



May 1, 2023

Sustainability and Pollution Prevention Branch
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue
Washington, DC 20460

Via regulations.gov

Re: Comments of the International Code Council on the Environmental Protection Agency's Request for Information (RFI) to Support New Inflation Reduction Act Programs to Lower Embodied Greenhouse Gas Emissions Associated with Construction Materials and Products; EPA-HQ-OPPT-2022-0924

The International Code Council (ICC) is a nonprofit organization of roughly 600 employees, driven by the engagement of its more than 63,000 members, that is dedicated to helping communities and the building industry provide safe, resilient, and sustainable construction through the development and use of model codes (I-Codes) and standards used in design, construction, and compliance processes. Most U.S. states and communities, federal agencies, and many global markets choose the International Codes (I-Codes) to set the standards for regulating construction and major renovations, plumbing and sanitation, fire prevention, and energy conservation in the built environment.

The International Code Council is dedicated to providing the building industry with the tools necessary to realize safety, sustainability, and resilience goals. This includes achieving decarbonization goals through the effective use of materials with low embodied carbon (LEC) to achieve greenhouse gas (GHG) emissions reductions across the construction sector.

Recognizing the need for a coordinated and deliberate approach, in September 2022, the Code Council Board of Directors approved [Decarbonization of The Built Environment: Solutions from the International Code Council](#), which recognizes the significant impact of buildings on the environment and the need for a coordinated set of solutions to support the achievement of energy and GHG reduction goals set by governments. The report also calls for expanded activities that support a coordinated approach across the I-Codes, standards, and other solutions. This highlights the Code Council's ongoing commitment to deliver the tools that communities and the federal government need to realize their climate-related goals.

The Code Council's comments regarding the Environmental Protection Agency's (EPA) RFI to support new IRA programs to lower embodied GHG emissions associated with construction materials and products are captured below.

The International Code Council maintains support of EPA and other federal agency efforts to establish programs through the Inflation Reduction Act (IRA) to drive innovation across the building industry through the implementation of decarbonization solutions such as reducing the embodied GHG



emissions associated with construction materials and products. This includes efforts by other Federal Agencies like the General Services Administration (GSA), who are in the process of development of LEC Material Standards through the IRA and Federal Buy Clean Initiative. The International Code Council welcomes the opportunity to provide EPA with information that can support the effective development, implementation, and continued improvement of LEC material and conformity assessment programs moving forward.

Many federal agencies already value the Code Council's building safety solutions across the federal building stock. The International Code Council's Decarbonization Strategy includes building and construction sector solutions targeting whole life GHG emissions and materials and processes, in addition to operational GHGs and electrification. These solutions go beyond solely codes and standards activities, which provide avenues for EPA and other federal agencies to achieve programmatic goals captured in the IRA and Federal Buy Clean Initiative.

The ICC Evaluation Service (ICC-ES) is an accredited Environmental Product Declaration (EPD) Program Operator by the American National Standards Institute (ANSI) National Accreditation Board (ANAB), providing the tools necessary for development of product category rules (PCRs) and verification of EPDs and stands ready to assist manufacturers in expanding the availability of EPDs. **EPA should require EPD Program Operators to demonstrate expertise, capability, capacity, and impartiality through accreditation to ISO 14020 (*Environmental labels and declarations — General principles*), ISO 14025 (*Environmental labels and declarations — Type III environmental declarations — Principles and procedures*), ISO 21930 (*Sustainability in building construction — Environmental declaration of building products*), and ISO/IEC 17065 (*Conformity assessment — Requirements for bodies certifying products, processes and services*).** The International Code Council urges EPA and other Federal Agencies working in this space to leverage ICC-ES's conformity assessment expertise throughout these IRA programs to fulfill GHG emissions reductions across the building and construction sector, and realize national climate goals.

One concern the industry is facing is whether materials with lower environmental impact than traditional versions of the material deliver a similar level of performance. In addition to being an EPD Program Operator, ICC-ES evaluates products for their compliance with building codes or relevant industry standards. Marrying EPDs with product evaluations can be a valuable tool to address multiple performance requirements. **To ensure both environmental and traditional (physical, mechanical, thermal, chemical, etc.) performance properties are achieved in federal buildings and grant program projects, EPA should ensure materials and products used demonstrate both an acceptable EPD from an accredited Program Operator as well as an acceptable evaluation report or listing that demonstrates the material/product meets the traditional performance requirements required in the I-Codes.** ICC-ES is well positioned to provide comprehensive conformity assessment services to support EPA's EPD assistance and carbon labeling IRA programs.

Material Prioritization and Data Improvement

1) Newly Manufactured Materials



All construction materials have embodied GHGs and should be included in EPA's EPD assistance and carbon labeling programs. The International Code Council encourages EPA to expand the material types included in these IRA programs and future LEC Material Standards established by the Federal Government. The General Services Administration's (GSA) [Facilities Standards for the Public Buildings Service](#) (P100) already includes EPD requirements for a comprehensive catalogue of product categories, like gypsum board, and flooring, which could be leveraged to expand EPA's programs as well.

To that effect, GSA relies on the latest edition of the I-Codes including the 2018 International Green Construction Code (IgCC) as the basis for its P100 design requirements. The IgCC provides a holistic approach to addressing sustainability—including through materials and energy efficiency and water conservation. The IgCC already includes measures in Chapter 9 on the carbon impacts of materials and the use of EPDs and life cycle analysis. EPDs have been identified as a primary tool for transparency communication of the environmental impacts of products and materials, and have been established for product categories beyond what EPA has initially identified through these IRA programs.

As the Agency notes, "EPA has a continuing commitment to using and participating in [Voluntary Consensus Standards \(VCS\)](#) and other private sector standards as directed by the [National Technology Transfer and Advancement Act \(NTTAA\)](#) and other federal policies. Use of standards in regulation, voluntary programs, research, and other activities helps the agency achieve robust engagement with industry, academia, non-governmental organizations (NGOs), and others. This also helps harness partnerships that enhance public trust and lead to durable policies that enjoy broad consensus and buy-in." EPA is an active participant in several ICC codes and standards concerning energy and water use in and around buildings. The NTTAA and Office of Management and Budget (OMB) Circular A-119 also direct federal agencies to use VCS wherever possible in their procurement and regulatory activities in lieu of expending public resources developing government unique standards. The [OMB Circular](#) "directs agencies to use standards developed or adopted by voluntary consensus standards bodies rather than government-unique standards, except where inconsistent with applicable law or otherwise impractical." In line with EPA policy and the NTTAA, we believe EPA should utilize Chapter 9 of the IgCC in EPA's program implementation.

EPA is also encouraged to support the development of new EPDs with accredited Program Operators like ICC-ES to support expanded products and materials through the EPD assistance program. EPA should establish a strong relationship with accredited Program Operators and encourage them to work directly with manufacturers to develop PCRs and EPDs. As noted above, **EPA should require EPD Program Operators to demonstrate expertise, capability, capacity, and impartiality through accreditation to ISO 14020 (*Environmental labels and declarations — General principles*), ISO 14025 (*Environmental labels and declarations — Type III environmental declarations — Principles and procedures*), ISO 21930 (*Sustainability in building construction — Environmental declaration of building products*), and ISO/IEC 17065 (*Conformity assessment — Requirements for bodies certifying products, processes and services*).**

The Federal Government, including EPA, is also encouraged to continue to involve industry leaders in helping gather the best available data to set and keep Global Warming Potential (GWP) maximums updated moving forward in conjunction with other IRA funded programs, such as the Federal Buy Clean



Initiative and the development and implementation of the GSA's LEC Material standards. This would include more regionalized data for the GWP maximums and expansion of the material types to be included in these programs. In doing so, these programs will meet their full potential of assisting in the mitigation of the GHG emissions associated with the entire lifecycle of the building stock.

2) Minimally Processed, Salvaged and Reused Materials

ICC-ES has developed Environmental Criteria (formerly known as Evaluation Guidelines) for use in verifying manufacturers' claims about specific sustainable attributes of their products. These criteria are approved by the ICC-ES Environmental Committee and provide guidance when evaluating products to green codes, standards and rating systems. ICC-ES issues [Environmental Criteria for Determination of Recycled Content of Materials](#) (EC101), which EPA is encouraged to leverage.

The International Code Council has code requirements around the reuse of materials. Chapter 9 of the IgCC includes prescriptive requirements for the reduced impact of materials in [Section 901.4.1](#), which includes requirements for recycled content and salvaged materials. The section includes requirements for Type III EPDs recognized by a Program Operator to ensure cradle-to-gate compliance in accordance with ISO Standards 14025 and 21930, including a verified LCA of a product demonstrating compliance with the goal and scope for cradle-to-gate requirements based on ISO Standards 14040 and 14044. [Section 901.5](#) captured in Chapter 9 of the IgCC includes alternative performance requirements for LCA and reporting on material GWPs. In reference to our previous response in *Question 1*, and in line with EPA policy and the NTTAA, EPA should utilize the above-referenced sections of the IgCC in EPA's program implementation.

EPA is encouraged to leverage the expertise and experiences of the International Code Council regarding the standardization of reused materials as a key part of the Federal embodied greenhouse gas reduction strategy. In doing so, EPA can work towards the development of lifecycle assessment (LCA) and EPD solutions that effectively incorporate reused materials to achieve deeper reductions of GHG emissions in construction projects.

3) Biobased Materials

The ICC-ES SAVE (Sustainable Attributes Verification and Evaluation) Environmental Program provides manufacturers with independent and comprehensive evaluation and/or certification that their products meet specific sustainability targets. Through the Environmental Program, ICC-ES offers evaluation services under the Verification of Attributes Reports (VAR) Environmental Reporting Program in addition to certifications under the EPD Program. Through the VAR Environmental Reports issues reports that are used by code officials, government agencies, architects, engineers, specifiers and other interested parties as an independent, third-party assessment of a product or assembly. These reports certify products to the IgCC, ICC 700 National Green Building Standard, ASHRAE 189.1, Green Building Initiative's GBI-01, California Green Building Standards Code, and U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED). ICC-ES currently provides VARs for structural wood products and issues [Environmental Criteria for Determination of Bio-based Material Content](#) (EC102) to provide interested parties with information on the requirements for obtaining an ICC-ES VAR. EPA should leverage EC102, consistent with our response to *Question 1* and pursuant to Section 12 (b) of



the NTTAA¹, to ultimately ensure independent verification of a manufacturer's environmental claims and biobased product attributes is appropriately provided during program implementation.

Through product evaluation services, ICC-ES reviews innovative products to examine their compliance with the requirements of building codes and normative documents. Examples of such innovative building products are those made of organic materials such as leaves, branches, and other biobased materials, which after processing, have proven to provide great load capacities and can be used for construction application.

Consistent with the NTTAA and EPA policy, ICC encourages EPA to leverage several existing sections of the IgCC that address bio-based materials. Chapter 9, Section 901.4.1 of the IgCC includes prescriptive code requirements for biobased products, which includes specific requirements for wood building components. This section also includes code requirements for biobased products, including wood building components, which is a product category that should be included in EPA's EPD and labeling programs. The International Code Council urges EPA to lean on ICC's expertise to expand EPDs and reporting for biobased materials to ensure these products comply with both code requirements and environmental impact levels that assist in the achievement of lower GHG emissions of the construction industry. By expanding product categories to include biobased materials, the industry can expand the availability of EPDs and begin to incentivize the use of such products as alternative construction materials to reduce the embodied GHG emissions in buildings.

5) Public Accessibility of Data

The International Code Council encourages EPA to allocate a portion of these IRA programs' funding to support the updating of publicly accessible product and facility specific environmental data. This data is extremely important and provides industry stakeholders with baseline environmental impact data when primary data is not available. The updating of data will enhance overall transparency and confidence in material/product alternatives to support the industry in designing and constructing lower impact buildings.

All EPDs verified by recognized Program Operators should be required to be made available to the public and building industry professionals in an accessible digital format. Through funding from EPA or other agencies, ICC-ES could stand up and support an LCA Commons platform long-term. This would ensure that EPDs and environmental data are available to the industry and public at large, with the confidence and competence of an accredited Program Operator like ICC-ES.

6) Moving More EPDs From Averages Towards Actuals

The International Code Council supports the move from EPD industry-wide averages to the use of more actual, facility-specific data for GHG emissions along a product's "upstream" supply chain. Many jurisdictions are currently seeking facility-specific data to support their efforts to establish Buy Clean

¹ Section 12(b) of the NTTAA requires the National Institute of Standards and Technology (NIST) to coordinate Federal, State, and local standards activities and conformity assessment activities with private sector standards development and conformity assessment activities, with the goal of eliminating unnecessary duplication and complexity in the development and promulgation of conformity assessment requirements and measures.



programs and LEC material standards in an effort to reduce the embodied carbon of their building stock. Facility-specific data is critical to provide the marketplace with as accurate an accounting of the environmental impact as possible. This move towards more actual and specific data being publicly available is an effective model already integrated into building codes, and ultimately enhances the decisions of designers and contractors yielding less environmental impact.

7) Life Cycle Stages

EPA is encouraged to expand the considerations included in life cycle stages through the IRA programs, which will enhance the robustness and transparency of information contained in EPDs. Ensuring all aspects of the life cycle a material/product impacts will promote more exhaustive reporting through EPDs and further confidence in the environmental impact of materials/products that ultimately influences the overall environmental impact of a building.

8) Improving Background Datasets

The International Code Council supports the improvement of background datasets to improve data quality for the industry at large. The industry relies on background datasets in cases where primary data is not available, and the continual updating of data will enhance accuracy of data to support EPDs. The consistent knowledge about what is happening in the marketplace is at the core of ICC's work. To ensure that the latest data is being used by the most buildings, to protect and assist the community, writ large, is a fundamental goal that we not only support, but resemble.

9) Whole Building Life Cycle Assessment (WBLCA) and similar whole project approaches

Decarbonizing the built environment requires a holistic approach that addresses all phases of the building process including the design, procurement, construction process, materials used, building operations and deconstruction. EPA should consider WBLCA and similar whole project approaches to inform low GHG emission design, but the International Code Council believes further programs and funding are needed to support this strategy. Pulling funding away from PCR and EPD assistance under these IRA programs would limit the overall impact of the programs' intended outcomes.

The Code Council has begun the development process for an American National Standard with ASHRAE to assess GHG emissions across the entire building life cycle. ASHRAE/ICC Standard 240P – *Evaluating Greenhouse Gas and Carbon Emissions in Building Design, Construction and Operation*, will provide a whole life GHG approach to support emissions reductions in buildings. The standard will establish how to calculate and verify the GHG emissions of a building, or group of buildings, over their entire life cycle. The goal is to provide consistent procedures and data to be referenced by policies, codes, and other standards that address new and existing building performance. The Code Council engaged organizations both in the U.S. and internationally to assure the standards are broadly applicable and can support a global approach. The standards development process has begun with a target for completion in early 2025, which the EPD work of these IRA programs will help feed into. EPA is encouraged to lean on the expertise of the International Code Council in developing and implementing future programs to support WBLCA approaches for building decarbonization. We also encourage EPA and other governmental agencies, consistent with the NTTAA, to reference ASHRAE/ICC Standard 240 when available.

10) Other Environmental Impacts

EPA should take into account and consider addressing these other environmental impacts, beyond just GWP, through the IRA EPD assistance and carbon labeling programs. ICC-ES already verifies EPDs with consideration of environmental impacts beyond just GWP. Within Chapter 9, Materials and Resources, of the IgCC there are requirements related to the environmental and human health impacts that go beyond solely GWP. The IgCC also includes material and resource requirements related to resource conservation, impacts on the atmosphere, product transparency, and waste management in addition to reduced life cycle impacts of building materials. While it is important to focus on GWP as the key impact area for reducing the impact of construction materials and products, it is also critical to address other environmental impacts due to the cyclical nature of environmental systems and health, and the subsequent impacts they have on society like human health. The International Code Council encourages EPA to leverage the ongoing material and resource solutions already contained within the IgCC and implemented by ICC-ES' Environmental Program to ensure comprehensive reduction of environmental and human health impacts associated with buildings and construction processes.

12) Standardizing and Verifying Product Category Rules

As a Program Operator, ICC-ES already assists manufacturers and the marketplace in providing the necessary tools to develop PCRs and verify EPDs. The improvement and harmonization of PCRs will support the ongoing expansions of conformity assessment and verification programs. Further standardizing PCRs for construction products is important and it will be critical to ensure that each material and product is treated differently. The International Code Council recommends EPA fund appropriately accredited Program Operators (as detailed in response to *Question 1*) to develop PCRs in collaboration with manufacturers. This will support consistency and enhance the capacity of Program Operators to expand their EPD catalogue at an increased rate.

With that being said, the universal uncertainty factor currently put out by GSA in their LEC guidance provided for all materials is not an effective approach because it does not delineate the inherent differences across material categories and product types. The International Code Council believes EPA should treat each material and product differently during the standardization and verification efforts to improve PCRs to ensure the environmental impacts and calculations are accurate for each material and product.

13) Standardizing EPDs

EPDs are growing in importance as a primary tool for transparency communication of the environmental impacts of products and materials. While EPDs have not been generated for all materials and products used in construction, EPDs are required to contain standardized environmental impact data to provide the industry with standardized information to guide low impact decision making. As previously stated, EPA should require each EPD Program Operator it works with to be accredited to ISO Standards 14020, 14025, 21930, and 17065, which demonstrates the organization's expertise, capability, capacity, and impartiality across relevant conformity assessment activities. EPA should lean on the expertise of ISO accredited EPD Program Operators to effectively cooperate in the alignment of EPD standardization through the updating and development of PCRs in the future.

ICC-ES is currently strategizing on the opportunity to incorporate EPDs as optional requirement within the acceptance criteria (AC's) we develop. This is similar to the efforts undertaken in Europe with their European Assessment Document (EAD) program. EPDs may eventually be incorporated by reference in building codes in order to establish requirements on the environmental performance of materials and products (similar to how they are treated in the IgCC or as the basis for verifying material performance requirements). As EPDs become more universally utilized and required, the International Code Council encourages EPA to work with us to ensure they are harmonized in order to be referenced in building codes and standards.

14) Verifying EPDs

Please reference our response to Question 13.

As stated previously, EPA should require accreditation for EPD Program Operators to ISO/IEC 17065 (*Conformity assessment — Requirements for bodies certifying products, processes and services*) by an accreditation body that is a signatory to the International Laboratory Accreditation Cooperation (ILAC) and International Accreditation Forum (IAF) Mutual (or Multilateral) Recognition Arrangements (MRAs/MLAs) with the capability to accredit Product Certification Bodies and Management System Certification Bodies, including validation and verification bodies. ISO/IEC 17065 guides accreditation bodies for certification of products, services, and processes with full competence, consistency, transparency, and zero impartiality. Accreditation to the ISO/IEC Standards gives a level of confidence that a certification body has provided sufficient evidence that they are able to operate their certification scheme in a competent, consistent, and impartial manner. Accreditation to ISO/IEC 17065 is standard practice for EPA approval of third-party certifiers.²

Ensuring requisite bona fides of accreditation bodies is also vital. To be accepted into the [IAF MRA/MLA](#), accreditation bodies must demonstrate competence, which is verified through peer review, and operate consistent with ISO/IEC 17011 which specifies requirements for the competence, consistent operation and impartiality of accreditation bodies. Relying on the IAF MRA or MLA is common practice within the federal government, including EPA.³

Accreditation of EDP Program Operators provides a level of assurance that the service provider has the requisite expertise and technical competence, and accreditation also provides third party verification to ensure service providers are operating within the confines of the standards to which they are accredited. At a time of anticipated growth in the demand for EPDs, it is important that such EPDs are verified by an accredited EPD Program Operator. It is important to note that not all EPD Program Operators are accredited to the applicable ISO standards and EPA is encouraged to promote further requisite accreditation qualifications for EPD Program Operators to ensure the information included in EPDs is standardized, uniform and reliable.

15) Digitizing EPDs

² See, e.g., 40 C.F.R §§ 60.535, 60.5477, 770.7.

³ See, e.g., 40 C.F.R § 770.7; <https://www.govinfo.gov/content/pkg/FR-2020-05-01/pdf/2020-07419.pdf>.



The International Code Council believes the digitization of EPDs is extremely important to drive the expansion, effectiveness and accuracy of EPDs moving forward. ICC-ES is currently in the process of digitizing our ICC-ES Evaluation Reports (ESRs), which verify that new and innovative building products comply with code requirements including information about what code requirements or acceptance criteria were used to evaluate a product, and how the product should be identified, installed and much more. As ICC-ES continues to increase the number of EPDs within our system, we will expand on efforts to digitize these offerings. Funding to support accredited Program Operators in expanding and digitizing their EPDs will ensure improved accuracy of environmental impact data and continue the expansion of EPDs.

16) PCR and EPD Repositories/Data Platforms

ICC-ES provides an online directory of products which demonstrate compliance with the applicable building codes and standards. ICC-ES also publishes a directory of PCRs as well as our EPD offering for building products. The International Code Council encourages EPA to provide EPD Program Operators, like ICC-ES, with funding to support the updating of their EPD repositories/data platforms and to implement standardized digitization strategies. EPA should support Program Operators with a system to easily incorporate EPDs into the repository/platform that emerges from program implementation.

17) Unique Approaches Needed for Salvage and Reuse

Currently, LCA and EPDs do not fully address material reuse except when that material is repurposed into a new product. As stated previously, Chapter 9 of the IgCC includes measures on the carbon impacts of materials and the use of EPDs and life cycle analysis. Specifically, Chapter 9 includes prescriptive requirements for the reduced impact of materials, which contains requirements for recycled content and salvaged materials. As stated further in response to *Question 1*, and consistent with the NTTAA and EPA policy, the International Code Council encourages EPA to utilize these IgCC provisions for salvaged and reused materials when considering the development of criteria for PCRs and EPDs to include salvaged and reused material/product requirements and solutions.

Environmental Product Declaration Assistance per Section 60112

19) Manufacturer Needs

The International Code Council strongly urges EPA to work through industry associations to develop industry-wide data to provide the industry a level of comfort with gathering environmental impact data through the LCA process, which will also lead to a more diverse participation of industry stakeholders through industry association memberships. Providing financial and technical support to develop industry-wide data through trade associations will also increase the ability to derive data averages that can be used as a GWP maximum which will be essential to reduce the GHG emission impacts of building and construction. This in turn will align and support the GSA's LEC material standard program through their portion of the IRA, ensuring federal and industry-wide consensus. Manufacturers will need access to develop EPDs and the most effective way to achieve this is through industry associations to promote the widest breadth and depth of organization participation.

20) Fair, Equitable Distribution of Resources



Please reference our response to *Question 19* regarding strategies to promote the widest breadth and depth of participation.

21) Existing Programs and Lessons Learned

The International Code Council and ICC-ES have extensive knowledge and experience working alongside industry associations to drive innovation across the industry and develop best practices from lessons learned. Specifically, ICC-ES has expertise collaborating with industry associations in the development of PCRs and believe it is a valuable tool to align on what the environmental impacts of product categories are. ICC-ES, through the ES Reporting Program, has expertise verifying that new and innovative building products comply with code requirements. ICC-ES is one of the few certification bodies that reviews products to codes adopted by jurisdictions in addition to the standards and normative documents, which further ensures compliance with local and state building codes before approval for installations. If accreditation requirements are followed properly, the result will yield high quality certification by an accredited certification body like ICC-ES.

Multi-attribute assessments, as performed by ICC-ES through their Environmental and Reporting Programs, provides a high-level assurance on the comprehensive quality of materials and products. Alignment of ESR information and environmental impact information is critical to understand the complete performance of products and ensures that decision-makers have the best information to make sound implementation decisions. The International Code Council encourages EPA to leverage these partnerships and collaborative arenas to effectively implement these IRA programs consistently at scale.

Substantially Lower Embodied Carbon Labeling per Section 60116

23) Performance Characteristics and Other Variables

As stated previously, ICC-ES develops Environmental Criteria for use in verifying manufacturers' claims about specific sustainable attributes of their products. ICC-ES has the [Environmental Criteria for Determination of Recycled Content of Materials](#) (EC101) and the [Environmental Criteria for Determination of Biobased Material Content](#) (EC102), which EPA is encouraged to leverage, consistent with EPA policy and the NTTAA. Section 12(b) of the NTTAA requires NIST to coordinate Federal, State, and local standards activities and conformity assessment activities with private sector standards development and conformity assessment activities, with the goal of eliminating unnecessary duplication and complexity in the development and promulgation of conformity assessment requirements and measures. Leveraging EC101 and EC102 during EPA's program implementation will ensure harmonized procedures for determination of material content of products for evaluation to develop VARs. Harmonized environmental data and criteria will allow for the consistent expansion of PCRs and EPDs.

In addition, ICC-ES evaluates products for their compliance with building codes or relevant industry standards to ensure not only the environmental impact is understood but these innovative materials deliver the level of structural performance required by the building code. The ICC-ES label is already a well-known and trusted stamp of approval across industry stakeholders. The International Code Council urges the EPA to not reinvent the wheel through their labeling program, and instead amplify the trusted labels provided by industry-supported conformity assessment bodies like ICC-ES.



24) GWP Threshold/Criteria Development and Update Approach

Please reference our response to *Question 19* regarding strategies to promote broad industry participation through the engagement of industry associations in an effort to establish material data averages to support effective establishment of GWP thresholds.

25) Existing Programs and Lessons Learned

The International Code Council encourages EPA to include industry experts in the process of standing up these IRA programs to leverage their expertise and understanding of the gaps of existing procurement programs. EPA should continue to engage accredited EPD Program Operators, like ICC-ES, and LCA professionals in the process to ensure consistency and best practice are established.

27) Role of Private Sector Labels

Please reference our response to *Question 21* regarding alignment of ESRs with environmental impact data to ensure multi-attribute assessments from accredited CABs, such as ICC-ES, drive comprehensive implementation decision-making.

As stated previously, ESRs provide information about what code requirements or acceptance criteria were used to evaluate a product, and how the product should be identified, installed and much more. ICC-ES recently developed an Acceptance Criteria (AC) on the performance of low-carbon alternative cements for use in concrete (AC529). ICC-ES has also signed a Memorandum of Understanding with the American Concrete Institute to help advance the achievement of carbon neutrality in cement. The ICC-ES label is a trusted mark of conformity across the industry. EPA is strongly encouraged to continue to empower the private sector to lead in labeling of construction materials as an already effective stamp of industry approval.

28) Label Characteristics

EPA should not implement a labeling program. The International Code Council, as previously discussed in our response to *Question 9*, encourages the utilization of a whole life-cycle approach for EPA's IRA program implementation. Therefore, a label based strictly on embodied GHG could be misleading. A label should support multi-attribute determinations. For most building products/materials, decisions on usage will be made by professionals who are looking at whole project attributes, which an individual label would not benefit. Currently, GWP maximum levels are being set by multiple jurisdictions within their Buy Clean Programs. Uniformity in targets is an effective first step to ensure uniformity in program development and implementation. With that said, development and implementation of a labeling approach at this stage would not accomplish such uniformity. Finally, this current funding is aimed at expanding data availability, not setting targets, therefore ICC encourages EPA and other agencies to engage in a robust stakeholder consultation on such a labeling program.

An EPA developed labeling program will require significant investment and would counter the industry recognition already achieved by recognized conformity assessment providers like ICC-ES. As previously stated, the ICC-ES label for conformity assessment is a global symbol of quality. ICC-ES currently provides QR codes that can be used in product labeling to provide a direct link to the issued ESR, which provides detailed performance data for products in an easily accessible digital format. ES Reports are



divided into eleven major areas, including: 1) Construction Specifications Institute's Masterformat system Division Number, 2) the report holder, 3) evaluation subject, 4) evaluation scope, 5) properties evaluated, 6) product uses evaluated to code provisions, 7) description of the product and its features, 8) installation requirements according to code or acceptance criteria, 9) conditions of use, 10) evaluation evidence submitted, and 11) identification information.⁴ This information should be included in a labeling program because it verifies that new and innovative building products comply with code requirements and provides information on how the product should be installed to meet the requirements, in addition to important information to identify the product. In addition to this information, labels should include the environmental impact data provided in standard EPDs to ensure both structural and environmental performance are met. Development of QR code labels could be a valuable way to digitally provide this information for purchasers and specifiers. The International Code Council encourages EPA to leverage ICC-ES' expertise in report criteria and development in standing up their labeling program.

29) Verification/Conformity Assessment

Please reference our response to *Questions 13 and 14* regarding the role and importance of accreditation bodies and the requirements for accreditation of conformity assessment bodies.

The International Code Council recognizes the importance of third-party verification of conformity assessment bodies to achieve trust and consistency in the verification of material/product performance and impact. EPA should ensure that EPD Program Operators verifying EPDs for materials and products are accredited by an accreditation body accredited to ISO/IEC 17011 that are signatories to the ILAC and IAF MRAs/MLAs with the capability to accredit Product Certification Bodies and Management System Certification Bodies, including validation and verification bodies. Ensuring requisite bona fides of accreditation bodies is also vital.

In addition, EPA should require EPD Program Operators to demonstrate expertise, capability, capacity, and impartiality through accreditation to ISO 14020, ISO 14025, ISO 21930, and ISO/IEC 17065. As stated previously, Accreditation to the ISO/IEC Standards gives a level of confidence that a certification body has provided sufficient evidence that they are able to operate their certification scheme in a competent, consistent, and impartial manner.

As an independent conformity assessment body (ICC-ES) and standard development organization, the International Code Council has effectively implemented strategies to delineate our expertise in developing building codes and delivering conformity assessment services to ensure products meet code requirements. It will be important for these IRA programs to effectively establish separation of the independence of PCRs and LCA. The International Code Council strongly encourages the EPA to engage ICC to develop approaches to ensure verifications requirements are in place to allow CABs to determine product and material conformance to GHG emission criteria.

30) Certified Product Registry

⁴ For more information on ICC-ES' Evaluation Reports, visit www.icc-es.org/evaluation-report-program/evaluation-report-read/.



Please reference our response to *Question 16* regarding ICC-ES' PCR and EPD directory.

The International Code Council's family of solutions provides a complete set of decarbonization and conformity assessment solutions. EPA should leverage the work of EPD Program Operators who have already established material and product directories. ICC-ES is positioned to assist EPA in constructing a registry of all materials and products covered by these IRA programs and into the future as industry offerings are expanded. Such a registry can follow the model already in existence at EPA for products complying with the WaterSense Specifications.

31) Label Outreach

The International Code Council encourages EPA to fund EPD Program Operators like ICC-ES, through grant funding, to label products that are verified and conform with federal GWP criteria.

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Thank you for the opportunity to provide comments. If you have any questions concerning these recommendations, please do not hesitate to contact us.

Sincerely,

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