Keynote Follow-Up:
Models of Collective Impact

Keynote:

Carbon (R)Evolution: Collective Impact and Decarbonization in the Building Industry

Andrew Himes is Director of Collective Impact for the Carbon Leadership Forum. Over the past several years in the building industry, collective decarbonization efforts have accelerated dramatically. Collective impact initiatives involving hundreds of companies and organizations from every part of the sector have inspired and catalyzed systemic change. These initiatives span sectors and disciplines, from building designers to contractors, material manufacturers to policy makers and industry associations. This is a great time to review the essential conditions for collective impact, sum up key lessons from our movement, and celebrate and apply what we've learned.

Keynote Follow-Up:

Models of Collective Impact:

In the inherently competitive design and construction industries, collaboration can be challenging. However, there are powerful examples of collective impact-- where organizations and networks learn, align, and act together to drive systems-level change. This follow-up to the morning's keynote presentation will showcase inspiring stories from initiatives including **Carbon Leadership Forum Regional Hubs, ECHO, Green Commons Peer Networks, Climate Heritage Network, MEP 2040, NESEA Bottom Lines, the Bio-based Materials Collective and more.** There will also be opportunity for open discussion about how to engage in this critical work.

Agenda:

- *(4:00-4:05)* Andrew Himes: What is Collective Impact? Highlights from the Keynote
- *(4:05- 4:20)* Introduction of 8 initiatives
  - Michelle Lambert, CLF Regional Hubs and ECHO Project
  - Nadav Malin, Green Commons Peer Networks
  - Lori Ferriss, Climate Heritage Network
  - Julie Janiski, MEP 2040
  - Kate Stephenson, BuildingEnergy Bottom Lines
  - James Kitchin, Bio-Based Materials Collective
  - Mike Gryniuk, SE 2050
  - Chris Magwood, HomebuildersCAN
- *(4:20- 4:50)* Panel Conversation: How do each of these address one of the conditions of collective impact?
- *(4:50-5:00)* Audience reflection and wrap-up

Collective Impact Initiatives & Speakers

Moderator: Andrew Himes, Director of Collective Impact, CLF

CLF Carbon Leadership Forum
Regional Hubs

ECHO Project

Michelle Lambert, Policy & Engagement Manager, CLF

BBMC Bio-based Materials Collective

James Kitchin, Director of Performance & Provenance, MASS Design Group

GC GREEN COMMONS
PEER NETWORKS

Nadav Malin, CEO Green Commons

MEP 2040
Committing to Zero

Julie Janiski, Principal Buro Happold

Climate Heritage NETWORK

Lori Ferriss, Executive Director, Built Buildings Lab

BUILDINGENERGY BOTTOM LINES
WHOLE BUSINESS NETWORKING

Kate Stephenson, Director of Training & Finance, HELM Construction Solutions

SEI ASCE STRUCTURAL ENGINEERING INSTITUTE
SE2050 COMMITTING TO NET ZERO

Mike Gryniuk, Principal CORA Structural

RMI
HomebuildersCAN
CARBON ACTION NETWORK

Chris Magwood, Manager Carbon Free Buildings, RMI

Andrew Himes, Director of Collective Impact, CLF

Collective impact brings people together in **a structured way to achieve social change.**

Collective impact is a network of community members, organizations, and institutions who advance equity by learning together, aligning, and integrating their actions to achieve population and systems level change.

Collective impact initiatives implement five conditions, with equity practices incorporated throughout.

The Five Conditions of Collective Impact

It starts with a common agenda

This means coming together to collectively define the problem and create a shared vision to solve it.

It establishes shared measurement

That means tracking progress in the same way, allowing for continuous learning and accountability.

It fosters mutually reinforcing activities

That means integrating the participants' many different activities to maximize the end result.

It encourages continuous communications

That means building trust and strengthening relationships.

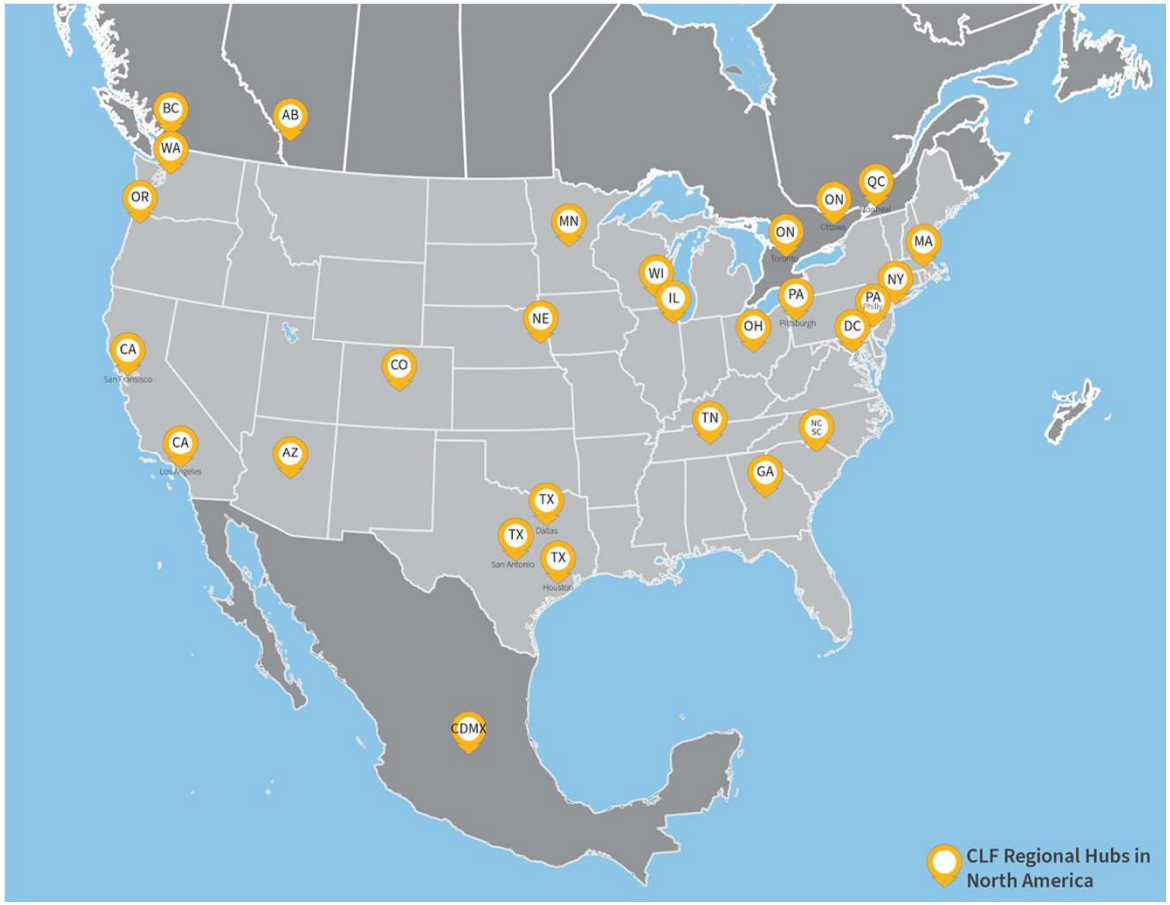
And it has a strong backbone

That means having a team dedicated to aligning and coordinating the work of the group.

Source: collectiveimpactforum.org

Michelle Lambert, Policy & Engagement Manager, C

Carbon Leadership Forum
Regional Hubs



Regional Hub Program Goals

1. Facilitating Community Engagement and Networking

2. Education and Capacity Building

3. Inform Policies

4. Collaboration and Partnerships

5. Knowledge-Sharing and Dissemination

ECHO PROJECT

Embodied Carbon Harmonization and Optimization

a collaboration between:

AIA

American Society of Landscape Architects

architecture 2030

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Building Transparency

CAGBC
Canada Green Building Council | Conseil du Bâtiment Durable du Canada

CLF

climatepositive design

CONTRACTOR'S COMMITMENT

INFRA2050 STRUCTURE

Institute for Sustainable Infrastructure

INTERNATIONAL LIVING FUTURE INSTITUTE

MEP 2040
Committing to Zero

SEI
STRUCTURAL ENGINEERING INSTITUTE
ASCE

SE2050
COMMITTING TO NET ZERO

ULI Urban Land Institute

U.S. GREEN BUILDING COUNCIL
USGBC

ECHO is a coalition of organizations currently or imminently gathering embodied carbon data from the built environment industry, creating tools and resources, and building awareness about this critical issue.

Why did ECHO form?

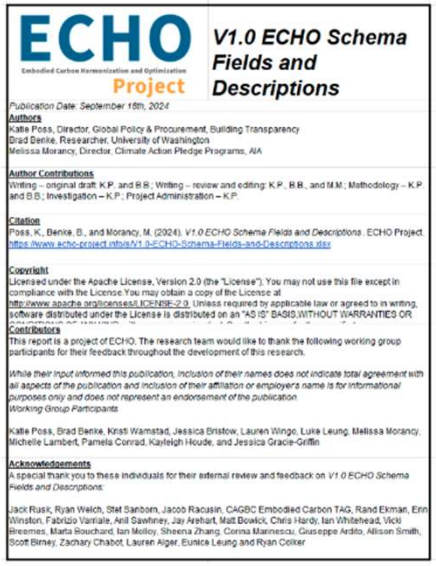
AEC industry organizations are increasingly reporting built environment embodied carbon emissions.

Variations in life cycle assessment (LCA) scope, methodology, terminology, and other factors result in inconsistent reporting that impedes comparison, benchmarking, or setting reduction targets.

These limitations hold the industry back from more rapid adoption of embodied carbon measurement and management practices -

- Reporting is duplicative
- Different reporting methods, data structures, tools can produce contrasting results
- Reporting is expensive and time-consuming
- Firms and design professionals are reluctant to report
- Investors and developers are reluctant to require reporting

ECHO Consensus Publications



ECHO
Embodied Carbon Harmonization and Optimization
Project

V1.0 ECHO Schema Fields and Descriptions

Publication Date: September 18th, 2024

Authors

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Contributors

This report is a project of ECHO. The research team would like to thank the following working group participants for their feedback throughout the development of this research.

While their input informed this publication, inclusion of their names does not indicate total agreement with all aspects of the publication and inclusion of their affiliation or employer's name is for informational purposes only and does not represent an endorsement of the publication.
Working Group Participants

Katie Poss, Brad Benke, Kristi Wamstad, Jessica Bristow, Lauren Wingo, Luke Leung, Melissa Morancy, Michelle Lambert, Pamela Conrad, Kayleigh Houde, and Jessica Gracie-Griffin

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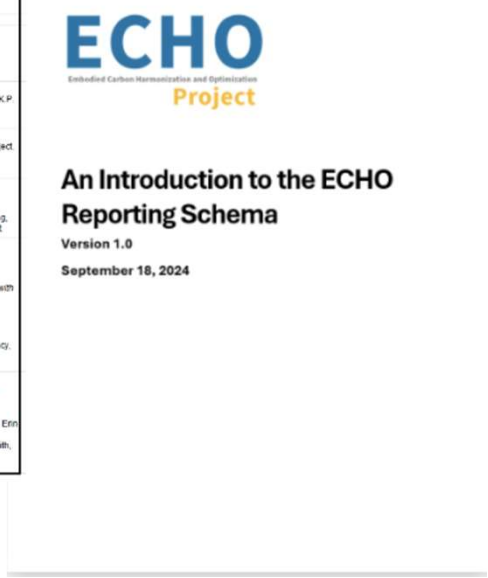
Jack Rusk, Ryan Welch, Stet Sanborn, Jacob Racusin, CAGBC Embodied Carbon TAG, Rand Ekman, Erin Winston, Fabrizio Vanlale, Anil Sawhney, Jay Arehart, Matt Bowick, Chris Hardy, Ian Whitehead, Vicki Breemes, Marta Bouchard, Ian Molloy, Sheena Zhang, Corina Marinescu, Giuseppe Ardito, Allison Smith, Scott Birney, Zachary Chabot, Lauren Alger, Eunice Leung and Ryan Colker

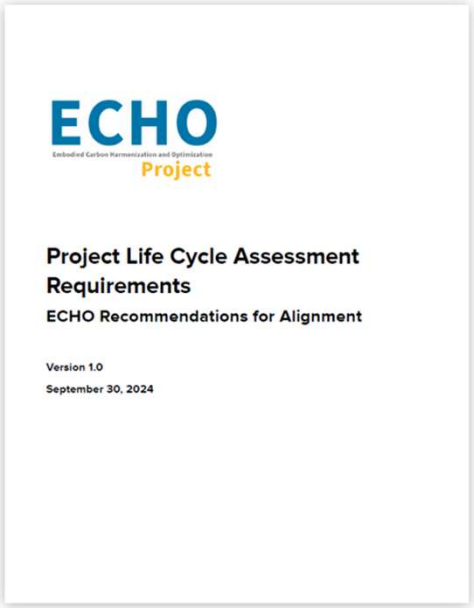


ECHO
Embodied Carbon Harmonization and Optimization
Project

An Introduction to the ECHO Reporting Schema

Version 1.0

September 18, 2024



ECHO
Embodied Carbon Harmonization and Optimization
Project

Project Life Cycle Assessment Requirements

ECHO Recommendations for Alignment

Version 1.0

September 30, 2024

ECHO
Project

Nadav Malin
CEO, Green Commons (Spinoff from BuildingGreen)

GREEN COMMONS

PEER NETWORKS

- Began in 2008 with Sustainable Design Leaders Summit
- Grown mostly word-of-mouth
- Construction and MEP Leader networks started in 2018
- Dynamic tension between “support group” and collective impact roles.

GREEN COMMONS

PEER NETWORKS

Principles

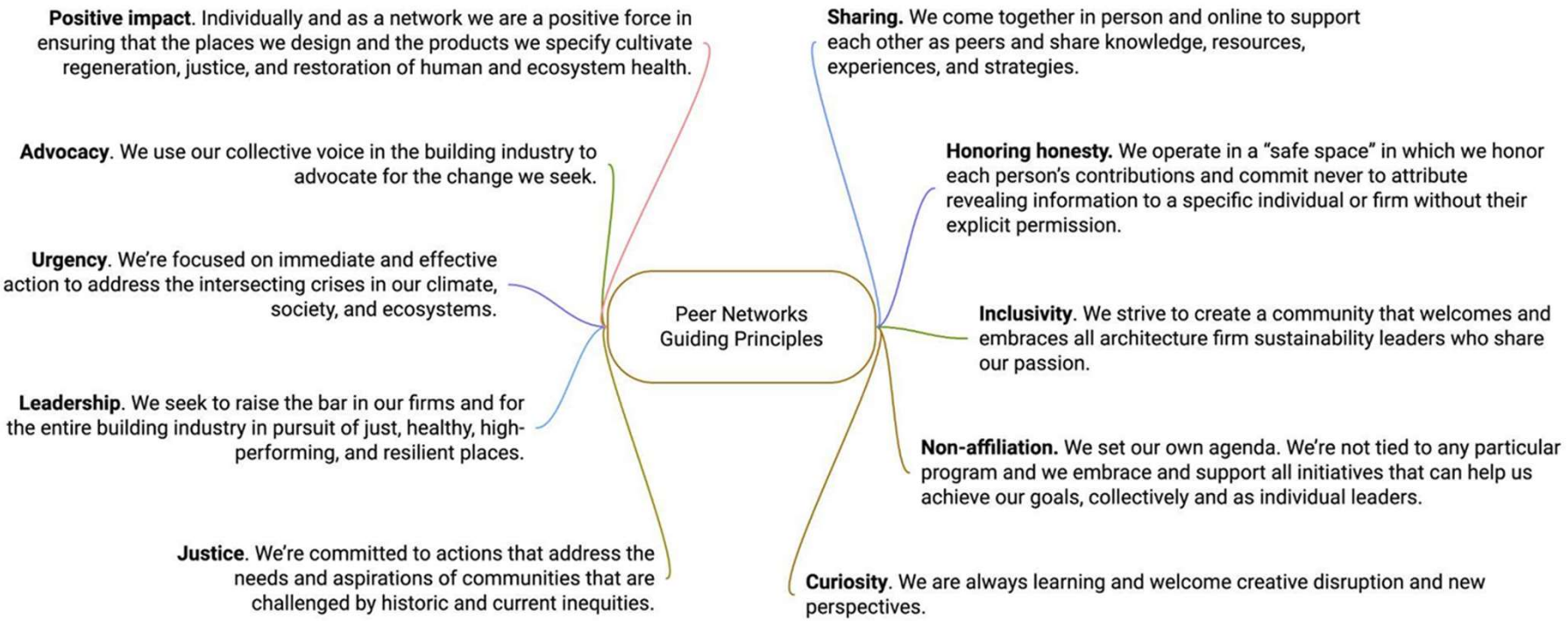
- Qualifications to participate based on role: Careful definition of “peers” to ensure shared experiences and challenges.
- Chatham House rule: learnings can be shared widely, but no attribution without permission

Outcomes

- Helped launch the Health Product Declaration
- Created the Contractor’s Commitment for Sustainability
- Initiated the MEP 2040
- Seeded All for Reuse
- *Empowered hundreds of leaders*

GREEN COMMONS

PEER NETWORKS



Lori Ferriss, Executive Director, Built Buildings Lab

Climate Heritage NETWORK

- “Network of networks”
- Conceived at the Global Climate Action Summit in 2018
- Launched in 2019 at Edinburgh Castle
- Over 500 member organizations representing 100,000s of cultural institutions from around the world

PROBLEM

Climate planning and policy are failing because they:

- Fail to capture social imaginations
- Over-rely on technocratic and market approaches
- Lack diverse voices and perspectives in climate governance

Climate Heritage NETWORK

SOLUTIONS

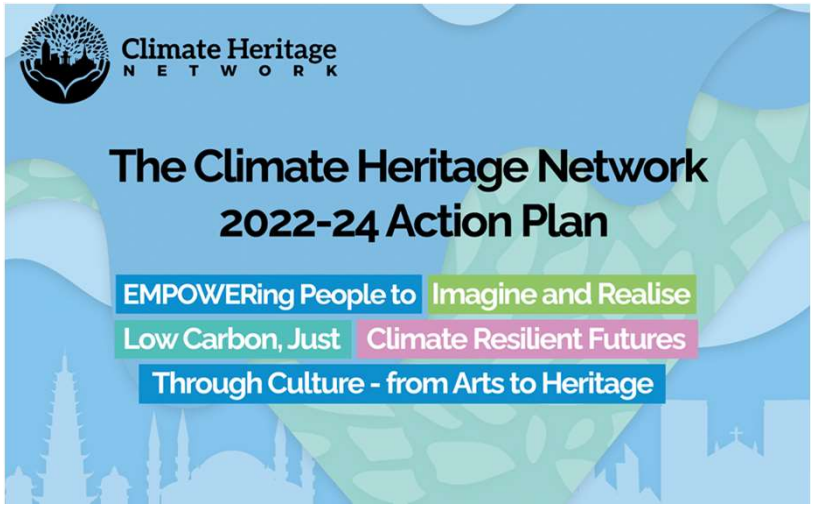
Traditional knowledge, buildings, and landscapes can **point the way** to post-carbon living

Worldviews, cosmovisions, and values held by Indigenous Peoples and local communities never co-opted by modern take-make-waste approaches **offer counterpoints to unsustainable paradigms** of consumption and “progress”

Artistic, creative, and imaginative tools **support transformative reinterpretation** of today’s carbonscapes and their accompanying mindsets.

MISSION V1

MISSION V2



MEP 2040

Committing to Zero

Our Mission:
MEP 2040 is a movement to radically reduce total carbon emissions associated with building systems through collective action.

The Challenge from the Carbon Leadership Forum

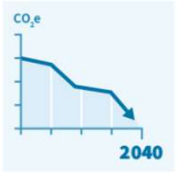
> All systems engineers shall advocate for and achieve net zero carbon in their projects: operational carbon by 2030 and embodied carbon by 2040.

The MEP 2040 Challenge, an initiative conceived of and developed by members of the Carbon Leadership Forum, is designed to ignite building designers, owners, and manufacturers to meet embodied carbon benchmarks and ambitious reduction goals, and be recognized for the significant role they can play towards these targets.

The Commitment from Signatories

To address the impact of the built environment in climate change, systems engineers have a critical role to play in both operational and embodied carbon. While operational carbon has been a targeted with energy efficiency initiatives for some time, setting embodied carbon targets for systems is quite new.

By adopting this Commitment, each firm is confirming that it will:



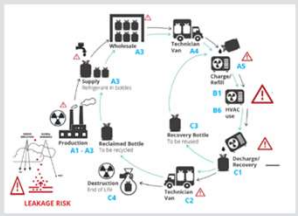
Establish a company plan to reduce operational and embodied carbon across MEP systems on all projects, targeting zero by 2040. Measure and report progress against that plan annually.

Request low-GWP refrigerant availability when designing systems to reduce or eliminate GHG emissions from refrigerants.

Request Environmental Product Declarations (EPDs) in project specifications for MEP system components.

Participate in a quarterly MEP 2040 Forum and a CLF Community discussion group to share lessons learned and contribute to a growing body of knowledge.

Julie Janiski, Principal, Buro Happo



Refrigerants overview

By adopting this Challenge, each MEP engineering and design firm is confirming that it will request low-GWP refrigerant availability when designing systems to reduce or eliminate GHG emissions from refrigerants.

VIEW SLIDES

Requesting EPDs

By adopting this Challenge, each MEP engineering and design firm is confirming that it will request Environmental Product Declarations (EPDs) in project specifications for MEP system components

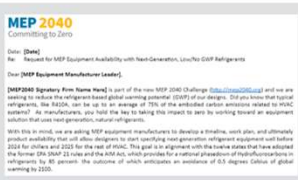
VIEW SLIDES

Specification Language Templates

Recommend to include in most **general/overarching section of specs** for HVAC/MEP Equipment. Includes detailed list of **references** *(Model LCA Specifications from CLF, TM65 methodology, Carbon Definitions for the Built Environment, etc.)* and **definitions** *(EPD, Embodied Carbon, LCA, PCRs, TM65, etc.)*

In "submittals" subsection, asks for embodied carbon submittals. Includes proposed language around: 1) how to determine which equipment requires embodied carbon data; 2) Hierarchy of data sources for embodied carbon.

VIEW TEMPLATES



Call to Action: Sustainable Refrigerants for MEP Systems

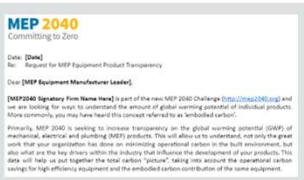
Template for a letter MEP design firms can use to request low-GWP refrigerants in MEP systems.

DOWNLOAD TEMPLATE

Call for Action: Subcontractor Take-off Data

Template for a letter MEP design firms can use to ask subcontractors to help quantify BOM material lists for common building types, and help populate a database with the information to allow informed design decisions to design for a lower embodied carbon future.

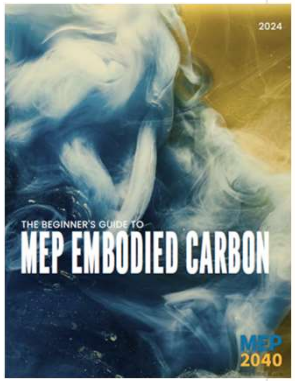
DOWNLOAD TEMPLATE



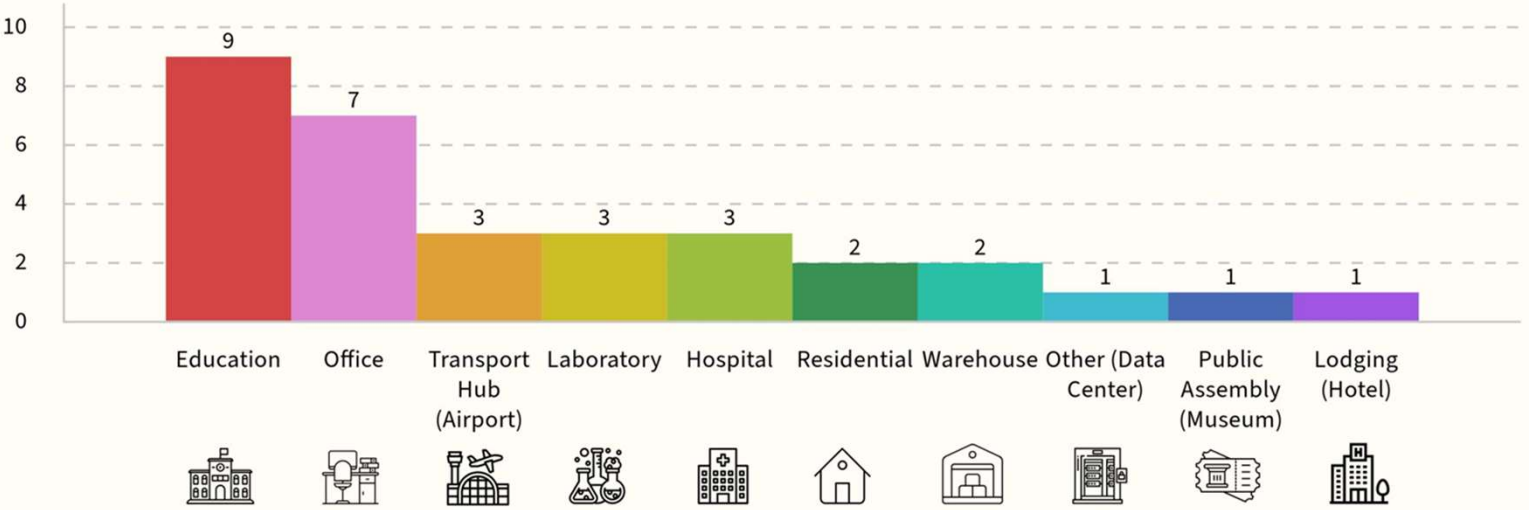
Call to Action: MEP Equipment Product Transparency

Template for a letter that MEP design firms can use in requesting EPDs from manufacturers to promote MEP equipment product transparency.

DOWNLOAD TEMPLATE



WHOLE LIFE CARBON PILOT PROJECTS



MEP 2040

Kate Stephenson, Director of Training & Finance, HELM Construction Soluti

BUILDINGENERGY BOTTOM LINES
WHOLE BUSINESS NETWORKING

BuildingEnergy Bottom Lines is a peer network of 80+ NESEA member businesses dedicated to sustainability in the built environment from across the Northeast who come together to advance triple-bottom line business practices.

James Kitchin, Director of Performance & Provenance, MASS Design Group

How do we rapidly scale regional **plant-based materials** in North America?

> Register for our 2025 Summit in Vermont

Our Path Past & Future: Momentum for a Changing Industry

SE 2050 Data Published **2024**

SE 2050 Becomes SEI Focused Initiative **2023**

SE 2050 First Data Analysis **2022**

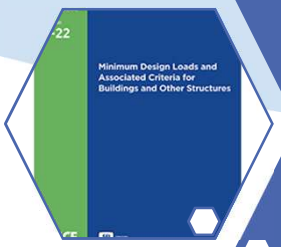
SE 2050 Beta Database Launch **2021**

SE 2050 Commitment Program Launch **2020**

Carbon Leadership Forum Ideates SE 2050 to SEI **2017**

WE ARE HERE

March 2025



Expand Industry Participation

Standards

Education & Advocacy

Data Collection and Analysis

Cross-discipline collaboration/ Alignment

NET ZERO BY 2050

Chris Magwood, Manager,
Carbon Free Buildings, RMI

HomebuildersCAN founded in April, 2024

A community of practice to measure and reduce embodied carbon in home construction

Current membership:

- 55 home building companies
- 85 consultant companies
- 275 individual members

Providing:

- Educational webinars
- Case study library
- Studies/reports
- Connections between organizations

Chris Magwood, Manager,
Carbon Free Buildings, RMI

RMI
HomebuildersCAN
CARBON ACTION NETWORK

It establishes shared measurement

RESNET
RESIDENTIAL ENERGY SERVICES NETWORK
Leading the Path to Net Zero Energy Homes

Draft PDS-01 RESNET 1550, Embodied Carbon

Home building sector needs a way to consistently measure embodied carbon in a way that aligns with design, construction and verification processes unique to homebuilders

Panel Conversation with Andrew

- How do the conditions of collective impact play out in your organization or initiative?

The Five Conditions of Collective Impact

It starts with a common agenda

This means coming together to collectively define the problem and create a shared vision to solve it.

It establishes shared measurement

That means tracking progress in the same way, allowing for continuous learning and accountability.

It fosters mutually reinforcing activities

That means integrating the participants' many different activities to maximize the end result.

It encourages continuous communications

That means building trust and strengthening relationships.

And it has a strong backbone

That means having a team dedicated to aligning and coordinating the work of the group.

Source: collectiveimpactforum.org

Last 10 min- Audience Reflection

- What did you learn from this session?
- How can *you* get involved in a collective impact initiative? Or start one?

Resources & Links:

- Collective Impact
- CLF Regional Hubs
- ECHO Project
- Green Commons Peer Networks
- Climate Heritage Network
- MEP 2040
- BuildingEnergy Bottom Lines
- Bio-Based Materials Collective
- SE 2050
- HomebuildersCAN