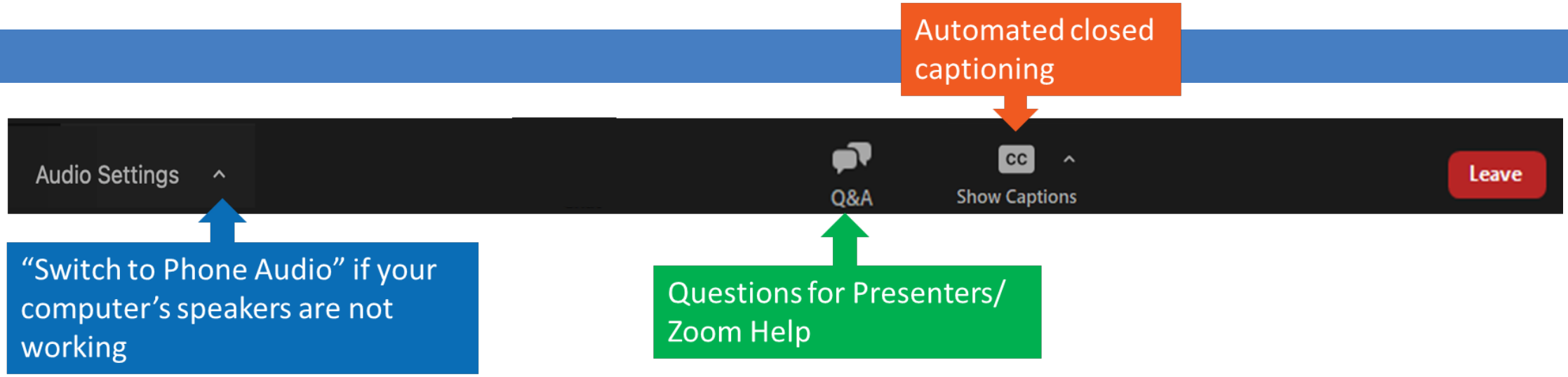
EPA's Efforts to Enhance Product Category Rules for Environmental Product Declarations

Public Webinar

March 2024

Webinar Logistics



- **To ask a question**: Type your question in the Q&A Box for the moderators to see. We will respond to frequently asked questions as time permits at the end of the webinar.
- **Technical difficulties**: If you are having technical difficulties, please send a message through the Q&A Box or email paige.weiler@erg.com and the Host will assist you.
- **Closed captioning** is available by clicking the "CC" button in your control panel
- **Recording**: Please note that we are recording this webinar and will make it available via EPA's website within a few weeks.

Agenda

Intros/Logistics/Polls
Joy Onasch, ERG

Context: EPA's label program and PCRs
Alison Kinn Bennett, EPA

Enhancing PCRs
Danny Macri, EPA

EPA's Draft PCR Criteria
Peter Bacas, EPA

Avoiding Risks Through Voluntary Consensus Standards Processes
Elise Owen, EPA

Frequently Asked Question on EPA's Draft PCR Criteria
Panel Discussion

Presenters

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Environmental Policy Analyst
OAR, EPA

Elise Owen
Standards Executive
OP, EPA

Peter Bacas
Environmental Protection Specialist
OCSPP, EPA

OCSPP-Office of Chemical Safety and Pollution Prevention
OAR-Office of Air and Radiation
OP-Office of Policy

Poll Question 1

What best represents your role in supporting procurement of low embodied carbon construction materials? *We know some of you wear multiple hats*…. (Select all that apply.)

- Academic/Researcher
- Architect/Engineer/Designer
- Construction Company
- EPD Verifier
- Government – local
- Government – state
- Government - federal
- LCA/EPD Consultant
- Manufacturer
- NGO
- PCR/EPD Program Operator
- Trade Association
- Other

Poll Question 2

- How familiar are you with the role of Product Category Rules in developing EPDs?
  - Very
  - Somewhat
  - Limited understanding
  - Not familiar at all

Poll Question 3

- How familiar are you with EPA's Draft PCR Criteria for the label program?
  - Have read it thoroughly and drafted comments!
  - Started reading and considering comments
  - Have glanced over
  - Not yet familiar

Guiding Federal Policy

IRA provisions for reducing embodied carbon – many agencies' efforts depend on EPA's work

Sec #	Agency	Funding	Purpose	Funds expiration
60116	**EPA**	**$100M**	**To develop (*with GSA and DOT-FHWA*) a program to identify and label construction materials/products that have substantially lower embodied carbon based on EPDs**	**9/30/26**
60112	**EPA**	**$250M**	**To develop a program to support reporting and measurement of embodied carbon of construction materials/products (grants, technical assistance, etc.) via EPDs**	**9/30/31**
60503	GSA Federal Buildings Fund	$2.15B	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***)	9/30/26
60506	DOT FHWA	$2B	To reimburse/incentivize eligible recipients for use of construction materials/ products that have substantially lower embodied carbon (***as determined by EPA***)	9/30/26
30002	HUD	$837.5M	For direct loans and grants to improve climate resilience of affordable housing, including low emission building materials/processes	
70006	FEMA		May provide financial assistance for costs associated with low carbon materials	

Background

What is an Environmental Product Declaration (EPD)? What are Product Category Rules (PCRs)?

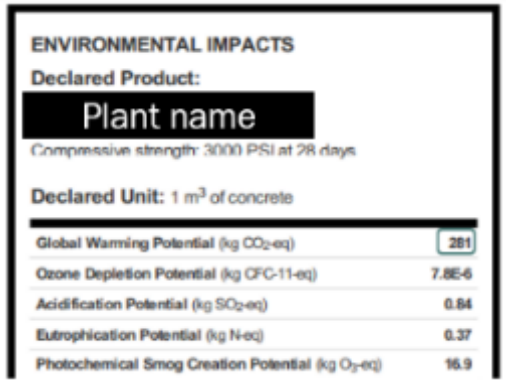
Environmental Product Declaration (EPD)

- 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.

Product Category Rules (PCRs)

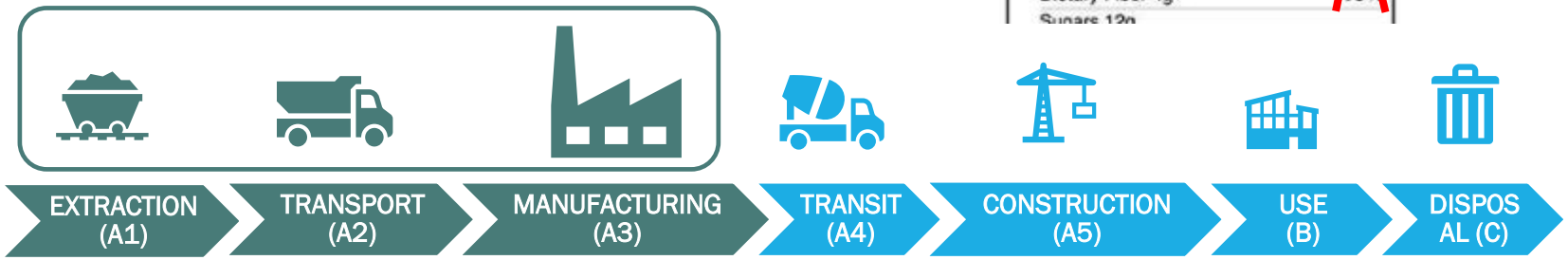
- A set of specific rules, requirements, and guidelines for developing EPDs for one or more product categories.

An EPD discloses the "lifecycle" environmental impacts of a product similar to a nutrition label



….but without a lab test for all impacts and without the "recommended values"

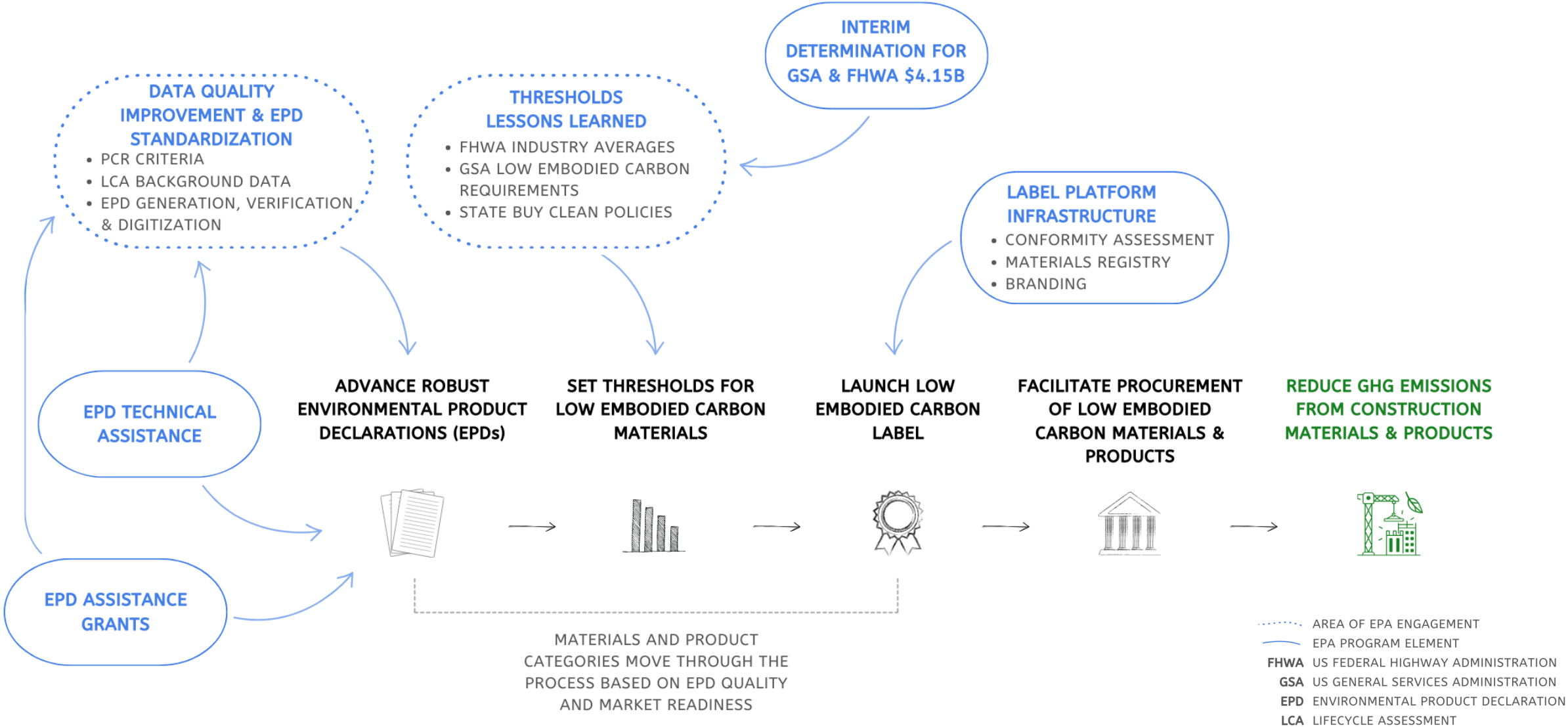
Up to "buyer" to specify thresholds



EPA

EPA's Low Embodied Carbon Construction Materials Program Approach

Key elements to facilitating procurement of lower embodied carbon construction materials and products

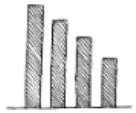


The Label Program Approach

A phased approach to ensure data quality of labeled materials

ADVANCE ROBUST ENVIRONMENTAL PRODUCT DECLARATIONS (EPDs)

SET THRESHOLDS FOR LOW EMBODIED CARBON MATERIALS



LAUNCH LOW EMBODIED CARBON LABEL

Phase I: Data Quality Improvement

- Determine PCRs meeting EPA's PCR Criteria
- Draw on ongoing data improvements to LCA Data Commons & fill existing data gaps
- Collect third party verified EPDs developed under approved PCRs

Phase II: Threshold Setting

- Develop thresholds for each material/product type considering performance requirements, regionality and viable industry averages
- Finalize thresholds informed by stakeholder input via NOI

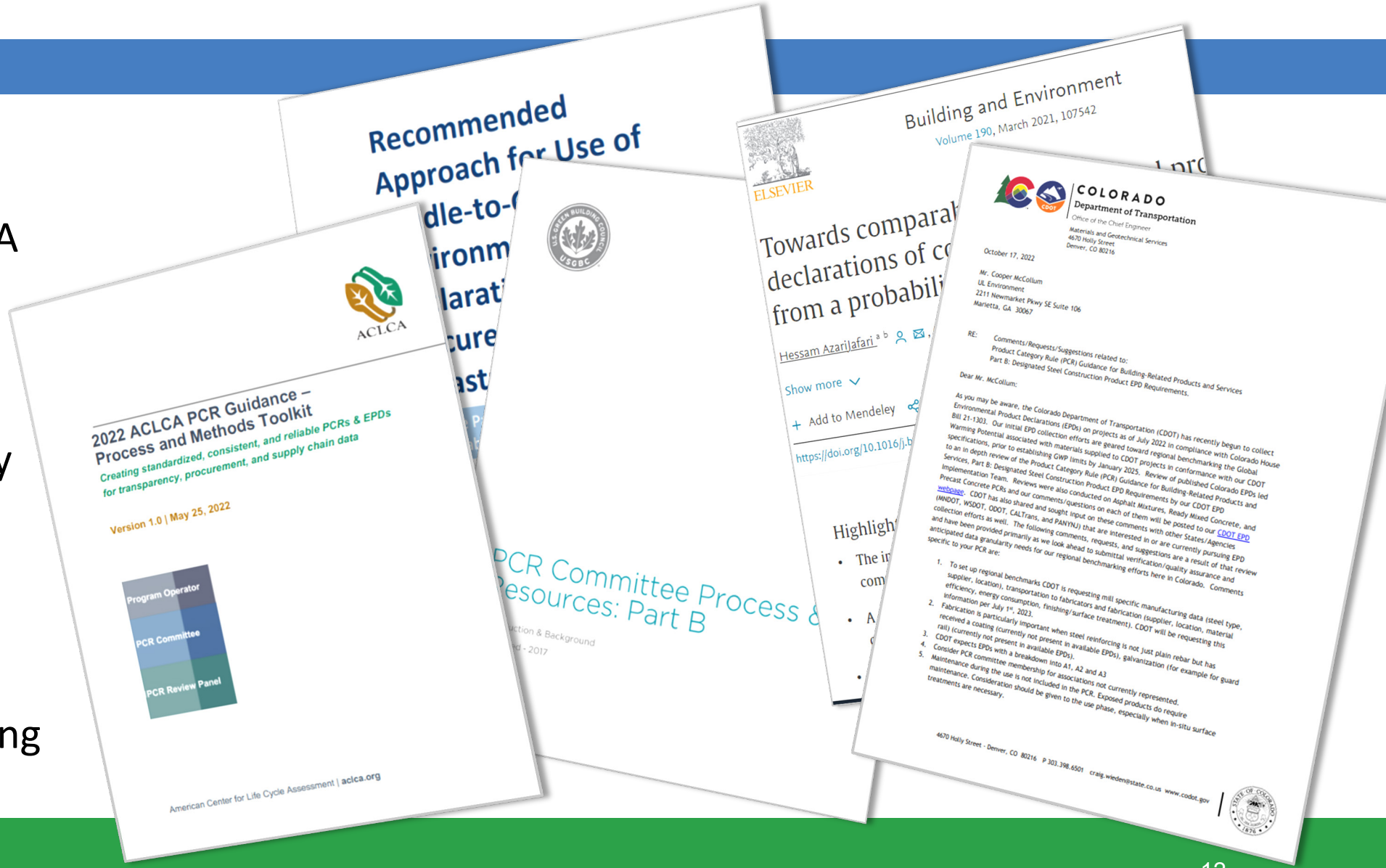
Phase III: Labeling

- Certify materials/products meeting thresholds using EPDs
- Launch publicly accessible registry of certified materials/products
- Highlight certified materials in other platforms, federal programs, and procurement policies

Policies & Programs that Inform Our Work

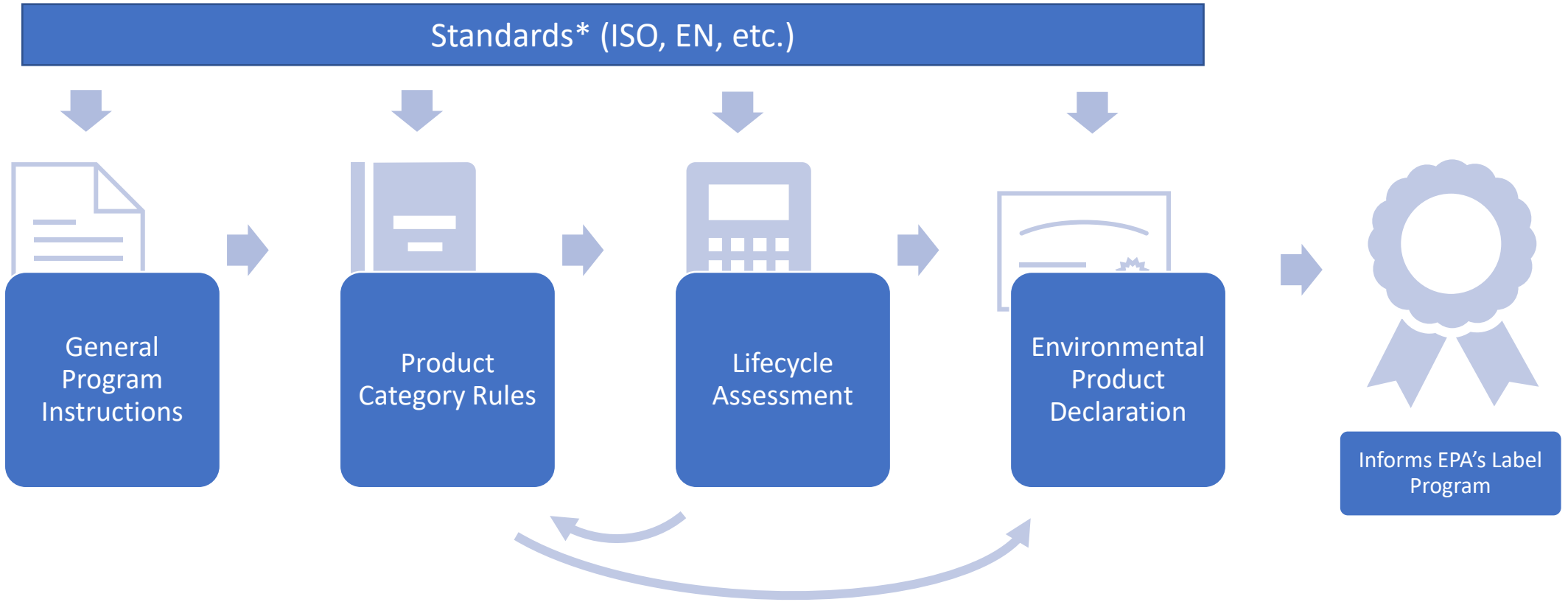
Experience and expertise that are informing EPA's PCR efforts, including the draft PCR Criteria

- Supplemental voluntary guidance, including from ACLCA and IDDI
- Federal & State Buy Clean Programs
- USG Standards Policy (NTTAA)
- Academic papers, white papers
- Stakeholder engagement, including EPA 2023 RFI



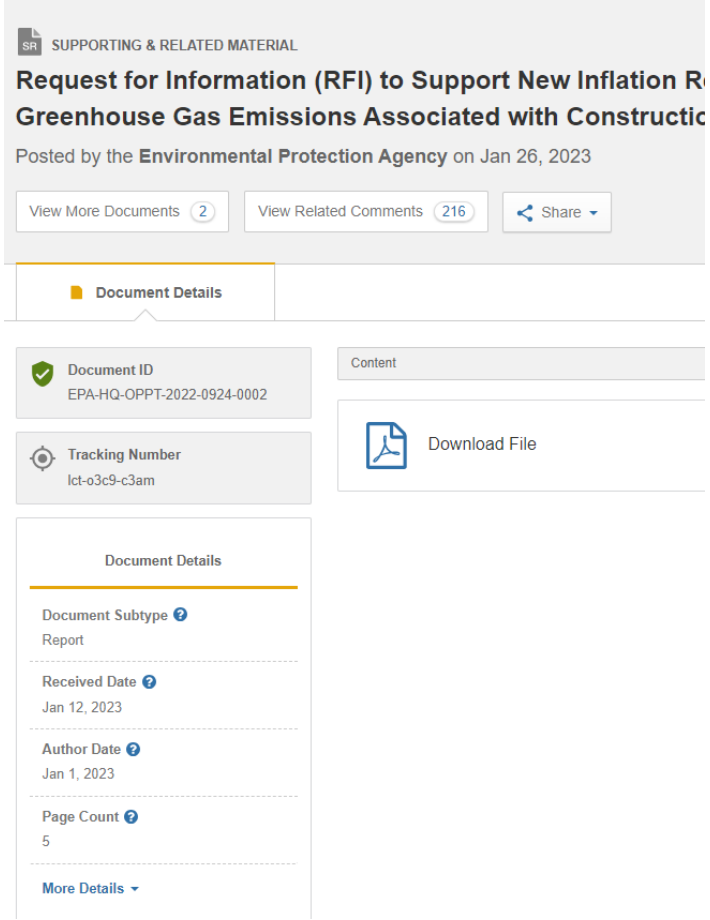
Summary of PCR-Related RFI Comments

Steps in product embodied carbon disclosure



EPA Public Request for Information Public Comment

- On Jan. 19, 2023, EPA issued a Request for Information on its low embodied carbon activities.
- Over 40 questions
- Example Question: How might EPA grants/cooperative agreements improve and harmonize PCRs and support the development of a conformity assessment/verification program for PCRs?
- *See all 200+ comments: https://www.regulations.gov/docket/EPA-HQ-OPPT-2022-0924/comments*



RFI Feedback: Key Stakeholder Comments on PCR and EPD Enhancements

PCRs need to be **sufficiently prescriptive** to ensure that EPDs developed by different practitioners…are comparable

There is no body that …**coordinates program operators**…

…follow the **ACLCA PCR Guidance**…

… require **facility- and supply-chain-specific data** for key processes...

…update existing PCRs to meet certain **criteria** agreed upon …

... EPDs should have **standardized fields** and units to ensure consistency...

... Fund creation of a '**Part A**' for use across all program operators ...

... EPDs should **record** the type of **background datasets** used...

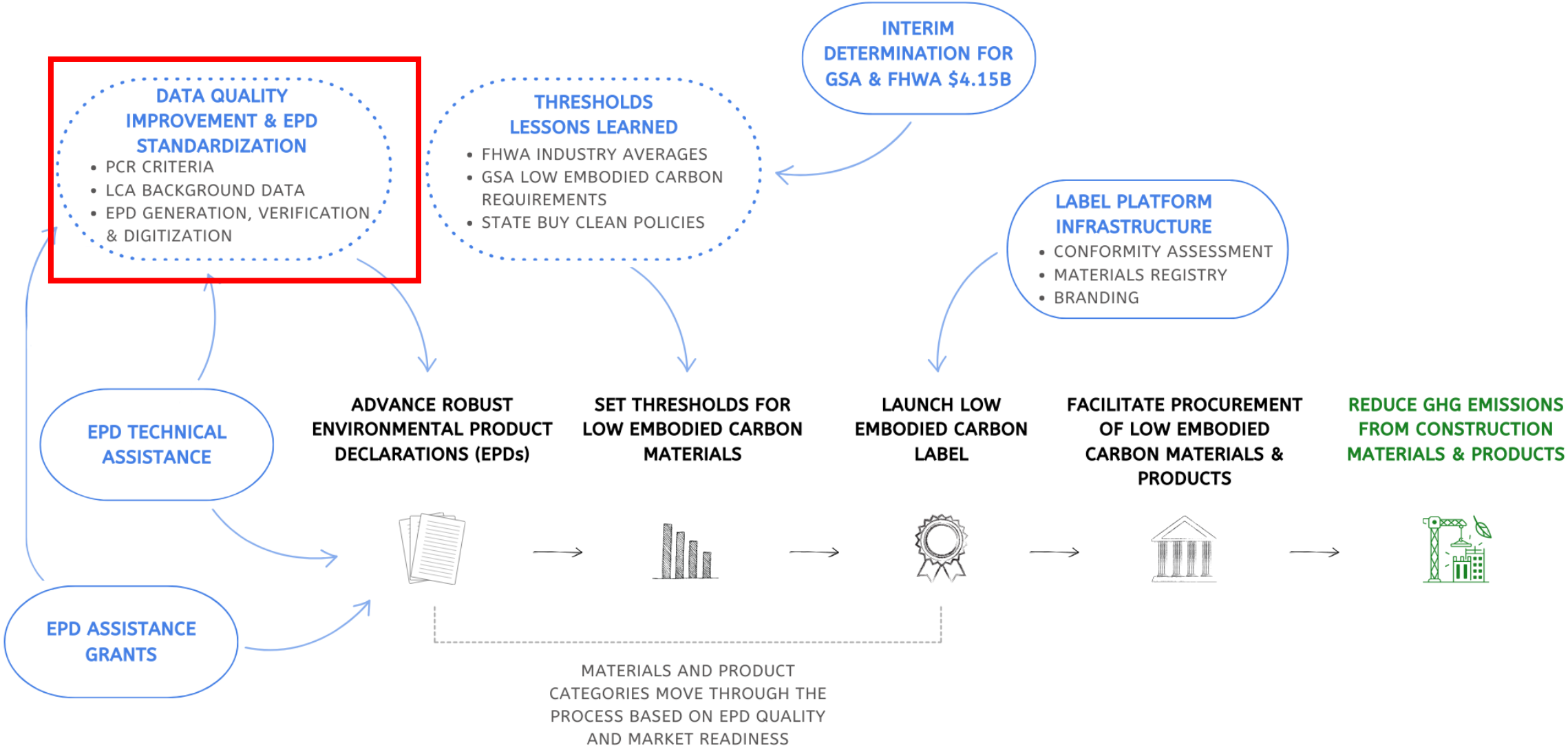
... report **statistical data** to represent the spread of performance …

EPA's Efforts on PCR Improvement To Date

- 2013: Guidance for Product Category Rules with ACLCA
- 2022: Framework for Standards, Specifications, and Ecolabels
- 2022: Provided comments to ACLCA PCR Guidance of 2022
- 2023: RFI on EPA's IRA Embodied Carbon Programs, including PCRs
- 2023-2024: UNIDO's IDDI – PCR Harmonization; USG comments submitted
- 2022-Present: Staff representing EPA on various PCRs for Construction Materials and Products
- 2023: Organized the Interagency PCR Workgroup

EPA Approach to Enhancing PCRs

EPA Approach to Enhanced PCRs going forward



EPA Approach to Enhanced PCRs going forward

Federal participation in PCR Committees

- Prioritize enhancing the transparency, standardization and reporting criteria of EPDs
- EPA directed to support via Inflation Reduction Act

Product Category Rules (PCR) & Standards Engagement

Where USG is involved

Product Category Rules Committees

- Asphalt Additives Guidance*
- Asphalt Binders*
- Asphalt Emulsions*
- Concrete (Ready-Mix)*
- Steel Construction Products*
- Architectural Coatings*
- Gypsum Panel Products*
- Agricultural Products*
- Thermal Insulation*
- Cements that Require Carbonation Curing*
- Asphalt Mixtures+
- SCMs*
- Fenestrations Assemblies+

Standards Committees

- ACLCA PCR Guidance and Addendum
- IDDI PCR Harmonization Guidance
- ASHRAE 189.1
- LEEDv5 MR TAG
- ISO TC 207

Other Engagements

- Plans to convene PCR committees and program operators to facilitate alignment on key issues (e.g., emissions allocation, standards process)

**PCR Committee Member*
+Submitted Comments Only

Product Category Rules (PCR) & Standards Engagement

Where USG is involved-List on EPA Website

- See where USG staff participate
- See when PCR committees are seeking public participation or comments

Voluntary Consensus Standards CONTACT US

- Voluntary Consensus Standards Home
- About Voluntary Consensus Standards
- Role of Agency Standards Executives
- EPA Use of Standards
- EPA Participation in Standards
- **Product Category Rule Standards and Related Initiatives**

Product Category Rule Standards and Related Initiatives

In the interest of enhancing transparency and information-sharing, OMB Circular A-119 encourages federal agencies to advise the public about ongoing or planned participation in standards development activities when doing so to address issues of national priority.

EPA and other federal government agencies are participating in Product Category Rule standards and related initiatives in support of EPA's Low Embodied Carbon Construction Materials/Environmentally Preferable Purchasing program. EPA has developed a detailed table, USG PCR and Related Initiative Involvement (pdf) (103.2 KB) , of the U.S. Government's participation. A summary is provided in the table below.

Material/Topics	PCR/Resource Name	Status
Asphalt		

https://www.epa.gov/vcs/product-category-rule-standards-and-related-initiatives

EPA Approach to Enhanced PCRs going forward

Federal participation in PCR Committees

- Prioritize enhancing the transparency, standardization and reporting criteria of EPDs
- EPA directed to support via Inflation Reduction Act

Interagency PCR Coordination Group

- Ensures learning across agencies
- Incorporates other USG agency perspectives
- Facilitates consistency across PCRs and agencies

PCR Enhancement Expectations

- EPA supporting such activities via EPD Assistance Program (both grants and direct investment) and the carbon label program criteria
- Short- and long-term approaches

EPA Approach to Enhanced PCRs

PCR Enhancement Expectations

SHORT-TERM

PCR Criteria for EPA Carbon Label Program

- Issuing now due to short timeframe to develop carbon label program under the Inflation Reduction Act.
- Based on experience in PCR committees, 2013 PCR Guidance, 2023 RFI comments, etc.
- Engage stakeholders to further develop and refine

LONG TERM

Adoption in Private-Sector led Standard(s)

- Could include updates to ISO 21930, development of core PCR
- USG recognition of private-sector led standard
- Reduce unnecessary duplication and complexity in conformity assessment requirements
- Will carry on after EPA IRA-funded assistance

DRAFT PCR Criteria for EPA's Low Embodied Carbon Label Program

Overview of PCR Criteria for EPA's Low Embodied Carbon Label Program

Three sections with *53 total c*riteria:

PCR Scope ***– 17 criteria***	**Life Cycle Assessment** ***– 18 criteria***	**Specification of Data** ***– 18 criteria***
Scope of PCR	Life Cycle Assessment Criteria	Data Collection Specification
PCR Reference Disclosure	Reference LCA Criteria	Specification of Primary and Secondary Data
PCR & EPD Reviewer Qualifications		Facility Emission Data Specification

Overview of PCR Criteria

Section Title & Overview

Subsection Title

1. PCR Scope and Reference Disclosure

When creating a new PCR or updating an existing PCR, it is critical to ensure that the scope provides transparency regarding the covered products in the PCR, as well as the reporting requirements for EPDs based on the PCR. This section outlines specific requirements for PCR scopes.

1.1. Scope of PCR

Criteria #	Criteria	ACLCA PCR Guidance/ISO Reference/Other Notes
1.1.A	The product category scope of the underlying LCA supporting the PCR shall be within the scope of the PCR. The scope of the underlying LCA supporting the PCR shall serve as the justification of the PCR and its functional (or declared) unit (see Section 2.3.B for PCR reference to the supporting underlying LCA).	ACLCA 2-9; ISO 14025:2006 Clause 3.14, 6.6, 6.7.2; ISO/TS 14027:2017 Clause 6.5.2, 6.5.3

Overview of PCR Criteria

Criterion Number

Criterion requirements for the PCR

Supporting Justification / References

1.1. Scope of PCR

Criteria #	Criteria	ACLCA PCR Guidance/ISO Reference/Other Notes
1.1.A	The product category scope of the underlying LCA supporting the PCR shall be within the scope of the PCR. The scope of the underlying LCA supporting the PCR shall serve as the justification of the PCR and its functional (or declared) unit (see Section 2.3.B for PCR reference to the supporting underlying LCA).	ACLCA 2-9; ISO 14025:2006 Clause 3.14, 6.6, 6.7.2; ISO/TS 14027:2017 Clause 6.5.2, 6.5.3
1.1.B	The PCR shall define the study scope and EPD type for construction products and services with a specification of scope as cradle-to-gate, cradle-to-gate with options, or cradle-to-grave.	ACLCA 2-10; ISO 21930:2017 Clause 5.2.1, 5.2.2
1.1.C	The PCR shall include a clearly defined and measurable functional or declared unit.	ACLCA 2-11; ISO 21930:2017 Clause 7.1.2, 7.1.3

Section 1: PCR Scope and Reference Disclosure – 17 Criteria

Section 1.1 – PCR Scope

- Connection of PCR Scope to Underlying LCA
- Definition of study scope and EPDs showing cradle-to-gate, cradle-to-gate with options, or cradle-to-grave
- Identification of allowable EPD types:
  - At a minimum, the PCRs must enable Type III, Product-Specific EPDs coming from a singular production or manufacturing facility to be created

Section 1.2 – PCR Reference Disclosure

- Documenting use of existing documents,
- Tying to posted public comments,
- Listing of reference standards and program instructions

Section 1.3 – PCR & EPD Reviewer Qualifications

- Panel review in accordance with ISO 14071:2014
- Copies of panel reviewers' self-declarations

Section 2: Life Cycle Assessment – 18 Criteria

Section 2.1 – Life Cycle Assessment Criteria (for both Reference and Underlying LCAs)

Link to posted underlying LCA that supports the scope of the PCR

Upstream and downstream PCR alignment

Identification of Unit Processes per underlying LCA

LCIA indicators per Table 5 of ISO 21930:2017

Specification of allocation determination procedures per ISO 14044:2006 and ISO 21930:2017

System diagram(s) representing all unit processes across the lifecycle being evaluated

Section 2.2 – Reference LCA Criteria (Only applicable if an Underlying LCA is not being conducted)

Only applicable if no underlying LCA is being conducted

Must be publicly available

Published in the last 5 years

Has aligned scope

Addresses all points from Section 2.1

Section 2: Life Cycle Assessment – Underlying LCAs for PCRs

2.1. Life Cycle Assessment Criteria (for both Reference and Underlying LCAs)

Criteria #	Criteria	ACLCA PCR Guidance/ ISO Reference/ Other Notes
2.1.A	The PCR shall link to an ISO 14040:2006/ISO 14044:2006 conformant LCA addressing the product categories within the scope of the PCR. The LCA shall reflect examples of how the EPD may be interpreted in use. The underlying LCA associated with the PCR shall meet the requirements of ISO 14044:2006 and other pertinent standards and will have been either critically reviewed by a third party or undergone an internal verification, either by the PCR Committee or appointed independent LCA expert.	ACLCA 2-5; ISO 14040:2006; ISO 14044:2006; ISO 14025:2006 Clause 6.7.1, 6.7.2, 8.1.3, 8.2.1, 8.2.2; ISO/TS 14027:2017 Clause 5.1, 6.1, 6.5.3, 7.1d
2.1.B	The underlying LCA report shall be publicly posted and accessible via a web link included in the PCR.	This criterion will ensure the underlying LCA is disclosed.

Section 3: Specification of Data

Section 3.1 – Data Collection Specification

- Outline the data that is to be collected,
- Inclusion of data collection sheet(s) in the PCR,
- Identification of need of specific data based on underlying LCA

Section 3.2 – Specification of Primary and Secondary Data

- Disclosure of reported data source
- Prescription of background datasets when primary data is not being specified
  - Use of public datasets by 1/1/2026; private datasets acceptable in interim
  - Prescription of FLCAC datasets for baseline electricity
  - EPA will be investing in FLCAC Datasets and outline plans soon

Section 3.3 – Facility Emission Data Specification

- ENERGY STAR Energy Performance Score (EPS)
- EPA GHG Reporting Program data
- Industry average benchmarking

Appendices: Recommended Text

- A.1: Recommended Data Disclosure Chart
- A.2: Recommended Text for Criterion 3.3.A (ENERGY STAR EPS reporting)
- A.3: Recommended Text for Criterion 3.3.C (Recycled Content reporting)
- C: Recommended self-declarations
  - Based off Annex B of ISO 14071:2014
  - Aimed to improve the transparency associated with:
    - The PCR review panel
    - EPD Verifiers

Appendix A.1: Recommended Data Disclosure Chart for EPDs

EXAMPLE: Table XX. Data Disclosure Chart for Data Sources Used for Resulting EPDs

Module	Material/Unit	Data Source	Data Source Geographic Coverage	Year
A1	Material A	Association X Industry Average EPD	North America	2020
A1	Material B	Product and Facility Specific EPD (include name)	Specific Facility	2021
A1	Material C	LCI data set for Y (provide data set name, version, and process)	United States	2019
A2	Transportation	LCI data set for Z (provide data set name, version, and process)	United States	2018
A3	Production facility emission source	Company X	Specific Facility	2023

Federal LCA Commons Improvements

- **By the time the PCR Criteria is finalized in Summer 2024:** EPA, in partnership with other federal agencies, will publish a Data Quality Assessment methodology
  - Will be used to evaluate existing FLCAC datasets
  - Will help EPA determine which existing datasets are fit to model systems outlined by relevant PCRs
  - Where there are deficiencies and gaps, investments will be made to improve FLCAC Datasets

- **Until January 2026:** PCRs may continue to prescribe private datasets so long as a written commitment is included in the PCR indicating a transition to public datasets.

Specification of Data – Current & Future Practice

Current State of Practice	What We Must Achieve
• May run into anti-trust concerns • May prevent competition • Prevents level playing field for procurement decisions	• Free to use = open access • Allows public agencies to verify results • Improved state of practice

This can be achieved through EPA and other agency investment in the Federal LCA Commons.

Avoiding Risks Through Voluntary Consensus Standards Development Processes

What is a Standard?

2. What is a Standard?

a. The term "standard," or "technical standard," (hereinafter "standard") as cited in the NTTAA, includes all of the following:

(i) common and repeated use of rules, conditions, guidelines or characteristics for products or related processes and production methods, and related management systems practices;
(ii) the definition of terms; classification of components; delineation of procedures; specification of dimensions, materials, performance, designs, or operations; measurement of quality and quantity in describing materials, processes, products, systems, services, or practices; test methods and sampling procedures; formats for information and communication exchange; or descriptions of fit and measurements of size or strength; and
(iii) terminology, symbols, packaging, marking or labeling requirements as they apply to a product, process, or production method.

b. The term "standard" does not include the following:

(i) professional standards of personal conduct; or
(ii) institutional codes of ethics.

Source: OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities (See Section 2 , p15)

Policies for Federal Use of and Participation in Standards (1 of 2)

What is the Policy for Federal Use of Standards?

Consistent with Section 12 (d)(1) of the NTTAA, all Federal agencies must use voluntary consensus standards in lieu of government-unique standards in their procurement and regulatory activities, except where inconsistent with law or otherwise impractical. In these circumstances, your agency must submit a report describing the reason(s) for its use of government-unique standards in lieu of voluntary consensus standards as explained in Sections 9-11.

What is the Policy for Federal Participation in Standards Bodies?

Consistent with Section 12(d)(2) of the NTTAA, agencies must consult with voluntary consensus standards bodies and must participate with such bodies in the development of standards when consultation and participation is in the public interest and is compatible with their missions, authorities, priorities, and budgetary resources. In voluntary consensus standards development processes, agency participation can be an important contribution to ensuring balance is achieved.

Source: OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities (See Sections 5 (p17) and 6 (p27). See also Section 2 (p15) for the definition of a Voluntary Consensus Standard)

Policies for Federal Use of and Participation in Standards (2 of 2)

In addition to consideration of voluntary consensus standards, this Circular recognizes the contributions of standardization activities that take place outside of the voluntary consensus standards process. Therefore, in instances where use of voluntary consensus standards would be inconsistent with applicable law or otherwise impracticable (*e.g.*, no voluntary consensus standard would be effective in meeting agency regulatory, procurement, or program needs), agencies should consider, to the extent consistent with applicable law – as an alternative to using a government-unique standard – other standards that meet the agency's regulatory, procurement or program needs, deliver favorable technical and economic outcomes (such as improved interoperability) and are widely utilized in the marketplace.

Source: OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities (See Section 5c (p19).

Antitrust Law and Standards Development

Examples of antitrust laws that may affect standards development

- Sherman Act
- Clayton Act
- Federal Trade Commission Act

Examples of litigation

- *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492 (1988)
- *American Society of Mechanical Engineers v. Hydrolevel Corp.*, 456 U.S. 556 (1986)

Please see Draft PCR Guidelines Appendix B: Reasoning for Preference of Use of Public Data Sets in LCAs

While the federal government has outlined challenges associated with commercial terms, it is the standards developers' responsibility for ensuring their own compliance with U.S. antitrust law.

Commercial Terms

- *ANSI Essential Requirements*

3.2 Commercial terms and conditions

Except as otherwise permitted by these *Essential Requirements*, ANS shall not include terms or conditions that are primarily contractual or commercial in nature, as opposed to technical, engineering or scientific in nature. Thus, for example, an ANS shall not include contractual requirements (3.2.1); endorse or require the use of proprietary products or services (3.2.2); or endorse or require the use of particular conformity-assessment bodies, testing facilities or training organizations (3.2.3).

- *ISO/IEC Guidelines*

Don't include elements in standards that exclude suppliers or competitors from the marketplace for any reason other than technical considerations.

Sources: American National Standards Institute (ANSI) Essential Requirements and Competition Law Guidelines for Participation in the IEC and ISO Standards Development Process

Next Steps

- By Summer 2024, EPA, in consultation with Federal partners, aims to:
  - Publish final Label Program Approach
  - Publish final PCR Criteria
  - Publish Data Quality Assessment Methodology & Background Data Plan
  - Announce EPD Assistance Grant Selections
  - Launch direct technical assistance to help manufacturers develop EPDs

Frequently Asked Questions on EPA's PCR Criteria

How to Provide Input on the Draft PCR Criteria

Docket #EPA-HQ-OPPT-2024-0075

COMMENTS DUE APRIL 4, 2024

https://www.federalregister.gov/d/2024-04593

THANK YOU!

epa.gov/greenerproducts