

REQUEST FOR ASSISTANT DIRECTOR DECISION – ADD2693

Specialist environmental consultancy support to undertake a review of the Mayor's Emissions Performance Standard and Carbon Intensity Floor measures

Executive summary:

The GLA Waste and Circular Economy team requires specialist environmental consultancy support to conduct a review of performance against the Mayor's Emissions Performance Standard (EPS) and Carbon Intensity Floor (CIF) measures. These were set in the London Environment Strategy (LES) as a way to reduce, over time, carbon emissions associated with the management of local authority-collected waste. The consultancy support will include:

- conducting a review of the EPS 'ready reckoner' greenhouse gas-modelling tool, to identify existing gaps and limitations; and develop recommendations for how the tool can be updated to address these, and be as simple to use as possible
- undertaking research on the CIF to understand how London's waste-incinerator operators are performing against the Mayor's LES target; and determining whether a refreshed/rebased CIF figure should be formulated to continue driving performance in this area.

Decision:

That the Assistant Director of Environment and Energy approves expenditure of up to £24,999 from the Waste and Circular Economy team's 2023-24 budget, to fund consultancy support to review the Mayor's Emissions Performance Standard and Carbon Intensity Floor measures.

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: Catherine Barber

Position: Assistant Director,
Environment and Energy

Signature:



Date:

18/12/2023

PART I – NON-CONFIDENTIAL FACTS AND ADVICE

Decision required – supporting report

1. Introduction and background

EPS

- 1.1. The Mayor wants to achieve significant CO₂-equivalent (CO₂eq) emission savings from the management of all London's municipal waste – particularly waste that currently goes to landfill or incineration. This means reusing, recycling, composting or generating renewable energy from as much waste as practicable; avoiding the emissions associated with manufacturing from virgin material; and generating energy using fossil fuels.
- 1.2. To support this, the Mayor has developed a CO₂eq emission performance standard (EPS) for London's municipal waste-management activities. This approach supports waste activities and services that reduce the amount of municipal waste produced; and captures the greatest number and highest quality of materials for reuse, recycling or composting, and low-carbon energy generation.
- 1.3. The EPS measures greenhouse gases (GHG) released from London's local authority waste-management activities (CO₂eq emissions per tonne of waste managed); and aims to achieve significant CO₂ emission savings from the management of London's local authority collected waste (LACW). It focuses on treatment of waste, with an emphasis on recovering materials that deliver greater CO₂ reductions.
- 1.4. The EPS uses a life cycle methodology. It considers CO₂eq emissions produced in making a material through to its final disposal; and it also considers CO₂eq emissions avoided from using recycled materials rather than manufacturing from virgin materials. Achieving the EPS will ensure London's municipal waste management shifts from being a net contributor to climate change, to an industry that plays an integral role in achieving significant climate-change mitigation and energy-saving benefits.
- 1.5. The original GHG EPS was published in July 2011, along with the Mayor of London's Municipal Waste Management Strategy. The original forecasts were developed based on several key datasets – including some (such as the national composition dataset) dating from 2006-07. The GLA revised the EPS tool in 2017 to update GHG metrics; and assess emissions associated with the collection, treatment, energy generation and final disposal of London's LACW ahead of the publication of the Mayor's London Environment Strategy (LES) in 2018.
- 1.6. The London-wide EPS targets published within the Mayor's LES are:
 - -0.069 tonnes CO₂eq per tonne of waste managed by 2020-21
 - -0.084 tonnes CO₂eq per tonne of waste managed by 2024-25
 - -0.167 tonnes CO₂eq per tonne of waste managed by 2030-31.
- 1.7. The GLA previously procured consultants to produce annual reports on its behalf to show the EPS performance of London's LACW activities against the Mayor's LES targets (see 1.6 above). This arrangement ran out of contract in 2021, with the last report on data from 2019-20.
- 1.8. A 'ready reckoner' GHG waste modelling tool was developed in 2017, when the EPS metric was updated. The 'ready reckoner' model is a GHG calculator that allows local authorities to measure and review the carbon performance of their waste activities alongside EPS targets. It has been used by borough officers in the setting of EPS performance targets within borough Reduction and Recycling Plans (RRPs). The tool used for the 2023-25 RRP updates was the same tool, with the same methodology and limitations, as the one used in the first RRP update in 2018.
- 1.9. The use of the EPS 'ready reckoner' GHG modelling tool to project RRP baseline and target figures has anecdotally been unpopular with borough officers. It is seen as overly complex, whilst the model

itself has limitations that are making it increasingly unfit for purpose. For example, the model cannot currently factor in the environmental benefits resulting from the use of electric refuse vehicles for collection of waste, and data entry is complex. This is particularly important as some boroughs use the EPS 'ready reckoner' GHG modelling tool as their primary tool for measuring carbon-emissions progress against their RRP targets.

- 1.10. There is a subsequent need for the EPS 'ready reckoner' GHG modelling tool to be critically reviewed, to indicate whether a more comprehensive update/refresh of the model should be undertaken in the future. This will ensure boroughs' confidence in their ability to monitor the carbon impacts of their waste-management activities within their scope, and with reasonable accuracy, beyond 2025 (note: the current model has been used in the RRP process to set targets up to the end of March 2025).

CIF

- 1.11. The CIF has been developed by the Mayor to help decarbonise London's energy sector by ensuring clean and efficient local energy generation from London's non-recycled waste.

- 1.12. The LES defines the CIF as:

"The CO₂e emissions performance level set for electricity generated from London's municipal waste to achieve. The carbon intensity floor has been set at the level whereby any electricity generated from London's municipal waste is to be no more polluting in carbon terms than the electricity source it replaces. The carbon intensity floor sits within the Emissions Performance Standard that has been set for London's activities associated with the collection, treatment and final disposal of London's municipal waste to achieve."

- 1.13. The Mayor set waste authorities a target CIF level of 400 grams of CO₂ per kWh for electricity produced from LACW until at least 2025. However, this target, as well London's waste incinerator CIF performance, needs to be evaluated. See section two for more information.

2. Objectives and expected outcomes

Overview of requirements

- 2.1. The GLA is seeking specialist environmental consultancy support to conduct a review of the Mayor's EPS and CIF measures.
- 2.2. The contractor will be required to review the EPS 'ready reckoner' GHG modelling tool, and conduct stakeholder engagement. In doing so, the contractor will identify the model's current limitations, and the emerging technologies (such as carbon capture and storage (CCS)) that need to be incorporated into the model.
- 2.3. The contractor will also be required to conduct research on the CIF to understand: how London's waste incinerators perform against the CIF target, compared to when this was previously undertaken before the publication of the LES; and how London's incinerators are progressing towards operating in combined heat and power mode. The contractor will determine whether a refreshed/rebased CIF figure should be formulated to continue to drive performance in this area.

Critical review of the EPS 'ready reckoner' GHG modelling tool

- 2.4. The consultant will be required to review the EPS 'ready reckoner' GHG modelling tool, to identify current limitations and how these can be rectified. This will include reviewing emissions factors used since the last rebase in 2017; assessing whether these need updating; and addressing feedback raised through engagement sessions with boroughs who have used the tool. The consultant will also produce recommendations on how a future iteration of the tool could be simpler to use.
- 2.5. The contractor will be required to undertake stakeholder engagement with relevant borough and waste disposal authority officers (to be facilitated by the GLA). This will ensure that the model can accurately take account of borough and disposal authority waste and recycling activities; and inform

improvements based on limitations in the existing tool. At present, not everything that reduces GHG emissions can be modelled within the tool. For example, collection vehicle-related emissions are fixed per tonne of waste collected; this does not account for changes in fleet efficiency; mileage; or the introduction of electric vehicles or other fuels (such as biofuel). The tool should also be able to take into account potential use of CCS at incinerators, which is an emerging area.

- 2.6. The GLA will look to use these outputs to update the model under a separate, future procurement. This will enable boroughs' use from April 2025 onwards, as they have recently used the existing tool in setting targets for April 2025 in their RRP.
- 2.7. The GLA will also request bidders to review the suitability of the EPS targets within the LES to ensure they continue to drive performance; and to conduct research into other options available for measuring the carbon performance of collected waste (i.e. alternatives to the EPS that may be being used by other public-sector organisations).

CIF research

- 2.8. There is currently a knowledge gap around how the operators of London's incinerators are performing in relation to the LES target CIF level of 400 grams of CO₂ per kWh of electricity produced from LACW. The GLA requires this target, as well as currently available incineration techniques and technologies, to be reviewed by the contractor.
- 2.9. The contractor will be required to conduct research for the following purposes:
 - To understand how London's waste incinerators perform against the CIF, compared to when this was last done before the publication of the LES. At this time, there was a performance of around 700 grams per kWh. This research will also enable the contractor to determine an updated baseline performance of London's current energy-from-waste (EfW) facilities – including the carbon intensity of the feedstock and of the energy generated per kWh.
 - To review what the CIF target should be, to continue to drive performance; or whether the target CIF level of 400 grams of CO₂ per kWh of electricity produced from LACW should be retained. This is in the context of updated government guidance on the grid mix energy generation and marginal source energy generation being lower than when the LES was published. This means EfW plants may not be able to meet this going forwards. It should be noted that the LES states the CIF will be reviewed in 2025, or earlier where appropriate, once London's heat networks and demand are better understood, with a view to tightening it to around 300 grams per kWh of electricity produced.
 - To understand how London's incinerators are progressing towards operating in combined heat and power mode that could potentially meet the CIF with the optimal design specification. When the LES was drafted, all London's incinerators were expected to be ready for heat off take by 2025. However, plans for end users have not been fully developed.
 - To understand how London's incinerators (and waste disposal authorities, as applicable) are demonstrating steps towards compliance with the CIF, by:
 - reaching high recycling rates, including for plastics, metals and textiles
 - undertaking pre-treatment to remove recyclable materials from the residual waste stream
 - using energy-generation facilities generating both heat and power
 - using waste-derived fuels and other low-CO₂ transport options
 - ongoing reductions in the amount of high-carbon materials sent for incineration or gasification that could be recycled
 - activities resulting in investment in technology or infrastructure improving the overall efficiency of the facility to meet the CIF

- supporting rollout of existing energy master plans to help connect heat infrastructure to local developments.

Relevant previous approvals

2.10. The table below summarises historic EPS and CIF update and rebase approval.

Decision	Procurement title	Financial year	Cost	Comments
MD1640	Life cycle GHG performance modelling for municipal waste-management activities	2016-17	Around £35k	This exercise was for an update and rebase of the EPS 'ready reckoner' GHG modelling tool and CIF targets prior to publication of the LES. The initial modelling work was procured in 2010.

3. Equality comments

- 3.1. Under section 149 of the Equality Act 2010, in considering whether to grant this approval, due regard must be had to the need to eliminate unlawful discrimination, harassment and victimisation; and to advance equality of opportunity, and foster good relations, between people who have a protected characteristic and those who do not. Protected characteristics include age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, gender, sex, and sexual orientation (and marriage or civil partnership status for the purpose of the duty to eliminate unlawful discrimination only).
- 3.2. This duty has been taken into account. The Mayor wishes to support the development of his EPS and CIF measures in order for them to contribute to the waste and circular economy objectives of his LES, which has been the subject of public consultation. No other equalities issues have been identified having regard to the nature of the proposals.
- 3.3. The GLA will include information on equality, diversity and inclusion (EDI) requirements in the invitation to tender; and request that tenderers provide evidence of how they incorporate EDI considerations into their working practices within their tenders. Tenderers will be expected to be capable of analysing the equalities impacts of policy and plans, making recommendations accordingly.

4. Other considerations

Procurement

- 4.1. Approval is sought for expenditure of up to £24,999 to fund this work package to be delivered by the successful contractor. As the value of this work will be below the £25,000 threshold, GLA officers will lead on the procurement exercise via a competitive tendering procedure. A request for quotation will be issued to suppliers, and it is anticipated that three or more written quotes from suitable suppliers will be returned to ensure value for money is achieved. Work in this area is specialist and technical, which is why expert consultancy is required. Subject to approval, the consultancy support will be procured and delivered before 31 March 2024.
- 4.2. The procurement approach is in accordance with the GLA Contract and Funding Code.

Key risks and issues

- 4.3. Identified risks and proposed mitigations are included in the table below:

#	Risk	RAG	Mitigation
1	Time pressures to procure consultants; and for them to deliver outputs. This may be due to, for example, delays caused by the Christmas break, or resource constraints.		<p>Progression of this project (e.g. via the Decision process and procurement) will be the lead officer's main work priority until April 2024.</p> <p>As the expected value is less than £25,000, GLA officers will manage the procurement directly and will not depend on TfL to manage the process. This may lead to a quicker procurement and contract-award process, allowing the contractor more time to deliver required outputs.</p>
2	London's waste incinerator operators may be unwilling to engage with the supplier on their performance and steps taken towards reaching the CIF.		GLA officers will facilitate where possible – for example, through writing requests on behalf of the Deputy Mayor for Energy and Environment to operators and waste disposal authorities, and bringing in LES context.
3	Lack of bidders willing to submit tenders/undertake work.		<p>Several specialist environmental consultancies will be contacted directly and asked to provide written tender responses.</p> <p>Timeframes will be made clear through the procurement process.</p>
4	Bidders return tenders with prices over the £25k budget.		GLA officers have developed a scope of work that is realistic about requirements, therefore prices are expected to be well within £25k budget envelope.
5	EPS unpopularity with boroughs may mean they are unwilling to take part in stakeholder engagement.		GLA officers will facilitate where possible – for example through drafting requests on behalf of the Deputy Mayor for Environment and Energy.

Links to Mayoral strategies and priorities

- 4.4. The LES contains strategies aimed at promoting waste reduction; increasing recycling; reducing the climate-change impact of waste management; and supporting the transition to a low-carbon circular economy. Details of relevant policies are included in section 2, above.

Consultations and impact assessments, including data protection (as per the GLA's requirements under GDPR), health and safeguarding where relevant

- 4.5. The EPS and CIF measures relate to policies and proposals included within the Mayor's LES, which was the subject of public consultation before it was published in 2018.

Conflicts of interest

- 4.6. There are no conflicts of interest to declare for any of the officers involved in the drafting or clearance of this decision form.

5. Financial comments

- 5.1. Approval is requested for expenditure of up to £24,999 from the Waste and Circular Economy team's 2023-24 budget, within the Environment Unit, to fund consultancy support to review the Mayor's EPS and CIF measures.

5.2. All expenditure will incurred by 31 March 2024.

6. Planned delivery approach and next steps

6.1. The project will be delivered according to the timetable outlined below.

Activity	Timeline
Procurement of contract	January 2024
Announcement	Early February 2024
Delivery Start Date	Early February 2024
Main milestones	End of March 2024
Final evaluation start and finish (self)	End of March 2024
Delivery End Date	End of March 2024
Project Closure	April 2024

Appendices and supporting papers:

Appendix 1: [Measuring the carbon impact of London's waste; reviewing the Mayor's 'Emissions Performance Standard' and 'Carbon Intensity Floor' measures and the required next steps – Internal Briefing](#)

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 be published either 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? YES

If YES, for what reason: Publication of this decision to be deferred on the grounds that publishing the budget may prevent us from receiving best-value tenders through the procurement process. The intention is to defer publication until after the procurement process has concluded, and the contract has been awarded. This has been set as 30 June 2024 to factor in any potential delays to the procurement process.

Until what date: 30 June 2024

Part 2 – Sensitive information

Only the facts or advice that would be exempt from disclosure under the 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:

Sam Davies has drafted this report in accordance with GLA procedures and confirms the following:

✓

Corporate Investment Board

A summary of this decision was reviewed by the Corporate Investment Board on 18 December 2023.

✓

ASSISTANT DIRECTOR FINANCIAL SERVICES:

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

Signature:

Anna Eastcott

Date:

19/12/2023