

REPORT FROM

## OFFICE OF THE CITY ADMINISTRATIVE OFFICER

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Date: October 2, 2025

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Council District: All

To: The Mayor  
The City Council

From: Matthew W. Szabo, City Administrative Officer

Reference: Report from the Office of the City Administrative Officer dated August 7, 2024

Subject: **GREENHOUSE GAS EMISSIONS FROM PURCHASED GOODS AND SERVICES**

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### RECOMMENDATION

That the City Council note and file this report.

### SUMMARY

On February 22, 2023, the City Council instructed the Office of the City Administrative Officer (CAO) to prepare a study using an expert consultant, that identifies the feasibility of and investments needed to achieve carbon neutrality in municipal operations by 2035 (C.F. 22-1402). In response to the City Council's request on October 28, 2024, the CAO executed agreement C-146560 with Arup US, Inc. (Arup) to establish a baseline of the amount of greenhouse gas (GHG) emissions resulting from City of Los Angeles (City) purchasing operations. A baseline measurement is an initial step to guide the elimination of GHG emissions from City operations.

Additionally, on May 19, 2025, this Office executed agreement C-201445 with Buro Happold Consulting Engineers, Inc. to develop a Climate Action and Adaptation Plan (CAAP) for the City of Los Angeles. The CAAP shall provide a framework for the City to plan, implement, and monitor progress towards climate goals to achieve carbon neutrality by 2045, or sooner (C.F. 22-1566).

Arup was tasked with analyzing calendar year 2023 City expenditure data, assessing City expenditure data in terms of GHG emissions, and reporting on opportunities to reduce GHG emissions in City procurement operations. See Attachment 1 for the full Arup US, Inc. GHG Reduction Opportunities from Procurement report.

The report identified approximately 1.07 million metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) and four areas as high-impact opportunities for reducing GHG emissions for Council-controlled departments, excluding proprietary departments. Analysis of proprietary department data was excluded from this report due to inconsistencies found in the expenditure data reported in the Checkbook L.A. database.

- Sanitation and Waste Services – from landfill operations, fuel use in waste collection and fleets, and energy-intensive processes at wastewater treatment facilities;
- Construction of Buildings and Infrastructure – from the use of emissions-intensive materials such as cement, steel, and asphalt, as well as emissions from construction equipment and site operations;
- Office Goods – from frequency and high-volume across City department; and,
- Information Technology and Equipment – from emissions across multiple lifecycle stages, particularly during manufacturing, electricity use, and end-of-life disposal.

### Methodology and Analysis

The report measures emissions using an expenditure-based approach that aligns with the Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard (Scope 3 Standard). The Scope 3 Standard is an internationally accepted method to enable GHG management of value chains and offers a structured approach to classifying and reporting emissions. The Scope 3 Standard establishes 15 distinct reporting categories to measure indirect emissions that occur in a company's value chain. See Attachment 2 for descriptions of all 15 categories.

This report identifies GHG emissions and best practices for emissions reduction for purchased goods and services (category 1) and capital goods (category 2) due to the similarity of category 1 and category 2 calculation methods.

- Scope 3, Category 1 Purchased Goods and Services emissions are from expenditures related to goods and services procured by the City for operations, maintenance, or other activities; and,
- Scope 3, Category 2 Capital Goods emissions are from expenditures associated with long-term assets such as industrial equipment and vehicles with significant upstream emissions.

Methods for emissions calculation and reduction for the remaining 13 categories are unique and will require individualized approaches. It is anticipated that the forthcoming CAAP will address opportunities for GHG emissions reduction in the remaining categories.

The Scope 3 Standard expenditure-based approach estimates emissions for goods and services by collecting data on the economic value of goods and services purchased and multiplying it by industry average emission factors. The report analyzed City expenditure data for calendar year 2023 reported in the Checkbook L.A. database and categorized admissible category 1 and category 2 expenditures into relevant procurement areas based on North American Industry Classification System (NAICS) codes. Emissions factors were applied to the NAICS codes to determine the GHG emission impact for each procurement area. Emissions factors aligned with the U.S. Environmental Protection Agency's Supply Chain Greenhouse Gas Emission Factors (v1.3), which are based on the Environmentally-Extended Input-Output (EEIO) model. The EEIO model uses average emissions intensity across entire sectors or industries.

The report revealed approximately 1.07 million MTCO<sub>2</sub>e from Council-controlled departments' purchased goods and services for calendar year 2023. As shown in the table below, two procurement areas account for nearly half of the emissions; sanitation and waste services, which account for 279,029 MTCO<sub>2</sub>e or 26.19 percent, and the construction of buildings and infrastructure, which account for 246,753 MTCO<sub>2</sub>e or 23.16 percent of emissions.

### CY 2023 Scope 3 Category 1 and Category 2 Emissions

Scope 3 Category	MTCO <sub>2</sub> e Emissions	Percentage	Procurement Area	MTCO <sub>2</sub> e Emissions	Percentage Detail
Category 1	1,011,877	94.99%	Sanitation and Sewer Operations and Maintenance Services	279,029	26.19%
			Construction (Buildings and Infrastructure)	246,753	23.16%
			Maintenance Services	87,952	8.26%
			All Other Purchased Goods and Services	73,225	6.87%
			Industrial Materials and Supplies	72,580	6.81%
			Temporary Shelters and Other Relief Services	60,811	5.71%
			Transit Operations	60,451	5.68%
			Professional Services (Legal, Administrative, etc.)	53,994	5.07%
			Technical Services (Architecture, Engineering, Scientific, etc.)	30,820	2.89%
			Employee Benefits (Health Care Plan, Insurance, etc.)	25,904	2.43%
			District Improvement Projects	20,358	1.91%
Category 2	53,325	5.01%	Capital Goods (Equipment, Machinery, Fleet, etc.)	53,325	5.01%
<b>Total</b>	<b>1,065,202</b>	<b>100%</b>		<b>1,065,202</b>	<b>100%</b>

### Emissions Reduction Best Practices

The report highlights best practices for the transition to a circular economy through procurement policies, operational practices, and influence in the marketplace. A circular economy is an economic model that focuses on eliminating waste and pollution, keeping resources in use for as long as possible, and regenerating nature systems. Circular economy principals are essential to reducing emissions across the City's supply chain.

The identified best practices are categorized to facilitate emissions reduction action on a Citywide basis, by: (1) institutionalizing climate considerations into the procurement practices of all departments, (2) in the construction of buildings and infrastructure, and (3) in sanitation services.

### *Identified Citywide emissions' reduction actions*

- Develop an embodied carbon reduction roadmap with clear goals and targets;
- Establish a circular economy task force within the City;
- Adopt a comprehensive circular procurement policy;
- Integrate emissions and sustainability criteria tracking with procurement data;
- Select pilot projects to validate scalability of circular practices;

- Build internal capacity through employee training on low-carbon procurement and circular economy principles; and,
- Engage suppliers and the public to shift the market towards low-carbon goods and services.

#### *Identified construction emissions' reduction actions*

- Launch circular maintenance and renovation strategy for existing buildings and infrastructure;
- Establish zero-waste standards for new construction;
- Incentivize fossil-fuel free construction sites; and,
- Adopt and support low-carbon construction materials and methods through updates to local building codes, specifications, and permitting processes.

#### *Identified sanitation service emissions' reduction actions*

- Reduce municipal solid waste generation through source reduction programs;
- Integrate sustainability standards into sanitation service contracts;
- Request facility-specific emissions factors and encourage reductions over time;
- Encourage optimization of waste pickup routes and electrified fleets for waste hauling services; and,
- Continue and expand department-led waste reduction initiatives across City operations.

#### Next Steps

The cost associated with the implementation of best practices has not been identified, nor can this Office confirm that departments are not already implementing these identified actions to some extent. The forthcoming CAAP will assess City operations and conduct a gap analysis of the City's alignment with carbon neutrality goals using emissions forecasting models. The CAAP will identify actions required to address any gaps and prioritize those actions based on costs, barriers, and benefits. Actions to address emissions from the City's purchasing operations will be recommended and facilitated through the CAAP after analysis of costs, barriers, and benefits.

#### **FISCAL IMPACT STATEMENT**

There is no fiscal impact resulting for the recommendation in this report.

#### **FINANCIAL POLICIES STATEMENT**

The recommendation in this report complies with City Financial Policies.

MWS:DQT/THS:06250152

#### **Attachments**

1. Arup US, Inc. GHG Reduction Opportunities from Procurement report; and,
2. Descriptions of Scope 3 Emission Categories.

City of Los Angeles | City Administrative Officer (CAO) | Climate Impact Team

## GHG Reduction Opportunities from Procurement

This report identifies opportunities to reduce greenhouse gas (GHG) emissions through improvements to the City's procurement policies, contracting practices, and data reporting. It includes an analysis of current procurement practices, best practice research, and embodied carbon estimates to inform actionable strategies for both citywide and sector-specific emissions reductions.

Document Reference

FINAL July 29, 2025



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This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 306095-00

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# 1. Executive Summary

The City of Los Angeles has an opportunity to adjust and transform its procurement practices towards embodied carbon emission reductions. This report identifies actionable strategies to embed climate and circular economy principles into the City's purchasing decisions. This report is based on analysis of procurement expenditure data and emissions modeling, and review of policies and best practices from leading jurisdictions to inform the identification of opportunities for more sustainable procurement by the City of Los Angeles.

This report presents a suite of strategies to reduce embodied carbon from City of Los Angeles purchasing, organized into three key areas of focus: city-wide initiatives, and two high-emissions sectors—construction and sanitation services. Each strategy represents an area where the City can take action to reduce the carbon impact of its operations and supply chain. Strategies are implemented through a combination of mechanisms that include both direct and enabling approaches.

- Direct mechanisms involve tools the City can apply immediately within its operations, such as internal procurement policies, pilot projects, contract incentives, penalties, and investments in low-carbon technologies.
- Indirect mechanisms create enabling conditions for success over time and include public education and training, supplier and industry engagement, and engagement with state or federal policy.

For each strategy, the report provides recommended implementation actions, case studies, and resources to support integration into L.A.'s procurement practices and broader sustainability goals. The following strategies are recommended:

Citywide Strategies	Construction Strategies	Sanitation/Sewer Services Strategies
<b>CW-1</b> Develop an embodied carbon reduction roadmap with clear goals and targets	<b>C-1</b> Launch circular maintenance and renovation strategy for existing buildings and infrastructure	<b>S-1</b> Reduce municipal solid waste generation through source reduction programs
<b>CW-2</b> Establish a circular economy task force within the City	<b>C-2</b> Establish zero-waste standards for new construction	<b>S-2</b> Integrate sustainability standards into sanitation service contracts
<b>CW-3</b> Adopt a comprehensive circular procurement policy	<b>C-3</b> Incentivize fossil-fuel free construction sites	<b>S-3</b> Request facility-specific emissions factors and encourage reductions over time
<b>CW-4</b> Integrate emissions and sustainability criteria tracking with procurement data	<b>C-4</b> Adopt and support low-carbon construction materials and methods through updates to local building codes, specifications, and permitting processes	<b>S-4</b> Encourage optimization of waste pickup routes and electrified fleets for waste hauling services
<b>CW-5</b> Select pilot projects to validate scalability of circular practices		<b>S-5</b> Continue and expand department-led waste reduction initiatives across City operations
<b>CW-6</b> Build internal capacity through employee training on low-carbon procurement and circular economy principles		
<b>CW-7</b> Engage suppliers and the public to shift the market towards low-carbon goods and services		

Short-term priorities include building internal capacity, improving data systems, and launching pilot projects in high-impact spending categories. Medium-term actions involve formalizing policies, expanding supplier engagement, and integrating emissions tracking into procurement platforms. Long-term goals focus on scaling successful models, aligning with broader legislation, and positioning the City as a leader in sustainable procurement.

By embedding these strategies into its broader sustainability framework, the City of Los Angeles can drive meaningful embodied carbon emissions reduction initiatives and build a more resilient circular economy.

## 2. Introduction

This report identifies opportunities to reduce greenhouse gas (GHG) emissions through the City of Los Angeles' procurement policies and practices. It focuses on actionable strategies to integrate climate considerations into purchasing decisions. The scope includes evaluating mechanisms for emissions reduction and proposing strategies that align with City sustainability and equity goals.

This evaluation builds directly on the findings of Task 3, which identified procurement categories with high emissions and examined Scope 3 procurement-related emissions using expenditure. In Task 3, a high-level spend-based analysis was used to estimate emissions by evaluating the City's expenditures on various goods and services and applying average emissions factors. Based on this approach, the City's Scope 3 greenhouse gas emissions in 2023 were approximately 1.07 million metric tons of carbon dioxide equivalent (CO<sub>2</sub>e). This total is roughly 1.5 times greater than the combined Scope 1 and Scope 2 emissions, which amounted to 692,000 metric tons of CO<sub>2</sub>e. Scope 1 includes direct emissions from City-owned sources such as vehicles and buildings, while Scope 2 covers indirect emissions from purchased electricity, heating, and cooling. These figures are based on the City's Municipal Greenhouse Gas Inventory and exclude emissions from power generation for non-City facilities. From the Task 3 findings, several procurement categories emerged as high-impact opportunities for reducing embodied carbon:

- **Construction of Buildings and Infrastructure:** These categories account for significant embodied carbon due to the use of emissions-intensive materials such as cement, steel, and asphalt, as well as emissions from construction equipment and site operations.
- **Sanitation and Waste Services:** Emissions in this sector stem from landfill operations, fuel use in waste collection and transport fleets, and energy-intensive processes at wastewater treatment facilities.
- **Office Goods:** While individual items tend to have lower carbon footprints, their frequent and high-volume procurement across City departments provides opportunity for impact.
- **Information Technology (IT) and Equipment:** These products carry emissions across multiple lifecycle stages, particularly during manufacturing, electricity use, and end-of-life disposal.

This report (Task 4) builds on the insights from Task 3 by reviewing practical mechanisms, recommended actions, and governance models to support implementation of embodied carbon reduction strategies. It draws on case studies of best practices from other jurisdictions, and a review of relevant policies and City planning documents. The recommendations in this report do not include a quantitative assessment of the reduction potential of decarbonization strategies. Such an analysis is among the recommended next steps, as a means of prioritizing strategies suggested here, as well as through collaboration with stakeholders as the City advances towards a lower carbon future.



## 2.1 Current City Procurement Landscape

The City of Los Angeles manages procurement through a combination of centralized purchasing and department-specific processes. Council-controlled departments operate under citywide procurement rules established by federal, state, and local regulations. Proprietary departments, including the Los Angeles Department of Water and Power (LADWP), the Port of Los Angeles, and Los Angeles World Airports (LAWA), maintain independence over their procurement, however their procurement authority is still granted under the City Charter.

The City has made progress in integrating circular economy and low-carbon principles into its procurement practices (see Appendix A.1, Existing City of L.A. Policies, Plans, and Codes with Circular Economy Principles). The City adopted a Buy Clean policy in 2019 that requires Environmental Product Declarations (EPDs) for materials such as steel, glass, and insulation used in public construction projects. This policy aligns with the Buy Clean California Act, a state law that mandates emissions disclosure for certain construction materials in state-funded projects. The City's adoption of this policy demonstrates a commitment to reducing embodied carbon in its capital projects.

In addition, Los Angeles has codified its environmentally preferable purchasing practices through Ordinance No. 180751 in 2009. This ordinance amends the Los Angeles Administrative Code to promote the procurement of recycled and environmentally preferable products whenever they meet price and performance requirements. It supports the City's broader sustainability goals by encouraging departments to consider the full life cycle impacts of products and services, including manufacturing, use, and disposal.

The City of Los Angeles' Recycled Products Purchasing Program, established under Ordinance No. 168313 in 1992, encourages the procurement of products made with recycled materials to help reduce the need for landfill space. To support this initiative, the Los Angeles Department of Water and Power (LADWP) requires contractors to submit sworn statements verifying the recycled content of the products they supply.

Currently, the City's greenhouse gas data related to procurement is primarily based on spending ("spend-based"). A spend-based method of estimating emissions provides only rough estimates of emissions by category and identifies the embodied carbon "hot-spots" listed above. Some departments have begun to address these limitations. For example, the Bureau of Contract Administration has implemented sustainability disclosure requirements for certain vendors, including the submission of Environmental Product Declarations (EPDs) and documentation of recycled content for construction materials used in city contracts.

## 2.2 Advancing a Circular Economy Through City Procurement

Cities have a unique opportunity to accelerate the transition to a circular economy through their procurement policies, operational practices, and influence in the marketplace. A circular economy is an economic model that focuses on eliminating waste and pollution, keeping products and materials in use for as long as possible, and regenerating natural systems. This model contrasts with the traditional linear approach of take, make, and dispose. Instead, it emphasizes strategies such as reuse, repair, remanufacturing, and recycling to reduce environmental impacts. Circular economy principles, which focus on designing out waste and keeping materials in circulation, are essential to reducing greenhouse gas emissions across supply chains and urban systems.

Municipal procurement is a powerful tool for embedding circular economy principles into everyday decision-making. The City purchases a wide range of goods, encompassing construction materials, office furniture, IT equipment, and industrial supplies, and services that entail the use of equipment and vehicles. This purchasing power gives them significant leverage to shape market demand. By prioritizing products that are durable, repairable, made from recycled content, or designed for disassembly, and energy sources that are renewable cities can reduce carbon emissions, minimize waste, and encourage innovation in sustainable design of products and processes.

To leverage procurement as a tool for emissions reductions, the City can embed climate-aligned requirements directly into contracts and solicitations. Procurement policies can formalize circular practices by setting clear criteria for product and vendor selection. These may include requirements for Environmental Product Declarations

(EPDs), take-back programs, or minimum recycled content for procurement of goods, and emission reduction programs as qualifications for vendors operating machinery and deploying fleet vehicles. Practices such as life cycle costing, supplier engagement, and performance-based contracts help shift the focus from short-term price to long-term value and environmental performance.

The City can also influence broader industry behavior by signaling demand for low carbon products and services. This influence can be strengthened by participating in regional or national sustainable procurement networks, supporting supplier education and capacity building, and advocating for policies at the state or federal level that promote sustainable production, operations, and transparency

Embedding circular economy principles into procurement supports not only climate goals but also economic and social objectives. It can create local jobs in repair, remanufacturing, and recycling sectors, reduce dependence on virgin materials, accelerate regional clean energy transitions, strengthen local green power infrastructure, and improve resilience against supply chain disruptions. As the City pursues ambitious climate and zero waste targets, procurement offers a practical and scalable pathway to build a more circular and sustainable urban economy.

### 3. Emissions Reduction Opportunities in City of L.A. Procurement

The City of Los Angeles has the opportunity to identify and reduce embodied carbon emissions through its procurement activities. In 2023, Scope 3 emissions from purchased goods, services, and capital goods totaled approximately 1.07 million metric tons of CO<sub>2</sub>e. This is 1.5 times higher than the City's combined Scope 1 and Scope 2 emissions, which totaled 692,000 metric tons of CO<sub>2</sub>e. These figures are based on the City's Municipal Greenhouse Gas Inventory and do not include emissions from power generation for non-City facilities. This data underscores that a significant share of the City's climate impact lies outside its direct operations, embedded in the goods it buys, the infrastructure it builds, and the services it procures. Because Scope 3 emissions are not currently regulated or tracked as rigorously as direct emissions, they present a major opportunity for the City to lead by example through sustainable procurement, low-carbon construction practices, and proactive supply chain engagement. As a major purchaser of goods, services, and infrastructure, the City can influence both the embodied carbon emissions associated with its operations and the broader market for low-carbon and circular products.

To take action on Scope 3 emission reductions, the City should begin by developing a roadmap that evaluates potential decarbonization strategies based on their impact, feasibility, and implementation timeline. Strategies that are both high impact and highly feasible should be prioritized for immediate adoption. Those with high impact but lower feasibility, or lower impact but easier implementation, could be explored through pilot projects. Strategies with uncertain impact or feasibility may interest in additional analysis before being pursued further.

Emissions reduction strategies can be implemented through several mechanisms: direct mechanisms, which the City can implement within its own procurement systems and operations, and indirect mechanisms, which shape enabling conditions and influence external stakeholders.

**Direct Mechanisms** involve tools and interventions the City can implement within its own procurement systems and operations:



**Internal Procurement Policies and Standards:** Establish department-level purchasing guidelines that prioritize climate-aligned products, require sustainability criteria in bid evaluations, or limit high-emissions materials.



**Incentives:** Provide financial or recognition-based incentives for departments and vendors that prioritize low-carbon products and services. These incentives could include tax exemptions, rebates, expedited permitting processes, preferential scoring in procurement bids, or other supportive mechanisms that encourage

sustainable choices. Incentives help translate policy and guidelines into practice by making sustainable choices more attractive, achievable, and rewarding.



**Penalties:** Implementing tiered systems of enforcement, such as non-compliance fines, procurement audits, or penalties for exceeding emissions thresholds. Penalties help translate policy and guidelines into practice by making non-compliance with sustainability standards more costly, visible, and consequential.



**Pilot Projects:** Launch small-scale, department-led initiatives to test low-carbon procurement strategies before scaling them citywide. Examples may include piloting low-carbon concrete in specific capital projects, introducing electric equipment in sanitation services, or implementing sustainable office supply contracts in targeted departments. Pilot projects serve as an essential bridge between strategy and implementation, offering proof-of-concept and lessons learned while building internal capacity and stakeholder buy-in.



**Performance Monitoring Systems:** Invest in digital procurement tools that integrate emissions tracking and vendor sustainability performance. Use digital tools to track adoption of cleaner technologies in operational equipment and fleet upgrades.



**Internal Capacity Building:** Provide ongoing climate competency training to equip and empower staff with the knowledge and tools needed to implement low-carbon procurement practices.

**Indirect Mechanisms** are less about direct control and more about influence and enabling conditions the City can exercise on other purchasers:



**Codes and Standards:** Influencing zoning laws, construction and demolition ordinances, and local building codes to support low-carbon and circular outcomes.



**Greater Region Policies and Regulations:** Support state or federal legislation that expands sustainable procurement requirements, emissions disclosure, or green product labeling.



**Education and Awareness:** Raising public awareness about the role of procurement in achieving climate goals and encouraging behavior that complements City-led purchasing decisions.



**Industry Influence and Partnerships:** Engaging with suppliers, industry groups, and peer cities to promote innovation, transparency, and alignment with circular economy principles.





Together, these mechanisms are tools to develop a roadmap for embedding climate and circular economy goals into the City's procurement practices. The following sections explore each strategy in more detail, highlighting implementation pathways, case studies, and tools to support action. A summary of the proposed strategies is provided in Table 1 below, grouped by the three primary opportunity areas for reducing spend-based emissions: citywide strategies, construction strategies, and sanitation/sewer services strategies.

**Table 1. List of proposed strategies**

<b>Citywide Strategies</b>	<b>Construction Strategies</b>	<b>Sanitation/Sewer Services Strategies</b>
<b>CW-1</b> Develop an embodied carbon reduction roadmap with clear goals and targets	<b>C-1</b> Launch circular maintenance and renovation strategy for existing buildings and infrastructure	<b>S-1</b> Reduce municipal solid waste generation through source reduction programs
<b>CW-2</b> Establish a circular economy task force within the City	<b>C-2</b> Establish zero-waste standards for new construction	<b>S-2</b> Integrate sustainability standards into sanitation service contracts
<b>CW-3</b> Adopt a comprehensive circular procurement policy	<b>C-3</b> Incentivize fossil-fuel free construction sites	<b>S-3</b> Request facility-specific emissions factors and encourage reductions over time
<b>CW-4</b> Integrate emissions and sustainability criteria tracking with procurement data	<b>C-4</b> Adopt and support low-carbon construction materials and methods through updates to local building codes, specifications, and permitting processes	<b>S-4</b> Encourage optimization of waste pickup routes and electrified fleets for waste hauling services
<b>CW-5</b> Select pilot projects to validate scalability of circular practices		<b>S-5</b> Continue and expand department-led waste reduction initiatives across City operations
<b>CW-6</b> Build internal capacity through employee training on low-carbon procurement and circular economy principles		
<b>CW-7</b> Engage suppliers and the public to shift the market towards low-carbon goods and services		

## Citywide Strategies

Citywide (CW) strategies offer the greatest leverage for institutionalizing climate-conscious procurement practices across all departments and agencies. By embedding low-carbon criteria and emissions considerations into procurement processes, the City of Los Angeles can reduce the lifecycle greenhouse gas emissions associated with a broad range of purchased goods and services. The following proposed strategies are designed to establish consistent expectations, incentivize innovation, and integrate emissions accountability into decision-making across the full spectrum of City operations.

CW-1	Develop an embodied carbon reduction roadmap with clear goals and targets	
   	<p>A roadmap outlines the City’s strategy to reduce embodied greenhouse gas (GHG) emissions across all categories of procurement, including construction materials, office supplies, IT equipment, capital goods, and professional services. It sets clear goals, timelines, and actions to decarbonize the City’s supply chain.</p> <p>The City of L.A. has done this in the past for direct emissions in the LA Decarbonization Work Plan and could implement a similar structure to reduce embodied carbon.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• Define short-, medium-, and long-term emissions reduction targets (e.g., 30% reduction by 2030).</li> <li>• Align with broader City climate action plans and net-zero goals.</li> <li>• Track progress using procurement and emissions data.</li> <li>• Publish annual updates and refine strategies based on performance and market changes.</li> </ul>	<p><b>Case Studies:</b></p> <p><u><a href="#">City of Toronto’s Circular Economy Procurement Implementation Plan and Framework.</a></u></p> <p><u><a href="#">City of Amsterdam Circular strategy - By 2030, reduce its overall consumption by 20% and implement 100% circular procurement.</a></u></p> <p><u><a href="#">City of London Responsible Procurement Implementation Plan</a></u></p> <p><u><a href="#">City of Helsinki Circular Roadmap</a></u></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u><a href="#">ICLEI – Procura+ Manual on Sustainable Procurement</a></u> (Chapter II)</li> <li>• <u><a href="#">Ellen MacArthur Circular Procurement for cities</a></u> (Part 1)</li> </ul>

## CW-2 Establish a circular economy task force within the City



An internal procurement task force establishes a cross-departmental team within city government that coordinates sustainable procurement efforts. Its purpose is to align purchasing practices with an established embodied carbon reduction roadmap and implement low-carbon procurement strategies across departments.

The taskforce would improve coordination and accountability for reducing emissions from city purchases, embed sustainability into procurement processes, and build internal capacity for climate-smart decision-making.

### How to implement:

- Include representatives from procurement, sustainability, finance, legal, and major purchasing departments. Assign a lead or chair (e.g., from a sustainability team or procurement leadership).
- Set clear goals such as reducing embodied carbon, increasing circular procurement, or improving supplier sustainability.
- Establish a charter and meeting schedule.
- Provide training for procurement officers on sustainable purchasing.
- Develop tools and templates for sustainable procurement capacity building (e.g., sustainability criteria, supplier questionnaires).
- Track compliance with circular procurement policy, Environmentally Preferable Products Purchasing Program (Ordinance #180751), Recycled Products Program (Ordinance #168313), and Buy Clean program

### Case Studies:

[City of Toronto's Cross Divisional Circular Economy Working Group](#)

[The Greater London Authority \(GLA\) Group Collaborative Procurement Board](#)

### Resources:

- [Ellen MacArthur Circular Procurement for cities \(Part 1\)](#)
- [Working Group Charter Template and Guide](#)

### CW-3 Adopt a comprehensive circular procurement policy



A sustainable procurement policy embeds environmental and social criteria into all purchasing decisions, ensuring that goods and services align with the city's climate and equity goals. The policy institutionalizes low-carbon, ethical, and circular procurement practices across departments.

The City of Los Angeles has a long history of sustainable procurement policies since 2000 when the Buy Recycled Program (Ordinance #168313) was established. The City later expanded upon these efforts through establishing Environmentally Preferred Purchasing Program (Ordinance #180751). To build on this long history, the City could refresh its policy to incorporate current best practices of circular economy principles and update reporting requirements across all City departments.

#### How to implement:

- Draft policy language that prioritizes reuse, repair, and includes lifecycle emissions, circularity, and supplier sustainability.
- Build upon existing policies by embedding circular economy language into policy and enforce Ordinance No. 180751 and Ordinance No. 168313
- Require departments to report annually on circular procurement actions
- Require carbon performance criteria in RFPs, service contracts, and vendor evaluations
- Require vendors to report carbon data annually
- Train procurement officers and suppliers on new requirements
- Monitor compliance and performance through procurement audits

#### Case Studies:

[City of Portland Sustainable Procurement Policy](#)

[The Greater London Authority's \(GLA\) Responsible Procurement Policy](#)

#### Resources:

- [Carbon Neutral Cities Alliance \(C NCA\) – City Policy Framework for Embodied Carbon](#)
- [The Carbon Leadership Forum Embodied Carbon Procurement Policies](#)
- [World Bank Sustainable Procurement guide](#)
- [Ellen MacArthur Circular Procurement for cities \(Part 2\)](#)
- [City of L.A. Environmentally Preferable Products and Services requirements as established by Ordinance #180751](#)
- [Methodology on Circular Economy - Specific guidance - practical contract preparation \(pg. 31\)](#)



#### CW-4 Integrate emissions and sustainability criteria tracking with procurement data



This strategy involves embedding sustainability criteria, such as supplier-reported greenhouse gas (GHG) emissions, purchase-level carbon footprints, and environmental certifications, into procurement decisions. It enables cities to prioritize low-emission vendors and products, driving market transformation and reducing supply chain emissions.

##### How to implement:

- Link procurement systems with emissions databases or tools.
- Classify purchases by NAICS category, create subcodes for lower emission options, and assign appropriate emissions factors.
- Develop dashboards for real-time tracking and reporting.
- Use data to inform procurement decisions and policy updates.

##### Case Studies:

State of California's Cal eProcure platform includes low-carbon material specifications and Buy Clean compliance for public works contracts.

##### Resources:

- ICLEI – Procura+ Manual on Sustainable Procurement (Chapter III)

#### CW-5 Select pilot projects to validate scalability of circular practices



Demonstrate the viability of low-carbon and circular procurement practices within city operations by testing new approaches in a controlled, measurable way, these initiatives help build internal capacity and foster collaboration across departments.

They also generate valuable data and insights that can inform the development of long-term procurement policies, standards, and performance metrics, ultimately supporting the broader institutionalization of sustainable purchasing practices.

##### How to implement:

- Pilot in departments with high procurement activity or strong sustainability mandates (e.g., Public Works, General Services, Sanitation, LADWP)
- With department stakeholders, determine goal, criteria and metrics
- Socialize with vendors before launch
- Launch and collect data throughout the pilot
- Conduct post-pilot evaluations to assess performance, barriers, and scalability

##### Case Studies:

City of Amsterdam selected over 20 pilot projects, including building renovations and infrastructure upgrades, to test circular procurement models.

##### Resources:

- Ellen MacArthur Circular Procurement for cities (Part 3)



## CW-6 Build internal capacity through employee training on low-carbon procurement and circular economy principles



City staff responsible for procurement, budgeting, and operations play a critical role in shaping the embodied carbon footprint of municipal activities. By equipping employees with the knowledge and tools to consider embodied carbon, life cycle impacts, and circular alternatives in procurement decisions, the City can institutionalize climate-smart procurement across departments and contracting processes.

### How to implement:


- Develop a mandatory training program for City procurement and contract management staff on:
  - Circular economy principles (reuse, repair, remanufacture),
  - Tools and resources
  - Embodied carbon reduction roadmap
  - Category specific decarbonization strategies
- Integrate training modules into existing civil service onboarding, professional development, and performance reviews.
- Create department-specific toolkits for high-impact purchasing categories (e.g., construction materials, office furnishings, fleet services).
- Develop a library of pre-approved low-carbon products or vendors through centralized procurement systems (e.g., SAP Ariba or L.A. GeoHub).
- Celebrate staff innovation through green procurement awards or employee recognition tied to sustainability goals.
- Develop speaker series with internal and external speakers to present on successful pilot projects

### Case Studies:

Portland, OR Bureau of Planning and Sustainability developed a citywide sustainable procurement training program for purchasing agents, project managers, and facilities staff.

### Resources:

- ICLEI's Procurement Training for Local Governments
- ReLondon circular economy training modules








<b>CW-7</b>	<b>Engage suppliers and the public to shift the market towards low-carbon goods and services</b>
	<p>The City of Los Angeles can use its substantial purchasing power and public visibility to influence external markets and encourage innovation. By educating vendors, collaborating with key suppliers, and engaging residents, the City can accelerate the availability of low-carbon alternatives and build public support for sustainable procurement decisions. These efforts help create the market demand for climate-aligned purchasing across both public and private sectors.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• Host industry roundtables with high-emissions vendors and suppliers (e.g., construction, vehicles, IT equipment) to share expectations, preview upcoming procurements, and identify pathways to lower embodied carbon.</li> <li>• Include embodied carbon disclosures and performance criteria in Requests for Proposals (RFPs) and vendor qualification processes.</li> <li>• Launch a public education campaign explaining the City’s sustainable procurement policies and encouraging constituents to choose low-carbon products and services in their daily lives.</li> <li>• Highlight progress through annual reporting, supplier scorecards, and interactive dashboards showcasing procurement-related emissions reductions</li> </ul> <div> <p><b>Case Studies:</b></p> <p><u><a href="#">City of Amsterdam</a></u> launched its <u><a href="#">City Doughnut Strategy</a></u>, which includes <u><a href="#">strong engagement with businesses and citizens to promote circular and low-carbon procurement</a></u>.</p> <p><u><a href="#">City of Toronto</a></u> provides, <u><a href="#">AnchorTO Resource Hub</a></u>, an online library of <u><a href="#">community wealth building and social procurement resources</a></u></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u><a href="#">Ellen MacArthur Circular Procurement for cities (Part 4)</a></u></li> </ul> </div>

### 3.1 Construction Category Strategies

Embodied carbon in construction refers to the greenhouse gas emissions associated with the extraction, manufacturing, transportation, installation, maintenance, and end-of-life disposal of building materials. Unlike operational carbon, which accumulates over a building’s lifetime through energy use, embodied carbon is largely emitted upfront, before a building is even occupied. In the construction sector, high embodied carbon typically stems from the production and use of carbon-intensive materials such as concrete, steel, aluminum, glass, and insulation, as well as from construction activities like excavation, demolition, and on-site fuel use. Addressing embodied carbon in construction is therefore critical to reducing the overall climate impact of the built environment. The following section outlines targeted strategies to reduce emissions in this high-impact category.

For construction-related emissions in the City of Los Angeles, several city departments can play a critical role in enabling embodied carbon reduction. These include the Department of Building and Safety, Department of City Planning, and the Department of Public Works. Through permitting, planning, and enforcement, these entities are well-positioned to support the implementation of decarbonization strategies across the construction sector.

A range of policies and codes already provide a foundation for reducing embodied carbon in buildings. Key frameworks include the LA Green Building Code, CalGreen, the City’s Adaptive Reuse Ordinance, household rezoning initiatives, and the forthcoming 2025 Embodied Carbon Reduction Framework. Local municipal building codes also offer levers to influence material selection and construction practices. Together, these policies present an opportunity to align building practices with the City’s broader climate goals.

<b>C-1</b>	<b>Launch circular maintenance and renovation strategy for existing buildings and infrastructure</b>
  	<p>Embed circular economy principles into municipal construction and maintenance by prioritizing repair, reuse, and adaptability over demolition and replacement. This approach reduces embodied carbon by extending the life of buildings and materials.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• The L.A. Building Code has existing language about requiring regular inspections and penalizing neglect that might delay maintenance. Enforcing these requirements and tying it back to circularity can further prioritize maintenance over replacements.</li> <li>• Establish policies that prioritize maintenance and adaptive reuse in capital planning.</li> <li>• Conduct audits of existing municipal buildings to identify opportunities for reuse and retrofitting.</li> <li>• Create internal guidelines for evaluating lifecycle carbon impacts in renovation vs. replacement decisions.</li> </ul> <p><b>Case Studies:</b></p> <p><u>City of Paris’s Plan Climat 2024-2030 includes a directive to maximize reuse in public works and renovations through a centralized materials recovery and redistribution platform.</u></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u>Ellen MacArthur foundation Circular Buildings toolkit</u></li> </ul>
<b>C-2</b>	<b>Establish zero-waste standards for new construction</b>
   	<p>Establish zero-waste construction and design standards for all new and renovated municipal buildings. These standards should address materials, construction practices, and embodied carbon emissions.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• Require construction and demolition waste plans that divert the majority of waste from landfill and enforce with deposits or fines.</li> <li>• Assign reuse higher value than recycling in diversion rate calculations</li> <li>• Require “design for disassembly” and material reuse in temporary and new construction designed for a short service life.</li> </ul> <p><b>Case Studies:</b></p> <p><u>San Francisco’s Ordinance No.27-06 (Construction and Demolition Ordinance) require that C&amp;D debris material removed from a project must be recycled or reused. No C&amp;D debris can be taken to landfill or put in the garbage.</u></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u>Constructive Voices – Zero Waste Construction Sites</u></li> <li>• <u>Circular Buildings Toolkit</u></li> </ul>

### C-3

### Incentivize fossil-fuel free construction sites



The City of Los Angeles can take proactive steps to decarbonize construction activities and support a transition to zero-emissions job sites. This includes shifting away from diesel-powered equipment and incentivizing electrification and renewable energy use across construction projects, especially in publicly funded work.

#### How to implement:

- Integrate fossil-fuel-free construction as an evaluation criterion in City Requests for Proposals (RFPs) and contracts issued through the Bureau of Engineering, Department of Public Works, and other capital project agencies.
- Offer bid preferences or bonuses for contractors using electric or renewable-powered construction equipment. This could mirror the bonus point system already used in City contracts for local hiring or disadvantaged business enterprises.
- Prioritize fossil fuel-free construction by offering expedited permitting and streamlined hearings.
- Provide technical assistance or grants to help small contractors transition to clean technologies.
- Develop a reporting system to track fossil fuel use on construction sites. Use this data to establish baselines, set voluntary or mandatory reduction targets, and refine future regulations.




#### Case Studies:

Climate and environmental requirements for the City of Oslo's construction sites

San Francisco Clean Construction Requirements for Public Works







#### Resources:




- Nordic co-operation's emission-free construction sites publications



C-4	<b>Adopt and support low-carbon construction materials and methods through updates to local building codes, specifications, and permitting processes</b>
  	<p>This approach focuses on updating building codes and permitting incentives to promote the use of climate-smart materials like low-carbon concrete, recycled steel, and mass timber, helping to drive down lifecycle emissions across the built environment.</p> <p>In Los Angeles, momentum for this shift is already underway. On April 9, 2024, the Los Angeles City Council adopted a motion (Ramen/Yaroslavsky, CF-23-1391) directing City departments to develop policies regulating embodied carbon from building construction. This action signals the City’s commitment to incorporating embodied carbon reduction strategies into its climate goals and creating a framework to measure and manage construction-related emissions citywide.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• Leverage the City of Los Angeles Green Building Code (LAGBC) and align updates with California’s CALGreen requirements to introduce embodied carbon thresholds and performance-based material standards for new construction and major renovations.</li> <li>• Promote or require the use of Environmental Product Declarations (EPDs) and set embodied carbon intensity limits for major materials like concrete, steel, and insulation. Encourage the use of low-carbon concrete mixes, mass timber, and high-recycled-content materials.</li> <li>• Offer expedited permitting, reduced plan check fees, or density bonuses for private projects that meet defined low-embodied carbon benchmarks. These incentives can be implemented through the Department of Building and Safety (LADBS) in collaboration with the Department of City Planning.</li> <li>• Partner with local universities, developers, and nonprofits to establish demonstration projects that showcase emerging low-carbon materials and construction techniques.</li> </ul> <p><b>Case Studies:</b></p> <p><u><b>Santa Monica’s</b> Low Carbon Concrete requirement is an ordinance applying to new construction. The policy sets GWP limits for cement, and compliance is met through concrete mix designs or EPDs</u></p> <p><u><b>City of Emeryville, California</b> Planning Commission incentivizes Mass Timber construction through development bonus points in the project approval process</u></p> <p><u><b>City of Eugene, Oregon</b> transitioning from hot mix to warm mix asphalt for city street repairs</u></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u>Motion to update Los Angeles Green Building Code to include embodied carbon considerations</u></li> <li>• <u>Carbon Neutral Cities Alliance City Policy Framework for Reducing Embodied Carbon</u></li> <li>• <u>Whole Building Design Guide</u></li> </ul>

## 3.2 Sanitation/Sewer Services Strategies






For sanitation services (like solid waste collection, wastewater treatment, street cleaning, and landfill management), embodied carbon emissions mainly come from the materials, infrastructure, vehicles and equipment involved in delivering the service. In order to impact meaningful embodied carbon reductions associated with this service, the city can do the following:

S-1	<h2>Reduce municipal solid waste generation through source reduction programs</h2>
     	<p>Implement comprehensive waste reduction initiatives across the city to reduce the volume of municipal solid waste generated by residents, businesses, and institutions. These programs aim to cut emissions from waste collection, processing, and disposal by promoting reuse, recycling, composting, and responsible consumption.</p> <p>This strategy directly supports the goals outlined in L.A.’s Green New Deal, which calls for a landfill diversion rate of 90% by 2025, 95% by 2035, and 100% by 2050.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• Expand curbside composting and textile recovery programs.</li> <li>• Launch public education campaigns on waste sorting, reuse, and repair.</li> <li>• Provide incentives for businesses and institutions to reduce packaging and food waste.</li> <li>• Establish community reuse centers and “fix-it” clinics.</li> <li>• Monitor and report City-wide waste generation and diversion metrics.</li> </ul> <p><b>Case Studies:</b></p> <p><u><b>San Francisco Zero Waste Program</b> sets aggressive diversion goals and implemented comprehensive source reduction policies.</u></p> <p><u><b>Austin Resource Recovery</b> supports local reuse economies and behavior change campaigns under its <b>Zero Waste Plan</b>.</u></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u><a href="#">LA Sanitation &amp; Environment (LASAN) Zero Waste Plan</a></u></li> <li>• <u><a href="#">US EPA Waste Reduction Model (WARM)</a></u></li> </ul>

S-2	<h2>Integrate sustainability standards into sanitation service contracts</h2>
  	<p>Establish clear sustainability and emissions reduction requirements in all sanitation-related contracts, including waste hauling and facility operations. These standards ensure that vendors align with the City’s climate goals.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• Develop contract language that includes waste diversion and recycling targets</li> <li>• Include sustainability criteria in vendor evaluations.</li> <li>• Require third-party certifications or environmental management systems (e.g., ISO 14001).</li> </ul> <p><b>Case Studies:</b></p> <p><u><b>New York City’s Commercial Waste Zones</b> integrate emissions performance into franchise agreements.</u></p> <p><u><b>Seattle’s</b> waste hauling contracts are awarded based on service quality and environmental impact.</u></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u><a href="#">LA County Sanitation Bid Information</a></u></li> <li>• <u><a href="#">ISO 14001</a></u></li> <li>• <u><a href="#">Procurement procedure for a service contract for the collection of municipal waste in Bristol, UK</a></u></li> <li>• <u><a href="#">Methodology on Circular Economy - Specific guidance - practical contract preparation (pg. 31)</a></u></li> </ul>

S-3	<b>Request facility-specific emissions factors and encourage reductions over time</b>
	<p>Require that service providers submit facility-level greenhouse gas emissions data to improve transparency and enable targeted emissions reductions. Emissions from waste treatment and disposal vary widely by facility type and location. Using facility-specific emissions factors enables the City to accurately assess and track the carbon intensity of waste processing activities.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• Include emissions data reporting as a contractual requirement.</li> <li>• Use EPA’s Greenhouse Gas Reporting Program (GHGRP) or similar tools to standardize data collection.</li> <li>• Require annual updates and third-party verification where feasible</li> </ul> <p><b>Case Studies:</b></p> <p><u>Portland, OR</u> clean industry assessment required GHG disclosure and targets from waste and recycling processors.</p> <p><u>San Diego</u> requires contracted waste haulers to submit facility-specific emissions data for transfer, sorting, and disposal facilities.</p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u>EPA’s Greenhouse Gas Reporting Program</u></li> </ul>
S-4	<b>Encourage optimization of waste pickup routes and electrified fleets for waste hauling services</b>
	<p>A significant share of embodied and operational carbon emissions in waste management comes from fuel combustion in collection trucks. By leveraging its role as a contract issuer and regulatory body, the City of Los Angeles can drive decarbonization by requiring that third-party waste haulers adopt electric or zero-emission vehicles and optimize collection routes to reduce fuel use and emissions.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• Update contract requirements within LASAN’s franchise agreements to include: <ul style="list-style-type: none"> <li>○ Emissions reporting for hauling fleets,</li> <li>○ Mandatory transition plans to zero-emission vehicles (ZEVs), and</li> <li>○ Route optimization commitments using GPS/telematics data.</li> </ul> </li> <li>• Set fleet electrification targets for contracted haulers, aligned with state mandates like CARB’s Advanced Clean Fleets (ACF) regulation.</li> <li>• Require public disclosure of hauling fleet composition and emissions performance to improve accountability.</li> </ul> <p><b>Case Studies:</b></p> <p><u>New York City Commercial Waste Zones</u> mandates emissions reductions and fleet upgrades from private haulers operating in designated zones.</p> <p><u>Vehicle Routing Optimization for Improving Fleet Fuel Efficiency: A Case Study in Sydney, Australia</u></p> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u>Route optimization of an electric garbage truck fleet for sustainable environmental and energy management, Journal of Cleaner Production, Volume 234, 2019, Pages 1275-1286, ISSN 0959-6526</u></li> </ul>



S-5	Continue and expand department-led waste reduction initiatives across City operations
    	<p>This leadership commitment is already embedded in policy through Ordinance No. 187718, adopted on December 6, 2022, which requires zero waste practices at all City facilities and events held on City property. The ordinance includes provisions to eliminate single-use plastics, increase diversion rates, and promote sustainable purchasing. In parallel, the Los Angeles Harbor Department Zero Waste Plan provides a departmental framework to reduce waste generation and improve tracking and reuse efforts, setting a precedent for all City departments to follow with tailored action plans.</p> <p><b>How to implement:</b></p> <ul style="list-style-type: none"> <li>• Establish a City Operations Waste Reduction Task Force to coordinate implementation of Ordinance No. 187718 across departments.</li> <li>• Develop department-specific zero waste action plans, following the model established by the Harbor Department.</li> <li>• Require waste audits, carbon impact assessments, and annual reporting of diversion and emissions data for all City-managed properties.</li> <li>• Provide training and technical support to City staff and contractors to implement zero waste strategies at City events and facilities.</li> </ul> <div> <p><b>Case Studies:</b></p> <p><u>City of Vancouver adopted a Green Operations Plan with mandatory waste sorting and tracking across all departments.</u></p> </div> <div> <p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• <u>City of Los Angeles Ordinance No. 187718 – Zero Waste City Facilities and Events</u></li> <li>• <u>Los Angeles Harbor Department Zero Waste Plan</u></li> <li>• <u>TRUE Waste Certification</u></li> </ul> </div>

## 4. Implementation and Governance

Implementing embodied carbon reduction strategies through procurement is both a technical and organizational challenge that requires strong internal governance and change management. From an operational and legal standpoint, cities must first assess whether current **procurement regulations** permit the inclusion of environmental criteria such as embodied carbon thresholds, Environmental Product Declarations (EPDs), or take-back requirements. In many cases, these can be integrated under “best value” procurement frameworks and should consider sustainability criteria that is both ambitious and achievable for vendors in the market. Operational feasibility also depends on the **readiness of procurement teams and systems** to handle new data requirements and evaluation criteria. This includes ensuring that procurement platforms can track sustainability metrics and that vendors are increasingly capable of supplying compliant products.

Alignment with **existing systems and policies** is essential to avoid duplication and ensure coherence with broader climate, equity, and waste reduction goals. Cross-departmental collaboration, particularly with legal, finance, and procurement teams, can help embed these strategies into standard workflows. However, several barriers may arise, including limited access to product-level carbon data, resistance from vendors unfamiliar with sustainability requirements, and internal knowledge gaps. To address these, the City should invest in upskilling procurement staff through targeted training on supply chains, embodied carbon, and circular economy principles. Tracking employee awareness and competency through surveys, training completion rates, or knowledge assessments can help monitor progress and identify areas for further capacity building.



**Cost and resource considerations** are also critical. While there may be upfront investments in training, system upgrades, and consulting support, these can be offset by long-term savings from more durable, reusable, and efficient products. Additionally, cities can explore external funding sources such as grants, green bonds, or partnerships with academic and nonprofit institutions to pilot and scale innovative procurement models.

Establishing clear **governance structures**, such as sustainability leads within procurement teams or cross-functional working groups, can help manage implementation, monitor compliance, and ensure accountability over time.

#### 4.1 Department Type Specific Opportunities

To accelerate progress, tailored strategies should be developed for **Council-controlled departments**, which have more direct oversight from City leadership. These departments can take the lead in piloting low-carbon procurement strategies by applying climate criteria to high-impact purchasing categories, such as office supplies, vehicles, or maintenance contracts, and assigning internal champions to oversee implementation and reporting. By tracking and sharing their results, these departments can serve as models for broader citywide adoption.

Engagement with **proprietary departments** will require a more collaborative approach. These agencies operate under distinct governance structures and often manage high-emissions sectors such as energy, water, and transportation. Encouraging alignment may involve convening working groups, coordinating capital planning processes, or jointly developing sustainability goals that include procurement. Sharing technical resources, data platforms, and best practices can help ensure that proprietary departments are equipped to adopt and implement emissions-reduction strategies in a manner consistent with their operational needs and regulatory mandates.

By tailoring strategies to the unique context and authority of each department, the City can build a cohesive but flexible approach to climate-aligned procurement, one that is both ambitious and grounded in operational realities.

#### 4.2 Opportunities for Data Quality and Reporting Improvements

Improving the quality and consistency of procurement data is essential for tracking embodied carbon and advancing circular economy goals. Currently, there are some gaps in procurement data that limit the City's ability to measure and manage embodied carbon emissions effectively. These gaps include standardized sustainability attributes (such as recycled content or take-back availability), and limited integration between procurement systems and emissions tracking tools.

Procurement records do not comprehensively **capture key environmental indicators**, such as the presence of Environmental Product Declarations (EPDs), life cycle assessments (LCAs), or vendor sustainability certifications. These limitations hinder the ability to set accurate baselines, monitor progress toward embodied carbon targets, and report transparently to stakeholders.

To address these challenges, the City should prioritize improvements in data collection and management. This includes standardizing procurement categories and sustainability attributes, creating subcategories if needed to differentiate low carbon procurement decisions, requiring vendors to submit environmental data as part of the bidding process, which then supports the subcategory assignment and supplies data to refine emissions factors, and integrating procurement platforms with emissions accounting tools. Establishing clear data governance protocols and assigning responsibility for data quality within procurement teams can also help ensure consistency over time. The City may also consider adopting internal dashboards, similar to existing L.A. Controller and Municipal Greenhouse Gas emission dashboards, to visualize procurement emissions by category, vendor, or department, enabling more informed decision-making and accountability.

By strengthening data quality and reporting practices, the City can build a more reliable foundation for sustainable procurement, support compliance with emerging regulations, and drive continuous improvement in climate performance.

## 5. Conclusions and Next Steps

City procurement offers a powerful and practical pathway to advance circular economy and climate goals. High-impact strategies identified in this report include setting low-carbon procurement targets, embedding climate criteria in contracts, prioritizing circular product standards, and fostering innovation through partnerships.

In the short term, the City should focus on the following actions:

- Develop roadmap that prioritizes the recommended strategies;
- Work with the Mayor's Office and City Council to establish a task force and build internal capacity by educating and empowering City employees to implement circular procurement strategies;
- Improve data systems to include embodied carbon metrics; and
- Pilot circular procurement in high-impact categories.

Medium-term actions include:

- Formalizing policies;
- Expanding supplier engagement; and
- Integrating embodied carbon tracking into procurement platforms.

Over the long term, the City can:

- Scale successful models
- Align with regional and national legislation; and
- Lead market transformation through sustained industry influence.

To ensure lasting impact, procurement improvements should be embedded within broader City sustainability frameworks, reinforcing commitments to climate action, equity, and economic resilience.

## A.1 Existing City of L.A. Policies, Plans, and Codes with Circular Economy Principles

### Ordinance No. 180751 – Environmentally Preferable Purchasing (EPP) Policy

**Date Adopted:** July 2009

**Summary:** This ordinance amended the Los Angeles Administrative Code to establish a citywide policy promoting the purchase of recycled and environmentally preferable products. It encourages departments to consider the full life cycle impacts of products, including manufacturing, use, and disposal.

**Requirements:**

- Departments must prioritize environmentally preferable products when they meet price and performance standards.
- Applies to all City departments, including proprietary departments.
- Supports employee education and the development of product standards and specifications.

**Enforceability and Tracking:** The ordinance is enforceable through the City’s administrative code. However, tracking is decentralized and varies by department, with no centralized reporting system currently in place.

### Ordinance No. 168313 – Recycled Products Purchasing Program

**Date Adopted:** May 1992

**Summary:** This ordinance promotes the procurement of products containing recycled materials to reduce landfill use and support recycling markets.

**Requirements:**

- Departments are required to purchase recycled-content products when feasible.
- Contractors, including those working with LADWP, must submit declarations under penalty of perjury verifying the recycled content of supplied products.

**Enforceability and Tracking:** The ordinance is enforceable through procurement contracts and vendor declarations. Compliance is tracked through documentation submitted during the procurement process.

### Ordinance No. 187718 – Zero Waste City Facilities and Events

**Date Adopted:** December 6, 2022

**Summary:** This ordinance requires zero waste practices at City facilities and events on City property. It mandates the elimination of single-use plastics, expanded polystyrene foodware, and disposable containers, and promotes the use of reusable alternatives

**Requirements:**

- Applies to City facilities, City-permitted events, and food or beverage providers operating on City property.

- Requires the use of reusable foodware and allows customers to bring their own.
- Encourages food waste reduction through surplus food recovery.

**Enforceability and Tracking:** Legally binding ordinance. Compliance monitored by the Bureau of Sanitation and other City departments.

**Procurement Relevance:** Affects contracts for event services, catering, facility operations, and product sourcing to ensure zero waste compliance

## Buy Clean Policy (City of Los Angeles)

**Date Adopted:** 2019 (aligned with the 2017 California Buy Clean California Act)

**Summary:** The City adopted a local version of the Buy Clean California Act, requiring Environmental Product Declarations (EPDs) for certain construction materials, including steel, glass, and insulation, used in public projects.

### Requirements:

- EPDs must be submitted for eligible materials.
- Materials must meet global warming potential (GWP) limits where applicable.
- Applies to city-funded construction projects.

**Enforceability and Tracking:** The policy is enforceable through procurement specifications and construction contract requirements. Tracking is typically managed by the Bureau of Engineering and other project oversight entities, though reporting practices may vary by department.

## Sustainable City pLAN / LA's Green New Deal (2015, updated 2019)

**Date Adopted:** Original pLAN in 2015, updated as LA's Green New Deal in 2019

**Summary:** LA's Green New Deal outlines the City's long-term sustainability strategy, including goals related to zero waste, sustainable procurement, and circular economy practices. While not a procurement ordinance, it sets the policy direction for integrating circular principles into city operations.

### Relevant Circular Economy Elements:

- Commitments to reduce landfill waste by 90 percent by 2035
- Expansion of reuse, repair, and recycling infrastructure
- Promotion of sustainable product design and procurement
- Support for local green jobs in recycling and remanufacturing sectors

### How It Applies to Procurement:

- Encourages departments to prioritize products that are reusable, recyclable, or made from recycled content
- Supports the development of procurement standards that reduce lifecycle environmental impacts
- Provides a framework for aligning procurement with broader zero waste and climate goals

**Enforceability and Tracking:** While the Green New Deal is a policy framework rather than a binding ordinance, it guides departmental sustainability planning and reporting. Progress is tracked through annual sustainability reports and departmental implementation plans.

### **Motion to Update the Los Angeles Building Code (S14KONICA\_C23120612200)**

**Date Introduced:** December 6, 2023

**Summary:** Motion to reduce embodied carbon in new construction by updating the Los Angeles Green Building Code.

**Requirements:** Proposes mandatory Whole Building Life Cycle Assessments (WBLCA) for buildings over 50,000 sq. ft., use of materials that meet Buy Clean California standards, and reuse of building materials.

**Enforceability:** Would align with CALGreen standards taking effect July 1, 2024, with additional requirements in 2025.

### **C40 Clean Construction Declaration**

**Date Adopted:** The City of Los Angeles signed the declaration in 2019.

**Summary:** Commit to reducing embodied carbon in major construction projects by 50% by 2030. Applies to large-scale construction; encourages low-carbon materials and methods.

**Enforceability and Tracking:** Voluntary but supported by policy motions like the one above. Progress is tracked through emissions reporting and project-level assessments.

### **Citywide Adaptive Reuse Ordinance**

**Date Adopted:** Originally in 1999; updates ongoing.

**Summary:** This ordinance facilitates the conversion of older buildings to new uses, reducing the need for new construction and preserving existing structures

**Requirements:** Applies primarily to buildings constructed before 1974 in designated areas

**Enforceability and Tracking:** Enforced through the Department of Building and Safety via the permitting process.

# ATTACHMENT 2

## Description of Scope 3 Emission Categories

Category	Description
1. Purchased goods and services	Extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise included in Categories 2 - 8.
2. Capital goods	Extraction, production, and transportation of capital goods purchased or acquired by the reporting company in the reporting year.
3. Fuel- and energy- related activities (not included in Scope 1 or Scope 2)	Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2, including: <ul style="list-style-type: none"> <li>a. Upstream emissions of purchased fuels (extraction, production, and transportation of fuels consumed by the reporting company);</li> <li>b. Upstream emissions of purchased electricity (extraction, production, and transportation of fuels consumed in the generation of electricity, steam, heating, and cooling consumed by the reporting company);</li> <li>c. Transmission and distribution (T&amp;D) losses (generation of electricity, steam, heating and cooling that is consumed (i.e., lost) in a T&amp;D system) – reported by end user; and,</li> <li>d. Generation of purchased electricity that is sold to end users (generation of electricity, steam, heating, and cooling that is purchased by the reporting company and sold to end users) – reported by utility company or energy retailer only.</li> </ul>
4. Upstream transportation and distribution	<p>Transportation and distribution of products purchased by the reporting company in the reporting year between a company's tier 1 suppliers and its own operations (in vehicles and facilities not owned or controlled by the reporting company).</p> <p>Transportation and distribution services purchased by the reporting company in the reporting year, including inbound logistics, outbound logistics (e.g., of sold products), and transportation and distribution between a company's own facilities (in vehicles and facilities not owned or controlled by the reporting company)</p>
5. Waste generated in operations	Disposal and treatment of waste generated in the reporting company's operations in the reporting year (in facilities not owned or controlled by the reporting company).
6. Business travel	Transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the reporting company).
7. Employee commuting	Transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the reporting company).
8. Upstream leased assets	Operation of assets leased by the reporting company (lessee) in the reporting year and not included in scope 1 and scope 2 – reported by lessee.
9. Downstream transportation and distribution	Transportation and distribution of products sold by the reporting company in the reporting year between the reporting company's operations and the end consumer (if not paid for by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company).
10. Processing of sold products	Processing of intermediate products sold in the reporting year by downstream companies (e.g., manufacturers).
11. Use of sold products	End use of goods and services sold by the reporting company in the reporting year.
12. End-of-life treatment of sold products	Waste disposal and treatment of products sold by the reporting company (in the reporting year) at the end of their life.
13. Downstream leased assets	Operation of assets owned by the reporting company (lessor) and leased to other entities in the reporting year, not included in scope 1 and scope 2 – reported by lessor.
14. Franchises	Operation of franchises in the reporting year, not included in scope 1 and scope 2 – reported by franchisor.
15. Investments	Operation of investments (including equity and debt investments and project finance) in the reporting year, not included in scope 1 or scope 2.

Source: Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard

Scope 1 emissions are from City-owned assets or facilities; and,  
 Scope 2 emissions are from the consumption of utility power for municipal operations.