



REQUEST FOR PROPOSAL (RfP)
**Technical Assistance Study on EV Readiness of Indian Cities for
Adoption of Electric Freight**

C40 Cities Climate Leadership Group, Inc.
120 Park Avenue, 23rd Floor
New York, NY 10017
United States of America
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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 labor, business, the youth climate movement and civil society to go further and faster than ever before.

The strategic direction of the organization 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-Sawyer of Freetown, Sierra Leone. Three term Mayor of New York City Michael R. Bloomberg serves as President of the C40 Board of Directors, which is 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 [Twitter](#), [Instagram](#), [Facebook](#) and [LinkedIn](#).

2. Summary, Purpose and Background of the Project

2.1 Laneshift Programme

C40, in partnership with The Climate Pledge, has launched a Laneshift Programme, a freight decarbonisation technical assistance project from 2023 - 2025 to accelerate the deployment of zero emission freight vehicles and set the foundation for an electric freight (e-freight) highway between Indian cities by 2030. The programme aims to test and prove the feasibility of electric highways in India for e-freight movement.

By signaling demand and fostering collaboration across the transportation and logistics sectors, Laneshift will help create a roadmap for how the freight industry and cities can collaborate to expedite the transition to e-freight. Its goals are to address concerns about freight electrification, assess routes for e-freight deployment, engage stakeholders to bridge policy gaps, analyze the market for electrification supply and demand, and establish financial models to boost investment in e-freight vehicles in India

2.2 Context of the Study

The Government of India committed to achieving net-zero emissions by 2070 and reducing carbon emissions intensity by 45% by 2030, with a focus on decarbonizing the transport sector. The road transport sector including passenger and freight accounts for almost 92% of transport sector emissions. In India, medium and



heavy-duty trucks (HDTs) constitute 2% of the total vehicles but account for over 45% of the road transport sector emissions. Freight transport, primarily by road, is a major energy consumer and is projected to quadruple from 4 million to 17 million trucks by 2050. India's trucking sector is also projected to emit 800 million tonnes of CO₂ by 2050 with HDTs contributing nearly 50%.

With rapid urbanization, the demand for urban freight is expected to increase by 140% in India and e-commerce growth will be a key driver for this increase. Urban freight accounts for ~10% of India's freight related CO₂ emissions. To address this challenge, the government introduced freight smart cities in 2021, aiming to enhance efficiency in logistics. However, decarbonizing heavy-duty and medium-duty freight vehicles is a complex endeavor, primarily due to factors like upfront costs, battery capacity, payload concerns and need for support infrastructure. Despite these hurdles, electrification stands out as a promising solution, given the right financial ecosystem and charging infrastructure. This transition holds the potential to significantly reduce emissions by 2050, while also offering cost savings creating job opportunities and stimulating economic growth.

Acknowledging the importance of transition to Electric Vehicles (EVs), the national government has implemented a host of policies, schemes, and programs in line with the National Electric Mobility Mission Plan (NEMMP). These schemes provide support for e-Buses, e-Cars, e-2W, e-3W in the passenger transport segment and e-LCVs (Electric Light Commercial Vehicles) in the freight transport segment. However, no support for electric Medium-Duty Trucks (MDT) or Heavy-Duty Trucks (HDT) was envisioned in these programs. The Indian government has also acknowledged the need for freight transport decarbonization. The Technical Roadmap for Deployment of Zero Emission Trucking in India, 2023 emphasizes that Battery Electric Trucks (BETs) and Fuel Cell Electric Trucks (FCETs) operated on electricity generated through renewable resources, can help India achieve Zero Emission Trucking (ZET) and reduce the country's oil import bills significantly. Among various strategies for decarbonizing freight transport, transition to alternative technologies with zero or low emissions is identified as the key strategy.

As of March 2023, 6,586 Public EV Charging Stations were operational in India, whereas 419 Public EV Charging Stations were operational on National Highways. The charging infrastructure has increased to 8753 charging stations in July 2023 as per the Bureau of Energy Efficiency (BEE) database. The Ministry of Power has issued revised guidelines and standards for public EV charging infrastructure in November 2022 to enable a faster pace of setting up charging infrastructure. Several enabling provisions for development of charging infrastructure are made in the guidelines. The specifications for Public Charging Infrastructure (PCI), PCI for long-range EVs, and/or PCI for heavy-duty EVs are also included in the guidelines. Location of Public Charging Stations (PCS), Database of public EV charging stations, electricity supply rates for EV PCS, and PCS service fees are also included. According to the central government's press release in March 2023 there are 1.72 million EVs registered in India. This brings the charger to EV ratio in India to almost 200 to 1. This is way below the recommended ratio of 10:1 and global average of 10:1, European average of 14:1, US



average of 21:1, and China even below 10:1 with 40% fast chargers in the year 2021. India's EV charging infrastructure requires immediate intervention. This is certainly the most pressing concern for the EV ecosystem in the country as range anxiety can only be addressed by providing adequate charging infrastructure.

Need for the study

Cities act as the major trip generation and attraction nodes of freight transportation. These also serve as major commodities consumption and redistribution centers. For e.g. Delhi has established itself as a center for redistribution of commodities in north India. Delhi stands out because a significant portion of its economic activity is focused on the distribution of commodities produced elsewhere and imported for both local sales and export to other states. 49% of fuel, 47% of food grains and approx 78% of fruits and vegetables imported to Delhi are further exported to other states and even foreign countries. On the other hand, Mumbai, with its status as a mega city and a significant freight hub in the Mumbai Metropolitan Region (MMR), holds great potential to implement freight electrification. The city's increasing freight traffic and strategic location with two major ports within the city limits, makes it crucial to address the environmental impact of freight movement. Pune has emerged as a major industrial hub for many automobile industries, auto ancillary and consumer durable companies having established their manufacturing base in Pune. Pune was also the first city to launch an EV readiness plan (2022) mandating fleet aggregators (i.e. e-commerce companies, last-mile delivery/ logistics players, and mobility aggregators) to convert at least 15% of their total fleet to EVs by 2023 and 50% by 2025. Both Pune and Mumbai have set up an EV cell in Oct 2021 and Feb 2022 respectively. Bangalore, officially known as Bengaluru, is the capital and largest city of Karnataka. It is the fourth highest GDP contributor after cities like Mumbai, Delhi, and Chennai and is popularly known as the 'Silicon Valley' of India. The city has been actively pursuing climate action planning to contain emission and a large proportion of the same is attributed to the transport sector.

All the cities/states have EV policies in force (Delhi-2020, Maharashtra-2021, Karnataka-2017). However, the policies drawing inspiration from FAME had made provisions relating to electric light commercial vehicles (LCVs) only in the freight segment. The RfP identifies this gap and the Technical Assistance targets to ensure these cities' readiness for transition to electric freight. This includes a three-fold approach, Firstly, the demand estimation & identification of context specific use cases for early adoption of e-freight. Secondly, making a case for electrification by providing an estimate of emission reduction potential through electrification of freight. Finally, ensuring the charging infrastructure readiness and preparing a roadmap for implementation. The study would also provide suggestions on including enabling provisions in the EV policy for Medium and Heavy duty freight segments.

2.3 Objectives and scope of work

The national government's push for accelerated adoption of electric vehicles by providing adequate charging infrastructure also warrants exploring the electrification of freight vehicles in medium-duty and heavy-duty freight vehicles. As

cities are the most important nodes of freight as the origin or destination of a freight trip, it is imperative to assess the EV readiness of various cities. As the charging station infrastructure requirements for these vehicles differ significantly from the other categories of EVs (passenger EVs and e-LCVs), a detailed assessment of the projected demand for the infrastructure is needed. C40 as part of the Laneshift - zero emission freight programme seeks a technical partner to identify the most suitable categories of freight vehicles to be taken up for early adoption of EVs and to study the feasibility of providing requisite charging infrastructure for electric freight vehicles in Delhi, Mumbai, Pune & Bengaluru cities. Also, to formulate recommendations pertaining to urban freight to be integrated into the state's EV policies.

Objective 1 - To study the current freight ecosystem, policy landscape and assessment of the EV infrastructure in the four cities identified

Action area 1- Document and analyze the current freight profile of the city, commodities being transported and characteristics of the freight vehicles entering and exiting the city at different cordons and assess suitability for transition to EV. Map all the relevant key stakeholders in the city's freight ecosystem. Freight profile of the city should essentially cover the following; **Data collection-** types of goods being transported, the categories of freight vehicles used. Determine the percentage of goods transported by different categories of freight vehicle. **Freight Flows-** study the flow of freight within the city, including major corridors and distribution centers. Identify key routes and nodes where significant freight activities occur including origin-destination inventory. **Fleet Characteristics-** Collect information on the characteristics of freight vehicles operating and entering/exiting the city. This can include the types of vehicles used, size and capacity, fuel types, emission standards, and ownership patterns (e.g. individuals, fleet operators).

Action area 2- Provide a summary of the emissions contribution attributed to the freight sector. **Emission Inventory-** Calculate the emissions associated with freight in the city and prepare a baseline emissions scenario. The inventory may quantify pollutants such as carbon dioxide (CO₂), oxides of nitrogen (NO_x), particulate matter (PM), and sulfur oxides (SO_x) from freight vehicles. Analyze the existing and proposed national/state and city level policies and initiatives supporting the freight electrification in the city including on developing the supporting charging infrastructure.

Action area 3- Assess the suitability of different categories of freight vehicles for transition to EVs. The analysis should ideally entail Total Cost of Ownership (TCO) comparison, emission reduction potential, infrastructure availability and adaptability, market share of the vehicle category, average travel distances as revealed through surveys and/or secondary data etc.

Action area 4- Summarize international experience in the e-Freight domain and identify lessons for Indian context. Document the best-practices from international experience in different cities around the world for promoting the adoption of electric freight vehicles through various initiatives such as subsidies, incentives for fleet operators, enabling regulatory framework and charging infrastructure development etc. Innovative business models, financial models/instruments and urban freight emission estimation models in global cities need to be captured to explore the potential for adoption in the Indian context.



Objective 2 - To estimate demand for freight and forecast the EV penetration scenario in the freight fleet.

Action area 1- Based on the existing freight fleet profile and future projections, estimate the demand for the future freight fleet.

Action area 2- Analyze the future competing technologies and determine the share of EVs in the freight fleet for the target years.

Action area 3- Based on the assessment of the city's freight profile, identify the use-cases that are ripe for early electrification on priority.

Objective 3: To estimate the charging infrastructure required for freight electrification and identification of feasible locations for charging infrastructure.

Action area 1- Identify the charging infrastructure requirements for future scenarios of freight electrification including identification of locations for providing public charging stations (PCS) at existing nodes like petrol stations, major logistics hubs and loading/unloading locations, freight generating/attraction nodes in the city and the periphery.

Action area 2- Identification of most suitable locations for the charging stations in the city including entry/exit cordons, major logistics hubs etc.

Action area 3- Assess the suitability of existing charging infrastructure/stations and feasibility of sharing the access to existing public bus charging infrastructure.

Objective 4- To prepare an implementation plan for ensuring EV readiness of the city for the freight electrification, assessment of the emission reduction potential and prepare a policy recommendation

Action area 1- Prepare an implementation plan for implementation of the required charging infrastructure in modules/phases with identification of priority clusters of charging stations.

Action Area 2- Identify role of key stakeholders and agencies in the implementation for e.g Industry associations, transport associations, municipal corporation, discoms, etc. and also provide an assessment of public and private financing avenues.

Action area 3- Estimate the emission reduction potential of the transition of freight to EV for the target timeline for the 'Business as Usual' and 'Accelerated' and the 'Ambitious' pace of adoption of EVs. Also identify key additionalities and co-benefits expected to be achieved in the process of e-Freight transition.

Action area 4- Summarize the key interventions and policies and enabling provisions at state/city level that could help the cities achieve faster adoption of e-Freight in different categories of freight fleet. Also suggest key findings and recommendations with specific reference to the state EV policy suggesting targeted action points for the government.

2.4 Purpose of the RFP

The purpose of this Request for Proposal is to solicit proposals for consultancy services from firms/ consortiums (only, this assignment is not for individuals) to assess the EV readiness and infrastructure needs of the cities (Delhi, Mumbai, Pune & Bengaluru). The project is broken down into the following deliverables.

Deliverables A: Existing policy landscape and EV Infrastructure Assessment



This section essentially includes a comprehensive review of the existing freight ecosystem and freight fleet profile for 4 cities (Delhi, Mumbai, Pune & Bengaluru) for both inter-city and intra-city freight vehicles movement. This includes chronology of growth in registration of e-Freight vehicles in each city as well as a traffic survey of 24-hours duration on days of uninterrupted traffic movement. This must include an assessment of the freight vehicles & trip profile at major cordons including entry/exit points and major logistics hubs of the city along with the commodities being transported. A comparative analysis of the freight traffic attributed to different highways/corridors connecting the city is required. Further, the consultant is expected to carry out a survey based analysis to ascertain the 'Willingness to Shift' to EVs among various stakeholders including the drivers, fleet operators etc. The scope also includes the assessment of existing and proposed establishment of the charging infrastructure for electric vehicles and its suitability for e-Freight vehicles of different categories. The assessment should explore feasibility of the existing public-bus charging infrastructure, public charging infrastructure in cities for freight electrification. The consultant is also expected to provide a comprehensive literature review of the international best practices for freight electrification. A summary or the way forward for the Indian cities in terms of viable policy interventions would also require close coordination with the city administration during the term of the study. Hence, the consultant is expected to comprehensively map all the relevant key stakeholders for consultations to achieve the objectives of the study.

Deliverable B: Freight fleet demand estimation and EV penetration scenarios.

This section mandates the consultant to estimate projected demand of the freight fleet of different categories for target year 2030 and 2040. The consultant is also expected to conduct assessment of the 'Willingness to Shift' to EVs in freight categories using suitable methodologies like Stated Preference (SP) surveys/choice modeling and stakeholder consultations etc. This would help in identifying key areas of policy intervention, barriers, and enablers in this context. Subsequent steps include estimation of the projected EV penetration including the projected fleet mix based on fuel type for the target years 2030 & 2040 (Diesel, CNG, EVs and others). The process must include evidence based on the assessment of the present and expected developments in EV technology and relevant policies for freight vehicles. The consultant would also develop scenarios for Business as Usual, moderate pace of adoption and accelerated pace of adoption of EVs in the freight sector leading upto 2030 & 2040. The consultant is then required to identify the most suitable use cases and categories for accelerated adoption of EVs. The identification must be based on the city's context and policy for prioritization including the assessment of environmental impact of the target fleet conversion to electric. Once the suitable use cases have been identified, documentation of the EV products available in the market with different OEMs including the 'state of the art' in technological know-how should also be provided.

Deliverable C: Ensuring EV readiness of the city for e-Freight transition - Charging Infrastructure requirement and locations for Public Charging Stations and regulatory support.



The section requires the consultant to estimate the charging infrastructure required for the projected demand for freight electric vehicles. This includes identification of locations for providing public charging stations (PCS) including existing nodes like petrol stations, major logistics hubs and loading/unloading locations, freight generating/attraction areas considering existing and proposed land use plan in the territory of the city for the target years 2030 and 2040. Further an assessment of the power grid infrastructure requirements based on the projected demand of the charging infrastructure for EVs need to be provided. Once the charging station locations have been identified, these may be categorized according to their capacity and no. of charging points. Finally, the consultants should provide optimization of the proposed locations based on the projected traffic volumes on these nodes including no. of charging points required, queue-time and fast charging and facility battery swapping technologies etc.

Deliverable D: Emission reduction potential and additionalities attributable to e-Freight transition and enabling provisions to be implemented by the city administration.

In the final phase of the study, consultants are expected to prepare a module plan of establishing the required charging infrastructure. This includes prioritizing different clusters of charging stations to be developed in a phased manner in each city along with cost estimation for implementation of different phases. Finally, the emission reduction potential of freight electrification needs to be assessed. The scope includes Impact assessment of the adoption of EVs in these categories and fuel savings and environmental benefits for different EV penetration scenarios in freight vehicles including key additionalities such as health impacts, green job creation and contribution to the climate resilience. Detailed documentation of the priority categories and use cases of freight vehicles for adoption of electric fleet based on the local context for each city and its potential impact should be an outcome of the city. Also to prepare a policy roadmap at city level for faster adoption of e-Freight vehicles across different categories of freight vehicles.

Besides the approaches defined above we would welcome suggestions from bidders around other methods to gain stakeholders' buy-in and support for the work.

3.0 Key Activities and Deliverables

3.1 Charging infrastructure assessment and identification of enabling policy

Activities
<ul style="list-style-type: none">● Work Plan and Deliverables<ul style="list-style-type: none">● Prepare a detailed work plan clearly identifying key activities, deliverables and associated timelines, data requirements and list of key stakeholders in the freight ecosystem for each city (Delhi, Mumbai, Pune & Bengaluru).● Stakeholder Mapping<ul style="list-style-type: none">● Conduct a stakeholder mapping to establish a list of stakeholders in the freight ecosystem and categorize the stakeholders.● Map key logistics service providers, fleet operators, OEMs, charging infrastructure providers based on the capacity of the charging stations & the type of service (long haul, intercity, intra city, last mile deliveries etc.),● Existing landscape analysis and infrastructure assessment

- Document the existing freight fleet mix for each city, This must include the different categories of freight vehicles entering and exiting the city during a typical day.
- Document the categories commodities being transported 'to and from' Delhi, Mumbai, Pune and Bengaluru to assess and identify the suitable use-cases for electrification.
- **Assessment of 'Willingness to switch' to e-Freight vehicles**
 - Prepare a questionnaire to assess the 'willingness to switch' to the e-Freight vehicles, both from the perspective of the drivers and fleet operators to identify challenges and opportunities for adoption of e-Freight vehicles.
 - Identify a suitable sample size of the respondents and carry out a survey of the stakeholders in the e-Freight ecosystem like drivers, fleet operators, charging infra providers, OEMs etc.
 - The consultant may use suitable methodologies like Stated Preference (SP) surveys/choice modeling including stakeholder consultations.
 - Analyze the responses using suitable statistical tools to ascertain the barriers and enablers for e-Freight adoption.
- **Charging infrastructure and its suitability**
 - Document the existing/proposed charging infrastructure and assess the required charging infrastructure to support freight electrification.
 - Analyze the charging infrastructure and its suitability for different categories of e-Freight vehicles and the proportion of fast charging stations to be developed.
 - Study the enabling provisions and incentives being provided for establishment of charging infrastructure and key business models supporting freight electrification.
- **International best practices and policies for charging infra at city level**
 - Document the enabling regulatory, financial and any other practices to establish charging infrastructure for e-Freight vehicles at city level internationally.
 - Identify the policy initiatives that can be implemented in the Indian context for establishing charging infrastructure for e-Freight vehicles.

Outputs

- Workplan and kick off with cities
- Data analysis and insights from stakeholder consultations
 - Existing charging infrastructure and its suitability for e-Freight
 - Challenges being faced by charging infrastructure providers
 - Notes on grid-infrastructure and role of DISCOM
 - Stakeholder engagement plan for each city with the identified key stakeholders.
 - Kick-off meeting with the city administration for each city.
 - How charging infra requirements for the MDVs and HDVs differ from LCVs
 - Identifying enabling regulatory framework and mechanisms

Indicative timelines

- Week 0 - Week 6

3.2 Demand estimation and EV penetration scenarios

Activities

- **Technology assessment**
 - Document the test cases being taken up for trial by different OEMs in different categories of e-Freight vehicles and respective charging infrastructure requirements.
 - Based on the expected technology development and use cases, provide an assessment of the future EV penetration in the freight fleet.
- **Future scenario of freight electrification**
 - Prepare a city specific approach to develop the different scenarios of freight electrification based on demand assessment for the target years 2030 and 2040
 - Estimate projected demand of the different categories of the freight vehicles (inbound and outbound) for the target year 2030 and 2040.
 - The demand estimation should include analysis of projected estimates for freight traffic on highways connected to the city at different exit/entry cordons.
 - Estimate the projected penetration of EVs in these categories including the projected fleet mix based on fuel type for the target years 2030 & 2040 (Diesel, CNG, EVs and others).
 - Develop scenarios for Business as Usual, moderate pace of adoption and accelerated pace of adoption of EVs in the freight sector leading upto 2030 & 2040
- **Identification of the use-cases in the context of the city**
 - Document the existing fleet characteristics of freight movement in the city of Delhi, Mumbai, Pune and Bangalore..
 - Identify the most suitable use cases and categories for accelerated adoption of EVs in the city's context and prioritization based on the assessment of environmental impact of fleet conversion to electric.
 - Identify the suitable products available with different OEMs for the identified categories of use-cases .
 - Assessment of the charging infrastructure requirement for the selected use-cases.
 - Estimation of the emission reduction potential based on the share of the identified use-cases conversion to electric fleet. This must include an assessment of the benefits of transition to EV over the baseline scenario.

Outputs

- Analysis and summary of the demand estimation of freight vehicles in different categories of freight vehicles and estimation of EV penetration in the projected freight fleet.
- Survey and analysis of the responses to assess the future rate of adoption of EV in the freight fleet with respect to the four cities.
- An assessment of the future demand for EVs in different segments of freight fleet.
- Identified use cases and assessment of the conversion to electric fleet

Indicative timelines

- Week 7- Week 14

3.3 Charging Infrastructure requirement and locations for Public Charging Stations (PCS)

<p><u>Activities</u></p> <ul style="list-style-type: none"> ● Technology assessment <ul style="list-style-type: none"> ● Document the existing charging infrastructure and assess its suitability for charging requirements of the e- freight vehicles. ● Assessment of the different charging infrastructure technologies being adopted and the pace of its adoption in Delhi, Mumbai, Pune and Bangalore. ● An assessment of the charging infrastructure technologies being adopted worldwide and identifying suitable technologies to support freight electrification in India ● Future charging infrastructure requirement for e-Freight vehicles <ul style="list-style-type: none"> ● An assessment of enabling provisions and mechanisms being adopted in India for faster establishment of the charging infrastructure in the Indian cities and Highways. ● Based on the projected penetration of EVs in the different categories of freight vehicles, calculate the charging infrastructure requirement including type, technology like fast-charging and the capacity. ● Identify key players involved in providing charging infrastructure and delineate challenges and policy barriers associated with the infrastructure development. ● Identification of the charging station locations in the context of the city <ul style="list-style-type: none"> ● Based on the assessment of the charging infrastructure required for the electric freight vehicles, identify the locations for providing public charging stations. ● Strategic locations need to be identified for each city. These locations may include the existing nodes like petrol stations, major logistics hubs and loading/unloading locations, major entry/exit nodes considering existing and proposed land use plans in the territory of these cities. ● Identify most suitable locations or nodes for the location of charging stations considering current fleet movement in the city. ● Provide an assessment of the power grid infrastructure requirements based on the projected demand of EVs in the freight sector. ● Conduct an optimization of the proposed locations based on the projected traffic volumes on these nodes including no. of charging stations/points required, queue time and fast charging/battery swapping technologies.
<p><u>Outputs</u></p> <ul style="list-style-type: none"> ● Assessment of the current technologies in the context ● An assessment of the future charging infrastructure requirement for the different categories of the freight fleet. ● Identification of locations of charging stations for e-Freight vehicles in Delhi, Mumbai, Pune and Bangalore ● Optimization study of the proposed charging stations in context of the city traffic characteristics
<p><u>Indicative timelines</u></p> <ul style="list-style-type: none"> ● Week 15 - Week 21

3.4 Modules of implementations and EV Readiness of the city

Activities
<ul style="list-style-type: none"> ● Modules of implementation of charging stations in clusters <ul style="list-style-type: none"> ● Divide the identified locations of the charging stations into feasible clusters for establishment in 4-5 phases with a proposed timeline. ● Prioritize different clusters for development based on assessment of EV penetration in the freight fleet. ● Assign a suitable timeline of implementation of different clusters of charging stations. ● Develop a cost estimate of establishment of these charging station clusters. ● An assessment of possible public/private financing avenues for implementation. ● Documentation of key action points and recommendations for the state/city administration with suggestions on expanding the ambit of state EV policy to accelerate the e-Freight adoption. ● Emission reduction potential and additionalities <ul style="list-style-type: none"> ● Provide an assessment of the emission reduction potential of EV adoption in the freight fleet in a phased manner covered in the above sections. ● Analyze the current EV readiness and the impact of the above provisions on EV readiness of the cities in future if adopted in a timely manner ● Provide a summary of contribution of the EV readiness and early adoption of e-Freight vehicles to the city-level climate targets being pursued by these cities. ● The consultant should also document additionalities and co-benefits (e.g. impacts of health, air quality, green job creation) of e-Freight transition in the report to be shared with the relevant stakeholders including emissions reduction potential, lower OpEx, economic benefits, fuel/energy savings, technological innovation for standardization of charging infrastructure etc. ● Identify specific steps to be undertaken to unlock policy action and a roadmap for implementation at city level. ● Outreach Activities <ul style="list-style-type: none"> ● Conduct thematic stakeholder meetings with cities or roundtables to discuss the analysis results / output and incorporate revisions. ● Conduct webinars to share insights on 'Ensuring City's EV readiness for Freight' viable business models to various stakeholders. ● Prepare an executive summary highlighting key action points of the roadmap for implementation including expected impact of the interventions for dissemination to the workshop participants and to the relevant stakeholders. ● Conduct one stakeholder workshop in collaboration with city administration for each city.
Outputs
<ul style="list-style-type: none"> ● Data driven policy actions to target climate targets highlighting contribution of e-Freight adoption for each city. ● Impact assessment of the adoption of EVs in different freight categories and fuel savings and environmental benefits for different EV penetration scenarios in freight vehicles.

- Identify additionalities and co-benefits of e-freight adoption.
- Recommend policy and executive interventions at city level as a roadmap for faster adoption of e-Freight vehicles across different categories of freight vehicles.
- Webinars (2) and Workshops in collaboration with city administration-One for each city (4) to share the study findings.

Indicative timelines

- Week 22- Week 26

The final outputs including data must be submitted to C40 in editable formats (PPTx, Word doc files).

4. Proposal Guidelines

4.1 Submission Details

This Request for Proposal represents the requirements for an open and competitive process. This Request for Proposal is specifically for firms/ consortiums to apply and not individual consultants. Proposals will be accepted until **5 pm Indian Standard Time on 19 April 2024**. Any proposals received after this date and time will not be accepted. All proposals should include clear timetables, how you will work with C40, clear costs and detail on experience in this area.

The proposal should give C40 evaluators all the information they need to assess your bid. Please clearly indicate:

- Relevant information about the service provider and contact details
- How your proposal and services will meet the project objectives, in reference and alignment with the project scope and deliverables, and in line with [C40's Strategic Recommendations](#)
- A timeline, indicating the different stages, milestones, and contact with C40 – adequate review periods should be included
- An overview of expertise and experience on the topic of E - Freight Vehicles including references to previous work carried on Transition to E - Freight Vehicles in India is preferable. Please also highlight any global examples.
- The firm / consortium will require an onground team/office in India, with key staff leading the project to be based out of India and should be fluent in the language working with the city.
- Details of the organization and proposed project team - please include relevant experience and expertise and limit CVs to two pages per person; clearly indicate the project lead, the role of each team member and whether the person will be stationed in any of the working cities. The project team must ideally include:
 - 1) 1 Team Leader with 15 years of experience
 - 2) 1 Project Manager with 10-12 years of experience
 - 3) 2 Technical / Sector Experts with 8-10 years of experience.



- 4) 2 Research Associates with 2-5 years of experience
- Work approach and coordination with C40, specifying required input and resources
 - Clear cost break-down structure and explanation of expenses - please see **Section 7** "Project budget" for more details.
 - Any risks and assumptions made in planning this work - where risks are identified, appropriate alternatives and mitigation strategies should be outlined.
 - At least two recent references with phone and email contact details.
 - Confirmation of adherence to C40's terms and conditions.
 - Any additional deliverables and/or information relevant to this tender.

Please note: Proposals should be written in English, saved in pdf format and should not exceed 15 pages of text. Reference material may be placed in annexes. CVs should not exceed 2 pages.

Contract terms and conditions will be negotiated upon the selection of the winning bidder for this RfP. All contractual terms and conditions will be subject to review by C40's legal department and will include scope, budget, schedule and other necessary items pertaining to the project.

You must include adequate information about how your costs were calculated to enable evaluation of cost reasonableness. The costs must be provided in USD.

4.2 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 (individuals and corporations) that are diverse in terms of 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.

4.3 Contract

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

These terms and conditions are non-negotiable. Organizations 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.

4.4 Subcontracting

If the organization 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 organizations being contracted in the proposal submission stage, any changes to this during the project will require prior approval from C40.

5. RFP and Project Timeline

5.1 RFP Timelines

RFP Timeline	Due Date
Request for Proposals published by C40	<i>29 March 2024</i>
Questions submitted to C40	<i>05 April 2024</i>
C40 responds to questions	<i>9 April 2024</i>
Deadline for Proposal submission	<i>19 April 2024</i>
Evaluation of Proposal	<i>24 April 2024</i>
All Potential Suppliers notified of outcome	<i>26 April 2024</i>

5.2 Project delivery timelines

Project Timeline	Due Date
The project initiation phase must be completed by	<i>3 May 2024</i>
Project planning phase must be completed by	<i>8 May 2024</i>
The project is due to run until	<i>30 November 2024</i>

The assignment will kick off in May 2024 and needs to be completed within 6 months. The bidders should suggest their initial proposal for the scope of work, timeline and key deliverables based on the Project Scope of Work described as



following. This response will constitute the standard for what C40 can expect to find in the detailed project plan in terms of resources, breadth of scope and timeline.

6. Proposal Evaluation Criteria

Submissions will be evaluated against the following criteria:

Criteria	Weighting
Relevant expertise and understanding of topics outlined in the proposal; including references to previous projects and methods used and discussion of how this knowledge will be applied, and possibly expanded upon in this project	40%
Project delivery approach proposed, including project management approach (ability to deliver outputs on time and with quality)	30%
Value for money <ul style="list-style-type: none"> • <i>Economy: Assessment of the cost efficiency & budget consciousness of the proposals - Consideration of whether the proposal costs aligns with the expected outcomes & deliverables</i> • <i>Efficiency: Examination of proposed project management approach, resource allocation and timelines.</i> • <i>Effectiveness: Assessment of appropriateness and viability of chosen methods and tools to achieve the objectives.</i> 	20%
Equity and ethical alignment considerations: C40 is looking to appoint an organization that shares our values and is grounded in the context of the local community. Consideration will focus on: <ul style="list-style-type: none"> • location of organization (preference will be given to locally based organization) • women and youth 	10%

7. Project Budget

The proposal should indicate a cost break-down structure, outlining the costs for each component of the analysis (based on the break-down of deliverables in **Section 3**). All costs included in the proposal must be all-inclusive, including any VAT, copyright or bank fees, transportation, venue charges, translation etc. Costs should be stated as one-time or recurring costs. C40 does not pay contractors more frequently than once per month.

A budget of **USD 60,000** is available including all taxes and other 'hidden' costs. Bids must not exceed this value.

All proposals must include proposed costs to complete the tasks described in the project scope, including all VAT and taxes. Costs should be stated as one-time or



non-recurring costs or monthly recurring costs. All costs incurred in connection with the submission of this RfP are non-refundable by C40.

8. 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](#)

9. Submissions

Each Potential Supplier must submit 1 copy of their proposal to the email addresses below by **5:00 PM IST on 19 April 2024**:

- **Anantha Paladugula**, Head of Mobility, India, apaladugula@c40.org
- **Prasanth Narayanan Kailas**, Sr Manager, Inclusive Climate Action, pkailas@c40.org
- **Urvi Bhatt**, Projects and Events Officer, India, ubhatt@c40.org

Any pre-bid queries need to be submitted to the above emails addresses by **5:00 PM IST on 05 April 2024**.

Anonymised responses to questions will be provided at this [link](#) on **09 April 2024**.

Disclaimer

C40 will not accept any liability or be responsible for any costs incurred by Potential Suppliers in preparing a response for this RFP.

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.