

GREATER LONDON AUTHORITY

REQUEST FOR DIRECTOR DECISION – DD2334

Title: FlexLondon Challenge Phase 2 Extension

Executive Summary:

The FlexLondon Challenge Phase 2 (the 'Challenge') is designed to deliver up to five projects to unlock commercial and public sector organisations' energy flexibility. This helps to cut their energy bills, reduce their energy demand and financially reward their flexible use and generation of energy. Additional benefits include matching better the demand for power with supply at times of critical need (i.e. peak times of the day), supporting renewable generation to provide more clean power and helping London and the UK meet its climate reduction targets.

The FlexLondon delivery team has, since September 2018, engaged organisations in London who want to be more flexible with their use and generation of energy. This means more people are asking the delivery team to support them to get their ideas and projects off the ground. This provides an opportunity to build a pipeline of initiatives and projects in London that could accelerate the delivery of the London Environment Strategy objectives to develop clean and smart integrated energy systems using local and renewable energy resources. To fully develop this opportunity, the current phase 2 of the Challenge will be extended by four months to October 2019. This extension provides the necessary resource and time to effectively:

- Build and support a pipeline of projects created because of the Mayor's FlexLondon initiative
- Capture insights and learnings for future policy and proposals, including a potential phase 3.

Phases 1 and 2 of the challenge were approved by ADD2172 and DD2272 respectively.

Decision:

That the Executive Director of Development, Enterprise and Environment approves:

1. Expenditure of up to £35,000 to pay for external services (currently provided by Energy Unlocked) to deliver a four-month extension to phase 2 to October 2019 (this will take total spending on the FlexLondon Challenge up to £150,000).
2. An exemption from the requirement in the Contracts and Funding Code to procure services competitively, in respect of the appointment of Energy Unlocked.

AUTHORISING DIRECTOR

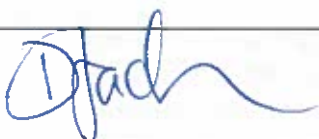
I have reviewed the request and am satisfied it is correct and consistent with the Mayor's plans and priorities.

It has my approval.

Name: Debbie Jackson

Position: Interim Executive Director for Development, Enterprise & Environment

Signature:



Date:

21/03/19.

PART I - NON-CONFIDENTIAL FACTS AND ADVICE

Decision required – supporting report

1. Introduction and background

- 1.1. The Mayor wants London to be zero a carbon city by 2050. To help achieve this aim, the London Environment Strategy (the Strategy) sets the objective to develop clean and smart, integrated energy systems utilising local and renewable energy resources. This objective will, in part, be delivered by the action included in the Strategy implementation plan to complete smart, flexible energy system projects, demonstrators and pilots by 2020 to improve London's energy systems, including the FlexLondon Challenge (the 'Challenge'). The Challenge aims to start to unlock the 1GWe of demand side flexibility available in London.
- 1.2. National Grid and the UK's distribution network operators (DNOs) are looking for ways to replace the loss of many fossil fuel power stations (two-thirds of the UK's existing power stations are expected to close by 2030) and connect more renewable (and variable) energy generation by building a more flexible electricity system. Storage, demand flexibility, electric vehicles (and high voltage interconnection) innovations will help deliver this type of system. The benefits of this include the potential to displace part of the need for new (costly) generating capacity (both fossil fuel and renewables), support and connect more renewable generation, save money for businesses and domestic energy consumers and help London and the UK meet its climate reduction targets. The National Infrastructure Commission (Smart Power, 2016) estimates a saving as large as £8 billion a year from these innovations by 2030.
- 1.3. The Challenge, delivered by the FlexLondon team (a combination of GLA officers and external services provided by consultants that include technical and commercial support to deliver the right type of flexibility projects for London) has so far had two phases. Phase 1 (approved by ADD2172) from February to May 2018 identified energy flexibility opportunities and potential benefits, by working with public and commercial organisations to assess their buildings and business operations from an energy perspective. Phase 2 (approved by DD2272) from September 2018 to June 2019 is bringing together organisations that can use energy more flexibly with innovative solution providers who can help them. The objective of phase 2 is to bring forward up to ten projects, assess them and then select up to five projects most likely to deliver the Challenge objectives and outcomes for ongoing support from January – June 2019. Demand for project support (fourteen additional pipeline projects identified to date) has far exceeded the five projects initially resourced to receive support during phase 2.
- 1.4. Currently seven projects are receiving support from the FlexLondon team, in addition to a pipeline of fourteen early stage projects. An additional four projects have been identified where no support is needed, but where providing ongoing tracking and engagement will generate valuable insights and learnings for the Mayor's Smart Energy Systems and Energy for Londoners programmes.
- 1.5. The additional demand for project support (from both energy users and innovators) provides an opportunity to build a pipeline of flexibility initiatives in London. Extending phase 2 will enable the support and development of this pipeline, covering a variety of flexibility projects, including energy management, generation with storage and electric vehicle smart charging. The extension will produce even more valuable insights and learnings to inform what the future of the FlexLondon Challenge could become.
- 1.6. What the team have already learnt from delivering phase 2 will be incorporated into the design and delivery of the phase 2 extension. Insights and learnings so far include:
 - It takes considerable time for public & commercial organisations (energy users) to move from an idea/concept stage to defining a clear and specific need and challenge for their organisation. This includes the need for them to become aware of what can be considered

clean energy flexibility, i.e. managing and acting upon energy data to installing solar PV in combination with storage batteries.

- The decision to be more flexible is largely financially driven by financial returns. Linking flexibility activities to reductions in carbon and or air quality emissions is more difficult, meaning non-energy values are hard to build into business cases.
- Organisations need further insights, knowledge and encouragement to think and act beyond their own organisational and sector boundaries and silos.
- Geographical Information System (GIS) mapping is a very helpful tool that allows organisations to spatially identify where there is value for them and their local neighbours.
- The time it takes to bring to flexibility projects to market depends on the:
 - Technology selected to be used;
 - Governance and decision-making processes of the organisation;
 - Existing knowledge and awareness and approach new knowledge and understanding; and
 - "Open Innovation" mindset.

- 1.7. It is recommended that a single source procurement is used to extend the phase 2 work. The service supplier for phases 1 and 2 (Energy Unlocked) has provided extensive stakeholder outreach and engagement, phase 1 analysis, and phase 2 design and delivery. There are many benefits in continuing with the professional provision of services by Energy Unlocked – these include the relationships and momentum generated by them with the project advisory committee, energy managers from the organisations involved and the innovative solution providers we are supporting. Contracting a new project team for the extension risks losing the commitments made by organisations to participate, with this having a detrimental impact on the delivery of the Challenge timelines, outputs and outcomes).
- 1.8. The justification stated in the SSJ is that the supplier, Energy Unlocked "...had previous involvement in the specific current project and that it involves continuation of existing work which cannot be separated from the project extension." Detailed phase 2 extension outputs, outcomes and deliverables have been set out by GLA officers. The phase 2 extension proposal from Energy Unlocked will be assessed against these contractual requirements. Sound contract and project management by GLA officers ensure all conditions and obligations are met including the provision of good value for money.

2. Objectives and expected outcomes

2.1 FlexLondon programme objectives:

- Contribute to delivering a zero carbon London by 2050 with smart flexible energy systems.
- Unlock energy flexibility in London.
- Gather learnings about the barriers and enablers to inform changes and initiatives the Mayor could make to deliver London Environment Strategy aims and objectives.
- Understand and demonstrate where national and regional energy markets (i.e. flexibility services paid for by National Grid and DNOs) could value local 'city' benefits delivered from flexibility, including:
 - Improved air quality by encouraging ultra-low and zero emission vehicles.
 - Reduced electricity infrastructure costs by using storage and demand flexibility to displace the need for new network connections and associated costs for businesses and consumers - including the transition to EV fleets.
 - Better use of local generation by shifting demand to make best use of clean energy supply, e.g. solar PV and local combined heat and power.

- Using flexibility to reduce the cost of lower carbon electrical heating solutions to be deployed, supporting the decarbonisation of heating.

2.2 Phase 2 extension objectives:

- Support over twenty organisations so more electricity is being flexibly used and generated in London.
- Support a diverse range organisations and challenges including schools, existing commercial buildings and electric mobility.
- Increase opportunities for neighbourhood collaborations using the GIS tool developed for the Challenge.
- Identify how the market incentives for flexibility can be strengthened so more projects become commercially viable, and projects also start to deliver non-energy benefits.
- Accelerate the engagement and collaborations required across London stakeholders, including Transport for London (TfL), UK Power Networks (UKPN), who will benefit from organisations and household energy flexibility.
- Ensure solution providers, utility companies operating in London and financial investors participate in setting the agenda for the next phases of FlexLondon.
- Provide the necessary time for FlexLondon phase 2 insights and learnings to be sufficiently developed to inform the Smart Energy System team's policy and proposal work underway in 2019.

2.3 Phase 2 extension actions and outputs (incorporated in the updated project plan):

1. Produce and deliver project action plans

- Assist challenge owners (organisations) to produce and deliver their project action plans. Achieved via fortnightly or monthly meetings, in person or teleconferences.

2. UK Power Networks engagement and collaboration

- Deliver a half-day 'Flexibility Surgery' with UKPN (the key regional organisation requiring and paying for flexibility services) to ensure the organisation and solution providers involved understand how their projects could support UKPN's needs and how they will be financially rewarded for meeting those needs. The surgery will enable participants to understand the operational requirements their projects must meet.
- Broker ongoing engagement and collaboration with UKPN on a project by project basis.

3. Transport for London engagement and collaboration

- Support the GLA's ongoing engagement and collaboration with TfL on smart energy systems. To date the Challenge has revealed that many project teams need to work with TfL if they are to be successfully delivered. Areas of work include co-location synergies and interdependencies, TfL as a stakeholder who can enable projects, and TfL as an existing or potential flexibility customer paying for flexibility services. Several projects in the pipeline require engagement and collaboration with TfL to progress.

4. Mayor's Energy Efficiency Fund (MEEF) engagement

- Deliver a MEEF engagement workshop. Initial analysis reveals that some pipeline projects would benefit from MEEF funding, managed by Amber Infrastructure Funds.
- Due to the specific characteristics and needs of each project, engagement with Amber is required on a project by project basis. MEEF engagement also informs our understanding of

the the suitability of (traditional) energy efficiency loan and grant lending criteria for energy flexibility projects – informing the design of future Mayor of London funding mechanisms.

5. Geographic Information Systems (GIS) mapping

- The successful application of the GIS mapping tool for Phase 2 has demonstrated the value of mapping public sector data sets with organisations relevant data sets, for example local energy generation assets. By extending the supported use of this tool to the pipeline projects this will increase the potential co-locational synergies across projects. This includes supporting data collection, mapping and site level analysis to identify energy flexibility opportunities and enable 'co-benefit' discussions between organisations.

6. Capture policy learning for future Mayor of London involvement in the design of energy flexibility markets

- Developed in conjunction with an expert advisory group and set out in a final evaluation report, that will include:
 - analysis of the 'local' (as well as national and regional) value of energy flexibility and how local energy flexibility, and the actions needed to unlock additional value, can make a business case stack up
 - an evidence base for future policy and programme design and delivery
 - phase 2 impacts and findings, to be shared with the FlexLondon network of organisations and solution providers.

2.4 In terms of outcomes, the Challenge will contribute to:

- Delivery of a zero carbon London by 2050 with smart flexible energy systems by helping the UK meet its climate reduction targets.
- Delivering local value for Londoners including cutting bills, reducing emissions, better use of renewable generation and improving the investment case for storage (an enabler for more renewable energy generation).
- Readying London's businesses and electricity system for increases in renewable supply and use of electricity for heat, power and transport.
- Supporting and increasing the use of innovative flexible energy solutions needed to unlock London's spare and valuable electricity grid capacity.
- London businesses trialling and adopting technologies and services that can benefit them, including financially.
- Supporting energy innovations that benefit more than one organisation, creating new business opportunities for solution providers including London's clean tech small and medium size enterprises.
- Helping electricity grid operators (National Grid and DNOs) to better manage their networks (i.e. at peak times of energy use), making them more secure, displacing part of the need for new (costly) infrastructure upgrades and helping to lower energy bills.
- Enhancing our work with key local and national stakeholders including TfL, UKPN, UK Government and Ofgem to design flexibility markets that meet Londoners and London's electricity system needs, including the improved utilisation of congested network capacity.

3. Equality comments

- 3.1 Under s149 of the Equality Act 2010 (the Equality Act), as a public authority the Mayor 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.

3.2 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 project. The project will require the service provider to identify those protected groups who could benefit, determine whether barriers exist and measures to remove those barriers. The service provider will estimate the numbers involved for each relevant characteristic and assist the GLA in discharging its duties under the Public Sector Equality Duty (PSED).

3.3 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.

4. Other considerations

4.1. The Mayor wants London to be zero a carbon city by 2050. To help achieve this aim, the London Environment Strategy (the Strategy) sets the objective to develop clean and smart, integrated energy systems utilising local and renewable energy resources. This objective will, in part, be delivered by the action included in the Strategy implementation plan to complete smart, flexible energy system projects, demonstrators and pilots by 2020 to improve London's energy systems, including the FlexLondon challenge

4.2 Key risks and mitigation for phase 2 of the Challenge including the extension

Category	Description	Probability 1-4	Impact 1-4	Risk Index 1-16	Response	Mitigation
Engagement	Lack of interest from potential flexibility providers (organisations)	2	4	8	Treat	A. A pipeline of 14 'warm projects' has been established already in phase 2, but requires resource to further develop. B. Input (inclusion of sites) from the GLA group will be maximised, compensating for any shortfall should business interest be less than expected. Delivery objectives are closely aligned to agreed GLA group strategic environmental goals for 2018/19.
Commercial	Commercial benefits unrealised/revenues too low.	3	3	9	Tolerate	A specific work stream will capture and assess all instances where projects fail/ offerings cannot be commercialised. Learnings are hugely valuable and will inform future policy and market design research and proposals.
Management	Multi-partner project leading to poor coordination, delivery, timescales & grant claims missed	2	2	4	Treat	Weekly & monthly calls/meetings. Escalation paths available for timely issue redress. Project management methods tailored to ensure delivery, combining PRINCE2 & Agile methodologies.
Scope	Full project has 'energy flexibility' broadly in focus but scope creep is	2	2	4	Treat	This will need to be managed in partnership with the delivery team to ensure that scope is

	<p>possible once solutions providers realise the opportunities for reducing customer acquisition time. Participants may want to offer/seek energy related but non-flexible solutions.</p>					<p>agreed and any potential 'creep' raised in project management calls. Branding and early communications will also help to clarify objectives.</p>
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5. Financial comments

- 5.1 Executive Director's approval is sought for the expenditure of up to £35,000 to pay for external services to deliver a four-month extension to the FlexLondon Challenge phase 2. This programme aims to deliver up to five projects that unlock public and private sector organisations' energy flexibility and will bring the total spend on FlexLondon Challenge up to £150,000 (phase 1 cost £40,000 approved by ADD2172, and phase 2 cost £75,000 approved by DD2272).
- 5.2 The cost of the phase 2 extension will be funded from the Environment Team's Smart Energies 2018/19 programme budget.

6. Legal comments

- 6.1 The foregoing sections of this report indicate that:
- (a) 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
 - (b) 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 regards 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 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 director 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 call off the services required from an accessible framework or conduct an advertised tender for the services required. 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 approval of the exemption is justified due to previous involvement in a specific current project or continuation of existing work that cannot be separated from the new project. Officers have indicated at section 1 of this report that this ground applies, and have indicated that they will ensure the proposed contract affords

value for money. On this basis the director may approve the proposed exemption if satisfied with the content of this report.

6.4 Officers must ensure that appropriate contract documentation is put in place and executed by the proposed service provider(s) and the GLA before the commencement of the required services.

7. Planned delivery approach and next steps

7.1. Outline delivery timetable

Activity	2019 Timeline
Procurement of external services contract [single source]	March
Start date for phase 2 extension	July
End date for phase 2 extension	October
Phase 2 evaluation report from Energy Unlocked	October
Internal evaluation and close	November

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:

Rick Curtis has drafted this report in accordance with GLA procedures and confirms the following:

✓

Assistant Director/Head of Service:

Debbie Jackson 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 the 18 March 2019

EXECUTIVE DIRECTOR, RESOURCES:

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

Signature *M. J. Allge*

Date *22.3.19*

