

REQUEST FOR DIRECTOR DECISION – DD2538

Title: Net Zero Modelling Update

Executive Summary:

In 2017-18, Element Energy undertook extensive modelling on behalf of the GLA to understand the policies and actions that would need to be taken to meet the Mayor's target of net zero greenhouse gas (GHG) emissions in London by 2050.

In 2020, in recognition of the climate emergency, the Mayor committed to making London net zero by 2030. Whilst the Mayor's 1.5C compatible Climate Action Plan (which targets limiting global temperature rise to 1.5C above pre-industrial levels) and his Mayoral strategies already include many policies and programmes to achieve faster action by 2030, an update to the original modelling will further support the development of a 2030 net zero implementation pathway. This modelling revision is part of the regular assessment process and will allow the GLA to modify the zero carbon pathways tool to align it to the 2030 target, while assessing the jobs potential and costs of delivery. This update will be shared with the London boroughs and others to inform their plans.

The Mayor's net zero target is central to a green and fair recovery and a key element of London's Green New Deal mission. This work will underpin our understanding of the policies required to support a green recovery from the pandemic and will help to identify the type and scale of jobs as well as the scale of investment needed to deliver on this target.

Decision:

That the Executive Director of Good Growth approves:

1. Expenditure of up to £65,000 for consultancy support from Element Energy to update the existing 2050 net zero carbon pathway model to support the new 2030 target.
2. A related exemption from the requirements of the GLA's Contracts and Funding Code to procure such services competitively.

AUTHORISING DIRECTOR

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: Philip Graham

Position: Executive Director, Good Growth

Signature:



Date:

9 June 2021

PART I - NON-CONFIDENTIAL FACTS AND ADVICE

Decision required – supporting report

1. Introduction and background

- 1.1. In 2017-18, Element Energy undertook extensive “net zero Carbon modelling” on behalf of the GLA, as part of the development of the London Environment Strategy (published in May 2018). This was used to inform the policies and actions that would need to be taken to meet the Mayor’s target at that time of net zero greenhouse gas (GHG) emissions in London by 2050. This underlying evidence base and the Mayor’s 1.5°C compatible climate action plan were published in December 2018.
- 1.2. In recognition of the increasing severity of the climate crisis, the Mayor declared a Climate Emergency in December 2018, and in February 2020 set an increased level of ambition for London to be net zero GHG emissions by 2030. The 2030 target has been reconfirmed by the Mayor’s 2021 Manifesto.
- 1.3. There is a very clear rationale for accelerating climate change mitigation action in London. The Intergovernmental panel on climate change has been clear that in order to have a 50 per cent chance of keeping global temperature rise to 1.5 degrees Celsius above pre-industrial levels by 2050, the world will need to make significant progress in reducing its emissions by 2030. Not only nation states but their cities as well have a very important role to play in tackling emissions. London also recognises its responsibility, as a global city, to lead by example and set ambitious targets to drive rapid action to reduce emissions and minimise its contribution to global climate change.
- 1.4. Accelerating climate action is central to London’s green and fair recovery and a key part of the Green New Deal Mission. This work will provide a valuable contribution to the four objectives of the Green New Deal:
 - It will support the development of an updated pathway for tackling the climate emergency.
 - It will help identify the level of investment and the type and scale of jobs that will be needed to meet the target whilst delivering a fair transition for all Londoners (e.g. providing widespread access to the skills and other support needed to transition from potentially high carbon to lower carbon jobs) and enabling the required growth in London’s green economy.
 - It can be used to engage key stakeholders, Londoners and businesses, in the journey to becoming a net zero emission city.
 - It can be used to support and target interventions that reduce health inequalities and social injustices.
- 1.5. However, bringing forward the target by 20 years will require a more rapid rate of decarbonisation across the city. Whilst the Mayor’s 1.5C compatible Climate Action Plan (which targets limiting global temperature rise to 1.5C above pre-industrial levels) and his Mayoral strategies already include many policies and programmes to achieve faster action by 2030, an update to the original modelling will further support the development of a 2030 net zero implementation pathway. This modelling revision is part of the regular assessment process and will allow the GLA to modify the zero carbon pathways tool to align it to the 2030 target, while assessing the jobs potential and costs of delivery.
- 1.6. The GLA is therefore proposing to spend up to £65,000 on consultancy services from Element Energy, who carried out the original modelling in 2018. An exemption from the requirements in the Contracts and Funding Code to procure competitively is proposed under Section 10 of the Code, due to the fact that Element Energy produced the previous “net zero carbon” modelling and, as the new analysis effectively is an extension of that original work, it cannot be separated easily from it or carried out in a timely or cost effective way by an alternative supplier. Whilst the original work was completed a number of years ago, the new analysis will need to draw upon the same model and assumptions, updated with new data and a new trajectory end date.

- 1.7. It would be extremely difficult and time consuming for another consultant to update the existing model, and impossible to do so to the same level of quality for the same budget and time, because it would require access to and understanding of a number of further highly complex models that feed into the zero carbon model, particularly relating to the energy systems network and to capacity at substations across London. Not only would it require understanding of how these linked models work, the update would require an understanding of the rationale for each modelling decision undertaken during the initial modelling process, as none of these decisions has been, or could have been, documented in the model itself. This is not time that Element Energy have needed to include in their budget, having already done the previous work. We believe the proposed approach therefore represents good value for money for the GLA. The original modelling and analysis for the 2050 net zero pathway cost £205,000 in 2018. We would expect repeating the analysis from scratch for 2030 to the same level of detail would cost at least the same amount and extend delivery of the outcomes to well beyond COP26 in the autumn.
- 1.8. The updated scenarios will provide a vital evidence base that the GLA will use to update its implementation pathway to achieve net zero emissions by 2030 and identify London's decarbonisation priorities for the next five years. This in turn will help inform and direct the development of Local Energy Action Plans to be in line with the Mayor's overall ambition for the city. This will allow an updated implementation pathway in line with the Mayor's 2030 target to be produced which can be used to communicate with key delivery partners and build confidence that there is a credible approach for achieving the target.

2. Objectives and expected outcomes

Objectives

- 2.1. The modelling update will have the following objectives:
- identify 4-5 credible scenarios that achieve net zero emissions by 2030, in collaboration with a range of key stakeholders;
 - explore the extent of residual GHG emissions in 2030 (i.e. in the context of net zero emissions it is important to understand the amount of emissions that will still likely be emitted);
 - update the existing net zero carbon pathway tool (currently hosted on the GLA's London datastore) to provide a publicly available tool showing the net zero GHG emissions trajectory to 2030, this is used by boroughs and others to support their own pathways in line with the London-wide approach;
 - gain an understanding of the emission savings, technology deployment, whole system costs and numbers and types of jobs associated with each proposed scenario;
 - provide the GLA with an understanding of the key policy levers to accelerate progress to achieve net zero emissions by 2030; and
 - develop an evidence base, which the Mayor can use to outline his vision for achieving the 2030 target and updating London's carbon budgets.

Outcomes

- 2.2. The modelling update is anticipated to deliver the following outcomes:
- an evidence base in the form of modelled scenarios that the GLA can use to update its implementation pathway for getting to the net zero emissions target by 2030;
 - engagement and support from key stakeholders and delivery partners for London's 2030 net zero pathway;

- clarity on the key sources of emissions in London that should be targeted over the next five years, and the key policies that will be required to help drive down London's emissions; and
- an evidence base to encourage and enable the development of Local Area Energy Plans, together with associated training and skills programmes and supply chain developments, in line with London's 2030 net zero pathway.

3. Equality comments

- 3.1. Under s149 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, race, gender, religion or belief, 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 on-going legal responsibility to have due regard to the need to promote equality, in everything it does, including its 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. 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 (EqIA) report has been published: <https://www.london.gov.uk/what-we-do/environment/london-environment-strategy>.
- 3.6. In undertaking this work, the GLA will enter into a contract with Element Energy. This will require them to assist and cooperate with the GLA's equalities duty through their work, by promoting equality of opportunity for all persons involved in the work, regardless of their protected characteristics, eliminate unlawful discrimination and promote good relations between persons of different racial groups, religious beliefs and sexual orientation.
- 3.7. This research will help inform our wider work in ensuring a fair and equal transition to a lower carbon future. As London moves to a future with lower greenhouse gas emissions, many carbon intensive jobs will be at risk, as they will be no longer compatible with a net zero emission future. In order to ensure equality of opportunity and success amongst Londoners, it is important that we can support those in carbon intensive jobs to transition to ones that are compatible with the Mayor's net zero emission vision. This work will provide insights into the types and number of jobs that will be required to deliver a range of decarbonisation pathways. It will inform policy and programmes and help ensure that all Londoners and businesses are provided with the opportunity and skills required to access the economic opportunities created on London's journey to net zero emissions.

4. Other considerations

a) Key risks and issues

4.1. The key risks and issues are set out in the table below.

Risk	Likelihood	Impact	Mitigation	RAG rating
Insufficient data to undertake analysis	Low	High	<ul style="list-style-type: none">Engage key stakeholders with data early on in processUse of consultants (Element Energy) with extensive relevant experience and access to key data sets, including through undertaking the original work, which has ensured they have a good working knowledge of the model, associated models, and input data.Use of consultants (Element Energy) who have also undertaken related work for other local authorities, national government, the Committee on Climate Change and network operators. This background will be invaluable in delivering this work.	
Lack of buy in from stakeholders	Low	High	<ul style="list-style-type: none">Engage stakeholders early on in process to ensure credible assumptions are being usedUse a range of scenarios to test uncertain outcomesCarry out ongoing stakeholder engagementMake outputs available	
Project overrun	Low	Medium	<ul style="list-style-type: none">Ensure a clear timeline is agreed with Element Energy at the outset with sufficient staff budget dedicatedHold fortnightly meetings to ensure Element Energy remain on target to meet milestones.	
Lack of availability of staff	Low	High	<ul style="list-style-type: none">Use of consultants (Element Energy) with a resilient team, in which there are alternative staff members who can pick up the work if key project team members are unavailable due to illness, for example.	

b) Links to Mayoral strategies and priorities

- 4.2. This analysis project has direct links to the priorities of the London Recovery Board and specifically its Green New Deal mission, which aims to double the size of London's green economy by 2030 while tackling the climate emergency. This work will support the development of a strategy that aligns with these targets.
- 4.3. The Mayor's 2021 Manifesto outlined a ten-point plan placing the environment and sustainability at the heart of the recovery. It includes a commitment to 'the right level of ambition and urgency for the scale of the problems we face. That's why I'm aiming for London to be carbon neutral by 2030.'

- 4.4. This work will help inform the implementation of many of the Mayor's Strategies including: the London Environment Strategy, the London Plan, the Economic Development Strategy and the Transport Strategy. Each of these strategies has been consulted on and includes policies aimed at addressing the environmental issues faced by London. Summaries of key elements of the relevant strategies are provided below.
- 4.5. The London Environment Strategy sets out ambitions to:
- reduce emissions from London's road transport network by phasing out fossil fuelled vehicles, prioritising action on diesel, and enabling Londoners to switch to more sustainable forms of transport;
 - deliver more decentralised energy in London;
 - plan for London's new smart energy infrastructure;
 - deliver a zero emission transport network; and
 - prioritise greener solutions across London in new development, and retrofit solutions.
- 4.6. The Economic Development Strategy sets out the conditions required for Good Growth, which includes the following sections in 'Chapter 4 – Creating the conditions for growth':
- Transport: "Applying the Healthy Streets Approach to encourage walking and cycling, reducing car dependency and investing in public transport capacity to enable growth whilst supporting the transition to a low carbon economy."
 - Infrastructure: "Ensuring London has the digital connectivity, water, energy, waste and green infrastructure it needs to grow and support the transition to an inclusive, low carbon circular economy."
- 4.7. The London Plan includes policies on energy infrastructure (Policy SI2 and SI3) and healthy streets (Policies T1 and T2).
- 4.8. The Mayor's Transport Strategy includes policy 1 (80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041), policy 2 (improving street environments to make it easier to get around on foot and by cycle, and promoting the benefits of active travel), and policy 7 (transforming London's streets and transport infrastructure to enable zero emission operation).
- 4.9. Delivering a just transition is also a priority. There is a major opportunity to support skills development and create jobs across the economy by growing the green economy and making the transition to a low carbon circular economy. This work will seek to identify where those jobs will need to be created and what the skills development opportunities are.

c) Consultations and impact assessments

- 4.10. This piece of work will contribute to a more detailed understanding of what will be needed to deliver the Mayor's London Environment Strategy, his Economic Development Strategy, the London Plan, his Transport Strategy and his target for London to become net zero carbon by 2030.
- 4.11. The Mayor's statutory strategies were all widely consulted on and in each the Mayor commits to a broad range of policies and activities to achieve the objectives set out within them.
- 4.12. The new London Plan has also been widely consulted on with numerous consultation responses considered in framing the final published version.
- 4.13. The London Recovery programme and Green New Deal Missions have been consulted on widely via Team London and direct stakeholder engagement. Central to the Green New Deal Mission is the net zero by 2030 target. As part of this modelling, we will consult on the scenarios and assumptions with the energy networks and other key stakeholders.

d) Conflicts of interest

- 4.14. No GLA officer involved in the drafting or clearance of this DD is aware of any conflicts of interest with the proposed projects.

5. Financial comments

- 5.1. Approval is being sought for revenue expenditure of up to £65,000 to commission consultancy support from Element Energy. The consultants will update the existing 2050 net zero carbon pathway model which was completed under a memorandum of understanding between the C40 Cities Climate Leadership Group and the Authority. This was created to strengthen and coordinate efforts to support the development of a 1.5°C compatible climate action plan for London. The £65,000 expenditure for this project will be funded from the Environment Programme budget, specifically the Zero Carbon budget that was approved as part of the 2021-22 budget setting process.
- 5.2. A single source justification route for procurement has been proposed due to the expertise and knowledge gained by Element Energy through carrying out the initial modelling work under the MOU. Payments will be made in arrears with evidence of milestones completed. The project will start in June 2021 and is expected to be completed by the end of October 2021.

6. Legal comments

- 6.1. Sections 1 and 2 of this report indicate that:

the decisions requested of the Director 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 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 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 and foster good relations between persons who share a relevant protected characteristic and persons who do not share it (section 149 of the Equality Act 2010). To this end, the mayor should have particular regard to section 3 (above) of this report.
- 6.3. 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 Transport for London 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 the approval of the exemption is the previous involvement in a specific project or continuation of existing work that cannot be separated from the new project/work. Officers have

indicated at paragraph 1.6 and 1.7 of this report that this ground applies and that the proposed contracts affords value for money. On this basis the director may approve the proposed exemption if satisfied with the content of this report.

7. Planned delivery approach and next steps

7.1. A timetable for the delivery of the modelling update is shown below:

Activity	Timeline
Recruit consultants via Single Source Request	w/c 7 June
Kick off meeting	w/c 7 June
Scenarios agreed	12 July
Scenario modelling complete	9 August
Draft report	27 September
Final report	29 October

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

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:

Claire Jamieson has drafted this report in accordance with GLA procedures and confirms the following:

✓

Assistant Director/Head of Service:

Pete Daw has reviewed the documentation and is satisfied for it to be referred to the Sponsoring Director for approval.

✓

Financial and Legal advice:

The Finance and Legal teams have commented on this proposal, and this decision reflects their comments.

✓

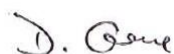
Corporate Investment Board

This decision was agreed by the Corporate Investment Board on 7 June 2021.

EXECUTIVE DIRECTOR, RESOURCES:

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

Signature



Date

8 June 2021