



REQUEST FOR PROPOSALS (RfP)

**Technical Delivery Partner to  
support E-Truck Charging Hubs Demonstration Projects  
in Brazil and Mexico**

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## Summary

<b>1. C40 Cities Climate Leadership Group Inc. (“C40”)</b>	<b>3</b>
1.1. The Climate Pledge (TCP)	3
1.2. Background: Laneshift Initiative for Freight Decarbonization in Latin America	3
<b>2. Summary, Purpose and Background of the Project</b>	<b>3</b>
2.1. Project Description	4
2.2. Scope of Work	7
MOBILISATION	7
PHASE 1 – BUSINESS BUY-IN	8
PHASE 2 – DEMONSTRATION PROJECT	10
PHASE 3 – SCALE UP PLAN	12
FINALISATION	14
SUMMARY OF DELIVERABLES AND DUE DATE	15
2.3. Supplier Specification	16
<b>3. Proposal</b>	<b>17</b>
3.1. Proposal Guidelines	17
3.2. RfP Timeline	20
3.3. Proposal Evaluation Criteria	21
3.4. Project Budget	22
3.5. C40 Policies	22
3.6. Submissions	23
<b>4. Annex</b>	<b>24</b>
Annex 1. Charging Hub Demonstration Projects	24
Annex 2. Data Collection Framework	25
Data collected via Telemetry and Derived Parameters	25
Data collected via Surveys and Derived Parameters	26
Annex 3. Policies promoted by Laneshift	28
Curitiba - Parking fee exemption for Zero Emission Freight:	28
Mexico City - Electromobility Self Regulation Program:	28
Rio de Janeiro: ISS Neutral Service Tax	28

## 1. C40 Cities Climate Leadership Group Inc. (“C40”)

C40 is a network of nearly 100 mayors of the world's leading cities, who are working to deliver the urgent action needed right now to confront the climate crisis and create a future where everyone, everywhere, can thrive. Mayors of C40 cities are committed to using a science-based and people-focused approach to help the world limit global heating to 1.5°C and build healthy, equitable, and resilient communities. Through a Global Green New Deal, mayors are working alongside a broad coalition of representatives from labour, business, the youth climate movement, and civil society to go further and faster than ever before.

The strategic direction of the organisation is determined by an elected Steering Committee of C40 mayors, which is co-chaired by Mayor Sadiq Khan of London, United Kingdom, and Mayor Yvonne Aki-Sawyers of Freetown, Sierra Leone. Three-term Mayor of New York City Michael R. Bloomberg serves as President of the C40 Board of Directors, responsible for operational oversight. A nine-person management team, led by Executive Director Mark Watts, leads the day-to-day management of C40. C40's three core strategic funders are Bloomberg Philanthropies, the Children's Investment Fund Foundation (CIFF), and Realdania.

To learn more about the work of C40 and our cities, please visit our [Website](#), or follow us on [X](#), [Instagram](#), [Facebook](#), and [LinkedIn](#).

### 1.1. The Climate Pledge (TCP)

Co-founded in 2019 by Amazon and Global Optimism, the Pledge brings together a growing network of signatories, now 554 organizations, who agree to reach net-zero carbon emissions by 2040—ten years ahead of the Paris Agreement. United in the belief that bold, science-based action is essential, signatories commit to regular reporting, carbon elimination across their operations, and credible offsetting where necessary.

In line with the global push to decarbonize transport, The Climate Pledge has committed \$10 million to C40 Cities to kick-start the development and deployment of zero-emission electric trucks and charging infrastructure across major cities in India and Latin America. This initiative marks a concrete step toward transforming urban freight in regions where heavy-duty transport remains a significant source of emissions.

To learn more about The Climate Pledge and join the movement, visit their [website](#) or follow on [LinkedIn](#) and [Instagram](#).

### 1.2. Background: Laneshift Initiative for Freight Decarbonization in Latin America

[Laneshift](#) is a 3-year partnership between [The Climate Pledge](#) and C40 Cities to accelerate the transition to zero-emission freight (ZEF) across Latin America and India urban centers. The programme works with city governments, providing technical assistance as cities encourage electric freight vehicle uptake, and also works with businesses and financial institutions to overcome charging infrastructure and financing obstacles.

Laneshift brings together all stakeholders involved in road freight electrification to identify and overcome the barriers to owning, operating, and financing electric trucks. The programme offers real-world insights into the practicalities of running the vehicles and provides innovative solutions to the challenges of freight electrification. These insights and solutions serve as blueprints for cities, businesses, and financial institutions as the shift to electric freight vehicles intensifies globally.

## 2. Summary, Purpose and Background of the Project

## 2.1. Project Description

Through the Laneshift Initiative, C4O Cities and The Climate Pledge are introducing the **first freight charging hubs in Mexico City, Rio de Janeiro, and Curitiba** — an essential shift, as charging infrastructure has historically been designed for private and ride-hailing vehicles rather than logistics fleets in these cities. By actively engaging businesses and infrastructure providers, C4O has ensured that freight operators can use these hubs.

Strategically located in commercial areas with access to key roadways, the hubs provide businesses with mid-route charging options, helping them overcome route planning, maintenance, and fleet expansion constraints. These hubs, backed by municipal support and infrastructure providers, offer a scalable solution that allows businesses to integrate charging into their daily operations, reducing reliance on in-house infrastructure.

In each city where Laneshift is operating, C4O Cities and The Climate Pledge will establish the **Laneshift Charging Hub City Business Alliance** to ensure the charging hubs are fit for purpose through a demonstration project, therefore, providing inputs to the strategy for scaling up the model of charging hubs across the cities. This **City Business Alliance** brings together key industry stakeholders—including fleet owners and operators, charging point operators, and policymakers—to actively participate in testing the charging hubs, providing critical feedback on their functionality, and ensuring they meet their needs. The insights gathered will help refine the hub's operations and inform a broader strategy for scaling up the model across cities.

The **Laneshift Charging Hub City Business Alliance** demonstration project goals are to:

- Gather business feedback to **inform the hub's operation**.
- Ensure that businesses **test the facilities for a period of 3 to 6 months**, to compile data on their operational and cost-effectiveness
- Inform the **scaling strategy** for EV charging hubs across **Mexico and Brazil**.

To achieve these objectives, the project is structured into four key phases:

- **Phase 1 - Business Buy-in:** So far, 45 companies (~25 in Brazil and 20 in Mexico) across 4 market segments — food & beverage, e-commerce, charging point providers, and city & courier services — have made their inputs into Phase 1. The interviews with these companies have enabled C4O to input critical data and insights from businesses to inform the operational requirements of the charging hubs. The businesses that have expressed interest in testing the hub **will be invited to join the Laneshift Charging Hub City Business Alliance** (invitation letter detailed below), encouraging them to take on a more prominent role in testing (demoing) the facilities and contributing to a scalable charging network in each city.
- **Phase 2 - Demonstration Project:** Businesses will participate in a structured demonstration project, committing to using the charging hub for a defined period under a **Utilization Agreement**. This phase will generate valuable data and insights, helping both the hub operator and businesses assess whether the infrastructure meets their operational needs. Drivers will register and test the facility, providing feedback on its usability, functionality, and overall experience. The Utilization Agreements will commit businesses to testing the Charging Hub for the

demonstration project, i.e., 3 to 6 months. They may involve preferential use access and energy prices for businesses in exchange for a minimum Utilization agreement (either in kWh or in time).

- Phase 3 - Scale Up Plan:** In addition to data and insights from the demonstration project, businesses will also provide feedback to support the development of a scalable, sustainable charging model and the foundation of a network of charging hubs in each city (for example by providing insights on optimal locations, charging connector types, etc). This Phase aims to leverage data and insights from early adopters to attract more businesses and drive widespread adoption of freight charging hubs.

To support the implementation of the **Laneshift Charging Hub City Business Alliance** and the demonstration projects, C40 is seeking a specialized Service Provider, referred to as the **“Technical Delivery Partner”**.

**The main objective of the Technical Delivery Partner support is to secure business participation in the Charging Hub Demonstration Projects through the Laneshift Charging Hub City Business Alliance, assess the effectiveness and impact of EV charging hubs on businesses and city infrastructure, providing insights to guide future improvements and scaling efforts.** The partner will engage with the Charge Point Operator (CPO) Partner (the charging hub operator) and businesses in testing the hubs and gathering feedback to refine operations, using an agreed format for data collection (e.g., energy consumption, number and type of vehicles, frequency of use - VKT, emissions avoided and co-benefits estimation), analysis, and reporting on hub performance, charging efficiency, and operational integration.

The Technical Delivery Partner shall be a consulting company with a focus on transport/mobility and/or business strategy with regional (Latam) reach. It shall conduct activities across geographies (Brazil and Mexico) and cover all demonstration projects pursued.

Considering the timeline of the demonstration projects, the activities shall prioritise the hubs' opening first.

The following table shows the division of responsibilities of partners, as well as those of C40, The Climate Pledge, and participating businesses, across each phase of the **Laneshift Charging Hub City Business Alliance**.

**Table 1. Division of Responsibilities for the Laneshift Charging Hub City Business Alliance delivery**

Phase	C40 Cities	The Climate Pledge	Charge Point Operator (CPO)	Technical Delivery Partner	Businesses	Cities
<b>Phase 1 – Business Buy-in</b>	<ul style="list-style-type: none"> <li>Oversees and guides the data collection efforts of the Technical Delivery Partner (during this Phase and throughout the project.)</li> <li>Lead on business recruitment activities to join the Alliance and participate in the Demonstration Projects.</li> <li>Support negotiations for Utilisation Agreements for the Demo Project between businesses and CPOs.</li> </ul>	<ul style="list-style-type: none"> <li>Encourage TCP signatories to join the Alliance and sign Utilisation Agreements in order to participate in the demo project.</li> </ul>	<ul style="list-style-type: none"> <li>Support on business recruitment activities to join the Alliance and participate in the Demonstration Projects.</li> <li>Formalise Utilisation Agreements for the Demo Project with interested businesses.</li> <li>Agree on quantitative and qualitative data collection needs.</li> <li>Process business insights on operational needs, technical requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Refine quantitative and qualitative data collection needs.</li> <li>Support on business engagement activities.</li> <li>Support negotiations for Utilisation Agreements for the Demo Project between businesses and CPOs</li> <li>Collect business insights on operational needs, technical requirements and engage CPOs to ensure alignment with business needs</li> </ul>	<ul style="list-style-type: none"> <li>Share data on fleet specifications and use, charging requirements, and operational constraints.</li> <li>Provide feedback on ideal charging hub features.</li> <li>Sign the Alliance invitation letter and the Utilization Agreements.</li> </ul>	<ul style="list-style-type: none"> <li>Support engaging businesses</li> <li>Support definition of qualitative data collection needs.</li> </ul>
<b>Phase 2 – Demonstration Project</b>	<ul style="list-style-type: none"> <li>Prepare the joint announcement of the Demonstration Project</li> <li>Monitor and coordinate testing activities across cities.</li> <li>Ensure feedback loops between businesses, technical teams, and city departments.</li> </ul>	<ul style="list-style-type: none"> <li>Collaborate with C40 on the material preparation of joint announcement.</li> </ul>	<ul style="list-style-type: none"> <li>Support businesses in testing the charging hub (e.g., coordinating pilot users).</li> <li>Collect quantitative performance data.</li> <li>Engage businesses to provide qualitative feedback on hub utilisation</li> </ul>	<ul style="list-style-type: none"> <li>Collect qualitative feedback and consolidate data collected from businesses and provide analysis on hub performance, charging speeds, and utilization.</li> </ul>	<ul style="list-style-type: none"> <li>Participate on joint announcement</li> <li>Conduct real-world charging trials and provide feedback on usability, efficiency, and cost.</li> </ul>	<ul style="list-style-type: none"> <li>Collaborate with C40 on the material preparation of the joint announcement.</li> </ul>
<b>Phase 3 – Scale-Up Plan</b>	<ul style="list-style-type: none"> <li>Oversee preparation of key findings and direction of the charging hub network.</li> <li>Work with city officials to secure policy support and integrate learnings into broader EV charging hub networks and plans.</li> <li>Collaborate on the material preparation for dissemination on comms.</li> </ul>	<ul style="list-style-type: none"> <li>Collaborate with C40 on the material preparation for dissemination on comms.</li> </ul>	<ul style="list-style-type: none"> <li>Engage businesses to contribute data and feedback to support the development of a scalable, sustainable charging model and the foundation of a network of charging hubs</li> </ul>	<ul style="list-style-type: none"> <li>Develop a scalability plan, based on the findings of the demonstration project, businesses’ insights of new optimal locations for charging hubs in the city.</li> <li>Evaluate potential businesses’ fleet expansion or increased EV mileage as a result of expanded hub access.</li> </ul>	<ul style="list-style-type: none"> <li>Contribute data and feedback to support the mapping of optimal locations, and the development of a scalable, sustainable charging model</li> </ul>	<ul style="list-style-type: none"> <li>Support mapping available public land in new strategic locations for charging hubs in the city.</li> <li>Support identifying additional policy support and broader EV plans that can complement scalability plans.</li> </ul>

## 2.2. Scope of Work

The Technical Delivery Partner will be instrumental in ensuring the Charging Hub Demonstration Project is supported by robust data collection, analysis, and strategic insights. Specifically, the partner will:

- **Refine the quantitative and qualitative data collection framework** to assess the charging hubs' effectiveness and gather insights from participating businesses (Phase 1).
- **Support C40 in recruiting businesses** to participate in the Charging Hub demonstration projects by inviting them to join the Laneshift Charging Hub City Business Alliance (Phase 1) and participate in the demonstration projects (Phase 2).
- **Gather and consolidate valuable data and feedback** (Phase 2) from participating businesses on hub performance, charging speeds, utilization to inform the development of a scalable, sustainable charging model and the foundation of a network of charging hubs in each city (for example by providing insights on optimal locations, connector types, etc).
- **Produce a scalability plan for the implementation of a charging hub network** by mapping optimal locations for future hubs, assessing business readiness for EV adoption, and developing a sustainable model for charging infrastructure expansion (Phase 3). This will be presented in a final roadmap report.
- **Ensure smooth coordination and clear communication** with C40 teams and key partners to achieve project milestones efficiently.

The **Technical Delivery Partner** will play a key role in bridging technical insights with business and policy decisions, ensuring that data-driven recommendations inform the long-term deployment of freight charging hubs. The partner will work closely with C40 and the Charge Point Operator in each city to develop a scalable, evidence-based approach to urban freight electrification.

Additionally, the Technical Delivery Partner will contribute to knowledge-sharing efforts by producing a final report summarizing the demonstration project's successes, challenges, and best practices, supporting cities, businesses, and financiers in advancing the electrification of freight transport.

## MOBILISATION

### Objective 0.1. Define detailed Workplan

Before starting the work, the Technical Delivery Partner will develop a structured approach for outreach, engagement, and communication.

- **Description of Activities:**
  - Develop a work plan that consolidates all activities, milestones, and expected outcomes, potential risks and mitigation strategies, clearly defining the objectives aligned to a detailed timeline, a monitoring &

evaluation framework, and outlining the roles and responsibilities of each team member.

- **Deliverables:**

- **0.1.A.** Project Workplan, including key milestones and monitoring & evaluation framework to secure business commitments.

## PHASE 1 – BUSINESS BUY-IN

### Objective 1.1. Define Charging Hub Data Collection Framework

The Technical Delivery Partner will develop a structured methodology for collecting data to assess business charging behavior, infrastructure performance, and long-term viability of the hubs. The partner will liaise between businesses and the technical team to facilitate smooth participation.

- **Description of Activities:**

- Define the **key performance indicators (KPIs)** to evaluate the performance and impact of the demonstration project.
- Refine the [existing Charging Hub Data Collection Framework](#) and eventually identify new **quantitative and qualitative data points** to measure the established KPIs and define standard operating procedures (SoPs) for data collection, analysis, and reporting.
- Identify the qualitative feedback requirements (e.g. user experience, business satisfaction, operational constraints, improvement opportunities) and develop a **Feedback Toolkit**, to guide the qualitative feedback collection process, including a detailed methodology that includes surveys and interviews and a curated set of interview and survey questions.
  - The survey respondents vary and might be the end users (drivers), businesses' decision makers, the CPO or even nearby store owners and / or population. The methodology and frequency of surveys will be defined by the Technical Delivery Partner and approved by C4O before they are commenced.
- Ensure alignment with the Charge Point Operator on data collection needs and its inclusion on the demonstration project Utilisation Agreements.

- **Deliverables:**

- **1.1.A** Charging Hub Data Collection Framework, defining all required quantitative data points to measure the established KPIs, along with the respective data collection, analysis and reporting methodologies, and baseline data where applicable and required.
- **1.1.B** Feedback Toolkit, to guide the qualitative feedback collection process.



## Objective 1.2. Define the Charging Hub Demonstration Utilisation Agreement criteria and Prepare the Business Pitch

The partner will create the businesses' Charging Hub Utilization Agreement criteria, including the data that shall be collected during the testing period and a compelling project pitch to attract stakeholders to the demonstration project.

- **Description of Activities:**

- Based on C40's Charging Hub Demonstration Project goals, current business landscape mapping and existing efforts, refine the profile and target of hub user companies by incorporating key data, considering vehicle types and market segmentation, and specifically focusing on identifying businesses that currently utilize electric vehicles in each city. The list of engaged businesses shall also include the potential market demand and an indication of existing contract types, lease agreements, and ownership models in-place for logistic operations.
  - The Partner must support C40 identify and compile a list of 12 businesses to attract demand for at least +100 e-freight vehicles (e-vans and light-, medium- and heavy-duty trucks) that would benefit from the charging infrastructure demo project across different zones in the three cities.
- Establish clear communications protocols for stakeholder communication and collaboration throughout the implementation, reporting, of the Charging Hub Demonstration Project. Ensure to provide enough details on how C40 may approach businesses and other stakeholders
- Building on engagement already carried out within the Laneshift project, create a compelling project pitch for businesses developing key materials that highlights the project's value proposition, key objectives, expected outcomes and benefits.
- Support the CPO to create a business Utilisation Agreement outline, developing a standardized commitment document that clearly defines roles and responsibilities from each party, following the approach outlined on section 2.2. Project Description, with flexibility for region-specific needs.

- **Deliverables**

- **1.2.A** Targeted Business Pipeline, outlining ideal hub users based on data-driven analysis and Stakeholder Communications Protocol.
- **1.2.B.** Business Pitch Materials
- **1.2.C.** Utilisation Agreement Template Outline

## Objective 1.3. Recruit Businesses to Join the Charging Hub City Business Alliance and Facilitate Business Participation in the Demonstration Projects

The Technical Delivery Partner will support C40 engage businesses in key market segments (e.g., food & beverage, e-commerce, city logistics, and courier services) to

encourage participation in the Charging Hub City Business Alliance. This includes conducting targeted outreach, organizing informational sessions, and addressing potential business concerns related to EV charging adoption.

The Technical Delivery Partner Partner will support negotiations between businesses and Charging Point Operators to define fair and transparent terms for the Utilization Agreement, ensuring businesses are aligned on pricing, access conditions, and operational requirements for hub use during the demonstration project.

- **Description of Activities:**

- Plan, prepare, schedule and deliver meetings (virtual or in-person) to present the project pitch to targeted businesses, addressing their concerns, and clearly explaining how the demo will work and commitment implications.
- Prepare meeting materials, developing high-quality and tailored content for diverse audiences and business segments that clearly outline the value and objectives of the project.
- Conduct site visits with interested businesses to gain confidence on the formalisation of the Charging Hub Utilisation Agreement.
- Support CPO secure formal commitments with 2-4 businesses committed per city in Mexico City and Rio de Janeiro by June 2025 and in Curitiba by the hub launch in December 2025.

- **Deliverables:**

- **1.3.A.** Business Engagement Progress Report, with contact details, commitment status updates, potential market demand and charging preferences.
- **1.3.B.** 2-to-4 Businesses sign Laneshift Charging Hub City Business Alliance Invitation Letters and Utilisation agreements from participating businesses.

## PHASE 2 – DEMONSTRATION PROJECT

### **Objective 2.1. Coordinate Business Testing of the Charging Hub and Collect, Consolidate, and Analyze Business Utilization Data**

The Technical Delivery Partner will work closely with the CPO and businesses to onboard them into the demonstration phase for the 3 to 6 months of testing period, ensuring pilot users understand the testing process, scheduling, and reporting expectations. The partner will act as a liaison between businesses and the technical team to facilitate smooth participation. The Technical Delivery Partner will collect qualitative feedback and quantitative data collected from businesses and provide analysis on hub performance, charging speeds, and utilization.

- **Description of Activities:**

- Keep and maintain communication with businesses to ensure they successfully integrate and utilize the charging hubs, remain engaged and

satisfied with the demo project, provide support and materials on how to use the charging hubs effectively.

- Monitor usage and address issues, tracking the utilization of the hubs by businesses through real-time and periodic quantitative data provided related to charging hub usage, efficiency, and reliability.
    - The quantitative data from vehicle and charger telemetry systems shall be collected by the CPO, following the Charging Hub Data Collection Framework.
    - The Technical Delivery Partner must validate the data points collected by the CPO so that they are representative of the real-world operations. This includes checking for missing or duplicate data, verifying unit consistency, anomalies and outliers and ensuring the data aligns with relevant vehicle types based on parameters such as energy consumption and payload.
  - Prepare and conduct structured surveys and interview templates, ensuring they capture qualitative data and insights on business experiences, challenges, and satisfaction with the hub.
    - The qualitative survey data shall be collected by the Technical Delivery Partner using the Charging Hub Data Collection Framework and the Feedback Toolkit.
  - Analyze the financial, operational, and logistical impacts of hub usage on business fleets.
  - Evaluate the impact of the charging hubs in terms of emission reduction (GHG, PM2.5, NOx), direct co-benefits (truck personnel impacts on health, knowledge access, inclusion) and indirect co-benefits (front-line communities impacts on health, safety perception, economic activity area development).
  - Provide actionable recommendations to optimize hub operations based on early insights.
- **Deliverables:**
    - **2.1.A.** Monthly Hub Utilization & Performance Analysis Report, summarizing charging behaviors, infrastructure reliability, user satisfaction and financial data such as price per kWh and cost per kWh, revenue per charging services, and incentives and subsidies. The information shall be aggregated for the total group of companies forming the business alliance, as well as disaggregated by each individual user company.
    - **2.1.B.** Demonstration Project Report, highlighting key findings from early business adopters regarding their operational challenges, charging experience, emission reduction, co-benefits and overall satisfaction with the demonstration project.

## PHASE 3 – SCALE UP PLAN

### Objective 3.1. Develop a Charging Hub Scalability Roadmap

The partner will engage businesses so that they participate in structured discussions about short, medium and long-term EV charging needs, pricing models, and ideal charging locations. The partner will then utilize insights to identify optimal locations for future charging hubs, assess business readiness for electrification, and develop a sustainable business model for scaling up charging infrastructure.

- **Description of Activities:**
  - Produce, based on interviews conducted with businesses, a geospatial and market analysis for charging hub expansion:
    - Perform a geospatial statistical analysis of participating businesses' locations to determine heatmaps and key clusters for charging hub expansion, evaluating business density and logistics patterns and utilising route simulation models to analyze freight movement.
  - Assess business adoption readiness and long-term commitment to charging hubs:
    - Evaluate the willingness of businesses to transition to EVs and expand usage of charging hubs beyond the demonstration project by gathering feedback on perceived barriers, such as cost, operational impacts, and infrastructure constraints.
    - Identify key adoption drivers, including the role of financial incentives, operational efficiencies, and policy support.
  - Develop design and infrastructure recommendations for EV freight charging hubs based on insights and feedback gathered from businesses during the pilot to ensure the charging hubs are scalable, energy-resilient, and aligned with long-term city decarbonization goals.
    - Assess site-specific power needs based on vehicle mix, charging behavior, and evaluate infrastructure requirements, including grid connection capacity, transformer needs, and smart charging systems (fast and slow).
    - Identify opportunities for renewable energy integration and Battery Energy Storage Systems (BESS) to improve energy resilience and manage grid load.
    - Coordinate with utilities and city stakeholders to identify regulatory or technical constraints and align infrastructure planning with city energy and climate strategies.
    - Propose additional amenities and services that reflect user needs, such as restrooms, rest areas, retail or food options, secure parking, and light maintenance facilities, with an inclusion approach.

- Recommend spatial layouts that accommodate the operational requirements of medium- and heavy-duty vehicles, ensuring safety, maneuverability, and potential for future expansion.
- Assess the existing policy landscape to evaluate how current or proposed policies can accelerate business investment in electric freight vehicle and charging infrastructure (see [Annex 3.3](#) as a reference for the policies).
  - Conduct interviews and surveys with businesses and relevant stakeholders to gather qualitative feedback on the effectiveness of incentives and policies used in cities.
  - Develop a simplified modeling approach (e.g. Cost-Benefit Analysis (CBA)) to analyze the impact and effectiveness of different policies on Total Cost of Ownership (TCO) for businesses across vehicle segments and use cases and compare Business-as-Usual scenarios with scenarios more favorable to zero emission options.
  - Identify which levers are most impactful in driving adoption and achieving price parity with internal combustion engine vehicles and develop recommendations.
- Develop a final scalability roadmap, detailing the land provision, policy and business model roadmap for multi-purpose charging hubs from the demonstration project findings:
  - Summarize key insights from the demonstration project, including what worked well, challenges encountered, and areas for improvement.
  - Highlight best practices and lessons learned to inform the future development of charging hubs.
  - Design projection calculations of the electric truck deployment under at least three (3) scenarios that contemplate business-as-usual, and the complete implementation of the scalability roadmap.
  - Provide clear recommendations on next steps for scaling up charging infrastructure for freight vehicles across the three relevant cities and supporting business electrification. Outline the specific roles of key stakeholders, including: **cities** (policy support, infrastructure planning, incentives, and regulatory frameworks), **businesses** (commitment to EV adoption, operational integration, and data-sharing for optimization), **charge point operators** (expansion of charging networks, pricing models, and service reliability improvements), and **financiers** (investment in charging infrastructure and development of funding mechanisms).
  - Forecast the impact of the scalability roadmap for charging hubs in terms of emission reduction (GHG, PM2.5, NOx), direct co-benefits (truck personnel impacts on health, knowledge access, inclusion) and indirect

co-benefits (front-line communities impacts on health, safety perception, economic activity area development).

- **Deliverables:**

- **3.1.A** Scalability Roadmap Report, containing:
  - Definition of a heatmap of charging hub locations and the indication of priority sites, based on a pre-feasibility assessment that considers businesses' clusters and logistics needs, energy availability, and land use across the three relevant cities for freight electrification.
  - Charging hub design recommendations based on pilot feedback and international best practices, including charger types, amenities, spatial layout, energy resilience and grid load management practices.
  - Practical and data-driven summary of business adoption readiness, emission reduction and co-benefits impacts, and key drivers, findings, challenges, best practices, and recommendations for scaling up charging hubs, with specific roles of the different stakeholders involved.
  - Evaluation of the policy landscape, including recommendations for incentives and regulatory frameworks that effectively support business transition to EFVs and charging infrastructure investment.
  - Scenario-based impact forecasts of scalability roadmap implementation.

## FINALISATION

### Objective F.1. Finalise the Project

The partner will finalise the project by providing an Executive Summary of activities and findings.

- **Description of Activities:**
  - Summarise key findings and actionable recommendations on an Executive Summary.
- **Deliverables:**
  - **F.1.A.** Executive Summary

## SUMMARY OF DELIVERABLES AND DUE DATE

Phase	Objective	Deliverable	Due date
Mobilisation	<b>Objective 0.1.</b> Define detailed Workplan	<b>0.1.A.</b> Project Workplan	Week 1
Phase 1 – Business Buy-in	<b>Objective 1.1.</b> Define Charging Hub Data Collection Framework	<b>1.1.A.</b> Charging Hub Data Collection Framework	Week 2
		<b>1.2.B.</b> Survey & Interview Toolkit	
	<b>Objective 1.2.</b> Define the Charging Hub Demonstration Utilisation Agreement criteria and Prepare the Business Pitch	<b>1.2.A.</b> Targeted Business Pipeline & Stakeholder Communications Protocol	Week 3
		<b>1.2.B.</b> Business Pitch Materials	Week 3
		<b>1.2.C.</b> Utilisation Agreement Template Outline	Week 3
	<b>Objective 1.3.</b> Recruit Businesses to Join the Charging Hub City Business Alliance and Facilitate Business Participation in the Demonstration Projects through Utilization Agreements	<b>1.3.A.</b> Business Engagement Progress Report	Weekly from Week 4-6
<b>1.3.B.</b> 2-to-4 Businesses sign Laneshift Charging Hub City Business Alliance Invitation Letters and Utilisation agreements from participating businesses per city.		Week 6	
Phase 2 – Demonstration Project	<b>Objective 2.1.</b> Collect, Consolidate, and Analyze Business Utilization Data	<b>2.1.A</b> Monthly Hub Utilization & Performance Analysis Report, summarizing charging behaviors, infrastructure reliability, and user satisfaction.	Monthly during Testing period (3-to-6 months)
		<b>2.1.B</b> Demonstration Project Report, highlighting key findings from early business adopters regarding their operational challenges, charging experience, and overall satisfaction with the demonstration project.	First draft Month 1
			Final Report Month 6
Phase 3 – Scale-Up Plan	<b>Objective 3.1</b> Develop a Scalable and Data-Driven Roadmap for Charging Hub Expansion	<b>3.1.A</b> Scalability Roadmap Report with heatmap of charging hub locations and a summary of business adoption readiness and key drivers, findings, challenges, best practices, and recommendations for scaling up charging hubs,	First draft outline Month 4
			Final Report Month 7
Finalisation	<b>Objective F.1.</b> Finalise the Project	<b>F.1.A.</b> Executive Summary	Month 8

### 2.3. Supplier Specification

C4O is seeking a consulting firm with a **strong regional presence in Latin America**, specifically in Mexico and Brazil, to support the Laneshift Charging Hub Demonstration Project. The selected firm must have the **capacity to deliver work in both countries** and demonstrate experience managing complex, multi-phase projects across diverse urban and regulatory contexts.

The ideal firm will have a solid background in transportation and mobility consulting, business strategy, and sustainability, with demonstrated success working with a variety of stakeholders from the private sector, municipal governments, and infrastructure providers to deliver scalable, data-driven, and sustainable transport solutions.

In addition to technical expertise, the firm should have a proven ability to collect and analyze qualitative and quantitative data, draw actionable insights, and guide strategic decision-making. Familiarity with local regulations, business environments, and regional market dynamics in Mexico and Brazil is essential to ensure the project’s success. The partner will also be expected to support negotiations with stakeholders and contribute to strategic planning efforts based on insights gathered from the demonstration phase.

#### Team Composition

The team must be capable of delivering across **Mexico City, Rio de Janeiro, and Curitiba**, and should include, at a minimum, the following roles and/or background and skills. Similar configurations are acceptable if aligned with the proposal and the scope of work detailed in this document.

Role	Project Lead / Manager
Background	Extensive experience managing multi-country, multi-phase projects in the transportation, energy, or sustainability sectors in Latin America.
Skills	<ul style="list-style-type: none"> <li>• Strong coordination, stakeholder management, and leadership abilities.</li> <li>• Experience overseeing regional delivery across Latin America.</li> <li>• Proven ability to liaise with both public and private partners, including governments and infrastructure operators.</li> <li>• Fluency in English and Spanish and/or Portuguese is required</li> </ul>

Role	Transport/Mobility and Sustainability Specialist(s)
Background	<ul style="list-style-type: none"> <li>• Deep understanding and proven experience in projects of electric mobility (infrastructure, logistics, and charging infrastructure, etc.)</li> <li>• Experience designing or evaluating charging solutions, mobility systems, or similar infrastructure in Latin America</li> </ul>
Skills	<ul style="list-style-type: none"> <li>• Capable of identifying and refining technical and operational data collection needs.</li> <li>• Able to assess and translate business needs into infrastructure and policy recommendations.</li> <li>• Expertise in evaluating charging hub performance, charging</li> </ul>



	<p>speeds, utilization rates, and business uptake.</p> <ul style="list-style-type: none"> <li>• Ability to support development of scalability plans based on real-world data and stakeholder input.</li> </ul>
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<b>Role</b>	<b>Data Analyst / Impact Assessment Specialist(s)</b>
<b>Background</b>	Skilled in quantitative and qualitative analysis related to transport systems, energy efficiency, and environmental performance.
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Capable of designing and implementing data collection frameworks aligned with project objectives.</li> <li>• Able to consolidate and interpret feedback from businesses to provide clear, actionable analysis.</li> <li>• Experience producing impact assessments, including fleet expansion potential, EV mileage increase, and emissions reductions.</li> <li>• Familiarity with metrics such as VKT, energy consumption, and co-benefits estimation.</li> </ul>

<b>Role</b>	<b>Business Engagement &amp; Strategy Specialist(s)</b>
<b>Background</b>	Expertise in working with private sector actors in the fields of logistics, e-commerce, public affairs, ESG or similar. Experience supporting business adoption of EV infrastructure is a strong asset.
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Strong interpersonal and negotiation skills to support C40 and CPO on business engagement and Utilization Agreement facilitation.</li> <li>• Ability to collect qualitative business insights on operational needs and technical requirements.</li> <li>• Experience aligning private sector interests with technical infrastructure and sustainability goals.</li> </ul>

Further details on roles and responsibilities can be found in Table 1: Division of Responsibilities for the delivery of the Laneshift Charging Hub City Business Alliance, included in this document

### 3. Proposal

This Request for Proposal represents the requirements for an open and competitive process. Proposals will be accepted until **23:59 hr GMT+6, May 14, 2025**. Any proposals received after this date and time will not be accepted.

#### 3.1. Proposal Guidelines

All proposals must include **concise information**. The content of the documents should provide the evaluation panel with all the necessary information to assess your offer.

To ensure fairness, we kindly ask that proposals be **limited to 20 pages**, excluding a cover page/letter and attachments. Your submissions should be in PDF and Microsoft Word formats, with margins of less than one inch and a text size of at least 10 points. We appreciate your attention to these requirements and look forward to reviewing your proposals.

Please send your proposal with the following content:

1. **Profile:** Provide a detailed description of your organization, core areas of expertise, and relevance to the scope of work outlined in this Terms of Reference. Clearly articulate your motivation for responding to this Request for Proposals and your interest in collaborating with C40. Demonstrate how your organizational capacity, experience, and regional presence—particularly in Latin America—position you to successfully deliver the consultancy.
2. **Equity Diversity and Inclusion Commitment:** Outline your organization’s commitment to Equity, Diversity, and Inclusion (EDI). Include relevant internal policies, practices, and initiatives, as well as professional examples that reflect this commitment. Bidders are encouraged to refer to C40’s EDI policies, as outlined in the corresponding section of this Terms of Reference, for alignment and context.
3. **Relevant Experience and References:** Describe similar projects previously undertaken by your organization, with emphasis on the outcomes achieved. Highlight experience working with diverse stakeholders, particularly in the fields of mobility, sustainability, infrastructure, and or business engagement. Please provide contact details for two professional references related to these projects who may be contacted as part of the proposal evaluation process.
4. **Workplan & Timeline:** Bidders are expected to provide a workplan and timeline that outlines the approach to the project, including task sequencing and milestones. This section helps in assessing the bidder's project management capabilities. Bidders should describe their risk management approach, including identifying potential risks and assumptions made during project planning. Mitigation strategies should also be outlined, and details on how a risk assessment will be conducted should be provided
5. **Management Plan & Key Staff:** The proposal should explain how the bidder intends to collaborate with the C40 team and different regional stakeholders. The proposal should include details of the organisation and project team members, with each person's roles, relevant experience, and expertise. This includes defining roles and responsibilities, reporting procedures, change request processes, issue escalation mechanisms, and acceptance criteria. Describe the procedure you propose to escalate and resolve any issues that may arise during the implementation of the project. Detail how you will maintain effective communication and how you plan to engage with C40 to ensure the successful completion of this consultancy. Attach brief biographies or CV summaries of the individuals on the proposed team. If you have a corporate CV, please include it as well. Please refer to the Supplier Specification section in this document for further reference.
6. **Budget:** Bidders must present an itemised budget in USD for each project task. The budget should outline hourly rates of personnel involved as well as an estimate of hours for each person. The budget is all-inclusive, covering any outsourced or contracted work, as well as any taxes and associated costs.

It is suggested to use the following tables for the information of the economic proposal:

Total cost (per activity)	Activity	Days of work (per activity)
USD		
USD		

Team member	Role in the project	Daily rate	Number of days
		USD	
		USD	

**7. Attachments:**

**Key Staff and Consultants CVs:** In attachment, the bidder should include a brief CV of key staff. The limit for CVs should be two pages per person.

**References:** The proposal should include contact details for at least two recent references. This section evaluates the bidder's track record and previous client satisfaction.

**Outsourcing or Contracting:** If the bidder plans to outsource or contract any work to meet project requirements, the proposal must explicitly state this. Furthermore, all costs included in the proposal should encompass any outsourced or contracted work. The proposal should also include the names and descriptions of the contracted organisations.

**Supplier Diversity**

C40 is committed to supplier diversity and inclusive procurement through promoting equity, diversity and inclusivity in our supplier base. We believe that by procuring a diverse range of suppliers, we get a wider range of experiences and thoughts from suppliers and thus are best able to deliver to the whole range of our diverse cities and the contexts that they operate within.

We strongly encourage suppliers that are diverse in size, age, nationality, gender identity, sexual orientation, majority owned and controlled by a minority group, physical or mental ability, ethnicity and perspective to put forward a proposal to work with us.

Feel welcome to refer to [C40's Equity, Diversity and Inclusion Statement](#) as supplier diversity and inclusive procurement is one element of applying equity, diversity and inclusion to help the world limit global heating to 1.5°C and build healthy, equitable and resilient communities.

**Contract**

Please note this is a contract for professional services and not a grant opportunity. Organisations unable to accept contracts for professional services should not submit bids. The work will be completed on the [C40 Standard Services Contract](#).

These terms and conditions are non-negotiable. Organisations unable to accept them as drafted should not submit bids in connection with this opportunity.

If C40 are unable to execute a contract with the winner of this competitive process, we reserve the right to award the contract to the second highest Potential Supplier

**Subcontracting**

If the organisation submitting a proposal needs to subcontract any work to meet the

requirements of the proposal, this must be clearly stated. All costs included in proposals must be all-inclusive of any outsourced or contracted work. Any proposals which call for outsourcing or contracting work must include a name and description of the organisations being contracted.

**3.2. RfP Timeline**

<b>RFP Timeline</b>	<b>Due Date</b>
Request for Proposals sent out	April 21, 2025
Questions submitted to C40	April 25, 2025
C40 responds to questions	May 2, 2025
Deadline for receiving Offers	May 14, 2025
Clarification of Offers	May 14 - May 19, 2025
Evaluation of Proposals	May 14 - May 19, 2025
Presentation on Proposals	May 20 - May 22, 2025
Selection decision made	May 23, 2025
All Potential Suppliers notified of outcome	May 23, 2025

### 3.3. Proposal Evaluation Criteria

Proposals will be evaluated against the following criteria

Criteria	Weighting
<p><b>Proposal Suitability:</b> Proposals will be evaluated based on the relevance of the bidder’s experience, the coherence of the technical approach, and the overall robustness of the delivery strategy.</p> <ul style="list-style-type: none"> <li>● <b>Relevant experience:</b> Demonstrated experience delivering projects of similar scope and complexity, particularly in areas related to sustainable transport, electric mobility, and stakeholder engagement. Prior work in Brazil and Mexico will be strongly valued.</li> <li>● <b>Understanding of the context:</b> Depth of insight into the regional and local context in Brazil and Mexico, including familiarity with regulatory environments, logistics challenges, and stakeholder dynamics.</li> <li>● <b>Alignment with project requirements:</b> Clarity in how the proposal addresses the objectives and deliverables outlined in the Terms of Reference, with all components effectively integrated into a cohesive and realistic workplan.</li> <li>● <b>Methodological soundness:</b> The extent to which the proposed approach reflects a well-balanced methodology—combining strategic insight, technical expertise, and innovation—while ensuring feasibility and efficiency.</li> <li>● <b>Implementation Capacity:</b> Evidence of the bidder’s ability to manage the scope of the consultancy, including demonstrated capacity to deliver high-quality outputs on time and within budget</li> </ul>	<p>40%</p>
<p><b>Expertise, team and organizational experience:</b> Proposals will be assessed based on the qualifications, relevant experience, and capacity of the bidding organization and its proposed team to successfully deliver the consultancy.</p> <ul style="list-style-type: none"> <li>● <b>Organizational experience:</b> Demonstrated track record of successfully managing and delivering projects of similar scope, complexity, and geographic relevance, particularly in Latin America and in the fields of sustainable transport, electric mobility, and business engagement.</li> <li>● <b>Team composition and qualifications:</b> Clarity and suitability of the proposed team structure, with each member bringing relevant expertise aligned with key project components (e.g. mobility and sustainability, business strategy, data analysis, stakeholder engagement). Stronger proposals will clearly articulate how each team member contributes to the successful execution of the consultancy.</li> </ul>	<p>40%</p>

<ul style="list-style-type: none"> <li>● <b>Governance and management structure:</b> Defined project governance and clear reporting lines, with efficient coordination and oversight mechanisms. Proposals should describe internal quality assurance measures, decision-making protocols, and escalation procedures for risk or issue management.</li> <li>● <b>Capacity and availability:</b> Availability of key personnel and organizational readiness to execute all project activities according to the proposed timeline. Capacity to work across Brazil and Mexico will be highly regarded.</li> </ul>	
<p><b>Cost and value for money</b></p> <ul style="list-style-type: none"> <li>● <b>Budget Transparency:</b> The extent to which the bidder provides a clear, itemized budget with a detailed breakdown of costs, including personnel rates, estimated time allocations, overheads, subcontracting fees, etc.</li> <li>● <b>Cost Reasonableness:</b> The degree to which proposed costs are competitive, justified, and appropriate for the nature and complexity of the consultancy.</li> <li>● <b>Alignment with workplan:</b> Whether the budget is consistent with the proposed workplan and realistically supports the delivery of all key deliverables.</li> </ul>	10%
<p><b>Diversity and Inclusion Commitment:</b> Proposals will be evaluated based on how well they integrate and align with C40's Equity, Diversity, and Inclusion commitment.</p> <ul style="list-style-type: none"> <li>● <b>Gender and diversity Balance:</b> Proposals should demonstrate a clear commitment to ensuring gender balance within the project team, with defined roles and responsibilities for team members that reflect equitable gender representation. Proposals should also outline any efforts to include diverse perspectives.</li> <li>● <b>EDI Policies and frameworks:</b> The bidder should provide evidence of internal policies and practices that support Diversity, Equity, and Inclusion, such as recruitment strategies, inclusive workplace initiatives, and any certifications or affiliations related to EDI standards</li> </ul>	10%

### 3.4. Project Budget

Proposals must include a complete and detailed cost breakdown for each of the listed deliverables, the hours allocated for each member of the project team, daily rates, and the total amount. Costs must be presented in U.S. dollars (USD), including taxes and all applicable administrative fees, as well as any included expenses related to licenses, software usage, and fieldwork. Proposals must be prepared within a budget range of **\$150,000 to \$200,000 USD**. All costs incurred in connection with the submission of this RfP are non-refundable by C40.

### 3.5. C40 Policies

C40 expects third parties to be able to abide by these C40 policies

- Non-Staff Code of Conduct Policy [here](#)
- Equity , Diversity and Inclusion Policy [here](#)

### **3.6. Submissions**

Each Potential Supplier must submit 1 copy of their proposal to the email addresses below by **23:59 hr GMT+6, May 14, 2025**.

- Gabriel Tenenbaum, Director of Implementation LATAM: [gtenenbaum@c40.org](mailto:gtenenbaum@c40.org)
- Ana Gabriela de la Torre Rios, Head of Zero Emission Vehicles LATAM: [gdelatorrerios@c40.org](mailto:gdelatorrerios@c40.org)
- Marianely Patlán, Senior Programme Manager, Zero Emission Freight LATAM: [mpatlan@c40.org](mailto:mpatlan@c40.org)
- Andrea Carolina Davila-Noszticzius, Laneshift Program Manager, [adavilano@c40.org](mailto:adavilano@c40.org)

Anonymised responses to questions will be provided [here](#) when the Q&A period closes.

Based on the submissions received, C40 reserves the right to promote the establishment of consortium relationships or request potential suppliers refine their submission after receipt.





#### **Disclaimer**

C40 will not accept any liability or be responsible for any costs incurred by Potential Suppliers in preparing a response for this RFP. Responses submitted will be accessible by all C40 staff and external evaluators (if any).

Neither the issue of the RFP, nor any of the information presented in it, should be regarded as a commitment or representation on the part of C40 (or any of its partners) to enter into a contractual arrangement. Nothing in this RFP should be interpreted as a commitment by C40 to award a contract to a Potential Supplier as a result of this procurement, nor to accept the lowest price or any tender.

## 4. Annex

### Annex 1. Charging Hub Demonstration Projects

City	Location	Business model	Capex	Charging spots	Vehicle typologies			Implementation partners	Payback*
					E-vans	LDV Trucks	M&LDV		
Rio Av. Brasil		PPP (Public land, private operation)	Private investor	<b>26</b> 6 fast (80 kW) charger spots 20 slow (7 kW) charger spots	✓			<b>Charging hub partner:</b> private company <b>City Partners:</b> <ul style="list-style-type: none"> <li>Rio CCCPAR</li> <li>Secretaria de Desenvolvimento Econômico</li> <li>Rio de Janeiro: Casa Civil</li> </ul> <b>C40 Cities</b>	5 -10 years*
Rio Barra da Tijuca		PPP (Public land, private operation)	Private investor	<b>7</b> 6 fast (80 kW) charger spots 1 slow (7 kW) charger spot	✓	✓		<b>Charging hub partner:</b> private company <b>City Partners:</b> <ul style="list-style-type: none"> <li>Rio CCCPAR</li> <li>Secretaria de Desenvolvimento Econômico</li> <li>Rio de Janeiro: Casa Civil</li> </ul> <b>C40 Cities</b>	5 -10 years*
Curitiba		PPP (Public land, private operation)	Private	<b>1</b> 2 fast chargers (30kW) spots	✓	✓	✓	<b>Charging hub partners: 2</b> private company <b>City Partners:</b> <ul style="list-style-type: none"> <li>URBS</li> <li>SMMA</li> <li>IPPUC</li> </ul> <b>C40 Cities</b>	1 -2 years*
Mexico City		Private (private land and investment, private operation)	Private investor	<b>104 spots</b> 104 fast (90 kW-120 kW) charger spots	✓	✓		<b>Charging hub partner:</b> private company <b>C40 Cities</b>	To be defined



## Annex 2. Data Collection Framework

### Data collected via Telemetry and Derived Parameters

CATEGORY	INFO SOURCE	DATA NAME	DATA TYPE
1. ABOUT THE VEHICLE	Veh. Telemetry or Ch. Telemetry	Vehicle Number	Numerical
	Veh. Telemetry or Ch. Telemetry	Vehicle Maker	Numerical
	Veh. Telemetry or Ch. Telemetry	Vehicle Model	Numerical
	Veh. Telemetry	Vehicle Age (yrs)	Numerical
	Veh. Telemetry	Vehicle Type	Categorical
	Veh. Telemetry	Payload capacity	Numerical
	Veh. Telemetry	Battery Capacity	Numerical
	Veh. Telemetry	Battery cycles clocked	Numerical
2. TRIP DETAILS	Veh. Telemetry	Date of Trip	Date
	Veh. Telemetry	Origin	GIS
	Veh. Telemetry	Destination	GIS
	Veh. Telemetry	Origin Altitude (m)	Numerical
	Veh. Telemetry	Trip Start Time	Numerical
	Veh. Telemetry	Start Odo (km)	Numerical
	Veh. Telemetry	Start Soc (%)	Numerical
	Veh. Telemetry	Start kWh	Numerical
	Veh. Telemetry	Loading Time (Hrs)	Numerical
	Veh. Telemetry	Weight of load (tons)	Numerical
	Veh. Telemetry	Destination Altitude	Numerical
	Veh. Telemetry	Trip End Time	Numerical
	Veh. Telemetry	Trip End Odo (km)	Numerical
	Veh. Telemetry	Trip End kWh reading	Numerical
	Veh. Telemetry	Average Speed	Numerical
	Veh. Telemetry	Maximum Speed Achieved	Numerical
	Veh. Telemetry	Duration of maximum speed	Numerical
	Veh. Telemetry	Trip End SoC	Numerical
Veh. Telemetry	Offloading Time	Numerical	
3. CHARGING DETAILS	Ch. Telemetry	Location of charger	GIS
	Ch. Telemetry	CPO	Numerical
	Ch. Telemetry	Charger Capacity	Numerical
	Ch. Telemetry	Time of entry at charger	Numerical
	Ch. Telemetry	Odometer reading at charger entry	Numerical
	Ch. Telemetry	SoC before the stop	Numerical
	Ch. Telemetry	SoC after the stop	Numerical
	Ch. Telemetry	Top up Energy (kWh)	Numerical
Ch. Telemetry	Charging duration (Minutes)	Numerical	

CATEGORY	INFO SOURCE	DATA NAME	DATA TYPE
4. CHARGING COSTS	Fixed parameter	Charging price (USD/kWh)	Numerical
	Fixed parameter	Energy cost (USD/kWh)	Numerical
5. DERIVED PARAMETERS	Derived	Total Trip Time	Numerical
	Derived	Total Soc Consumed(%)	Numerical
	Derived	Total Energy Consumed (kwh)	Numerical
	Derived	Total Distance Covered (km)	Numerical
	Derived	Energy Efficiency (kwh/km)	Numerical
	Derived	Mileage (km / kWh)	Numerical
	Derived	Trip Cost (USD / km and USD / km / Ton)	Numerical
	Derived	Number of vehicles attended per day during pilot	Numerical
	Derived	Energy consumption per day	Numerical
	Derived	Charging frequency	Numerical
Derived	Cost per charge	Numerical	

### Data collected via Surveys and Derived Parameters

The survey respondents vary and might be the end users (drivers), businesses' decision makers, the CPO or even nearby store owners and / or population. The methodology and frequency of surveys will be defined by the Technical Delivery Partner and approved by C40 before they are commenced.

CATEGORY	INFO SOURCE	DATA NAME	DATA TYPE
1. TRUCK PERSONNEL	Survey	Driver Gender	Categorical
	Survey	Driver age	Numerical
	Survey	Driver Education Level	Categorical
	Survey	How long has the person has worked with freight electric vehicle	Numerical
	Survey	How long has the person worked with freight vehicles	Numerical
	Survey	Support personnel characteristics (existence, gender, age, who is in charge of charging the truck)	Numerical
2. TRIP CHARACTERISTICS	Survey	Trip Type	Categorical
	Survey	Customer	Categorical
	Survey	Nature of Payload	Categorical
	Survey	Any special arrangement	Text
3. END USER EXPERIENCE	Survey	Wait time before charging	Numerical
	Survey	Amenities at the charging station	Categorical
	Survey	Illumination at Charging Station	Categorical
	Survey	Accessibility and visibility	Categorical
	Survey	Perception of direct users over quality of the characteristics of the charging station	Categorical
	Survey	Ease of use	Categorical
	Survey	Maneuverability ease access for different types of vehicles	Text

CATEGORY	INFO SOURCE	DATA NAME	DATA TYPE
	Survey	User safety when utilizing the charging hub	Text
	Survey	Average waiting time to be attended	Numerical
	Survey	Dwell time per day	Numerical
4. BUSINESS EXPERIENCE	Survey	Perception of businesses over quality of the charging hub service	Categorical
	Survey	Change of travel pattern due to charging hub (length and route)	Numerical
	Survey	Interest of the business to keep using that charging infrastructure	Categorical
	Survey	Improvement suggestions by users and businesses	Text
5. TRIP COSTS OTHER	Survey	Operational costs	Numerical
	Survey	Maintenance costs	Numerical
	Survey	revenues (eg advertising)	Numerical
	Survey	Total Amount paid (USD)	Numerical
6. DIRECT CO-BENEFITS	Survey	Health co-benefits for truck personnel (Stress, sleep quality, working conditions (noise, vibrations, comfort etc.)	Categorical
	Derived	Emission reduction (GHG, PM2.5, NOX)	Numerical
	Survey	Knowledge access improvements (in cases where the demo project includes a training strategy)	Categorical
	Survey	Gender Inclusion (derived parameter)	Numerical
7. INDIRECT CO-BENEFITS	Survey	Health co-benefits for front-line inhabitants	Categorical
	Survey	Safety perception for users and inhabitants (area residents and businesses)	Categorical
	Survey	Economic activation of area businesses	Numerical

### Annex 3. Policies promoted by Laneshift

#### Curitiba - Parking fee exemption for Zero Emission Freight:

The [parking fee exemption](#) is an incentive from Curitiba to **attract electric vehicles** to the city in areas covered by the Est@r program, which **regulates on-street public parking spots in the city.**

#### Mexico City - Electromobility Self Regulation Program:

[Electromobility Self Regulation Program](#) is a program from Mexico City that aims to reduce the generation of emissions of carbon monoxide, volatile organic compounds, nitrogen oxides and carbon dioxide from light vehicles used for the transportation of goods and/or people circulating in Mexico City, through the generation of self-regulation agreements that commit the use of vehicles that use electricity for their operation, either in hybrid or electric units.

**The electric and/or hybrid units that join the self-regulation scheme will be exempt from the mandatory vehicle verification and from the traffic restrictions** established by the “Hoy No Circula” and the “Contingencias Ambientales Atmosféricas” (Atmospheric Environmental Contingencies) programs.

#### Rio de Janeiro: ISS Neutral Service Tax

The [ISS Neutral Service Tax](#) is a **fiscal incentive** from Rio de Janeiro for companies that **offset their carbon emissions with carbon credits.** Reduction of the **Municipal Service Tax (ISS) rate from 5% to 2%** on operations with carbon credits. A fiscal benefit of up to **R\$ 60 million [USD 10.5 million] annually.**