Embodied Carbon Action Plan 2023

wsp

SE 2050 | Commitment to Net Zero

Introduction

"As one of the world's largest professional services firms, the greatest benefit WSP can provide in reducing carbon emissions is through our design and advisory services."

Concrete and steel, two of the most common structural materials, represent approximately 21% of global carbon emissions. Throughout the industry, the awareness of embodied carbon has expanded considerably, and public and private sector clients are increasingly requesting support. In 2022, several federal and state laws have been announced that address embodied carbon. WSP is committed to supporting the industry in reducing embodied carbon through planning, design, construction, future end-of-life demolition. WSP strives to measure and reduce embodied carbon in all types of projects from buildings to roads.

WSP is committed to reduce, and ultimately eliminate, embodied carbon in its structural system projects by 2050 as a signatory to the Structural Engineers 2050 Commitment (SE 2050) Program. This is our second Embodied Carbon Action Plan (ECAP) prepared in accordance with the SE 2050 Commitment. Since becoming a signatory in 2021, we've made progress in internal capacity building, educating clients and using and developing tools for embodied carbon measurement.

Company Overview

WSP USA is the U.S. operating company of WSP, one of the world's leading engineering and professional services firms. Dedicated to serving local communities, we are engineers, planners, technical experts, strategic advisors and construction management professionals. WSP designs **Future Ready®** solutions in the buildings, transportation, energy, water and environment markets. With more than 15,000 across the U.S., we partner with our clients to help communities prosper.

WSP has been a leading innovator in structural engineering for nearly seven decades, today providing services related to hybrid structures, mass timber, super-talls, concrete structures, steel structures, complex structures, fire life safety, DfMA and embodied carbon. The firm's projects include New York's One World Trade Center and Steinway Tower; Los Angeles' 888 at Grand Hope Park and Oceanwide Plaza; and Boston's One Dalton. Recent acquisitions of tksc1 and Englekirk Structural Engineers in 2021 and Odeh Engineers (a SE 2050 Signatory) in 2022 have further strengthened our structural engineering and embodied carbon reduction capabilities. Read more about our structural engineering services.

WSP's specialty teams focused on climate, resilience and sustainability have been helping clients measure and reduce life cycle carbon emissions for more than two decades. We conduct rigorous analyses for clients to quantify embodied carbon and other environmental impacts of their projects and buildings—from data centers and commercial buildings to transportation infrastructure and multi-family housing. Read more about our sustainability, energy and climate change services.

WSP has established an ambitious commitment to achieve net zero emissions across our value chain by 2040, supported by Science Based Targets initiative (SBTi)- approved greenhouse gas emissions reductions targets. WSP has further committed to measuring and reducing GHG emissions from our designs and advice. Read more in WSP's Climate Transition Plan.

Education

2022 Highlights

Our goal for 2022 was to increase the level of knowledge of embodied carbon across WSP USA. Building on a 3-part live webinar series held in 2021, we developed a 1-hour training course for structural engineers available on demand that provided an overview of embodied carbon, Environmental Product Declarations (EPDs), significant sources of embodied carbon within the built environment and measurement tools. Leadership within our Property & Buildings and Transportation National Business Lines advocated for all structural engineers to complete the training.

We have established an Embodied Carbon Task Force that meets monthly to share best practices, develop guidance and discuss updates on embodied carbon tools and regulations. In 2022, the task force continued to develop knowledge sharing through our internal portal.

2023 Commitments

We plan to continue to promote completion of our 1-hour embodied carbon training as well as training available by other professional organizations (e.g., USGBC, ISI, ASCE) and to host at least two internal webinars on the subject. We are currently developing custom whole carbon/embodied carbon measurement tools for buildings and transportation projects. These tools will enable WSP to scale the integration of carbon measurement into the project delivery process. Once developed, we plan to develop training on how to use and gain insights from these tools and processes.

SE 2050 Champions

Teresa Vangeli is a structural engineer and Vice President, Advisory Services, Climate, Resilience & Sustainability. She resides in the Boston area. Teresa is vice-chair of the ASCE Committee on Sustainability and a founding member of the Infrastructure 2050. Since 2004, when Teresa received LEED AP, she has advocated for inclusion of resilience and sustainable design integration into building and infrastructure projects and construction. She feels that every project can be more sustainable. Teresa has taken a leadership role in the advocacy of embodied carbon issues for infrastructure projects. With her experience in design and construction, Teresa brings engineers and contractors along with the clients/owners to support more resilient and sustainable buildings and infrastructure.

Sarah Buffaloe is a Lead Consultant for Built Ecology at WSP USA. She joined the firm in November 2014 and resides in Washington, D.C. Her five years specializing in sustainable materials at the U.S. Green Building Council, combined with her three years of architectural design experience and academic pursuits in material research and LCA, give her a unique perspective on building materials and their life cycle and durability. Sarah is the practice leader for embodied carbon and WBLCA on the Built Ecology team and was recently awarded a development grant for an early design whole carbon tool as part of WSP's Accel program. Sarah is an advocate for embodied carbon as a decision-making framework in design and collaborates with the WSP Global Carbon Tools Working Group to integrate embodied carbon tools into the WSP design workflow in the US.

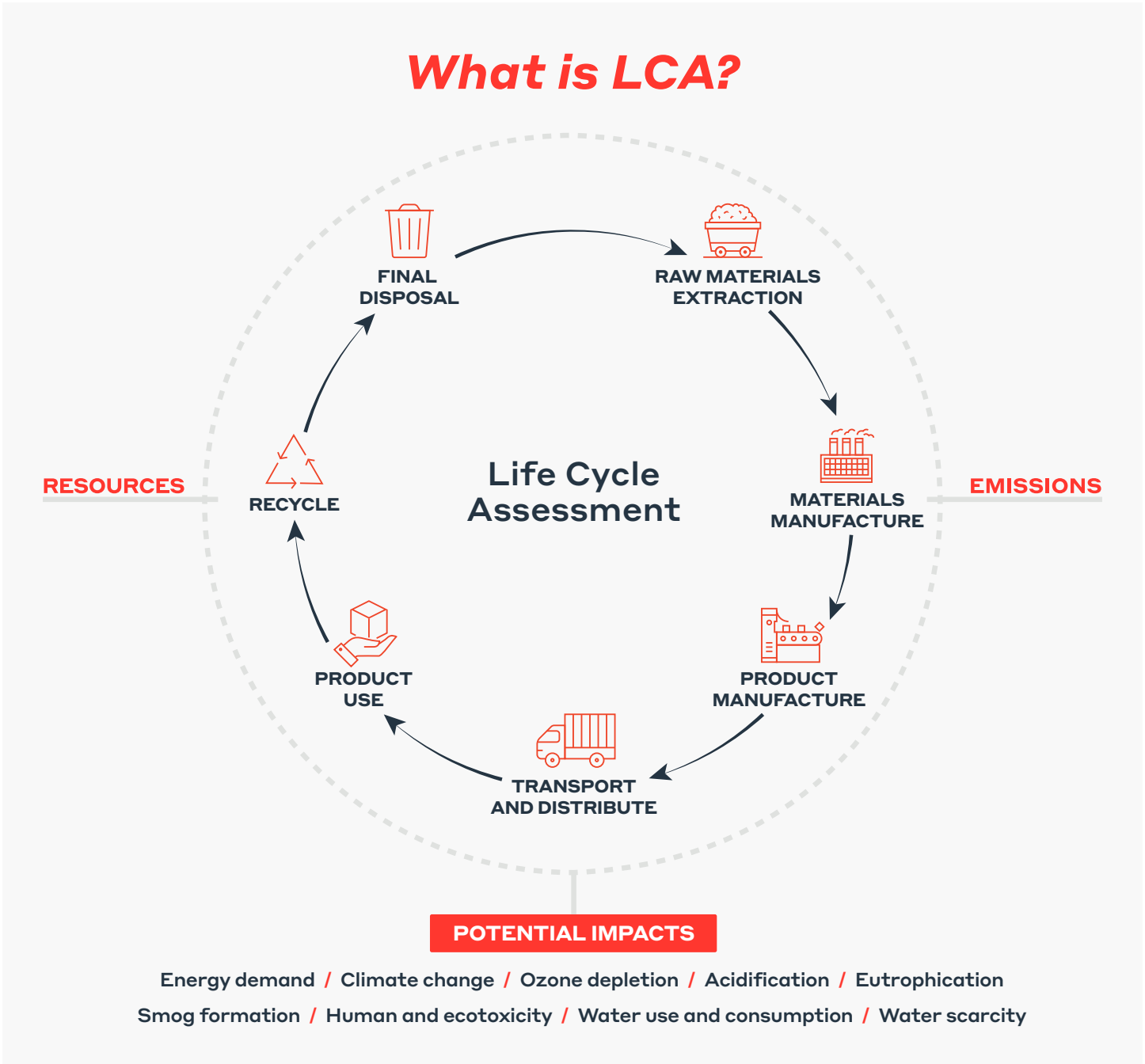
Life cycle assessment and carbon footprints

Life cycle assessments (LCAs) offer insight into product and service environmental impact drivers by conducting rigorous and in-depth analyses. This technique guides produce design innovation and improves sustainability throughout the value chain. A LCA does not tell you what is better or best, it tells you what is.

A carbon footprint is a LCA that only quantifies GHG emissions in kg CO2 equivalents for all GHG emissions, including refrigerants. Carbon footprints of products follow ISO standard 14067.

At WSP, we guide clients through the LCA and carbon footprint process and help derive valuable insights, drive strategic decision-making and substantiate external communications based on the results. We use LCA as a practical and cost-effective business solution to evaluate carbon, water and other impacts from cradle-to-grave.

We help clients differentiate products in the marketplace, enhance brand, identify cost savings, increase stakeholder engagement and validate product certifications and environmental claims. We also identify hot spots in the supply chain or design of a product to improve sustainability.



Reporting

WSP has a goal of scaling and institutionalizing the practice of embodied carbon quantification over time, and we are committed to reporting on both buildings and transportation projects to represent more of the built environment. Our ultimate goal is to make embodied carbon a routine part of engineering delivery from reduction considerations to reporting.

Measurement Approach

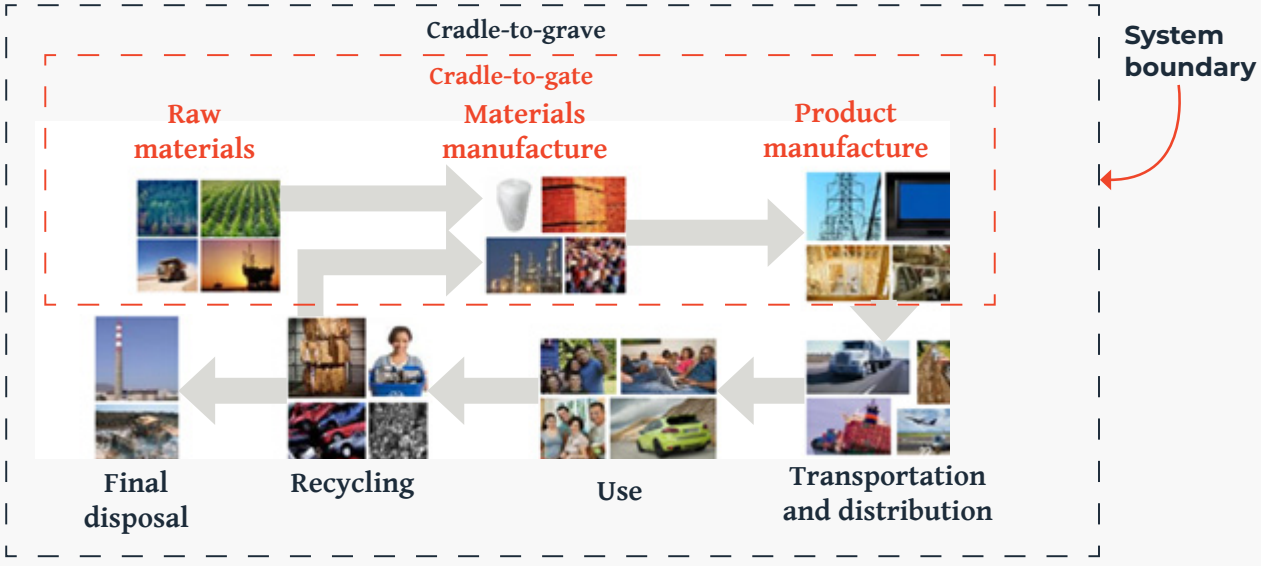
For some projects, WSP will use a full LCA as the basis of measuring embodied carbon for structural designs. Full assessments will utilize national and regionally applicable life cycle inventory databases and EPDs. In other cases, we will focus only on measuring the project's embodied carbon footprint. We use different public and custom measurement tools depending on the scope of the assessment, stage of the project and the client's requirements.

For most projects, we plan to focus on cradle to gate emissions (A1 – A3). For projects seeking certain types of sustainability certifications (e.g., LEED, ILBC, and Envision), we evaluate additional modules. For LCA or carbon footprints, the project is assessed at least twice. The first estimate occurs after 30% design to support discussion on embodied carbon reduction strategies. The second estimate will be conducted after 100% design in order to report the total embodied carbon of the project.

2022 Highlights

Recognizing that the building sector is more advanced in the measurement of embodied carbon, we have developed separate reporting goals for buildings structures and transportation structures. In 2022, we continued evaluating and using several external embodied carbon measurement tools and developed custom tools using Excel and Bentley iTwin. We used Tally® to estimate embodied carbon emissions for the five building projects we submitted to the SE 2050 database. Our reported projects represent structural designs from across the US from tall towers to multi-family residential including steel frame, concrete frame, and hybrid structures. In 2022, we also collaborated with Odeh Engineers, a recent WSP acquisition, on measurement of a mass timber building.

WSP developed an embodied carbon measurement tool using Bentley iTwin's and Microsoft Power Bi and which incorporates reality data from 360 cameras, drones, mobile LiDAR and aerial mapping and embodied carbon data from EC3. The resulting 3D models, or digital twins, enable early consideration of sustainability aspects for a project. Carbon emission reduction opportunities can be highlighted, along with the corresponding cost implications. The tool received a 2022 Bentley Founder's Honors Award.



System boundary
Set of criteria specifying which unit processes are part of a product system

2023 Commitments

In 2023, we plan to report on ten building projects and five transportation projects. Our LCA practitioners and several members of the Embodied Carbon Task Force are proficient in embodied carbon measurement using different tools.

Embodied Carbon Reduction Strategies

WSP considers a variety of embodied carbon reduction strategies in our projects. Strategies range from developing low-carbon concrete specifications, increasing the percentage of structure reuse/rehabilitation, adaptive reuse, reducing material quantities and incorporating low-carbon materials. Our embodied carbon reduction plan for building and transportation structures is outlined below.

Buildings

Transportation

2022 Highlights

After year one of our commitment, we have the following lessons to share:

- It is challenging to align around a single methodology and carbon measurement tool across the business. While the math is simple (quantity x emissions factor), there are many factors to consider when selecting your boundaries and measurement tool such the project stage, whether the project is designed in BIM, data availability and granularity and client requirements.
- As expected, we found that it is easier to integrate embodied carbon measurement into the building sector compared to the transportation sector. The building sector has been designing in BIM for many years and uses more consistent naming conventions. The transportation sector is still using CADD in many jurisdictions and component names vary by state.
- While we want to advocate for the specification and use of innovative technologies in building materials, we have experienced challenges with regional availability, cost delta, and design team familiarity with the products.

Low Carbon Solutions Database

In 2022, WSP launched a tool to collect information on low-carbon solutions for the built environment. The tool asks suppliers to answer questions related to the sustainability and engineering attributes of their products. This enables our experts to evaluate products, consider potential use cases and provide valuable information to project managers and engineers who are involved in making decisions related to material selection and developing product specifications. Read more.

2023 Commitments

Our goals for 2023 focus on increasing the percentage of structural engineers who have received training on embodied carbon, better understanding carbon measurement for transportation structure and developing tools to enable easier measurement of embodied carbon for buildings and transportation. Rather than define a specific reduction target, we initially plan to develop a standard building specification that will include minimum requirements for embodied carbon performance.

Case Study: Confidential Transportation Client

WSP developed an alternative to the standard pier design of a highway river crossing without reducing the width of the roadway. One of the benefits of the proposed structural optimization is a reduction in the volume of concrete and reinforcing steel in the pier and pilecap. WSP calculated the reduction in embodied carbon resulting from the non-standard design using Building Transparency's Embodied Carbon Calculator (EC3). WSP also identified potential embodied carbon reduction opportunities.

Methodology

- The design team provided the volume of concrete and reinforcing steel reduction for the alternative pier design.
- Typical EPDs for the concrete and reinforcing were determined based on the client's specifications leveraging EC3.
- The value of the embodied carbon from the EPD was multiplied by the material quantity to estimate the quantity of embodied carbon savings of the proposed alternative design.

Embodied Carbon Savings

Reduction in Materials from Alternative Design	Embodied Carbon Savings
67,132 cubic yards concrete	20,677 MT CO^2e
9,900,000 lbs. reinforcing steel	4,118 MT CO^2e
Total Savings	24,785 MT CO^2e

The embodied carbon savings is equivalent to the greenhouse gas emissions from 5,340 gasoline powered passenger vehicles driven for one year.

Additional Embodied Carbon Reduction Opportunities

- **Develop a low carbon concrete specification:** Specifications for concrete mix designs have a significant impact on the embodied carbon of the finished concrete members. Specifications may include:
  - **Use supplementary cementitious materials (SCM).** Use of fly ash, slag cement, silica fume, lime and/or materials to reduce the total amount of Portland cement.
  - **Use 56-day compressive strength cast-in-place concrete** without impacting the strength requirements. Slight optimizations like using the 56-day compressive strength can lead to a reasonable reduction in embodied carbon without changing the final compressive strength. Consideration should be given to not use early high strength concrete for cast-in-place caissons, piers, and pilecaps where it makes sense with the construction scheule.
- **Require EPDs for all major construction materials:** The EPDs should conform to ISO 14025 standards with at least a "cradle to gate" scope. EPDs are a means of comparing products on equal environmental grounds. This strategy is usable with all specifications, both Standard and Performance specifications. EPDs are becoming available for more products. For products without a specific EPD, the project team may use industrial available EPDs that most fit the specific product. Where possible, specifications shall list products with EPDs.
- **Design for optimization of structural system and reasonable reduction of embodied carbon:** Structural engineers can include the evaluation of the embodied carbon along with design alternatives. With close collaboration between the all the design disciplines (architectural/MEP/civil) and the structural engineers, the design of the structural systems can be optimization resulting in lower embodied carbon. The design alternatives may include but not limited to material selection, framing system, span consideration.
- **Develop an Embodied Carbon Reduction Plan** for a project to assign a carbon reduction goal and method. The embodied carbon reduction can be as a percentage or as an embodied carbon limit.
  - The project may set an embodied carbon reduction goal for the entire project and measure the embodied carbon on all materials or all major materials. This method functions as an embodied carbon budget. The design team would employ multiple strategies to meet the embodied carbon goal. This would allow higher cement usage for specific structural concrete elements while reducing embodied carbon on other materials, i.e., steel or structural timber, and other concrete elements, i.e., caissons and slabs-on-grade.
  - The project may set a percentage reduction, such as 10% below the baseline on specific materials and systems including structural, MEP, and enclosure systems.
- **Environmentally friendly admixtures** can produce the required concrete strength and reduction in embodied carbon. Product improvements include both the manufacture and the materials used in the manufacture. Bio-based admixtures have ingredients from polymers produced from renewable raw materials such as sugar cane and other vegetable and vegetation. Use of bio-based ingredients reduces the oil-based raw materials thus lowing the embodied carbon of the admixture production. A concrete superplasticizer admixture substantially reduces water in a concrete mixture while maintaining workability. This strategy is usable with all specifications, both standard and performance specifications. Where possible, specifications shall list environmentally friendly admixture products.
- **Innovative Design Tools.** Beyond compressive strength considerations, there are other opportunities for further carbon reductions through design optimization using software innovations in CADD, 3D design tools and analysis software. Not only can the embodied carbon be calculated on several structural alternatives, the innovative 3D design tools can automatically update the embodied carbon of the 3D model. Combining the embodied carbon analysis with other metrics such as quantities estimates, and scheduling tools provides the owner and the design team with a full picture of the project. These tools support collaboration and integration.

Advocacy

WSP understands the importance of education and advocating for embodied carbon reduction in the engineering industry not only within the USA but throughout the world. We are committed to educating WSP employees, clients and the broader industry.

2022 Highlights

In 2022, WSP delivered presentations about embodied carbon to the following internal and external audiences:

5 clients
including developing a case study for one client

2 internal webinars

2 WSP External Snack-and-Learn presentations:

- How can mass timber, other sustainable materials and construction methods help to reduce the embodied carbon of the buildings we design?: This webinar explored modern methods of construction inclusive of mass timber and alternative construction methods
- Benchmarking carbon in our building designs – a study by WSP in the UK: This webinar presented the results of our initial benchmarking strategy looking at embodied and operational carbon; including the analysis, methodology and what this means for our designs going forward.

1 podcast: Designing Net Zero Labs

2 industry associations:

- The Institute for Sustainable Infrastructure
- Penn State Transportation Engineering and Safety Conference

We have also authored several WSP Insights articles on the topic of embodied carbon, including:

- Decision-Making Essentials for Sustainable Infrastructure: With aging infrastructure and a growing population, new projects will inevitably be needed, but the biggest industrial contributors to GHGs are concrete, steel and asphalt production. It is important to ensure that our designs are focused on minimizing embodied carbon by making the design as light as possible, which can be realized by reducing the amount of material required as well as being selective in the materials used. Fully detailed 3D models and digital twin technology are transforming decision-making capabilities in terms of reducing embodied carbon, making sound investments and developing effective collaborative environments; digital twins make it possible to test ideas and bring the best solutions throughout project life cycles.
- 5 Thoughts on Mass Timber: In the drive to decarbonization, mass timber may offer a way to reduce embodied carbon. The reason is twofold: when trees grow, they absorb CO2 from the atmosphere, and using timber in construction means replacing carbon-intensive materials, such as concrete or steel, with a more carbon-friendly alternative.
- Steeling ourselves for a sustainable future: Beyond decarbonizing steel manufacturing, there are some important things we can do when designing with steel to make sure structures have lower 'embodied' and operational carbon emissions - for instance, minimizing onsite waste, increasing the opportunity to repurposing structures, reusing and recycle steel, and enhancing passive insulation in buildings. You don't always have to go big, just simply tweaking here and there contributes to reducing the embodied carbon of a structure. Individually, these changes may appear minuscule, but compound these and up to 50% carbon savings can be achieved.

2023 Commitments

WSP is advocating reduction of embodied carbon in all project types. In 2023, WSP commits to delivering at least two external presentations focused on embodied carbon reduction in structural systems. These presentations will be either local professional chapters or national conferences.

Realizing the important role our clients play, WSP has made a point of providing informal educational opportunities to clients through the presentation of case studies, lunch and learns, and collaborative workshops. We are committed to continuing this tradition with at least two topics per year that include the reduction of embodied carbon, operational emissions and eliminating roadblocks to sustainability.

WSP will continue to document sustainable practices, share best practices and monitor performance. In a collaborative manner, WSP will reach out to manufacturers, research institutions, and public officials. Encouraging open discussion and sharing of data will encourage positive innovation across all project types and bring more firms to the table.

Recognizing that other countries have already been engaged in reducing embodied carbon , WSP is advocating a global view and is leveraging the internal global network for disseminating data and receiving lessons learning.

There is an opportunity for every type of project to reduce embodied carbon and possibly sequester carbon. WSP encourages every project team to measure embodied carbon and implement reduction strategies.

Industry and Professional Association Memberships

WSP is active in several professional organizations working to advance the measurement and reduction of embodied carbon, including:

- WSP is a sponsor of the Carbon Leadership Forum (CLF) and participates in monthly meetings and provides opportunities for members of the WSP community. The CLF offers Regional Hubs for professionals connect and learn about reducing embodied carbon in projects and other opportunities.
- WSP supports membership in the Institute for Sustainable Infrastructure and the United States Green Building Council. These organizations provide online webinars for continuing education and maintenance of Envision and LEED, respectively.
- WSP supports the opportunity of active participation in the professional societies including American Society of Civil Engineering (ASCE), the Structural Engineering Institute (SEI) and the associated local chapters. Opportunities include presentations, education, and research.

Infrastructure 2050

WSP is supporting the formation of Infrastructure 2050, which is a collaboration between SE 2050 and the ASCE Committee on Sustainability. SE 2050 has primarily focused on reducing embodied carbon in building systems. Infrastructure 2050 is being deployed to focus on infrastructure, including bridges, ports, roadways, runways, tunnels, substations, pipelines, and data centers. Through educational guidance, community discussions, and data management, Infrastructure 2050 aims to provide a platform for the Engineering community to support beneficial policy development with data-backed information at scale. Infrastructure 2050 plans to launch publicly during the ASCE Inspire Conference in November 2023.

SE 2050 Program Requirements

Action	Required/ elective	Status
Education		
Outline of firm's strategy to educate employees about embodied carbon	Required	See Education section
Provide a narrative of how the Embodied Carbon Reduction Champion will engage embodied carbon reduction at each office	Required	See Education section
Present at least one webinar focused on embodied carbon and make a recording available to employees	Required	See Education section
Create an embodied carbon interest group within your firm and provide a narrative of their goals	Elective	See Education section
Have one representative of your firm attend quarterly external education programs provided by SE 2050, CLF or other embodied carbon resources	Elective	WSP is a sponsor of CLF and attends monthly meetings. Several employees also participate in local chapters.
Maintained an Embodied Carbon SharePoint page to share resources on how to measure and reduce embodied carbon	Elective	See Education section
Reporting		
Provide narrative of how WSP plans to measure, track and report embodied carbon data	Required	See Reporting section
Describe the internal training for embodied carbon measurement you provided or will provide	Required	See Reporting section
Report a minimum of 2 projects per US office with structural engineering services to the SE 2050 Database (not required to submit more than 5 projects per firm)	Required	See Reporting section
Facilitate two training workshops on embodied carbon measurement	Elective	See Reporting section
Embodied carbon reduction strategies		
Set an EC reduction goal for the coming year and an implementation narrative	Required	See the Embodied Carbon Reduction Strategies section
Summarize lessons learned as a firm over the previous year of embodied carbon reduction	Required	See Reduction Strategies section
Develop a project case study highlighting opportunities to reduce embodied carbon	Elective	See Reduction Strategies section
Develop a carbon reduction tool	Elective	See Reduction Strategies section
Advocacy		
Provide a narrative on how WSP shares knowledge and data to accelerate EC reduction	Required	See Advocacy section
Describe value of SE 2050 to clients	Required	See Advocacy section
Publicly declare your firm as a member of the SE 2050 Commitment however you see fit	Required	See press release
Give an external presentation on embodied carbon that demonstrates a project success or lessons learned	Elective	See Advocacy section
Support the launch of the Infrastructure 2050 initiative to promote embodied carbon reduction in infrastructure	Elective	See Advocacy section

Cautionary Language Regarding Forward-Looking Statements

In addition to disclosure of historical information, WSP may make or provide statements or information in this report that are not based on historical facts and which are considered to be forward-looking information or forward-looking statements under Canadian securities laws. Forward-looking statements relate to future events or future performance and may include, but are not limited to, estimates, plans, expectations, opinions, forecasts, projections, guidance or other statements that are not statements of fact, including in particular, our GHG emissions reduction objectives which include, without limitation, our objectives concerning supporting the industry in reducing embodied carbon in all types of projects, reducing and ultimately eliminating embodied carbon in WSP's structural system projects by 2050, achieving net zero emissions across our value chain by 2040, measuring and reducing emissions from our designs and advice, promoting completion of our embodied carbon training, hosting two internal webinars, developing custom carbon measurement tools, developing training, focusing on cradle-to-gate emissions, reporting on ten building projects and five transportation projects, increasing the percentage of structural engineers trained on embodied carbon, better understanding carbon measurement for transportation structures, developing a standard building specification, educating WSP employees, clients and the broader industry, advocating reduction of embodied carbon, delivering two external presentations focused on embodied carbon and sharing best practices. A statement made is forward-looking when it uses what we know and expect today to make a statement about the future. Forward-looking statements can typically be identified by terminology such as "may", "will", "should", "expect", "plan", "anticipate", "believe", "estimate", "predict", "forecast", "project", "intend", "target", "potential", "continue" or the negative of these terms or terminology of a similar nature.

Forward-looking statements, by their very nature, are subject to inherent risks and uncertainties and are based on several assumptions, both general and specific, which give rise to the possibility that actual results or events could differ materially from our expectations expressed in, or implied by, such forward-looking statements and that our business outlook, objectives, plans and strategic priorities may not be achieved. These statements are not guarantees of future performance or events, and we caution readers against relying on any of these forward-looking statements. Forward-looking statements are presented in this report for the purpose of assisting readers in understanding, in particular, certain key elements of our climate risks and opportunities objectives, and in obtaining a better understanding of our anticipated operating environment. Readers are cautioned, however, that such information may not be appropriate for other purposes.

We have made certain operational and other assumptions in preparing the forward-looking statements contained in this report. In particular, our climate risks and opportunities are based on a number of assumptions including, without limitation, the

following principal assumptions: sufficiency of internal and external resources; availability of data needed to estimate embodied carbon emission; effectiveness of existing carbon measurement tools; our ability to create custom carbon measurement tools; client willingness to prioritize carbon reduction; availability of low-carbon products; our ability to develop and implement various corporate and business initiatives; including new procedures, policies and targets to decarbonize our operations and supply chain, reduce our energy consumption and foster a new culture of low carbon behavioral change and choices; our ability to replace our vehicle fleet with low/zero emission vehicles; our ability to reduce business travel; our ability to access and implement all technology necessary to achieve our science-based GHG emissions reduction targets (SBTs), as well as the development and performance of such technology; our ability to purchase sufficient credible carbon credits and renewable energy certificates to offset or further reduce our GHG emissions, if and when required; sufficient supplier and business partner engagement and collaboration in setting their own SBTs and reducing their own GHG emissions; no new business acquisitions or technologies, investments or joint ventures that would materially increase our anticipated levels of GHG emissions; no negative impact on the calculation of our GHG emissions from refinements in or modifications to international standards and no required changes to our SBTs pursuant to the Science Based Targets initiative (SBTi) methodology that would make the achievement of our updated SBTs more onerous.

These assumptions also include those described in the "Forward-Looking Statements" section of each of WSP's 2022 Annual Management's Discussion and Analysis ("MD&A") dated March 8, 2023, and Managing our ESG Impacts document dated April 12, 2023, which sections are incorporated by reference in this forward-looking statement. Our MD&A and Managing our ESG Impacts documents are available on our website, and the MD&A is also available at sedar.com. Subject to various factors which are difficult to predict, we believe that our assumptions were reasonable at May 10, 2023. If our assumptions turn out to be inaccurate, actual results or events could be materially different from what we expect.

Important risk factors that could cause actual results or events to differ materially from those expressed in, or implied by, the previously-mentioned forward-looking statements and other forward-looking statements contained in this report, include, but are not limited to factors such as: failure to collect data required to estimate embodied carbon emissions; failure to identify or develop scalable carbon measurement tools; failure to obtain client approval for carbon measurement and/or use of low-carbon products; existing codes, standards and permits that prohibit certain design changes and/or material substitution; low-carbon product availability and cost; the failure to implement sufficient corporate and business initiatives; our inability to collect GHG emissions data from acquired companies, including for historical years; unwillingness of suppliers to disclose GHG emissions data and reduce emissions, including for historical years; unavailability of electric vehicles and failure to install electric vehicle chargers at leased office space; unavailability of energy efficient buildings; failure of governments to commit to reduce GHG emissions and mitigate the impacts of climate change, which may cause events or results to differ materially from the results expressed or implied in any forward-looking statement.

These and other risk factors that could cause actual results or events to differ materially from our expectations expressed in, or implied by, our forward-looking statements are discussed in this report as well as in section 20, Risk Factors of the MD&A, which section, and the other sections of the MD&A referred to therein, are incorporated by reference in this forward-looking statement.

WSP's forward-looking statements are expressly qualified in their entirety by this forward-looking statement. Unless otherwise indicated by us, the forward-looking statements contained in this report describe our expectations as of May 30, 2023, and, accordingly, are subject to change after such date. Except as may be required by applicable securities laws, we do not undertake any obligation to update or revise any forward-looking statements contained in this report, whether as a result of new information, future events or otherwise.

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ABOUT US

WSP USA is the U.S. operating company of WSP, one of the world's leading engineering, environment and professional services firms. Recognized on Fast Company's Brands that Matter List for 2022 as a top Community-Minded Business, WSP USA brings together engineers, planners, technical experts, strategic advisors and construction management professionals who are dedicated to collaborate in the best interests of serving local communities. WSP USA designs lasting solutions in the buildings, transportation, energy, water and environment markets. With more than 15,500 employees in 300 offices across the U.S., WSP partners with its clients to help communities prosper.

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