up for EPA's Low Embodied Carbon email list: <u>www.epa.gov/greenerproducts/forms/contact-us-about-greener-products-and-services</u>
- Submit additional questions to: <u>embodiedcarbon@epa.gov</u>

