

Supporting cities to deliver equitable, cool futures for all Supported by Carrier

Request for proposals for technical consultancy Assessment of the impact of rising temperatures and development of a cooling energy roadmap to 2030 for London

> C40 Cities Climate Leadership Group, Inc. 120 Park Avenue, 23<sup>rd</sup> 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 from the world's leading cities who are working to take the urgent action needed to address the climate crisis and create a future where everyone, everywhere can thrive. The mayors of C40 cities are committed to using a science-based, people-centered approach to help the world limit global warming to 1.5°C and build healthy, equitable and resilient communities. Through a Global Green New Deal, mayors are working together with 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-Sawyerr of Freetown, Sierra Leone. Michael R. Bloomberg, three-time mayor of New York City, serves as chairman 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 major strategic funders are Bloomberg Philanthropies, the Children's Investment Foundation (CIFF) and Realdania.

For more information about C40's work and our cities, please visit our <u>website</u> or follow us on <u>Twitter</u>, <u>Instagram</u>, <u>Facebook</u> and <u>LinkedIn</u>.

## 2. About the Greater London Authority (GLA)

Since 2005, the Greater London Authority has been a member of C40 Cities whose objective is to collaborate with local governments to drive local climate action policies and have them contribute to the Paris Agreement.

The Greater London Authority recognizes climate change as a problem that threatens the health and wellbeing of the people of London and therefore has made progress in the formulation of a wide range of climate policies and delivery of projects/programmes. London has a range of mayoral delivery programmes to support action, plus plans/strategies to support long-term planning for the impacts of climate change including heat risk. These include:

- The <u>London Plan</u>,
- The London Environment Strategy,
- The <u>Health Inequalities Strategy</u>; and
- The London Climate Resilience Review (LCRR)
- Properties Vulnerable to Extreme Impacts in London
- Adverse Weather and Health Plan

As well as actions by the mayor, London's 32 boroughs are taking steps to help the city adapt to their changing climate. The London Councils' climate programme includes actions to develop the resilience of London to cope with the extreme weather events



that come more frequently and severely with climate change, including extreme heat.

Other relevant documents and actions to highlight are:

- London-wide climate risk maps, which have been produced to analyse climate exposure and vulnerability across Greater London. These maps were produced to help the GLA, and other London-based organisations, deliver equitable responses to the impacts of climate change and target resources to support communities at highest risk. It is worth noting that for heat there is a limitation in that the maps focus on surface heat temperature and not a combination of surface and ambient to give a more accurate picture of safe/unsafe heat.
- The first edition of the <u>Adverse Weather and Health Plan</u> (AWHP) was launched in April 2023 and delivered the Government's commitment under the National Adaptation Programme for a single plan, bringing together guidance on weather and health. The Plan was brought together and built on the Heatwave Plan for England. The GLA defers to the AWHP in its work on tackling urban heat.

Within the C40 Cities network, London is a signatory of:

- Green and Healthy Streets Accelerator
- Net Zero Carbon Buildings Accelerator
- Towards Zero Waste Accelerator
- Clean Air Accelerator
- Good Food Cities Accelerator
- Divesting from Fossil Fuels Accelerator
- Clean Construction Accelerator
- Urban Nature Accelerator
- Renewable Energy Accelerator

In terms of programmes or C40 Networks, London is an active member of the Clean Construction Programme and is part of the Private Buildings Decarbonisation Network, Cool Cities Network and Air Quality Network.

## 3. Description of the project

## **3.1.** Context of the proposal - Supporting cities to deliver equitable and cool futures programme

Extreme heat events are more intense in urban areas, and in many cities the impacts are felt most acutely within people's homes and living spaces. Changes in climate, along with changing expectations about indoor thermal comfort, have resulted in increasing demand across the globe for air conditioning and improved access to indoor spaces with safer temperatures. Marginalised and low-income households in inadequately insulated and poorly designed homes without appropriate cooling measures are particularly affected and most vulnerable to extreme heat events—so



are outdoor workers.

If not done in a sustainable, efficient and equitable way, a sharp increase in cooling demand in buildings risks accelerating climate change by increasing GHG emissions—jeopardising efforts made by cities to reduce energy consumption and source more renewables. It also risks worsening the urban heat island (UHI) effect in cities—making it harder for those outside (such as some categories of workers, or people experiencing homelessness) to withstand the impacts of extreme heat. Many cities are committing to retrofitting their buildings with a goal of achieving net zero building emissions in line with the Paris Agreement but these retrofit plans often do not consider indoor thermal comfort and the impact of the UHI effect on indoor temperatures or safety enough. In this sense, **with the support of Carrier**, C40 aims to support cities to consider heat related health risks, residential energy poverty and the potential for cooling poverty, and energy demand from cooling in order to make the case for a cross-cutting analysis that connects buildings decarbonisation with measures to mitigate extreme heat and increase thermal comfort.

For more information on the Carrier and C40 Cities collaboration, click here.

#### 3.2 Greater London Authority data and context

#### 3.2.1 Extreme heat in London

In the summer of 2022, a heatwave hit the UK and marked the first time the UK registered a temperature of 40°C. As a consequence, the UK saw its first ever 'UK Health Security Agency Level 4 heat alert', and its first 'Met Office Red extreme heat warning'. The heatwave was far more intense and widespread than previous comparable heatwaves, impacting beyond the health and social care system. Heatwaves are projected to increase in both magnitude and frequency in the UK, and 40°C days might be experienced more often in the future (Met Office, 2023)<sup>1</sup>.

In 2022, there were 3,271 heat related deaths in England and 387 in London. The 2022 heatwaves would not have happened without climate change. Heatwaves often drive concurrent risks such as area specific water shortages at the same time as fires.

London also has a high concentration of vulnerable and 'at risk' groups, which are likely to be disproportionately affected by the impacts of climate change. This is because people who experience health inequalities have poorer health and are more likely than the general population to have health conditions made worse by, for example, extreme heat. This might also occur because of the cost of energy in the UK and the impact extreme heat might have in summer energy poverty.

The impacts of climate change will not be equal or fair and are likely to increase existing inequalities unless we take more action.

<sup>1</sup> Properties vulnerable to heat impacts in London,

https://www.london.gov.uk/sites/default/files/2024-01/24-01-16%20GLA%20Properties%20Vulnerable%20to%20Hea t%20Impacts%20in%20London.pdf



London's existing properties have not been designed to accommodate more intense and prolonged high temperatures and may be exposed to heat during an extended period of the year, bringing greater risk to building occupants. However, there is limited data available to identify the neighbourhoods, building types, and sectors most at risk. Ageing infrastructure, inadequate maintenance and refurbishment, and demographic shifts emphasise the need to identify at-risk properties and people for better heat preparedness and prioritisation of adaptation investments<sup>2</sup>.

In addition, London's population density and many dark impermeable surfaces that absorb the sun's radiation mean the city can be several degrees warmer than surrounding rural areas, referred to as the Urban Heat Island (UHI) effect.

Urban heat impacts can be felt in London's buildings as follows:

- <u>Structural damage</u>: extreme heat can cause building materials to expand and metal to rust faster. This puts strain on older buildings. Concrete structures are especially vulnerable.
- <u>Soil shrinkage</u>: heat can cause soil to shrink, which can make building foundations less stable.
- <u>Increased energy use</u>: the UHI can increase the demand for cooling and decrease the efficiency of air conditioning systems.
- <u>Health/thermal comfort</u>: the UHI can exacerbate heat waves. This can lead to heat-related hospital admissions as London experienced during periods of the heatwave such as in 2022.

The development of the first <u>Properties vulnerable to heat impacts in London report</u> identified key actions and steps to take towards building a more resilient London by identifying at risk infrastructure and neighbourhoods. A baseline assessment and a cooling roadmap such as the one suggested by this technical assistance will build on such work and continue setting the ground for a more prepared city.

#### Coping with rising cooling demand

The demand for space cooling in the UK's buildings is about 10% of total electricity use, while this number rises up to 20% worldwide<sup>3</sup>.

A recent model developed by Imperial College London and TU Delft has shown that London has the fastest increase in energy demand from cooling in the world, showing that demand for cooling has risen by 5% every year since 1980<sup>4</sup>. Rising demand for cooling particularly affects the most vulnerable as well as the climate, as the increase in energy consumption due to ACs usage leads to higher energy bills and greater emissions.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Cooling is hotting up in the UK, <u>https://www.sciencedirect.com/science/article/pii/S0301421523000411</u>

https://www.imperial.ac.uk/news/247593/london-fastest-increase-cooling-demand-world/#:~:text=Imperial%20Col lege%20London-,London%20has%20the%20fastest%20increase%20in%20cooling,the%20world%2C%20shows%2 Onew%20model&text=A%20model%20to%20map%20energy.2022%20as%20summers%20heat%20up.



In this sense, through the <u>London Environment Strategy</u> the city has committed to become net zero by 2030, always protecting the most vulnerable ones and championing for clean and smart energy systems, in order to reduce energy demand and carbon emissions but also to alleviate the costs of rising energy bills for businesses and residents<sup>5</sup>.

C40 has also supported the development of the <u>24/7 Carbon Free Energy (CFE)</u> project (2022-2023) which look to model very granular energy demand in buildings to measure London's 24/7 CFE score for 2019 and 2030, and deliver a roadmap of actions to deliver greater proportion of carbon free electricity use through demand side flexibility.

#### 3.2.2 GLA key actions and research and upcoming work

Some actions in place are as follows:

• The <u>London Climate Resilience Review</u> highlights two climate heat related recommendations:

1. For the Mayor to set up a strategic plan that identifies the framework, the roles and the responsibilities around the governance of heat risk; and,

2. For London Resilience Partnership: Conduct an exercise to test London's preparedness for a severe heat episode and identify potential cascading and concurrent risks.

- The <u>Pathways2Resilience Project</u> supports regions in developing transformative solutions to foster their climate adaptation. London is part of this initiative and is working towards strengthening the city resilience around each major risk at the city level (heat being one of these).
- Partnership with the <u>University of Liverpool</u> to collate data on the 'lived experience' of heat in London (Paris and New York as well).
- Requirements for developers of new buildings to mitigate overheating risks. The <u>Energy Monitoring Report 2022</u> showed that nearly 70 per cent of development applications proposed natural ventilation.
- The most recent <u>GLA's Energy Assessment Guidance 2022</u> requires analysis of heat risk under future weather files so that developments are better adapted for more prolonged warm spells and/or higher temperature peaks.
- <u>Warmer Homes London</u>, a collaborative climate programme, is supported by the GLA and the London Housing Directors' Group. The goal is to achieve substantial carbon reductions through comprehensive home retrofit which includes cooling.
- Release of <u>Roofs Designed to Cool</u> report, outlining how retrofitting the city's roofs with reflective materials or solar photovoltaic (PV) panels could help contribute to cooling existing homes and reducing carbon emissions by easing

<sup>&</sup>lt;sup>5</sup> London Environment Strategy - fourth progress report

https://www.london.gov.uk/programmes-and-strategies/environment-and-climate-change/london-environmentstrategy



the demand for cooling and generating electricity<sup>6</sup>.

#### Key documents and legislation

Some key documents and reports have been outlined in previous sections, but it is also worth considering the following:

- Equalities Impact Assessment (EqIA) is undertaken when preparing strategies/programmes. The EqIA identifies the potential impacts and disproportionate effects on equality and committed mitigation measures to reduce negative impacts on the most vulnerable whilst increasing benefits to maximise positive equality outcomes and addresses wider issues such as poverty and socio-economic inequality.
- **The GLA Climate Risk Map** analyses climate exposure and vulnerability across London. The purpose, to help the GLA, and other London-based organisations, deliver targeted and equitable responses to the impacts of climate change, including, extreme heat; and to target resources to support vulnerable communities at highest risk.
- **The <u>Climate & Equalities tool</u>** was launched recently to help ensure that all the GLA's projects are contributing to the mayor's vision for an equitable, inclusive, and net zero London.

The Mayor of London leads the GLA and is responsible for the strategic governance of Greater London, including for planning and new build housing. He does not have direct control over existing buildings to support their retrofit and reduce heat risk and health inequality. This power lies with the local authorities. In a mandatory sense, the GLA is still able to incentivise building owners, and coordinate with the local authorities to create change.

- London is currently working on the approach to developing a Heat Risk Delivery Plan (HRDP) working with the Pathways2Resilience (P2R) Programme with the following phases:
  - <u>Phase 1</u> (February-March 2025): evidence desk-based research and the establishment of a stakeholder plan; synthesis of the research; examining options for the approach to the governance of heat in London through P2R.
  - <u>Phase 2</u> (March-September 2025): intense programme of stakeholder engagement activities; drafting of the skeleton of the HRDP; exploring comms opportunity (what are Londoners and other stakeholders telling us about their experience of extreme heat in London and feeding in ideas/suggestions for reducing risk and improving cooling); execution of a delivery mode for cooling (TBC).
  - <u>Phase 3</u> (September March 2026): writing up the Plan, setting out the roles and responsibilities for managing heat risk in London; showcasing delivery; including the challenges of decarbonising London whilst

<sup>&</sup>lt;sup>6</sup> London Environment Strategy - fourth progress report

https://www.london.gov.uk/programmes-and-strategies/environment-and-climate-change/london-environmentstrategy



avoiding overheating and protecting Londoner's health and well being by taking a bottom up approach. Comms and launch of the Plan.

This technical assistance should support the development of this Heat Risk **Delivery Plan (HRDP)** and contribute in generating key data to identify goals and actions and complement its development.

#### 3.2.3 Data availability and needs

- London Climate Risk Map
- Data and GIS maps from the <u>Properties Vulnerable to Heat Impacts in</u> <u>London Report</u>
- London collects data on **predicted energy demand** (as per the 2022 GLA energy assessment guidance) which includes modelling for future weather scenarios (Section 8). The challenge is that as this is predicted data, there are limitations in its accuracy.
- London also asks for **in-use energy consumption data** via their <u>Be Seen policy</u>, although the main challenge is that this is not granular enough to capture data on cooling.
- London has the **building stock model**, which serves as an analysis of energy use in buildings. The 24/7 CFE analysis mentioned above modelled building energy demands to 2030 according to the accelerated green London decarbonisation pathway.
- Data related to **construction materials** is captured through <u>London's Whole</u> <u>Lifecycle Carbon policy</u>, but there are again challenges related with limitations in data availability and quality.
- London does not currently collect **data on air conditioning access and** affordability or health.

Because data availability in terms of energy demand for cooling, health and energy poverty related with increasing temperatures is somehow missing or has a low level of accuracy, the development of a baseline assessment and future energy cooling roadmap is needed in order to set a clear pathway towards becoming a net zero city by 2030.

#### 3.2.4 Scope of the support and objectives

#### The objectives of this support are to:

- Assess the impact of rising temperatures on city residents' health, energy poverty, cooling poverty and cooling-related energy demand within buildings; and
- 2) Develop a detailed cooling strategy and roadmap fully integrated into the city's Climate Action Plans particularly the HRDP and that help to meet other climate objectives such as heating decarbonisation or urban greening, as per C40's Net Zero Carbon Building and Urban Nature Accelerator. The roadmap will focus on three (3) sectors: Health, Social Care and the existing social housing



sector in areas of high deprivation and poverty and where social housing, hospitals and care homes are located<sup>7</sup>.

Particularly for London, a priority recommendation in the LCRR report is for the Mayor of London to establish: **A regional strategic plan for adapting to higher** *temperatures in London to be developed with a governance framework that sets out roles and responsibilities.* 

The technical assistance will support the development of the Plan by:

- ensuring the approach **focuses on outcomes being sustainable, efficient, and equitable**. For example, setting out recommendations for cooling demand could increase greenhouse gas emissions and compromises on the GLA's building decarbonisation commitments;

- targeting interventions to mitigate heat hot spots where the UHI is most pronounced and by protecting the health/well-being of those most vulnerable to heat risks, highlighted in the GLA/Arup's work on <u>Properties Vulnerable to Heat Impacts in</u> <u>London Report<sup>8</sup></u>, to avoid an intensification of the UHI in London.

#### **3.3 Activities requested**

The following is a preliminary list of the activities considered for this consultancy. The content of this section is indicative and not limiting. Companies or individual consultants interested in applying to this call for proposals may adjust, reorganize and expand the activities and products as they deem necessary, demonstrating the added value of their proposals.

#### Component 1. Initial Planning and Coordination

#### Activities

- 1. **Project Management Plan:** Proposed project management strategy, including team roles and responsibilities.
- 2. **Timeline:** Detailed schedule of key project activities and milestones, with estimated start and completion dates.
- 3. **Proposed deliverable structure:** Description of the different deliverables to be produced during the project, along with their expected structure and format.
- 4. **Risk map and mitigation proposal:** Identification of potential risks that could affect the success of the project, as well as proposed strategies to mitigate these risks and ensure their effective management.
- 5. **Stakeholder engagement plan:** Preliminary strategy to facilitate effective collaboration among project stakeholders.

<sup>&</sup>lt;sup>7</sup> Refer to the <u>Climate Risk Maps of London</u> to access this.

https://www.london.gov.uk/sites/default/files/2024-01/24-01-16%20GLA%20Properties%20Vulnerable%20to%20Hea t%20Impacts%20in%20London.pdf



6. **Information requirements.** List of the information required as input to successfully fulfill the scope of the consultancy.

#### Products

Deliverables must be prepared in the agreed formats and sent to C40 on the date established for the first round of review and subsequent approval in conjunction with the Greater London Authority.

Deliverable 1.1. Work plan

#### Component 2. Methodology

#### Activities

- 1. Methodology:
  - I. Methodological approach for 1) baseline assessment development and 2) potential impacts/co-benefits estimation, describing the approaches, methods and inputs to be used. The detailed baseline assessment will demonstrate **how space cooling needs might evolve to 2030** based on various climate change and socio-economic scenarios and on historical data.

This assessment will:

- a) Develop a **spatial modelling to show overheating in London**, ideally in the 32 boroughs and the City of London, showing heat hotspots and demographics, population health and indices of multiple deprivation. Most of this information can be found in the **London Climate Risk Maps.**
- b) Analyse the energy demand for cooling at the city level, to understand which are the high demand sectors and how this demand might evolve in the future, considering a context of rising temperatures (using various assumptions about the efficiency of AC or other cooling units, based on current active cooling practices and projected changes in adoption trends, including as a result of socio-economic changes), highlighting the risk that renewables growth is not sufficient to meet this increased demand.
- c) Develop a profile for **three sectors (health, social care and existing social housing)**, to understand key locations, facilities and groups of people that are particularly affected by heat; and to evaluate current and future cooling demand (to understand, among other aspects, how passive measures can cool spaces, particularly thinking that active cooling measures might not be an



economically viable option for the most vulnerable). Beyond the energy related aspects, the analysis should ideally make particular focus on the vulnerability conditions of affected groups in order to understand how these conditions might increase the impacts of extreme heat (i.e. in residents' health or energy poverty).

This analysis will provide the following outputs:

- a sectoral analysis on the housing, health and social care built environment (particularly hospitals, GP practices, social care facilities and care homes);
- an analysis on energy demand for cooling (existent and future) for the city, and if possible, particularly focusing on those three sectors including some of the following: total increase in electricity demand, impact on peak demand, related GHG emissions, additional systems costs for the electricity system (including additional energy capacity required and grid upgrades), as well as a qualitative assessment of the challenges to the energy system caused by this.
- II. Description of the **step by step process to develop a cooling roadmap for the city**, after having a clear picture on the baseline assessment.
- 2. **Presentation:** Present during a meeting the methodology for validation by C40 technical and regional teams and the GLA. The format of the meeting will be defined jointly prior to the start of the project.

#### Products

Deliverables must be prepared in the agreed formats and sent to C40 on the date established for the first round of review and subsequent approval in conjunction with the Greater London Authority.

Deliverable 2.1: Methodology

Deliverable 2.2: Presentation of work plan and methodology

<u>Component 3. Baseline assessment and BAU analysis, cooling</u> <u>roadmap development and impacts</u>

#### Activities

1. Definition of the baseline and BAU analysis



This initial section will aim at working with key figures and statistics on the potential impacts of urban heat at different levels (energy demand for cooling, potential of cool energy poverty, health).

- I. Identify heat vulnerability areas to show heat around London, ideally in the 32 boroughs and the City of London, showing heat hotspots and adding vulnerability layers to the analysis including (housing conditions, poverty, health conditions, language, amongst others).
- II. Estimate current energy demand and potential increase of energy demand for cooling, and estimation of associated emissions. Analyse the energy demand for cooling at the city level, to understand which are the high demand sectors and how this demand might evolve in the future, considering a context of rising temperatures and summer energy poverty (using various assumptions about the efficiency of AC or other cooling units, based on current active cooling practices and projected changes in adoption trends, including as a result of socio-economic changes), highlighting the risk that renewables growth is not sufficient to meet this increased demand.
- III. Develop a profile for the **social housing sector, health and social care facilities sectors,** to understand key locations, facilities and groups of people that are particularly affected by heat; and to evaluate current and future cooling demand. Beyond the energy related aspects, the analysis should ideally make particular focus on the vulnerability conditions of affected groups in order to understand how these conditions might increase the impacts of extreme heat (i.e. in residents' health or energy poverty).

IV. Identification of **health related impacts** caused by extreme heat in the absence of additional cooling measures. The prevention of deaths caused by extreme high temperatures is an issue of public health concern for London. The risk of heat-related mortality increases with natural ageing, but persons with social and/or physical vulnerability are also at risk.

#### 2. Policy context background

- I. Description of the **current political and regulatory context** for the promotion of energy efficiency, use of renewable energies, building and construction codes (focusing on construction materials and insulation), urban heat/resilience background as well as the mapping of actors. Examine which cooling measures are already in place to create more liveable and comfortable buildings (i.e. ACs, building regulations, etc.).
- II. Review existing work and current projects on resilience and energy from GLA.



III. Identify gaps to be addressed through the development of the cooling roadmap.

#### 3. Cooling roadmap development

The cooling roadmap development is the central deliverable of this support. The roadmap is expected to show the steps that will guide the climate adaptation and decarbonisation efforts of GLA with a key focus on mitigating the unintended impacts of overheating, with a clear objective of cooling and protecting those most at risk, as well as ensuring the thermal comfort within buildings. The content and specificities of the cooling roadmap are stated below.

I. Detailed cooling roadmap in two of London's boroughs (to be defined depending on the results of the baseline assessment) and three sectors (health, social care and existing social housing) outlining the key policies and actions required in London to meet cooling demand as deemed necessary to reduce the adverse health impact of heat while reducing as much as possible the increase in energy demand and improving Londoners' health. Ideally the roadmap would include existing regulation and actions to reduce as much as possible the need for active cooling measures and promote the development of passive cooling solutions and implementation of sustainable active cooling solutions where needed. The roadmap will develop short and long term measures to be implemented in Greater London.

**II.** The roadmap will include recommendations for **action and programme suggestions**, detailed timelines for implementation, stakeholder engagement and capacity building plans and potential financing opportunities for each action identified.

The roadmap should provide **an optimum mix of passive and active cooling actions specific to the local context**, as per a set of criteria to be defined by the GLA but likely to include: minimal GHG emissions, increased resilience to climate disasters, maximum socio-economic benefits (e.g., jobs and productivity created and preserved, costs avoided, etc.), marginal cost of abatement, etc. The mix of actions proposed should also enable the city to meet other, parallel climate and wellbeing objectives including the decarbonisation heating supply, which can be done through the deployment of heat pumps. The roadmap could be linked to a retrofit plan for London or eventually be the initial guidance to develop a retrofit plan for the city.

**III. Proposal for financing** linking in with the work of P2R enabling the environment to implement this roadmap. A particular focus should be put into the description and analysis of delivery mechanisms and estimated budget for each



recommended policy/action. The use of examples and actions implemented in other cities is highly encouraged. **This proposal and roadmap should inform and complement the HRDP for London.** 

#### 4. Impact and Co-benefit Estimation

After having developed the cooling roadmap the technical assistance will focus on estimating the impacts of implementing the roadmap through the use of indicators linked to:

- Reduction of energy demand for cooling whilst avoiding the unintended consequences of overheating.
- Reduction of CO2 equivalent emissions.
- Reduction of costs due to the implementation of energy efficiency measures and renewable energies (potential to reduce costs of cooling in homes and critical infrastructure).
- Potential for the creation of good green jobs.
- Reduction in heat related diseases.
- Improved thermal comfort for Londoners.
- Potential to improve health and wellbeing outcomes.
- Potential to reduce health inequalities.

#### Products

Deliverables must be prepared in the agreed formats and sent to C40 on the date established for the first round of review and subsequent approval in conjunction with the GLA.

**Deliverable 3.1** Baseline assessment report - Data gathering, baseline development and analysis of data

**Deliverable 3.2** Cooling roadmap report - Roadmap development and impacts/co-benefits estimations. **This deliverable must include a report with the detailed roadmap and a public facing summary report (in an editable format). Deliverable 3.3** Presentation of results

#### Component 4. Project documentation and closure

#### Activities

- 1. **Deliverables validation:** Ensure that all deliverables and materials are in the final version, integrating the corresponding revisions and in the agreed formats.
- 2. **Technical closure of the consultancy:** Prepare the final reports, including the executive summary and the final detailed report of the project.



3. **Presentations and work sessions:** Plan the agenda and participate in follow-up meetings for project management and work sessions to validate deliverables. Prepare materials and inputs needed for meetings.

#### Products

Deliverables must be prepared in the agreed formats and sent to C40 on the date established for the first round of review and subsequent approval in conjunction with the GLA.

Deliverable 4.1. Final consultancy report

Deliverable 4.2. Executive summary in English and public facing summary report

Deliverable 4.3 Strategy dissemination material

Deliverable 4.4 Face-to-face presentation of consulting results

Deliverable 4.5 Webinar presentation of consultancy results

C40 CITIES

Summary of activities, deliverables, estimated delivery dates and payments.

Component	Activities	Products	Estimated	Payments
			Delivery	
1. Initial planning and	<ul> <li>Project management plan</li> </ul>	<b>1.1 Work plan</b> (Word and PDF, schedule in Excel)	Week 2	20%
coordination	Schedule	,		
	• Proposed structure for			
	deliverables			
	Risk map and involvement			
	proposal			
	Stakeholder engagement			
	plan			
	Request for information			
2. Methodology	Methodology design	2.1 Methodology (Word and	Week 5	
Methodology		22 Drecentation of the work		
	• Presentation of the	2.2 Presentation of the work		
	methodology	workshop for the validation of		
		the methodology. The format		
		of this activity will be defined		
		(virtual or in person) with the		
		participation of selected city		
		officials. With the results of the		
		workshop the final version of		
		the methodology will be		



		elaborated (PowerPoint and		
		PDF).		
3. Baseline assessment and	• Definition of the baseline	<b>3.1 Baseline assessment</b> focusing on impacts of rising	Week 9	
cooling	Proposed cooling roadmap	temperatures in health,		
roadmap development	<ul> <li>Impact and co-benefits</li> </ul>	energy poverty and expected		
development	estimation	(Word and PDF)		
		3.2 Proposed cooling		
		roadmap report with		
		estimated impact and		
		co-benefits. Detailed report of	Week 15	
		the activities including		60%
		calculation memories of the		
		estimates and attaching the		
		relevant information used for		
		the determination of the		
		baseline (Word, PDF, Excel).		
		This deliverable must include		
		a report with the detailed		
		roadmap and a public facing		
		summary report (in an		
		editable format).		
		5.5 Presentation of results	VVEEK ID	

## C40 CITIES

4 Project		41 Detailed final consultancy	Week 18	20%
	<ul> <li>Validation of deliverables</li> </ul>		Vicentio	2070
Documentation		report (word and PDF)		
and Closure	<ul> <li>Technical closure of the</li> </ul>			
	consultancy	4.2 Executive summary of the		
	<ul> <li>Drocontations and working</li> </ul>	results of the consultancy		
	• Presentations and working	(Word and PDF) and <b>public</b>		
	sessions	facing summary report		
		4.3 Dissemination material of		
		the strategy content		
		including layout or design		
		that can be disseminated at		
		a later date (PPT and PDF).		
		4.4 Face-to-face session for		
		the presentation of the results		
		of the consultancy to an		
		audience selected by Imeplan		
		(PowerPoint).		
		4.5 Webinar for the		
		presentation of the results of		
		the consultancy to an		
		audience selected by C40.		
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## 4. Project management and quality assurance

#### **4.1 Project management**

The selected company or organization will have constant communication with the C40 team through the Urban Heat team at C40. The selected company must define a technical focal point and, if necessary, an administrative focal point.

Following the selection of the consultant, an initial meeting will be organized with the focal points of C40 and the focal points of the GLA to validate the focus of the work, the scope, the expected results, the form of work and coordination, as well as the schedule and any logistical details for the proper flow of activities of the consultancy. The consultant team is also expected to attend scheduled project management calls with C40 and with the GLA. These meetings will be convened by the project management focal point from C40.

# 4.2. Roles of the contracting entities and the role of the selected firm

→ The role of C40

C40 will be an integral part of the entire development process of the consultancy, managing both the administrative follow-up and the detailed management of the project.

C40 adopts a highly collaborative and flexible approach to work. The selected company is expected to actively participate in the collaborative creation and be open to receive and apply feedback during the work process. This collaborative approach aims to review and validate processes, improve the quality of the results, and effectively integrate the diverse interests and perspectives of the parties involved.

→ The role of the Greater London Authority

The GLA is the direct beneficiary of this consultancy. The city will be responsible for validating the progress of the activities, as well as acting as an intermediary between the various agencies involved in the consultancy activities (if required). The Climate Change team will make requests for information required by the project, including London's political and regulatory frameworks related to energy demand, among others. It will also manage the participation of the cities in the workshops and events proposed in the execution of the consultancy. Through the focal points of the entities, it seeks to facilitate communication and collaboration among stakeholders, in addition to coordinating review rounds in order to approve the products of the consultancy in a manner aligned with the established expectations.

 $\rightarrow$  The role of the consulting firm or the individual consultant



The consulting firm or individual consultant is responsible for carrying out the technical development of the consultancy, ensuring compliance with established quality standards and objectives. This includes the development of detailed work plans, the production of deliverables within agreed deadlines, and the submission of regular progress reports. In addition, the company must maintain constant and effective communication with the C40 team and other stakeholders, participate in follow-up meetings, and collaborate closely with the GLA, in line with the communication channels agreed at the beginning of the project. The firm must also be open to receive and apply suggestions and feedback throughout the consultancy process and ensure that all deliverables are aligned with project expectations and requirements. Finally, the firm will be responsible for working in a manner aligned with C40 policies for external parties.

See the Service Contract <u>Service Provider Agreement</u> for more information. The contractual process will be conducted in English.

#### 4.3. Quality Assurance

• **Intellectual Property:** All deliverables, reports and documentation generated during the project will be the exclusive property of C40, as stipulated in the Service Agreement.

• **Quality Standards:** The consulting firm shall comply with the quality standards established by C40 for all deliverables. This includes technical accuracy, clarity in the presentation of information, and compliance with applicable guidelines, which will be coordinated at the project kick-off meeting. Any research or presentation that includes external content or content not generated by the selected company must be accompanied by the corresponding sources and appropriate credits, respecting copyrights.

• **Compliance with deadlines:** The consulting firm must meet agreed deadlines for the delivery of each phase of the project and progress reports. Efficient time management is expected to ensure smooth progress of activities. Any eventuality should be reported promptly to the C40 team.

• **Effective Communication:** The ability to maintain clear, timely and effective communication with the C40 team and other parties involved in the project is required. The consulting firm must be available to participate in scheduled meetings, respond to inquiries, and provide regular updates on project progress.

• **Deliverable Reviews:** Up to two rounds of drafts and reviews are expected for each deliverable. All necessary modifications must be included within the agreed scope and cost of the consultancy. The objectives and scope will be agreed between C40 and the selected company at the beginning of the



project. Any modifications must be formalized via email by mutual agreement between the parties.

• **Deliverables:** All consulting deliverables must be delivered in the agreed formats and deadlines, ensuring the completeness and integrity of each deliverable. For consulting purposes, the working day is considered to end at 5pm (UK time), and the deadlines established within this time frame must be met.

#### **Documentation**

All consultancy documentation must be provided in editable formats compatible with the agreed C40 software. The editing and presentation of these electronic files must be consistent, professional and suitable for publication. The consulting firm must ensure that the documents meet the quality and formatting standards established by C40.

All documentation shared with cities or other external partners must include only the C40 name and logo, with prior approval from the C40 team. In addition, all documents must follow C40 branding and communication guidelines. The selected company may not use its own name or logo in this documentation unless authorized in writing by C40.

Also, the company must guarantee the confidentiality and security of all information handled during the project, ensuring that sensitive documents are protected and shared only with authorized parties;. In addition, all documents must be archived and managed in accordance with C40's knowledge management process in Google Drive.

#### <u>4.4. Language</u>

Given that the entity receiving the contracted service is in English, it is essential that all deliverables and documents be prepared and delivered in English. Meetings will be conducted in English. The consulting firm's proposals should include detailed information on the language capabilities of the project team, ensuring that they are fluent in English, as necessary for effective communication during all phases of the project.

#### <u>4.5. Deadlines</u>

The selection of the firm, organization or group of consultants will be made no later than **mid-April 2025**. Notifications to the company, organization or group of consultants that were not selected will be sent on the same date.

The work should be completed within **6 months** of contract signature. The schedule should allow sufficient time and flexibility to properly develop each of the



components and the review and feedback of the project by the C40 team and the GLA.

## 5. Guidelines for submitting proposals

This Term of Reference encompasses the requirements for an open and competitive process. Send via email the required documentation to **heat@c40.org**. Proposals will be accepted until **Friday, March 21st, 2025 - 5pm UK time.** Any proposals received after this date and time will not be accepted.

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

The following documents must be included in response to this Request for Proposals:

#### Profile of your company, organization or consultant/consultant.

Maximum 3 pages

- a. Presentation.
- b. Motivations for submitting the proposal and working with C40.

c. Proposed procedure for escalating and resolving any unforeseen events and/or problems that may arise during project execution.

d. Effective communication strategy and involvement with C40 to ensure the proper execution of this consultancy.

e. Commitment to Diversity, Equity and Inclusion. Include professional examples, internal policies and any other relevant information to enable understanding of this commitment. For C40 policies, please refer to the relevant section in this Term of Reference.

f. Description of similar projects you have worked on, highlighting the results obtained.

g. Attach brief biographies or CV summaries of the proposed team members. If you have a corporate CV, please include it as well. Please refer to the C40 CV <u>reference format</u>. The consultant or consulting firm should preferably be located in the UK.

- Specific experience in the design or implementation of energy efficiency measures for buildings must be demonstrated.
- Must have knowledge and experience in sustainability initiatives for the energy sector.
- Previous experience in working with one or more cities in the UK and/or Europe.
- Experience in energy planning and foresight is a plus.
- Experience in roadmap design is a plus.

#### Technical proposal.

Maximum 5 pages



Descriptive and, if necessary, illustrative document on the methodology, tools, work equipment, inputs and processes that the work team will use. This document will demonstrate the technical capacity necessary to comply with the scopes requested in the Terms of Reference, aligned to the established times for its development and delivery. The proponent is free to submit proposals and technical solutions to address each of the deliverables described in this document, as well as to organize, integrate and add content to them.

Be sure to add the following:

a. Methodology. Describe your initial methodological proposal, the processes and tools you will use to carry out the consultancy.

b. Work proposal. Details and explanation of how it adapts to the specific objectives and needs of the project.

c. Timeline. Consider the suggested dates or propose a new schedule taking into consideration the project milestone schedule;

d. Project management. Proposal of the work plan, execution chronograms, flow charts and other planning and follow-up tools required by the consultancy, for the adequate coordination of the activities to be carried out.

e. Task Team. Provide information on the proposed project team members and describe their relevant experience associated with the subject matter of the work. Include the project management structure, detailing roles and responsibilities.

#### Financial Proposal.

Maximum 2 pages

Describes how resources will be invested to carry out the work, ensuring timely processing and delivery of the requested deliverables. It must include a budget breakdown covering the cost for each component of the consultancy, considering the associated costs necessary for the processing of the deliverables. Proposals must include all applicable costs and taxes.

It is suggested to use the following table:

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

C40 will not allocate additional budget for travel, catering, translations or field work. All expenses are requested to be included in the amount budgeted by C40.



#### 5.1. Budget

Costs should be presented in U.S. dollars (USD) including taxes and all applicable administrative fees, as well as included expenses associated with software licenses and usage, field work and other costs associated with the full execution of the scope of the consultancy.

The budget for proposals should be in the range of **USD 40,000**. Payment for services is linked to the delivery and approval of each product.

#### 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 include any subcontracted or contracted work. Any proposal requiring subcontracted or contracted work must include a name and description of the organizations being contracted.

#### 5.2. Resolution of doubts

The C40 team will be receiving questions about the content of this RFP and the selection process via e-mail only, from the date of dissemination of the Term of Reference until **March 14th, 2025**. Questions will be answered anonymously on a first-come, first-served basis, so please remember to check <u>this live Q&A document</u> on an ongoing basis.

Please send your questions via e-mail to **heat@c40.org**.

#### 5.3. Evaluation criteria

The proposals received will be evaluated in a comprehensive manner, prioritizing their technical rigor, efficiency and proactive approach to the fulfillment of the objectives within the established timeframe.

Proposals will be evaluated according to the following criteria:

Criteria	Value
<b>Work plan.</b> Soundness of the project implementation proposal and ability to meet the requirements listed. The successful candidate	30%
must demonstrate the ability to manage the scope of the project.	



<b>Technical experience and references.</b> The successful candidate will have experience in projects related to the scope and solid knowledge of the regional and/or local context in the UK, adequate qualifications to address the elements of the scope, and a management plan aligned to the implementation schedule of activities and deliverables. Experience with London and its context will be a plus.	40%
<b>Commitment to diversity and inclusion.</b> The proposal clearly incorporates C40 policies E, D and I (e.g., proposing the collection of sex-disaggregated data, incorporating inclusion in analyses, evaluations and results, gender balance in the team and roles, etc.).	20%
<b>Budget.</b> Provide specific and reasonable budget line items and cost breakdowns, and minimize the cost of resources used / spend less.	10%

## 6. Project Timeline

Reference Term Activities	Date	
Dissemination of the Terms of Reference	March 3rd, 2025	
Deadline to send questions to C40	March 14th, 2025	
Response to questions received	Within 2-3 business days - refer to <u>this live Q&amp;A document</u> to see questions received	
Deadline for submitting proposals and documentation	March 21st, 2025	
Proposal evaluation	March 28th, 2025 If necessary, participation in calls on the Zoom platform will be requested for clarification of offers.	
Final decision	No later than mid-April 2025	

## 7. Supplier diversity

C40 is committed to supplier diversity and inclusive procurement by promoting fairness, diversity and inclusion in our supplier base. We believe that by procuring a



diverse range of suppliers, we gain a wider variety of experiences and thinking, allowing us to better meet the needs of our diverse cities and the contexts in which they operate. We strongly encourage supplier companies and organizations that are diverse in terms of team size, seniority, nationality, gender identity and sexual orientation to submit proposals to collaborate with C40.

Proposals from companies located outside of the UK will be considered; however, they must demonstrate willingness and ability to relocate as needed. This will ensure their active participation in activities that require physical presence and strategic meetings. If necessary, partnerships with local companies and consultants are recommended to strengthen collaboration and reduce the carbon footprint associated with travel.

In this request for proposals, priority will be given to consultants, as well as local companies or organizations established in London. This decision will facilitate a direct and continuous collaboration with the local C40 team, the GLA, and other local stakeholders involved in the project. In this way, two main objectives are sought: to ensure effective project execution, a thorough understanding of local dynamics, and to streamline the coordination of activities and face-to-face meetings, which is essential to maximize project results. In addition, C40 is committed to promoting professional opportunities from a perspective of equity, diversity and inclusion.

Feel free to consult the C40 <u>Statement on Equity, Diversity and Inclusion</u>. Supplier diversity and inclusion in procurement are key elements in mainstreaming C40 principles and policies, thus contributing to limiting global warming to 1.5°C and building healthy, equitable and resilient communities from a diversity, equity and inclusion perspective.

### 8. C40 Policies

C40 expects proposals and participants in this call to act in accordance with the C40 Code of Conduct for Non-Employees, which is available <u>here</u>.

## 9. Disclaimer of Liability

C40 will not accept any responsibility or liability for any costs incurred by Potential Vendors in preparing a response to this Request for Proposal (RFP). Bids submitted will be accessible to all C40 staff and external evaluator(s) (if any).

Neither the issuance of the TDR, nor any of the information presented herein, is to be considered as a commitment or representation by C40 (or any of its partners) to enter into a contractual agreement. Nothing in this TOR should be construed as a commitment on the part of C40 to award a contract to a Potential Supplier as a result of this solicitation, nor to accept the lowest price or any bid.