

**REQUEST FOR ASSISTANT DIRECTOR DECISION – ADD2356**

**Title: Developing a post construction monitoring platform by extending the GLA's London Building Stock Model**

**Executive Summary:**

Ensuring that the actual energy and carbon performance of buildings is aligned with the estimated energy and carbon performance will be a key factor in achieving a zero carbon London. As such, in line with the 'be seen' element of the new Draft London Plan Sustainable Infrastructure (SI) Policy 2, planning applicants will be required to monitor and report on the energy performance of their developments for at least five years post construction.

The GLA wishes to develop a post construction monitoring platform to collect and display the reported energy performance information from new build developments by extending the GLA/UCL tool (the 'London Building Stock Model' (LBSM)); which is a new web platform that contains data on the energy performance of all existing buildings in London. UCL is at the final stages of developing this tool.

As the purpose of the LBSM is to act as a central database for presenting publicly available energy performance data related to London's existing building stock, and given the considerable resource put into the LBSM, it is proposed that this new platform is used as the basis for the post construction monitoring platform.

Note that a separate ADD (ADD2352 - Implementing the London Plan 'be seen' energy monitoring requirement) has been submitted and approved for supporting consultancy work required during the roll-out of the post construction monitoring project to resolve technical issues.

**Decision:**

That the Assistant Director, Environment approves:

- 1) Expenditure of £39,750 in 19/20 on consultancy services to be provided by UCL to support the development of a post construction monitoring platform using an existing GLA tool (LBSM), for new buildings, thereby supporting planning applicants to meet the London Plan's 'be seen' monitoring requirement; and
- 2) A related exemption from the Contracts and Funding Code to undertake a competitive process in securing a single supplier for reasons outlined in paragraphs 1.10 – 1.11.

**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:** Michelle Cuomo Boorer (on behalf of Luke Bruce)

**Position:** Assistant Director for Skills  
(on behalf of the Interim Assistant  
Director, Environment)

**Signature:**



**Date:** 19 August 2019

## **PART I - NON-CONFIDENTIAL FACTS AND ADVICE**

### **Decision required – supporting report**

#### **1. Introduction and background**

- 1.1. New buildings are a significant source of carbon emissions in London. The Mayor has powers to establish planning policy for new development through the London Plan and a responsibility in scrutinising referable planning applications. It was estimated that in 2015 36% of London's carbon emissions were generated from homes and 40% from workplaces<sup>1</sup>. Reducing carbon emissions from new build will require all new buildings to be built to high standards so they are very energy efficient, maximise the use of renewable energy and waste heat and minimise the need for cooling.
- 1.2. The London Plan currently set outs an energy hierarchy that requires major developments to be zero carbon through a series of steps. The energy hierarchy asks first for increased fabric and energy efficiency ('be lean'), then consideration of low carbon and secondary (waste or environmental) heat sources ('be clean') and finally maximisation of on-site renewable energy generation ('be green').
- 1.3. The new Draft London Plan introduces a fourth step under the existing energy hierarchy, the 'be seen' stage. As part of the policy update, major developments will be required to monitor their energy performance and report to the Mayor for at least five years post construction via an online portal. This will be secured through a legal agreement between the respective local authority and the applicant during the planning determination.
- 1.4. It is widely accepted that a gap exists between the building design stage and the actual building performance and that this will need to be bridged to ensure buildings are operating as efficiently as they are expected to. There is growing concern that buildings currently use as much as 2-5 times<sup>2</sup> the amount of energy they are meant to and this 'performance gap' is undermining the move to zero emission buildings under the Mayor's London Plan policies. Numerous studies (e.g. the Committee on Climate Change's (CCC) UK Housing: Fit for the Future) have also highlighted the importance of closing the performance gap and making actual energy performance data available.
- 1.5. Using post construction monitoring is considered cutting edge practice and London is at the forefront of both national and city led energy policy by securing actual energy performance data. The proposals were welcomed during public examination by both experts, NGOs and industry stakeholders with a range of both small and larger developers supporting the initiative.
- 1.6. To enable the actual energy use and carbon emissions of new developments to be monitored and reported, the GLA intends to develop a post construction monitoring platform which applicants will use to upload their energy data. The monitoring platform will be publicly available to help raise awareness both for developers and occupants on actual energy performance and enable a comparison to design standards.
- 1.7. The policy will apply to developments which submit a planning application after the new London Plan is adopted and will help to ensure developments meet their specified performance, help to improve design methods and inform future GLA policy. The process will require building owners/managers to submit key pieces of information on energy consumption, renewables and heat network efficiencies to ensure compliance with the GLA's zero carbon targets and inform future carbon targets and policy.
- 1.8. In December 2017 the GLA entered into a contract with UCL (under DD2184 - London Building Stock Model) until October 2018 with a value of up to £120,000 for consultancy services to develop a new open-source, pan-London Energy Performance Certificate (EPC) data model (the 'London Building Stock Model' (LBSM)). The tool provides a central database for presenting publicly available energy performance data (or estimates of performance) related to London's existing building stock. The tool is also intended to store carbon and energy data collected through the Mayor's Energy for Londoners

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<sup>1</sup> Association for the Conservation of Energy: Energy Efficiency in London

<sup>2</sup> PROBE studies archive - <http://www.usablebuildings.co.uk/Pages/UBProbePublications1.html> and - Carbon Trust's Closing the Gap Publication - <http://www.carbontrust.co.uk/publications/pages/publicationdetail.aspx?id=ctg047>

programme and associated policies, and act as a single repository for all London's building performance data to inform policies and programmes.

- 1.9. As the purpose of the LBSM is to act as a single repository for building performance data we propose to integrate the two by introducing a new layer to it which will serve as the post-construction monitoring platform. This is cost-effective as it prevents the need to establish an entirely new database and it is in keeping with the original purpose of the LBSM to house all London's building performance data in one place.
- 1.10. The proposed route of procurement is a single source justification to enter into a new contract with UCL to deliver the additional post-construction monitoring layer as part of the LBSM on the grounds that UCL has had previous involvement in a project or is to continue existing work which cannot be separated from the new project/work. Officers acknowledge that section 9 of the GLA's Contracts and Funding Code requires, where the expected value of a contract for services is between £10,000 and £150,000 the services required should be procured competitively or called off from an accessible framework. Section 10 provides however, that an exemption from this requirement may be approved where the proposed contractor has had previous involvement in a project or is to continue existing work which cannot be separated from the new project/work. The contract will be managed by GLA officers and its value has been based on ongoing discussions held with UCL to determine a detailed scope for this work.
- 1.11. Officers, therefore, propose that UCL are contracted to undertake the development of the post-construction monitoring platform (by extending the LBSM) as it represents work that cannot be separated from the recent service they have provided in developing the original LBSM. It is not deemed an effective use of time or resources to procure different contractors to develop a new monitoring platform solely for the implementation of the new London Plan monitoring requirement, and the expertise required is not available in house.
- 1.12. Note that a separate ADD (ADD2352 - Implementing the London Plan 'be seen' energy monitoring requirement) has been submitted and approved for supporting work required during the roll-out of the post construction monitoring project. This separate ADD has been developed to ensure that all developments are monitoring-ready and to identify and resolve technical issues relating to the implementation of the post construction monitoring process. The ADD received approval to pay for consultant services on behalf of the GLA to:
  - prepare a report which will be used internally by the GLA to determine and overcome common monitoring issues; and
  - produce comprehensive and public guidance which will provide support and direction to developers to ensure they comply with GLA policy.

## **2. Objectives and expected outcomes**

- 2.1. The objective of this work is to extend the LBSM GLA/UCL tool to develop an online platform on which we will collect and report on energy performance from new developments as set out in the new Draft London Plan Policy SI2, as part of the 'be seen' monitoring requirement. The primary purpose of this disclosure of energy predictions and energy operational performance data is to help close the performance gap and ensure that buildings perform in line with expectations.
- 2.2. A staged approach has been agreed with UCL with the tasks related to this piece of work including:

### **Part 1: Development of template and preliminary lodgement system (Sep 2019 – Jan 2020)**

- a. Development of draft reporting template - a reporting template will be developed in a spreadsheet or similar generally accessible format to gather the agreed data. This task will include the development of the methods to be used to identify the location of the proposed building development and the extent to which it affects existing buildings.

- b. Test reporting template – a meeting will be held with a small number of developers to review the draft reporting template. Feedback will be obtained in the meeting and for up to seven days after the meeting at which point the consultation will be closed.
- c. Develop Structured Query Language (SQL) database – an SQL database will be developed to hold the data gathered from the reporting templates. The database will provide the link to the LBSM and allow the data to be linked to the correct site location.
- d. Finalise reporting template – the feedback obtained from the developers will be reviewed with the GLA and decisions will be made jointly on the nature and extent of any modifications and/or additions that should be made to the reporting template. The agreed changes will be implemented, and the reporting template finalised.
- e. Minor modifications to LBSM – minor modifications will be made to LBSM to provide a link to a separate landing page where the finalised reporting template can be downloaded and uploaded when complete.
- f. Final reporting template made available – the final reporting template will be made available via the landing page which will be reached by a link from the LBSM.
- g. Feed into the GLA study and monitoring guidance – UCL will have the ongoing task of feeding into the GLA study and monitoring guidance (ADD2352) to ensure consistency. Although the main responsibility of addressing technical concerns will lie with the consultant appointed to develop the guidance, UCL will be required to feed in to the guidance to provide coherence between guidance and the platform as well as valuable experience on resolving technical issues.
- h. Start receiving completed reporting templates – once reporting templates start to be submitted UCL will provide support to the extent set out in the resource plan to address issues that arise from these submissions.

#### Part 2: Development of an integrated lodgement and reporting system (Jan 2020 – Jun 2020)

- a. LBSM integration – a method will be developed to incorporate and present the new developments and monitoring data on LBSM
- b. Test LBSM integration – the LBSM will include the energy performance and related data and will be presented to GLA/developers for feedback
- c. Finalise LBSM integration – any feedback will be incorporated and agreed changes will be made to the LBSM
- d. Launch integrated system – the online lodgement system on LBSM will be developed and launched

#### 2.3. The expected outcomes are:

- Effective implementation of the ‘be seen’ policy through the development of the post-construction monitoring platform.
- Public disclosure of energy performance data of new developments in London.
- A better understanding of the performance gap in London to help inform future policy.
- Increased responsibility among developers and building owners of the need to ensure buildings perform as they were intended to, leading to lower emissions and energy consumption.

### 3. Equality comments

- 3.1. Under section 149 of the Equality Act 2010, as public authorities, the Mayor and the GLA are subject to a public-sector equality duty and must have 'due regard' to the need to (i) eliminate unlawful discrimination, harassment and victimisation; (ii) advance equality of opportunity between people who share a relevant protected characteristic and those who do not; and (iii) foster good relations between people who share a relevant protected characteristic and those who do not. Protected characteristics under section 149 of the Equality Act are age, disability, gender re-assignment, pregnancy and maternity, race, religion or belief, sex, sexual orientation, and marriage or civil partnership status.
- 3.2. The equality impacts have been considered while developing the ADD, and it is not anticipated that the policy will have a bigger impact or unequal outcomes on certain groups. It is intended to capture real life energy usage data to help raise awareness both for developers and occupants on actual energy performance and enable a comparison to design standards. As such, this is an inclusive policy which will apply to all new developments referable to the GLA with a platform which will also be made publicly available so that everyone can have access.
- 3.3. We, therefore, do not expect the policy to create any disadvantage to people with different protected characteristics.
- 3.4. Where this activity highlights issues where there may be a disproportionate effect on groups with protected characteristics, the GLA will address them to ensure compliance with its duty under the 2010 Equality Act.

### 4. Other considerations

#### 4.1. Key risks and issues

Risk/Issue and Likelihood	Impacts and Mitigating actions	R/A/G
1. Platform not completed in time to align with adoption of LP policy. The likelihood of this happening is moderate.	<ul style="list-style-type: none"><li>• This could lead to the London Plan being published without the supporting tools being available.</li><li>• To mitigate against the platform being ready in time, a manual approach will be developed first to ensure a method of data reporting is available and stakeholders are clear on the information the GLA will be gathering.</li><li>• A specific number of days has been allocated to each task to ensure the work is completed in time, with sufficient time for feedback and review, based on previous experience of this type of research project and the nature of the work required.</li><li>• Any slippage will be reviewed through fortnightly officer catch ups with UCL and bi-monthly meetings with a manager from both sides to ensure the project timeline is being kept to.</li></ul>	

<p>2. Budget is insufficient to complete the development of the platform. The likelihood of this happening is low.</p>	<ul style="list-style-type: none"> <li>• This could cause delays until an extension of the contract is agreed.</li> <li>• Following extensive discussions, we have provided a clear scope of works to UCL who have confirmed the associated costs of developing the manual and online approaches. UCL's experience of developing similar platforms, the LBSM, the Carbon Buzz and the Colouring London platform provide confidence in the scope and costs provided.</li> <li>• Fortnightly catch-ups with UCL to ensure spend is on track.</li> </ul>	
<p>3. Loss of knowledge relating to the LBSM which will impact on the additional work required. The likelihood of this happening is low.</p>	<ul style="list-style-type: none"> <li>• This may have an impact on the additional work required to develop the platform.</li> <li>• UCL have confirmed that the consultants involved in the development of the LBSM will be available to finalise the additional pieces of work.</li> </ul>	
<p>4. Developing a platform that is difficult for applicants to understand and use. The likelihood of this happening is low.</p>	<ul style="list-style-type: none"> <li>• This may lead to the platform being underutilised and receiving bad feedback which may cause bad reputation for the GLA.</li> <li>• Extensive engagement with developers and other working groups will ensure that the methodology will be trailed and tested before formal issue and adoption. All comments during the trial period will be considered.</li> </ul>	

- 4.2. This work links to the Mayor's Environment Strategy which sets out the ambition for London to be zero carbon by 2050 and enables the implementation of the new draft London Plan energy policies that will help ensure new build plays its role in meeting the zero carbon target.
- 4.3. This work is expected to involve the processing of energy performance data from residential buildings and has been discussed with the Information Governance Team. To ensure the GLA complies with the GDPR, data will be held and processes at an aggregated level: the energy data will be per Class Use (i.e. area weighted energy data for all residential uses within a development rather than individual data per dwelling).

## 5. Financial comments

- 5.1. Assistant Director's approval is sought for the expenditure of £39,750 on consultation services to support the London Plan.
- 5.2. This will be funded from the Zero Carbon Policy Team's 2019-20 budget.

## 6. Legal comments

- 6.1. The decisions requested of the Assistant Director (in accordance with the GLA's Contracts and Funding Code) concern the exercise of the GLA's general powers, falling within the GLA's statutory powers to do such things considered to further or which are facilitative of, conducive or incidental to the promotion of economic development and wealth creation, social development or the promotion of the improvement of the environment in Greater London; and in formulating the proposals in respect of which a decision is sought officers have complied with the Authority's related statutory duties to:
- pay due regard to the principle that there should be equality of opportunity for all people;
  - consider how the proposals will promote the improvement of health of persons, health inequalities between persons and to contribute towards the achievement of sustainable development in the United Kingdom; and
  - consult with appropriate bodies.
- 6.2. In taking the decisions requested, the Assistant Director must have due regard to the Public Sector Equality Duty; namely the need to eliminate discrimination, harassment, victimisation and any other conduct prohibited by the Equality Act 2010 and to advance equality of opportunity and foster good relations between persons who share a relevant protected characteristic (race, disability, gender, age, sexual orientation, religion or belief, pregnancy and maternity and gender reassignment) and persons who do not share it (section 149 of the Equality Act 2010). To this end, the Assistant Director should have particular regard to section 3 (above) of this report.
- 6.3. Officers should ensure that the services be procured by Transport for London Procurement who will determine the detail of the procurement strategy to be adopted in accordance with the GLA's Contracts and Funding Code. Officers must ensure that appropriate contract documentation is put in place and executed by the successful bidder(s) and the GLA before the commencement of the services.
- 6.4. Section 9 of the Contracts and Funding Code (the 'Code') requires the GLA to seek a call-off from a suitable framework, where possible, or if not, undertake a formal tender process which will be managed by TfL in respect of the services. However, the director may approve an exemption from this requirement under section 10 of the Code upon certain specified grounds. One of those grounds is that contractor has had previous involvement in a project or is to continue existing work which cannot be separated from the new project/work. Officers have indicated at paragraph 1.10 -1.11 of this report that this ground applies and that the proposed contracts affords value for money.
- 6.5. On this basis the Assistant Director may approve the proposed exemption if satisfied with the content of this report.

## 7. Planned delivery approach and next steps

Activity	Timeline
Agree contract terms and conditions	August 2019
Kick-off meeting	September 2019
Development of draft reporting template and SQL database	Sep - Nov 2019
Finalise reporting template, link and launch with LBSM	December 2019
Develop online lodgement system in LBSM and test it	Jan – Mar 2020
Finalise and launch LBSM post construction monitoring platform	Apr – Jun 2020

### 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:**

Ioanna Mytilinaiou 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 19 August 2019.

**ASSISTANT DIRECTOR OF FINANCE AND GOVERNANCE:**

I confirm that financial and legal implications have been appropriately considered in the preparation of this report.

**Signature**



**Date**

19.08.19