

REQUEST FOR ASSISTANT DIRECTOR DECISION – ADD2363

Title: London Plan – whole life-cycle carbon assessments

Executive Summary:

The London Plan carbon reduction targets are based on reductions in operational emissions, i.e. those associated with energy used for heating and hot water on-site when the building is occupied. These emissions will make up a declining proportion of a building's lifetime carbon footprint as building standards are tightened and technical solutions leading to higher on-site carbon savings become cheaper. The embodied carbon from on-site construction and those embedded in the materials used will make up a growing proportion of a new development's carbon emissions in future. These are not currently measured.

The new draft London Plan introduces a requirement for all new referable development to calculate and reduce whole life-cycle carbon (WLC), i.e. both their operational and embodied emissions.

This ADD seeks approval to pay for services on behalf of the GLA to:

- Prepare an internal report detailing the WLC assessment methodologies which exist, examples of best practice and advice on reviewing these assessments when they are submitted to inform internal processes; and
- Support the development of published guidance for planning applicants which will provide support and direction to ensure they comply with the policy.

Decision:

That the Assistant Director, Environment approves

Expenditure of up to £24,000 on consultancy services to support the development of a report for the GLA's internal use to support the implementation of the London Plan WLC policy.

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 workplaces¹. 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. Operational emissions (i.e. those associated with energy use during a building's lifetime) will make up a declining proportion of a building's carbon footprint as standards are tightened and technical solutions leading to higher on-site carbon savings become more commonplace and cheaper. Currently national building regulations only account for operational emissions and do not require the embodied carbon from construction to be calculated or reduced. These emissions will become more significant as operational emissions decline and research shows that they can make up more than half the total carbon footprint of a development.
- 1.3. To fully capture a development's carbon impact, a whole life-cycle (WLC) approach is needed to capture its unregulated emissions (i.e. those associated with cooking and small appliances), its embodied emissions (i.e. those associated with raw material extraction, manufacture and transport of building materials, and construction) and emissions associated with maintenance and eventual material disposal).
- 1.4. The government's Technology Strategy Board (now Innovate UK) has estimated that about 45 per cent of WLC emissions in the UK come from buildings – 27 per cent from domestic buildings and 18 per cent from non-domestic buildings. In London the carbon emissions from construction account for around 5 MtCO₂e per year, equivalent to 6 per cent of its embodied emissions.² The recent report by the Committee Climate Change (UK housing: fit for the future?) states that we need more focus on whole-life carbon impact of new homes, including embodied carbon and that addressing this is an important part of net zero carbon targets.
- 1.5. To reflect these concerns, the new draft London Plan introduces a requirement for all new development proposals referable to the Mayor to calculate and reduce WLC carbon, i.e. their operational and embodied emissions. This is a relatively new area of carbon reporting and while methodologies and guidance exist, to successfully implement the policy the GLA needs to provide guidance for developers on how to calculate these emissions, which methodologies may be used, and what best practice looks like.
- 1.6. Whole life-cycle carbon assessment is considered cutting edge practice and London is at the forefront of both international, national and city led energy policy by introducing this new requirement. The WLC requirement in the new draft London Plan has received support from experts, NGOs and industry stakeholders with a range of developers supporting the initiative.
- 1.7. To inform the implementation of the new WLC policy, industry expertise has been gathered through a series of roundtable discussions and key industry stakeholder meetings to get insight into current practice and possible approaches. GLA officers have engaged with developers, housing associations and international networks to get their views on the best approach and any issues that might arise. Whilst the overall approach has been welcomed, there are a number of areas where further research

¹ Association for the Conservation of Energy: Energy Efficiency in London

² Application of PAS 2070 – An assessment of greenhouse gas emissions of a city

and clarity is required to determine exactly what information planning applicants will need to provide and how the GLA will review and assess this aspect of the policy.

- 1.8. The proposed study will provide options and analysis of suitable existing methodologies, including their relevance and appropriateness for London, key information that should be provided in energy strategies and a review of how the GLA should assess these assessments. This will facilitate a smooth roll-out of the policy by providing clear guidance to developers in how to comply with the policy, and establishing a clear process for GLA officers and boroughs.
- 1.9. The value of the contract is based on previous work undertaken to help inform and provide guidance on London Plan policy:
 - London Carbon Offset Price (AECOM, Jun 2017)
 - The Future Role of the London Plan in the Delivery of Area-Wide District Heating - final report (Buro Happold, Jun 2017)
 - The Future Role of the London Plan in Delivery of Area-Wide District Heating - executive summary (Buro Happold, Jun 2017)
 - Driving Energy Efficiency Savings Through the London Plan - data analysis report (Buro Happold, Aug 2017)
 - Driving Energy Efficiency Savings Through the London Plan - summary report (Buro Happold, Aug 2017)
 - AECOM - GLA energy efficiency target - development case studies (AECOM, Nov 2017)
- 1.10. While the GLA has in-house expertise on reducing and monitoring operational emissions; we do not have the same level of expertise with respect to whole life-cycle carbon emissions. There is a need for expertise in calculating and reducing WLC emissions in order to finalise the technical requirements of the policy's implementation and the best practice guidance. External consultancy support is therefore needed to complete the final stages of the work.
- 1.11. Given the value of the contract (£24K) the procurement will be managed by GLA officers following TfL Commercial team guidance. In line with procurement guidance we will invite 3-4 organisations to tender who have the expertise and experience to undertake the work.
- 1.12. This ADD is for the implementation of a distinct area of the new London Plan energy policies. The two recent ADDs (ADD 2353 for £24,000 and ADD 2356 for £39,750) on post-construction monitoring are also to support implementation of the new London Plan energy policies but the work being undertaken via these ADDs does not have a direct link to this ADD.

2. Objectives and expected outcomes

- 2.1. The objective of this work is to inform GLA's guidance and processes in implementing the whole life-cycle carbon policy requirement in the draft London Plan (policy SI2). Specifically, it should:
 - establish which methodologies planning applicants could use to calculate whole life-cycle carbon emissions, how many assessments should be carried out and at which point in the planning process;
 - inform GLA processes for reviewing whole life-cycle carbon assessments including which pieces of information should be included in energy strategies, how these will be assessed by energy officers and areas of the assessment with the biggest impacts with energy officers should be particularly focussed on;
 - provide an overview of best practice solutions for reducing whole life-cycle carbon emissions with case studies, including capital cost, cost savings (in terms of building construction and operation) and international examples, together with their appropriateness for London;

- draw together available evidence on potential whole life-cycle carbon benchmarks for typical building types;
- support the development of published guidance for planning applicants on complying with the policy; and
- provide support to the GLA to update all available planning tools (e.g. Energy Assessment Guidance, internal processes) to align with the new WLC policy.

2.2. The expected outcomes are:

- Effective implementation of the WLC policy.
- Compliance with the WLC policy as planning applicants understand the requirements.
- A better understanding of the WLC emissions associated with new development in London to help inform future policy and targets.
- Increased responsibility among developers and building owners of the need to calculate their total carbon impact leading to lower emissions from new construction.
- The development of in-house expertise on WLC emissions to inform future national policy.

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 WLC policy requires a comprehensive carbon assessment of all major referable development to reduce London's carbon emissions from the construction sector. Equality impacts have been considered while developing this ADD and it is not anticipated that the policy will have a greater impact or unequal outcomes on certain groups or protected characteristics. The contract requires the consultant to undertake desktop research and stakeholder engagement to inform London Plan policy implementation. 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

a) Key risks and issues

Risk/issue and Likelihood	Impacts and mitigating actions	R/A/G
<p>1. Consultants are unable to meet the deadline for the report and guidance submission in time for the London Plan adoption. The likelihood of this is low.</p>	<ul style="list-style-type: none"> • This could lead to the London Plan being published without an important piece of guidance being available and planning applicants being unable to comply with it. • There will be regular meetings and engagement with the consultants to monitor progress • There will be an agreed project plan. • We will be allowing for some contingency in the proposed timescales with an end date a month before the London Plan adoption date. 	G
<p>2. Allocated budget is not sufficient to complete the work. The likelihood of this is low.</p>	<ul style="list-style-type: none"> • This would lead to an insufficient piece of work being developed with a reputational impact for the GLA, or delays while an extension is agreed. • The budget is based on experience of previous, similar work. • Tender submissions will be reviewed closely to ensure the scope is sufficiently covered within the allocated budget. • At the kick-off meeting the agreed outputs will be confirmed with the consultant • Regular meetings held with appointed consultant to ensure project costs are kept within budget. 	G
<p>3. Developers either cannot or choose not to engage in our stakeholder meeting, limiting the feedback we receive. The likelihood of this is low.</p>	<ul style="list-style-type: none"> • This would affect the quality of the outputs. • We will ensure a wide range of developers are invited. • We will engage early on potential dates for the meeting to ensure attendance with a clear agenda so that developers understand the input required from them and why it is important. • We will share drafts of the emerging guidance before the meeting so that developers can engage meaningfully. 	G

4.1. This work links the Mayor's Environment Strategy, new draft London Plan energy policies and the ambition for London to be zero carbon by 2050.

5. Financial comments

- 5.1. Assistant Director's approval is sought for the expenditure of up to £24,000 on consultation services to support the London Plan WLC policy.
- 5.2. This will be funded from the Zero Carbon Policy Team's 2019-20 budget.

6. Planned delivery approach and next steps

Activity	Timeline
Publish invitation to tender	w/c 26 Aug 2019
Award contract	Oct 2019
Inception meeting	Oct 2019
Draft report	Oct-Nov 2019
Stakeholder meeting	Nov 2019
Review meeting	End November 2019
Final study and guidance produced	Jan 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:

Anne-Marie Robinson has drafted this report in accordance with GLA procedures and confirms the following:

✓

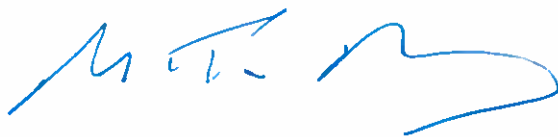
Corporate Investment Board

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

