New York State Embodied Carbon Near-Term Recommendations

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Introduction

The New York State Embodied Carbon Working Group is a newly-formed initiative working to identify high-impact, near-term policy recommendations to reduce embodied carbon across New York State's built environment—the emissions and environmental impacts associated with the production, transportation, installation, maintenance, and disposal of construction materials.

Over a span of three months in 2025, this working group has begun to chart a course for New York State's design and construction sector that is sustainable, economically vibrant, and socially beneficial, which will ultimately result in a forthcoming New York State Embodied Carbon Action Plan.

The next decade is critical to demonstrate to decision-makers that there is an opportunity to activate impactful low-embodied carbon design through a variety of levers such as adaptive reuse, circularity, material efficiency, material substitution, and low-carbon materials.

This document provides a strategic summary of the vision and near-term recommendations of our forthcoming Action Plan, which will inform policymakers on practical pathways to achieve New York State's ambitious climate goals, foster innovation, create jobs, and build healthier, more resilient communities. Complementing additional efforts already underway by state and local entities—such as New York State Office of General Services (OGS) Executive Order 22 Embodied Carbon Guidance and New York State Homes and Community Renewal 2025 Sustainability Guidelines—these recommendations are impactful, actionable in the near future, and foundational to the overarching vision. They represent a subset of what is needed to transform the way building materials are used in New York State.

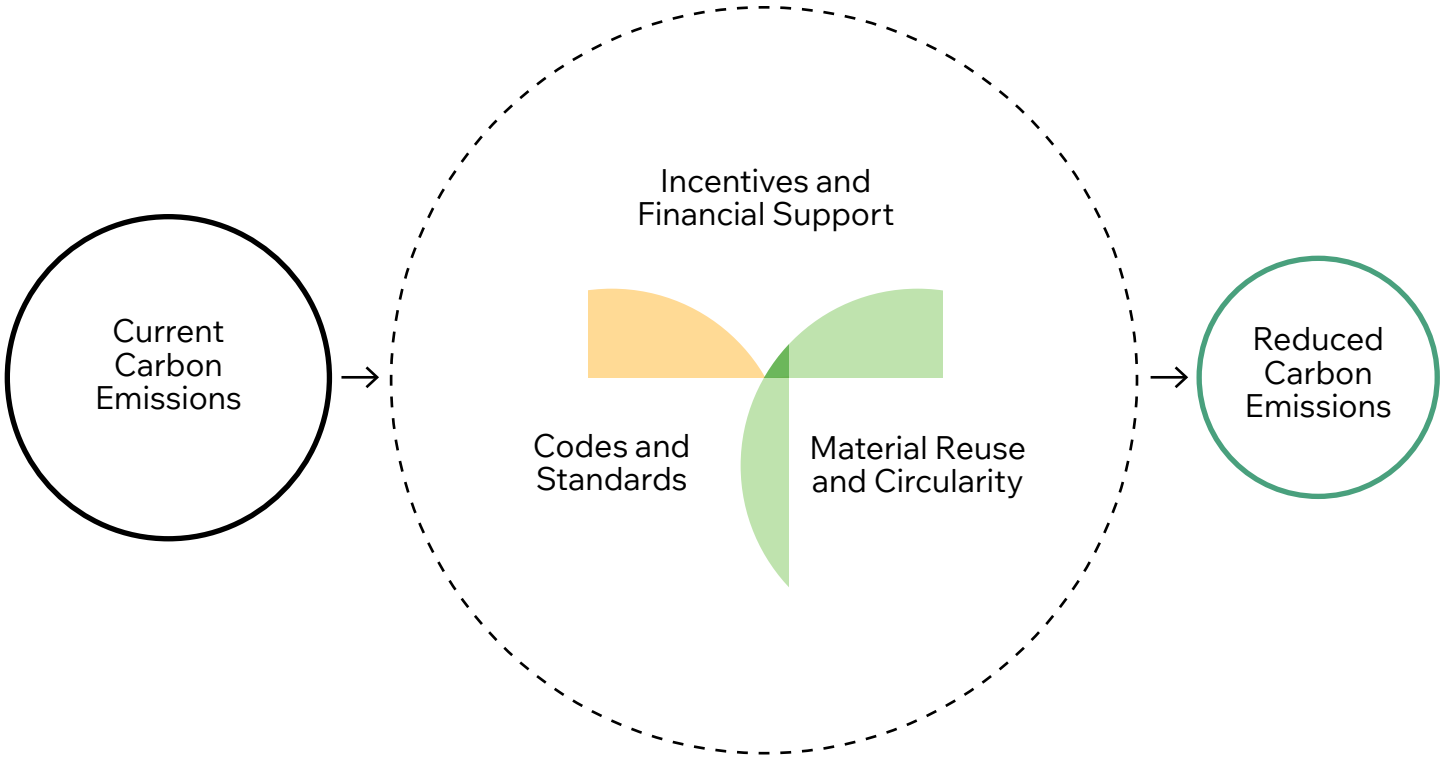
This approach is organized into three interconnected strategies: providing upfront financial support, scaling up requirements in codes, and shifting towards waste reduction and reuse. The sections that follow interact to describe the pieces needed for market transformation towards valuing material stocks, the reuse of existing buildings, and enabling a low-carbon emissions, circular economy—an economic system aiming to eliminate waste by keeping materials in use at their highest value, for as long as possible. This includes championing the reuse and adaptation of entire existing buildings and materials, and enabling widespread adoption of design for disassembly in new construction so future buildings can be easily and profitably taken apart.

Overarching Vision

In 10 years' time, we envision a built environment where an increasing number of buildings in New York State will be reused or deconstructed rather than demolished. Designers of all large building projects, both public and private, will take action to reduce embodied carbon. Embodied carbon will be disclosed at the time of build, and the new standard for clean design and construction will be achieved through a series of coordinated measures designed to drive economic growth and market innovation.

This vision aligns directly with New York State's Climate Leadership and Community Protection Act (CLCPA) goals, including achieving an 85% reduction in greenhouse gas emissions below 1990 levels by 2050. In the following sections, this overarching vision is expanded upon in each of the interconnected strategies.

Embodied Carbon Near-Term Recommendations for New York



Incentives and Financial Support

Vision:

Statewide low-carbon, circular construction will be the norm, supported by a mix of market incentives and policy. Early financial support will have catalyzed market transformation by expanding the availability of low-carbon materials and funding regional hubs, cultivating a workforce of knowledgeable practitioners, funding digital material disclosure tools, and ensuring broad literacy on embodied carbon across the building sector. To achieve the emission reduction goals defined in the CLCPA, a policy strategy to reduce embodied carbon will be adopted, pairing financial and technical assistance with tools that streamline permitting, expedite approvals, and simplify the administrative burden for owners, designers, builders, and manufacturers in an economically advantageous manner that ensures long-term program stability.

Near-Term Recommendations:

1. **Adopt a sales tax exemption** for low-carbon intensive construction materials, establish a grant program for low-carbon material manufacturers to develop EPDs and deconstruction pilot projects, and expand Property Assessed Clean Energy (PACE) eligibility to cover embodied carbon.[1] This will reduce costs for low-carbon intensive construction materials while expanding access to financing.

2. **Support best-in-class demonstration projects** to push the market and design industry forward, showing innovative opportunities for embodied carbon reduction. Create a new program similar to NYSERDA's Building of Excellence and modeled off Massachusetts Clean Energy Center's Embodied Carbon Reduction Challenge. This will also allow the state to collect data on performance, costs, and feasibility for wider adoption, as well as establish a digital material bank to centralize data for new and salvaged materials.

3. **Establish an extended producer responsibility program** for construction materials,[2] to hold producers financially accountable for the whole life cycle of their products. The fees collected will support incentives for utilizing low-carbon materials, reduce the public cost of waste management, workforce training programs, and an interagency task force to oversee and establish reuse infrastructure.

1 This is similar to proposals outlined in A06566 (Carroll) / S07648 (Kavanagh).

2 This is similar to the proposal outlined in S01460 (Kavanagh).

Codes and Standards

Vision:

New York State will have adopted a mandate to lead the country in achieving ambitious reductions in the greenhouse gases of the built environment through updates in code requirements. To achieve this, common project carbon emission accounting requirements will be in effect, applicable to all private and public construction works, that promote reductions in whole life carbon emissions of assets. Working in tandem with financial incentives, the code would reward the use of salvaged materials and low-carbon products. This will lead to a future where the majority of consumed construction materials within New York State have a product-specific EPD that shows improvements against typical products. The final state for codes would seek to cover whole life carbon emissions—moving New York State towards a holistic approach to managing the greenhouse gases of the built environment.

Near-Term Recommendations:

1. **Pass a statutory emissions reduction requirement** with dedicated implementation support to reduce the greenhouse gas emissions of the built environment.[3] Agencies are already making progress on reduced emissions, but do not have a clear reduction target to work towards, presenting challenges for dedicating state resources, showing progress, and indicating success over time.
2. **Develop roadmaps with interim targets** to operationalize building-scale, product-scale, and infrastructure-scale asset reuse and reduction targets into relevant code pathways, in service of achieving the overarching statutory carbon reduction targets for the built environment.
3. **Convene (and/or legislatively mandate) an expert advisory group** to support the development and implementation of embodied carbon requirements in codes, to align with examples of provisions and approaches from model codes and standards as well as other states.[4]

3 California's AB 2446 sets a 40% reduction requirement for building materials by 2035.

4 This could involve support for the integration of requirements for concrete (i.e. ACI 323-24), mandatory green code (CALGreen), building code (IBC voluntary appendix), standards for buildings (ASHRAE 240p), or energy code (City of Boulder).

Material Reuse and Circularity

Vision:

New York State will become a national leader in establishing a comprehensive circular economy for building and infrastructure materials. Monumental carbon savings will be achieved by prioritizing the widespread adoption of deconstruction and design for disassembly. Buildings that have reached their end of useful life are no longer demolished and buried, but are instead treated as valuable material banks.

Near-Term Recommendations:[5]

1. **Deconstruction and reuse pilot programs:** Undertake a set of deconstruction pilots on select capital projects that will serve as a proof of concept, generating critical data on labor costs, material yield, and the economic viability of deconstruction. Guidelines for pilots should be modeled after NYCEDC's Clean and Circular Design and Construction Guidelines.

2. **Reuse requirements and material disclosures:** To send a strong market signal, set a minimum percentage of reused/reclaimed material in state-funded projects. Salvaged materials should also be eligible to comply with clean procurement policies like Buy Clean. Documentation that a material is salvaged and/or an environmental product declaration (EPD) would allow for a straightforward compliance mechanism for publicly funded projects to value the carbon savings from salvaged materials alongside newly manufactured, lower-carbon materials.

3. **Regional reuse networks and workforce development:** Establish an inter-agency task force to problem-solve and build a strategic vision. Invest in a network of strategically located material handling and processing hubs, and build regional reuse networks that connect deconstruction projects with contractors, builders, and community organizations. Establish partnerships with trade unions and educational institutions to create workforce training programs specifically focused on the skills required for deconstruction, material sorting, and reclamation. To scale material reuse, establish an opt-in deconstruction ordinance program to support implementation, infrastructure, and workforce development.[6]

5 Recommendations are in alignment with the white paper Constructing a Circular Economy in NYS: Deconstruction and Building Material Reuse by Cornell University's Circular Construction Lab, Just Places Lab and CR0WD.

6 This is similar to proposals outlined in A08637 (Kelles) / S08168 (Kavanagh).

Acknowledgments

New York State Embodied Carbon Near-Term Recommendations presents actionable policy recommendations for reducing embodied carbon across New York State's built environment. Developed over three months by a newly initiated Embodied Carbon Policy Working Group for New York State, these recommendations reflect the collective expertise of diverse industry leaders and subject-matter experts. The insights and proposals are designed to inform policymakers on practical pathways to achieve New York's ambitious climate goals, fostering innovation, creating green jobs, and building healthier, more resilient communities.

The Working Group acknowledges the contributions made by various individuals, reflecting their personal expertise.

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