GREATER**LONDON**AUTHORITY

REQUEST FOR ASSISTANT DIRECTOR DECISION – ADD2534

Title: Roofs Designed to Cool

Executive summary:

This decision form procures an additional sum of £20,000 of consultancy support (£20,000 was previously procured in the autumn of 2020 under cover of ADD2488), in recognition of the wide scope of the works to establish an evidence base and implementation mechanism for cooling London's existing homes and buildings and reducing intensification of the urban heat island (UHI) effect. This work will set out a three-phased approach to: make London's existing homes and buildings resilient to climate impacts; make London's public realm greener and cooler; and reduce the intensification of the UHI effect. The work will also explore opportunities to support jobs.

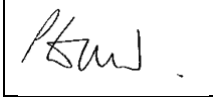
Decision:

That the Assistant Director of Environment approves expenditure of £20,000 for the procurement of a consultancy service to carry out the activities associated with the 'Roofs Designed to Cool' programme. This takes the total expenditure to £40,000.

AUTHORISING ASSISTANT DIRECTOR/HEAD OF UNIT

I have reviewed the request and am satisfied it is correct and consistent with the Mayor's plans and priorities.

It has my approval.

Name: Peter Daw	**Position:** Interim Assistant Director, Environment & Energy
Signature: 	**Date:** 6 September 2021

PART I – NON-CONFIDENTIAL FACTS AND ADVICE
Decision required – supporting report

1. Introduction and background

1.1 This proposal supports work leading to a cleaner, greener London and narrowing social, economic and health inequalities: two outcomes of the London Recovery Programme. The work also integrates the cross-cutting theme of improving the health and wellbeing of Londoners.

1.2 In December 2018, the Mayor declared a climate and ecological emergency. He released one of the world's first climate action plans to achieve compatibility with a 1.5°C degree pathway in support of the Paris Agreement.

1.3 In New York City, the 'Cool Roofs' project has resulted in more than 10 million square feet of roofs painted white. In 2018, 73 per cent of New York's cool-roof interventions were in areas identified as having a high proportion of vulnerable residents. The city is currently targeting about 1 million square feet of rooftops every year.

1.4 Surveys of US cities have found that city-wide installation of cool roofs, pavements and trees can reduce ambient air temperature by two to four degrees Celsius during the warmer summer months ("C40 Good Practice Guide: Cool Cities", 2016). New York City's 'at-risk environment' is characterised by dense concentrations of people, buildings and resources, including some of the world's largest underground transportation and utility systems. In developing a risk assessment system, New York has tailored the standard equation to meet the City's needs. "Vulnerability" is determined by a building's adjacency, accessibility, and structural performance. (see www1.nyc.gov/assets/orr/pdf/Cool_Neighborhoods_NYC_Report.pdf).

1.5 Whilst the London focus of this phase of the project is on the use of reflective roofs designed to cool homes and buildings, other examples of roof types and benefits could be explored – including projects in Chicago and Los Angeles.

1.6 Staff resources have been identified within the GLA's Climate Change team to manage and take forward the project. The successful bidder will also be expected to work with various GLA teams to access data and information that could inform the design of a retrofit programme.

1.7 In the autumn of 2020, ADD2488 was approved to procure the services of a supplier to carry out the works set out in this ADD2354. Following a poor response to the invitation to tender, in discussions with the market it became clear the brief was for two separate pieces of work requiring different skill sets and needed to be priced accordingly. As a result, it was agreed to increase the value of the works from £20,000 to £40,000 to reflect the wide scope of the works and to attract a wider pool of suppliers.

1.8 The work will explore the evidence and approaches from other cities, in order to develop the business case to increase coverage of 'roofs designed to cool' in London and reduce the impacts of the UHI effect.

2. Objectives and outcomes

2.1 The objectives will be as follows:

- The Green New Deal (GND) Mission sets the challenges of tackling the climate and ecological emergencies, and improving air quality, by doubling the size of London's green economy by 2030 to accelerate job creation for all. The Mission themes include decarbonising and transforming the

built environment, and greening London's transport and public realms. The work supports these two ambitions.

- The proposal supports work leading to a cleaner, greener London and narrowing social, economic and health inequalities: two outcomes of the London Recovery Programme. The work also integrates the cross-cutting theme of improving the health and wellbeing of Londoners.
- This work will develop the evidence base for increasing coverage of 'roofs designed to cool', setting out a three-phased approach to: make London's existing homes and buildings resilient to climate impacts; make London's public realm greener and cooler; and reduce the intensification of the UHI effect. The work will explore opportunities to support jobs through the establishment of a 'Roofs Designed to Cool' retrofit programme.

2.2 The aim of the project and expectations of the supplier are as follows:

- Establish the evidence for increasing coverage of roofs designed to cool existing homes and buildings in London. This should include a quantitative assessment of how a 'Roofs Designed to Cool' retrofit programme could mitigate the risk of existing homes and buildings overheating. The focus should be on informing the development of a 'Roofs Designed to Cool' retrofit programme for London's existing homes and buildings.
- Establish an assessment of, and evidence for, the co-benefits that a 'Roofs Designed to Cool' retrofit programme could have on reducing the intensification of the UHI effect and creating jobs.
- Establish mapping and/or any modelling that would be required to:
  - assess how a 'Roofs Designed to Cool' retrofit programme could mitigate the risk of existing homes and buildings overheating; where roofs could be installed, and which types of homes/buildings are vulnerable to overheating
  - assess, and provide evidence for, the co-benefit that a 'Roofs Designed to Cool' retrofit programme could have on reducing the intensification of the UHI effect. The outcomes will be used to support the potential development of a 'Roofs Designed to Cool' retrofit programme.
- Make recommendations, supported by evidence, of the value of retrofitting non-residential buildings as well as dwellings, with a roof designed to cool (for example, the impact on local UHI effects, or reduced energy demand in buildings with mechanical cooling), and consideration of how this would fit in to a delivery plan. The delivery plan will inform the work of subsequent phases.

2.3 The expected outcomes will be:

- evidence demonstrating how a 'Roofs Designed to Cool' retrofit programme could mitigate the risk of existing homes and buildings overheating
- illustration and, if possible, quantification of the contribution that a 'Roofs Designed to Cool' retrofit programme could have on reducing the intensification of the UHI effect, strategically and locally
- the setting-out of benefits, challenges, opportunities and practical considerations of delivering a 'Roofs Designed to Cool' retrofit programme in London, including a methodology for identifying those buildings most at risk of overheating and which would benefit from a cool-roof retrofit
- an assessment of the impact of job creation through the establishment of a 'Roofs Designed to Cool' retrofit programme
- consideration given to how much a programme might align with existing retrofit programmes to create efficiencies in delivery.

2.4 The price is based on the price set for commensurate projects and reflects the market value for the work requiring two skill sets. The work will be procured in accordance with the GLA Contracts and Funding Code.

3. Equality comments

3.1 Under section 149 of the Equality Act 2010 (the Equality Act), as a public authority the GLA must have due regard to the need: to eliminate discrimination, harassment and victimisation, and any conduct that is prohibited by or under the Equality Act; and to advance equality of opportunity, and foster good relations between people who share a protected characteristic and those who do not. This involves having due regard to the need to remove or minimise any disadvantage suffered by those who share a relevant protected characteristic that is connected to that characteristic, taking steps to meet the different needs of such people; and encouraging them to participate in public life or in any other activity where their participation is disproportionately low.

3.2 The relevant protected characteristics under section 149 of the Equality Act are: age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership, race, gender, religion or belief, sex, and sexual orientation. Compliance with the duty may involve ensuring people with a protected characteristic are provided with all the opportunities that those without the characteristic would have.

3.3 The Mayor's Equality, Diversity and Inclusion Strategy sets out how he will work to create a fairer, more equal, integrated city where all people feel welcome and able to fulfil their potential. Equality, diversity and inclusion are subsequently enshrined within the GLA's strategies, programmes and activities.

3.4 The GLA will ensure that (as part of its ongoing legal responsibility to have due regard to the need to promote equality in everything it does, including decision-making), barriers are removed that may prevent those with protected characteristics benefiting from the projects.

3.5 The GLA Environment Unit commissioned an Integrated Impact Assessment (IIA) on the draft London Environment Strategy (LES). This evaluated the social, economic, environmental, health, community safety and equality consequences of the strategy's proposed policies to ensure they are fully considered and addressed. A post-adoption statement showing how the IIA influenced the final strategy and Equality Impact Assessment report has been published and can be found at: www.london.gov.uk/what-wedo/environment/london-environment-strategy

3.6 As a result of this assessment, environment projects and programmes look to maximise their positive impact on all Londoners through, for example, reducing the health impacts of poor air quality and extreme weather such as extreme heat and flooding events; reducing fuel poverty; maximising energy security while keeping bills down; ensuring the resilience of London's critical infrastructure; and protecting vulnerable communities.

3.7 The design of the policies set out in the LES will benefit all Londoners. However, due to the unequal impacts of climate change on the most vulnerable Londoners, this project's activity is likely to create a positive effect in tackling social and health inequality.

4 Other considerations

a) Key risks and issues

4.1 Delays in undertaking any of the above activities (due to not having budgets and/or contracts in place), could lead to delays in delivery that could have a negative reputational risk on the Mayor. A project steering group (PSG) will be set up to, amongst other things, consistently review the timeline and budget at regular PSG meetings. A risk register will be drawn up to rate and monitor this and other risks and put in place mitigation measures.

b) Links to Mayoral strategies and priorities

4.2 The project links to Mayoral priorities and strategies in the following respects:

- This project has direct links to the priorities of the London Recovery Board and specifically its GND mission, which aims to double the size of London's green economy by 2030 (as set out in sections 1 and 2, above).
- The project has direct links to many of the Mayor's strategies, including the LES and the London Plan. Each of these strategies has been consulted on, and they all have policies aimed at addressing the environmental issues faced in London. A summary of the relevant objectives and policies in those strategies is given below.
- Whilst the focus of the London Plan policy S14, 'Managing Heat Risk', is on new developments, the proposal includes low-energy measures that can mitigate overheating risks, such as solar shading and the use of green infrastructure to shade roof surfaces. Objective 8.4 of the LES states that "London's people and infrastructure are better prepared and more resilient to extreme heat events". The associated proposals include reducing intensification of the UHI effect; and that the Mayor will work to minimising overheating in existing buildings through the Energy for Londoners energy-efficiency programmes.

c) Conflicts of interest

4.3 No officer involved in the drafting or clearance of this form has any conflicts of interest to declare.

5 Financial comments

5.1 Approval is sought for an additional £20,000 expenditure for consultancy relating to the 'Roofs Designed to Cool' project. This expenditure will be funded from the Climate Change Adaptation budget within the Environment Unit.

5.2 This will take the total expenditure approval for the project to £40,000 (with £20,000 previously approved in ADD2488).

5.3 As this is a consultancy project, officers are advised to ensure that the conditions relating to the procurement of consultancy services, as detailed within the Authority's Financial Regulations and the Expenses and Benefits Framework, are adhered to.

5.4 This consultancy project is expected to be completed by 31 March 2022.

6 Planned delivery approach and next steps

Activity	**Timeline**
Procurement of contract	September – October 2021
Announcement	October 2021
Delivery start date	October 2021
Draft reports including a draft of the Delivery Plan	December 2021
Comments collated from key stakeholders on the final report	February 2022
Final evaluation starts and finishes (self/external)	October – March 2022
Delivery end date	March 2022
Project closure: [for project proposals]	March 2022

Appendices and supporting papers
None

Public access to information
Information in this form (Part 1) is subject to the Freedom of Information Act 2000 (FoIA) and will be made available on the GLA website within one working day of approval.
If immediate publication risks compromising the implementation of the decision (for example, to complete a procurement process), it can be deferred until a specific date. Deferral periods should be kept to the shortest length strictly necessary. **Note**: This form (Part 1) will either be published within one working day after it has been approved or on the defer date.

Part 1 – Deferral
Is the publication of Part 1 of this approval to be deferred? NO
If YES, for what reason:

Until what date: (a date is required if deferring)

Part 2 – Sensitive information
Only the facts or advice that would be exempt from disclosure under FoIA should be included in the separate Part 2 form, together with the legal rationale for non-publication.
Is there a part 2 form – NO

ORIGINATING OFFICER DECLARATION:	Drafting officer to confirm the following (✓)
Drafting officer: Annette Figueiredo has drafted this report in accordance with GLA procedures and confirms the following:	✓
Corporate Investment Board This decision was agreed by the Corporate Investment Board on 6 September 2021.	

ASSISTANT DIRECTOR OF FINANCIAL SERVICES
I confirm that financial and legal implications have been appropriately considered in the preparation of this report.

Signature

Date
6 September 2021