

Carbon Offset Funds

Greater London Authority guidance for London's Local
Planning Authorities on establishing carbon offset funds

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CONTENTS

1. Introduction	2
2. Setting up funds and collecting payments	4
3. Types of offsetting project	10
4. Assessing a project's eligibility	13
5. How to find suitable projects	20
6. How to compare projects	24
7. Reporting to the GLA	28
Glossary	29
References	31
Appendix 1	33
Previous survey questions	33
Appendix 2	35
Examples from LPAs of Section 106 agreement wording	35

1. Introduction

- 1.1. The Mayor has set an ambition for London to be a zero-carbon city. As London's population grows, new buildings will be needed to meet the increasing demand for housing and associated facilities such as schools and places of work. These buildings will last for decades and should be designed and constructed to limit carbon emissions to help achieve the Mayor's zero-carbon ambition.
- 1.2. All major developments¹ in London should comply with the Mayor's London Plan and are assessed against a range of targets and policies, including those covering carbon and energy. Over time the London Plan has set increasingly stringent carbon reduction targets, exemplified by the net zero-carbon target for major development.
- 1.3. The aim of the net zero-carbon standard is to achieve significant carbon reductions on site and to get as close to zero-carbon as possible. Only then should offsetting be considered. Local Planning Authorities (LPAs) are required to set up carbon offset funds to collect carbon offset payments from developers to meet any carbon shortfall from new development.
- 1.4. Carbon offset funds provide a source of funds for carbon reduction projects across London and have a role in funding emission reductions from existing buildings where achieving carbon savings can be more challenging. Based on typical performance of new build development to date, London's carbon offset funds could amount to £30-40 million annually, based on forecasts from the GLA's planning data and using a carbon offset price of £95/tonne CO₂². Increasing improvements in on-site carbon reductions, which should be prioritised by developers and LPAs, will reduce this amount over time. However, it is important that when carbon offset payments are collected LPAs consider how these funds can best be used to maximise their impact.

This document

- 1.5. This guidance document provides further detail for London's LPAs on setting up carbon offset funds and identifying suitable projects to best utilise that funding. It aims to encourage a consistent approach across London but one that allows for flexibility according to an LPA's local context and priorities. It provides guidance on:

¹ Generally, those developments with 10 or more units or with >1000m² of non-domestic floorspace. See glossary.

² This is the GLA's current recommended price for offsetting carbon. See paragraph 2.7 for further information on future carbon offset prices.

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- Setting up funds and collecting payments
 - Types of offsetting project
 - Assessing a project's eligibility
 - How to find suitable projects
 - How to compare projects
 - Reporting to the GLA

1.6. This document is intended to complement existing approaches that LPAs with more mature carbon offset funds have taken, and not to replace mechanisms that have already been established and are working effectively.

2. Setting up funds and collecting payments

- 2.1. London Plan policy³ requires all major new development to be net zero-carbon by achieving at least a 35 per cent on-site reduction beyond Part L of Building Regulations and to offset any remaining emissions.
- 2.2. On-site reductions should be maximised as far as possible before the offset is applied. Developers should refer to the GLA's Energy Assessment Guidance throughout the design of a development so that on-site reductions can be prioritised without the need for costly design changes later on.
- 2.3. If the GLA (or the LPA for non-referable planning applications) is satisfied that the development has maximised on-site reductions, but the development is still falling short of achieving net zero-carbon, the developer is expected to make a cash-in-lieu contribution to the relevant LPA's carbon offsetting fund. Alternatively, the development can make up the shortfall off-site by funding a carbon reduction project directly, provided the LPA has approved this approach.
- 2.4. The London Plan requires LPAs to:
 - set up a carbon offset fund that is ring-fenced to secure delivery of carbon savings within the relevant LPA
 - set a price for carbon, i.e. price per annual tonne of carbon, that developers pay to make up any shortfall in on-site carbon savings, securing contributions through Section 106 agreements
 - identify a suitable range of projects that can be funded through the carbon offsetting fund
 - put in place suitable monitoring procedures to enable reporting to the GLA.

Setting up a carbon offset fund

- 2.5. LPAs should either establish a dedicated carbon offset fund or administer the funds through their Section 106 processes. In either case the funds should be ring-fenced for the sole purpose of delivering carbon reduction projects. See chapter 3 for information on the types of carbon reduction projects that could be funded.

Islington Council – setting up and managing a carbon offset fund

Islington's zero carbon and offsetting policy has been operating since 2012. It applies to the regulated and unregulated emissions from all major developments and the regulated emissions from minor new-build residential developments. Islington administers its carbon offset fund and collects offset payments via its Section 106 process, with payment usually

³ See Policy SI 2 of the London Plan.

made upon commencement of works on site. Funds are used to reduce carbon emissions from the existing build stock, e.g. through insulation of social housing.

The carbon offset contribution is collected via Section 106 agreement by the Planning Section 106 team which handles the payment and administration of the fund. The Energy Services Team reviews the energy strategies submitted by major developments which outline the expected carbon shortfall of the site and the carbon offset payment that the developer will pay to offset these emissions. The Energy Services Team is also responsible for identifying projects to receive carbon offset funding and prioritising them according to their feasibility and Islington's wider aims such as alleviating fuel poverty and minimising Islington's contribution to climate change. Projects are recommended to Islington's Zero Carbon Board for sign-off and the Energy Services Team deliver projects and report progress to the Board. Islington has set up a simplified arrangement for collecting carbon offset payments from minor developments⁴; the cost of offsetting is a flat fee (£1500 per house and £1000 per flat) and is collected via Unilateral Undertakings rather than Section 106 agreements.

Setting a price for carbon

2.6. LPAs should develop and publish a price for offsetting carbon based on either: a nationally recognised carbon pricing mechanism; or the cost of offsetting carbon emissions across the LPA. The price set should not put an unreasonable burden on development and must enable schemes to remain viable.

Nationally recognised price for carbon

2.7. Currently, the GLA's recommended price for offsetting carbon is £95 per tonne⁵. This is a nationally recognised non-traded price of carbon and is intended to be the price LPAs adopt, unless LPAs have set their own local price. The recommended GLA carbon offset price will be reviewed regularly.

2.8. The overall contribution should be calculated over 30 years (the assumed lifetime of the development's services). For example, using the GLA's recommended price equates to £95 x 30 years = £2,850 per tonne of carbon to be offset.

⁴ The zero-carbon and offsetting policy applies to major development but LPAs can apply the policy and/or adapt it for minor development where they have evidence to support it. Islington Council undertook a study (Promoting Zero Carbon Development Phase 2) into a carbon reduction target for minor development which underpins their approach: <https://www.islington.gov.uk/-/media/sharepoint-lists/public-records/planningandbuildingcontrol/information/adviceandinformation/20112012/20120303promotingzerocarbondelvelopmentphase2report>

⁵ This price was tested as part of the viability assessment of the London Plan 2020 and was informed by a GLA-commissioned study undertaken by AECOM: https://www.london.gov.uk/sites/default/files/london_carbon_offset_price_-_aecom_.pdf

The cost of offsetting carbon emissions within an LPA

- 2.9. Establishing a local cost of carbon for an LPA should include an assessment of the carbon offsetting measures that are possible in the LPA, and dividing the average cost per tonne per year of these measures by the expected shortfall in emissions from the anticipated development coming forward over the next 30 years. This is then multiplied by 30 years to establish the total cost of offsetting the shortfall in emissions. Development viability should also be taken into account and the final price should be published.
- 2.10. In undertaking this assessment, LPAs are encouraged to use the Mayor's zero-carbon pathways tool to explore an indicative zero-carbon pathway for their LPA, see chapter 5 for further details. LPAs should also ensure that any projects intended for carbon offset funding are not included on its Community Infrastructure Levy (CIL) Regulation 123 list⁶. Any project on this list cannot be funded using Section 106 funds and we would advise that carbon-reduction projects are best funded using carbon offset funds rather than CIL. LPAs should take legal advice if there is uncertainty over the projects being funded from Section 106 and from CIL.
- 2.11. See 'References' section at the end of this document for a list of the studies that have been undertaken by LPAs to establish a local offsetting price.

Lewisham Council – establishing a local carbon offset price

Lewisham has adopted a carbon offset price of £104/tonne of CO₂ per annum after undertaking a study⁷ which examined the types of offsetting measures that Lewisham could fund, and the expected carbon shortfall of different development types coming forward against a range of policy scenarios. As required by the Mayor's SPG, the price was tested through a viability study.

To determine the price, offset measures which could be carried out in Lewisham were categorised (e.g. improving energy efficiency in schools) and an average cost per tonne of CO₂ (including management costs) for each category was established. These costs were then converted into a cost that a developer would be expected to pay to offset annual residual emissions from a new development over a 30 year period. This was done by dividing the estimated average annual cost per tonne of carbon to be offset by the carbon shortfall per m² for each development type and multiplying this by 30. These estimates were also sense-checked against a national benchmark for comparison.

It was concluded that a price which reflects future policy direction (i.e. more stringent carbon targets) and which allows a range of measures to be supported that is not

⁶ CIL is a planning charge that local authorities can choose to pay on new development to help develop infrastructure in the area. The CIL Regulation 123 list identifies the infrastructure projects that can be funded through CIL and will not be funded by Section 106.

⁷ <https://www.lewisham.gov.uk/myservices/planning/policy/LDF/evidence-base/Documents/LewishamCarbonOffsetStudy.pdf>

restricted to one category, would enable a consistent price for developers and flexibility for Lewisham in how it spends its fund.

Securing, collecting and spending payments

- 2.12. LPAs should secure offsetting payments through Section 106 of the Town and Country Planning Act 1990 (as amended). This contractual agreement is used to ensure that developments are acceptable in planning terms as required by the Community Infrastructure Levy Regulations 2010 (as amended). See appendix 2 for examples of wording that may be used in Section 106 agreements.
- 2.13. On the submission of an outline or full planning application, a developer must provide:
- a calculation of any carbon shortfall
 - a commitment stating that any shortfall identified will be met off-site
 - confirmation of the offsetting approach which will be taken, i.e. payment into a carbon offset fund, or an off-site project if this has been agreed with the LPA.
- 2.14. The majority of LPAs calculate carbon offset payments at the planning determination stage, but some may choose to calculate this upon construction or after occupation depending on their preferred approach. Calculating the payment at planning determination provides early certainty to the LPA on the funding that will be available, and encourages the developer to assess their carbon impact as accurately as possible early in the design process.
- 2.15. LPAs generally choose to take payment on commencement of construction on site. Some choose to split the payment, with 50 per cent paid post-construction and 50 per cent prior to occupation. This is up to the LPA to determine. However, taking payment later than commencement of works can mean a high degree of uncertainty as to when funding will be received and is unlikely to enable carbon savings from the offset fund to be delivered before the development is occupied, creating a delay in offsetting a development's carbon impact. LPAs should also note the time limits that apply to discharging Section 106 agreements and ensure funds are collected and spent in this time period.
- 2.16. LPAs are encouraged to pool offset payments, rather than specifying in a Section 106 agreement the project which will offset the development's shortfall in emissions. LPAs should be aware that the restriction on pooling more than five Section 2016 contributions towards a single item of infrastructure was removed by the government in September 2019 and no longer applies.⁸
- 2.17. LPAs do not need to set up new processes for administering and monitoring offset funds where suitable internal processes (such as Section 106 processes) already

⁸ The Community Infrastructure Levy (Amendment) (England) (No. 2) Regulations 2019

exist. If an LPA determines that additional funds are needed to pay for staff to develop and manage identified offsetting projects, we recommend a maximum of 10 per cent of the fund is allocated to this, either annually or per project and this should be set out clearly in the agreement. Using offset funds for this purpose will reduce the funds available for projects directly and so we recommend using existing processes for administering and the monitoring the fund as far as possible. However, for LPAs at the earlier stages of setting up funds this 10 per cent could be used to establish the fund and supporting arrangements.

- 2.18. Funds collected via a Section 106 agreement should usually be spent within the boundary of the LPA and directly benefit local residents or businesses. However, where carbon reduction opportunities exist that would benefit more than one LPA, then LPAs may explore pooling their carbon offset funds for such projects. LPAs would need to have regard for legal obligations related to funds collected via Section 106 and should consider the wording used in Section 106 agreements to allow for funds to be spent on projects that cross into other LPAs. The GLA's energy efficiency programmes can help LPAs to identify carbon abatement projects in their local areas (see chapter 5).

Funding recipients and beneficiaries

- 2.19. There are no restrictions as to who can be a recipient or beneficiary of offset funds provided the project being funded aligns with an LPA's identified priorities for offset funds (see following chapter for further details). A recipient or beneficiary could therefore be a local business, public sector organisation, community organisation or not-for-profit organisation.
- 2.20. Individual households could also receive or benefit from funding; however, funding individual households directly will significantly increase the administrative burden for investing carbon offset funds and LPAs may therefore choose to invest funds via community and public sector organisations to target benefits to certain groups of households (e.g. the fuel poor).

Tower Hamlets Council – Schools Energy Retrofit Programme

Tower Hamlets won a Local Government Chronicle award in March 2018 for its carbon offset fund. The LPA was especially commended for using its carbon offset payments to fund a Schools Energy Retrofit Programme. This £240,000 programme provided grants to schools in the LPA, solely from the offset fund, to reduce their energy consumption and carbon emissions, with a maximum amount of £30,000 per school. An open application process allowed schools to suggest projects for consideration by a panel. Eight applicants were selected based on expected carbon savings, additionality, and community benefits. Proposed projects included heating systems, lighting upgrades, insulation and air conditioning improvements. Five of the schools are completing their projects in 2018 and

expect to reduce their carbon emissions on average by 53 per cent and save an average £4,700 a year on their energy bills which can be invested in new equipment and activities instead. Further information, including on the Schools Carbon Emission Reduction Programme which was also funded using carbon offset funds, is available here: https://www.towerhamlets.gov.uk/lgnl/environment_and_waste/sustainability/Tower_Hamlets_Energy/Schools_energy_efficiency_support.aspx

Off-site projects agreed between developer and LPA

2.21. Instead of making payments into an LPA's carbon offset fund, developers can, in agreement with the LPA, directly fund an offsetting measure. Such measures should aim to have either carbon or financial equivalence to the carbon savings that would otherwise be required on the development site. They should also be off-site, i.e. LPAs should not allow developers to fund carbon saving projects that could reasonably be expected to be undertaken as part of a developer's planning application. For example, a planning application that includes new homes and a refurbishment should undertake all improvements necessary to reduce the carbon emissions from the refurbishment, rather than using the carbon offset payment from the new build element to fund improvements in the refurbishment.

3. Types of offsetting project

- 3.1. LPAs should set out the categories that an offsetting project could fall into and it is good practice to confirm this publicly, via an LPA's website or Local Plan for example.
- 3.2. Offsetting projects should deliver tangible carbon savings that will contribute to the Mayor's aim of London becoming a zero-carbon city. The GLA recommends prioritising projects using the categories listed here:

Offsetting project types

Main priority: Reduce energy demand in existing buildings, including through energy efficiency measures and improving monitoring and operation

Other priorities:

Generate renewable electricity, e.g. solar PV

Generate renewable or very low carbon and low emission heat e.g. solar thermal, heat pumps or fuel cells, replacing higher carbon systems that contribute to poor air quality such as gas-engine CHP

Support low carbon heat networks

Undertake whole building retrofit, e.g. improve energy and water efficiency, install renewables and smart metering

- 3.3. Reducing energy demand is the first, best and often most cost-effective approach to decarbonise buildings, which is why we recommend that LPAs prioritise energy efficiency measures such as improvements to building fabric and upgrading to more energy efficient services. To maximise the impacts of these types of projects, particularly for more costly measures, LPAs are encouraged to combine offset funds with other sources of funding. See chapter 4 for information on combining funding sources and chapter 5 for details of Mayoral programmes which offset funds can be combined with.

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- 3.4. Carbon savings can also be gained from projects that encourage shifts to low emission vehicles, for example, and that increase carbon storage, e.g. tree planting but there are existing sources of funding to support these types of projects and so we would recommend boroughs prioritise funding on the project types listed in the previous page.
- 3.5. LPAs should ensure that projects funded through their offset fund are not also listed on their CIL 123 list⁹, which the regulations do not allow. We recommend that LPAs do not include energy or climate change related projects on their CIL 123 list to avoid this risk, and take legal advice on the types of projects funded through offset funds and CIL.

Co-benefits

- 3.6. The primary focus for offset funds is to achieve carbon savings but, where possible, projects should maximise co-benefits, i.e. wider environmental, social and economic benefits that align with an LPA's local strategic priorities identified in climate change mitigation and adaptation plans, Local Plans, as well as key priorities from the London Plan. Examples of these co-benefits include:
- Alleviating fuel poverty
 - Reducing resident energy bills e.g. through smarter and more flexible energy use
 - Improving air quality
 - Health benefits for local residents
 - Increasing public sector resource efficiency (schools, hospitals, community and public buildings)
 - Encouraging innovative technologies to reduce energy demand
 - Making small and medium-sized enterprises (SMEs) more resilient e.g. by reducing energy and water consumption or building in adaptation measures and reducing operation costs
 - Creating local jobs and increasing skills
- 3.7. LPAs with a pipeline of projects that require prioritisation can compare the co-benefits of potential projects to determine which ones will be funded. Chapter 6 sets out a number of criteria (including an assessment of co-benefits) that can be used on top of the main eligibility considerations outlined in chapter 4.

'Hard' versus 'soft' measures

- 3.8. The GLA expects LPAs to prioritise spending on hard measures, i.e. those that deliver a tangible physical asset with more transparent carbon savings, but does not discourage spending offset fund payments on soft measures, i.e. those that demonstrably create the enabling environment for carbon reductions. LPAs may

⁹ A list of the infrastructure projects that may be supported through CIL contributions.

choose to exclude certain types of projects or set a limit on the proportion of the pipeline that will be spent on soft measures.

- 3.9. Where soft measures are funded LPAs should set stricter information and performance requirements to recognise the limited control over the outcome. For example, we recommend that LPAs make it a requirement that all behaviour change projects set out an engagement strategy and monitoring plan in advance of receiving funding. Carbon savings should also be adjusted to reflect the uncertainty and lack of control over outcomes.

4. Assessing a project's eligibility

- 4.1. A project funded by carbon offset funds should deliver carbon savings; this is its primary purpose to ensure any shortfall in carbon emissions from new development is offset elsewhere. LPAs should also consider the carbon cost effectiveness of the project and whether the project offers additionality (i.e. it will result in carbon savings beyond business as usual). Further details on each of these criteria are set out in the sections below.
- 4.2. LPAs should follow existing internal procedures to ensure offset projects offer value for money and are deliverable; as they would for any project that is funded from LPA funds.

Will the project save carbon within the LPA?

- 4.3. Projects should result in a reduction in carbon emissions (tCO_{2e}) to offset the residual carbon emissions from new development. There are a variety of existing benchmarks and methodologies that could be used to estimate how much carbon a project will save. To minimise the administrative burden, particularly for individuals or groups with limited resources, we would recommend using existing sources of information, for example, local data and experience from previous carbon reduction projects. This should take into account the carbon emissions saved over the lifetime of the individual measures. LPAs with only limited access to information can use the AECOM carbon offset price report¹⁰ as a useful reference point for a range of offsetting measures.
- 4.4. Projects may use national calculation methodologies (e.g. DEFRA guidelines¹¹ and conversion factors or Building Regulations approved software for building sector interventions) to estimate carbon savings. The carbon intensity of the electricity grid is expected to gradually drop in future years which will impact on the carbon savings realised from measures that save or generate electricity. The government publishes forward trajectories on expected carbon intensity of the grid in the coming decades. However, given that these are projections only it is not typical for carbon offset projects or funds to account for this in carbon calculations.
- 4.5. As noted in the previous section, 'soft' projects such as behaviour change initiatives or feasibility studies have less tangible carbon savings. However, we would still encourage estimations of carbon savings from these types of project, drawing on existing studies and evidence from similar types of interventions. For example, the

¹⁰ https://www.london.gov.uk/sites/default/files/london_carbon_offset_price_-_aecom_.pdf

¹¹ <https://www.gov.uk/guidance/measuring-and-reporting-environmental-impacts-guidance-for-businesses>

Scottish Government's Low Carbon Route Map is targeted towards community groups to help them estimate carbon savings from behaviour change projects¹².

- 4.6. A strict 1:1 ratio (i.e. the cost of the offset measure to save one tonne of carbon compared to the offset price per one tonne of carbon) is not required. Such a ratio would only allow the simplest retrofitting measures to be carried out and would leave more complicated, costly measures without access to funding.

What is the carbon cost-effectiveness of the project?

- 4.7. There are a wide range of carbon reduction projects that could be supported with varying levels of carbon savings for the capital invested. Projects should provide an estimate of the carbon cost effectiveness of the proposed measure, i.e. the capital cost per tonne of CO₂ saved over its lifetime (£capex/tCO₂ lifetime).
- 4.8. LPAs with an established pipeline of projects may want to set an upper limit on the cost per tonne of carbon saved beyond which it will not support a project in order to help prioritise its pipeline. This would be calculated as the total capital costs associated with project implementation (including project development and management costs, but excluding costs associated with administering the fund) per tonne of carbon saved over the lifetime of the intervention.
- 4.9. We would recommend flexibility to allow for a range of projects to be supported. Lower cost projects that target energy efficiency, such as insulation programmes, should be a priority for offset funds. These programmes can have wide-ranging benefits for the fuel poor and should not be discounted.
- 4.10. Where co-funding is being sought for the project, and where a proportion of the carbon savings will be attributed to co-funders, the carbon cost effectiveness figure should be adjusted based on the proportion of 'capital costs being requested' and the 'lifetime CO₂ savings attributable to the LPA offset funding'. See paragraph 4.23 for further detail on apportioning carbon savings.
- 4.11. Some considerations for LPAs in setting a carbon cost effectiveness cap are outlined below.

Set the cap to reflect local opportunities and priorities

- 4.12. LPAs may choose to set the cap higher than their carbon offset price to allow for greater flexibility in, for example, choosing projects that deliver significant wider benefits but have a higher cost of carbon savings. This will mean that not all projects will deliver a carbon offset ratio of 1:1 (i.e. the cost of the measure to save one tonne of carbon is not equal to the offset price per one tonne of carbon) which as noted above is not a requirement of an offset fund.

¹² <https://www.keepsotlandbeautiful.org/media/43522/ccf-low-carbon-route-map-food-2011.pdf>

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- 4.13. The cap could potentially be set as much as three to five times the carbon offset price to give maximum flexibility. For instance, the Mayoral Energy Efficiency Fund (MEEF)¹³ invests in energy efficiency measures in public and voluntary sector buildings and sets a threshold of £5,000 per annual tonne of CO₂, which translates to £167/tCO₂ lifetime based on a lifetime of 30 years. Milton Keynes Council have administered a carbon offset fund since 2008 and their experience also suggests that as lower cost opportunities diminish, it becomes progressively more difficult to deliver carbon savings within the same cost threshold¹⁴. This makes the case for setting a higher cap (unless the LPA is intending to review the cap at periodic intervals), that is still a reasonable figure which does not preclude projects with significantly higher cost and minimal wider social, environmental or economic benefits.
- 4.14. The LPA may choose to add extra layers of scrutiny where costs exceed a certain multiplier, e.g. over three times the carbon offset price.
- 4.15. By allowing for total project implementation costs this metric factors in the impact of project scale. For dispersed energy efficiency opportunities (such as delivering an area-wide programme of low cost insulation measures in existing properties) higher project development and administration costs will be balanced by the lower capital costs of the measures themselves. For small scale interventions, the project development and administration costs may proportionately be much higher, thereby making the schemes less cost effective.

Will the project offer additionality?

- 4.16. Additionality is the principle that offset payments should be spent on projects that:
- would not have occurred without the offset funding
 - would not have occurred under a business as usual scenario
 - are not required to meet national legislation.
- 4.17. LPAs should satisfy themselves that projects offer additionality. Determining this can be challenging. In instances where a project has an existing business case, the offset funding would need to show additionality beyond the original requirements of the project. For example, an existing energy efficiency programme could use offset funding to target a higher EPC rating, thereby allowing more expensive measures to be funded than the existing funding would have allowed for, and LPAs should investigate such opportunities.
- 4.18. Offset funds are an important mechanism for unlocking carbon savings from projects that may have existing but insufficient funding sources to deliver the

¹³ <https://www.amberinfrastructure.com/our-funds/the-mayor-of-londons-energy-efficiency-fund/about-meef/>

¹⁴ https://www.london.gov.uk/sites/default/files/gla_cof_approaches_study_final_report_july_2016.pdf

projects. Co-funding also maximises the impact of the offset fund by joining funding streams together and we recommend that LPAs adopt co-funding approaches in spending offset funds. The LPA should be satisfied that there will be a clear additional and measurable benefit from using the carbon offset funding alongside another source of funding compared to using the other source of funding on its own. See paragraph 4.23 for guidance on how to apportion carbon savings for projects which have been co-funded.

- 4.19. For example, carbon offset funds can be combined with the Energy Companies Obligation (ECO)¹⁵, or grant funding from Mayoral Energy for Londoners programmes such as Warmer Homes¹⁶. This may enable more measures to be delivered in ‘hard to treat’ properties (such as listed properties or other non-standard construction types) that would otherwise not attract enough funding due to the high cost of delivering these measures. When seeking to combine offset funds with other forms of public funding LPAs should seek legal advice.
- 4.20. More established carbon offset funds should take into account the ‘willingness to pay’ of key project beneficiaries in light of the direct benefits that would accrue, e.g. energy cost savings, improved thermal comfort, and reduced financial burden for compliance with policy (such as the CRC Energy Efficiency scheme), among others. Carbon offset funds should acknowledge and account for these financial benefits. Leveraging in other sources of co-funding can make more of the limited resources and spread funds across a number of projects.

Croydon Council – combining carbon offset funds with other sources of funding to deliver the Croydon Healthy Homes scheme

Croydon Council used carbon offset funding to deliver an energy home visit scheme targeted at vulnerable households during the winter of 2016/17. The scheme was delivered by ‘Thinking Works’ a not-for-profit organisation based in south London who brought in additional funding from the British Gas Energy Trust. The key highlights of the project were:

- An average lifetime energy savings of £499 per household, and a total lifetime savings of 583 tonne CO₂ from the installed measures
- 213 home visits were completed, with 40 follow-up visits to assess the impact of scheme.
- 3 boiler replacements funded by the Mayor’s “Better Boiler” scheme

¹⁵ <https://www.ofgem.gov.uk/environmental-programmes/eco/about-eco-scheme>

¹⁶ <https://www.london.gov.uk/what-we-do/housing-and-land/improving-quality/warmer-homes>

- Households were referred to a wide range of other services demonstrating the co-benefits of the programme, including 54 smoke alarm installations and 60 homes switching energy provider.

- Over 90% of resident feedback was positive about the benefits of the service.

In 2018 Croydon launched a follow-up home visit scheme to reach 700 households funded by its carbon offset fund. Following a competitive tender exercise, Groundwork London were selected to deliver the scheme over a three year period. The scheme has been further enhanced by securing additional funding from the Mayor's Fuel Poverty Support Fund.

Combining with other sources of finance

4.21. Where a carbon offset fund payment, and other grant payments, are insufficient to fully fund projects, finance can be sought from a range of conventional sources such as the Public Works Loans Board (if the project is LPA-led), Salix (if the project is public sector led)¹⁷, and the Mayor's Energy Efficiency Fund (MEEF)¹⁸. MEEF provides flexible and competitive finance to enable low carbon projects in London in both the public and private sector, including LPAs, NHS Trusts, universities and SMEs.

4.22. LPAs could also consider setting up a "revolving" carbon offset fund at the local level, which offers loans or equity investment and recycles the returns into other projects, against a grant funded model (see Box 1).

Box 1 - Revolving investment funds

- The Mayor's Energy Efficiency Fund (MEEF) operates as a revolving investment fund where monies invested in one project are repaid and then reinvested in other projects. It offers a wide range of funding options, through its consortium of funders, to deliver new low carbon technology or upgrade existing low carbon infrastructure, with an investment period of up to 20 years. Measures that could be funded include decentralised energy, small-scale renewables, energy efficiency, and low-carbon data centres for boroughs. The funding is also open to small businesses and energy service companies operating across London.

- There are examples of local authorities setting up revolving investment funds in support of local priorities, such as the Leeds City Region Revolving Investment Fund¹⁹ that offers

¹⁷ Salix Finance Ltd is an independent, not for profit company funded by government which provides funding in various forms to the public sector to implement energy efficiency measures:

<https://www.salixfinance.co.uk/>

¹⁸ <https://www.amberinfrastructure.com/our-funds/the-mayor-of-londons-energy-efficiency-fund/about-meef/>

loans for private sector led construction projects. Scarborough Council has, for instance, used its revolving fund to deliver over 30 energy efficiency projects across its council buildings²⁰.

- Salix, a not-for profit company funded by BEIS (the Department for Business, Energy and Industrial Strategy), operates Recycling Funds that invest in energy saving projects in the public sector with payback of less than 5 years. These are ring fenced funds ranging from £100,000 to £1m, with Salix providing half the capital, which is then matched by partner organisations. Partner organisations include local authorities and other public sector organisations, such as NHS trusts and universities.

Apportioning carbon savings

4.23. The proportion of carbon savings that the fund can claim is inherently linked to additionality. Where it can be reasonably demonstrated that the project would not have happened without an offset fund payment, then the case could be made to account for all of the carbon savings realised. All projects should provide an estimate of the expected carbon savings. More established carbon offset funds should also seek to monitor a sample of projects post-implementation to verify these estimations.

4.24. Determining the proportion of carbon savings attributable to the fund could vary depending on whether co-funders are driven by the carbon benefits or not, typically reflected in whether co-funders account for these savings themselves. LPAs may consider the following approaches:

Approach 1 - Apportioning carbon savings according to financial contribution, where co-funding is from a public sector entity or via an existing national (or local) policy instrument:

CO₂ savings attributable to offset fund = Total CO₂ savings X offset fund contribution (%)

Approach 2 - Account for all carbon savings where co-funding is from beneficiaries such as households and businesses:

CO₂ savings attributable to offset fund = Total CO₂ savings

²⁰ <https://www.salixfinance.co.uk/system/files/documents/Scarborough%20Borough%20Council.pdf>

London Legacy Development Corporation (LLDC) – project deliverability

Projects selected for carbon offset funds should have a high likelihood of delivery to ensure the estimated carbon savings are achieved. LLDC's Carbon Offset Local Plan Supplementary Planning Document (SPD)²¹ sets out the application process potential applicants for offset funding will need to follow to ensure projects are suitable and deliverable. Annex 2 of the SPD provides guidance and an application form. As well as general project information, such as total lifetime carbon savings, other sources of funding being utilised and the anticipated community benefit, the form asks several deliverability questions: details of the implementing organisation, whether relevant approvals are in place, the timescales for delivery, key project risks and mitigation strategies.

A project-specific set of questions has also been developed for each type of project LLDC expects to fund, e.g. energy efficiency measures, renewable energy and behaviour change. This information enables LLDC's Project Proposals Group to decide which projects to add to the project list, which is approved by the Legacy Corporation Board annually. Since establishing the application form, LLDC are exploring how to target particular types of applicant to better align applications with their priorities for offset funding.

²¹ Annex 2, Section 5: <https://www.queenelizabetholympicpark.co.uk/-/media/lldc/planning/supplementary-planning-documents/carbon-offset-spd-august-2016.ashx?la=en>

5. How to find suitable projects

- 5.1. The majority of LPAs have largely focused on identifying projects within their own estate, including social housing. This is a good place to start when funds are small but as they grow LPAs should consider the wider opportunities that exist within their LPA boundaries. Setting up an application process for individuals, community groups and businesses to apply for funding has worked well in a number of LPAs to extend the reach of the offset funds and make projects more visible, whilst reducing the burden on LPAs to source projects themselves.

Camden Council - Camden Climate Fund

Camden has set up the Camden Climate Fund which is financed from carbon offset payments. There are three separate grants available for households, businesses and community groups to install renewable energy systems and make energy efficiency improvements:

- The household grant offers up to £7,500
- The business grant offers up to £5,000
- The community grant offers up to £15,000

Applicants are required to match fund 50 per cent of the cost of the project up to the amount specified above for each grant (and any additional costs over this amount), although this is not a requirement for households classified as 'fuel poor'. Applications are assessed against the carbon reduction potential of the project, the cost of the installation in relation to the carbon reduction and the project's feasibility. Further details including the information applicants should provide and the requirements for each grant is available here: <https://camden.gov.uk/ccm/content/environment/green/saving-energy-and-keeping-warm/CCF/?page=3>

- 5.2. The Mayor also has a number of tools and programmes that LPAs can use to identify projects:

GLA zero-carbon pathways and other tools

- 5.3. The zero-carbon research undertaken by the GLA provides a pathway to zero-carbon on a borough level²². The model and the data behind it may be useful for LPAs in determining focus areas for their offset funds in terms of building type and opportunities for improvements. We also have a tool for displaying Energy Performance Certificate data to monitor existing buildings. Further information can

²² This is based on a Lower Super Output Area (LSOA) model of building energy demand.

be found on our website: <https://www.london.gov.uk/what-we-do/environment/energy/energy-and-climate-tools>

- 5.4. Our models use a number of data sources which LPAs may want to access directly, for example, for domestic properties:
- The Housing Energy Efficiency Database²³ provides data on:
 - Housing tenure²⁴
 - Housing type by category (flat/terrace/semi/detached)
 - Wall and loft type and levels of insulation
 - Floor space by industry category
 - Age of buildings (pre-1990, post 2013 and in between)
 - The GLA's Strategic Housing Land Availability Assessment²⁵ provides data on projected housing numbers
 - The Cambridge Housing Model has informed our assumptions on how energy use is split inside buildings.
- 5.6. The individual LPA models that are publicly available do not include all of the detailed information we hold on individual LPAs. This data can be requested at: environment@london.gov.uk.
- 5.7. The London Building Stock Model²⁶ helps the GLA and boroughs identify London households and businesses that would benefit from energy efficiency measures.

Energy for Londoners programmes

- 5.8. The Mayor's Energy for Londoners programmes can provide technical support to help ensure that offset funds are being used effectively to reduce carbon whilst encouraging a holistic approach to retrofitting buildings:

Retrofit Accelerator programmes

- 5.9. The Retrofit Accelerator programmes provide free-of-charge technical assistance to help public sector organisations undertake retrofitting and energy saving projects. The Retrofit Accelerator – Homes programme targets domestic buildings such as those owned by London LPAs, housing associations and universities, and the Retrofit Accelerator - Workplaces programme helps public sector organisations including London LPAs, NHS bodies, central government departments, schools and other educational establishments and cultural and heritage organisations to implement retrofit projects on their non-domestic estate.

²³ <http://www.energysavingtrust.org.uk/scotland/businesses-organisations/data-services/heed>

²⁴ Also available just for London in Table 2.4 in <https://data.london.gov.uk/dataset/property-build-period-lsoa>

²⁵ <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/strategic-housing-land-availability-assessment>

²⁶ <https://www.london.gov.uk/what-we-do/environment/energy/energy-buildings/london-building-stock-model>

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- 5.10. For further details on the Retrofit Accelerator programmes, contact the support team at: retrofitaccelerator@london.gov.uk.
- 5.11. Case studies from RE:NEW (the predecessor programme to Retrofit Accelerator – Homes) can be found here: <https://www.london.gov.uk/what-we-do/environment/energy/renew-0/renew-case-studies>. Case studies from the Retrofit Accelerator – Workplaces programme can be found here: <https://www.london.gov.uk/what-we-do/environment/energy/energy-buildings/retrofit-accelerator-workplaces/success-stories>.

Tower Hamlets Council – combining RE:NEW²⁷ support and carbon offset funds

Tower Hamlets has recently undertaken a pilot scheme to replace boilers and insulate properties for owner occupiers. The aim of the pilot was to reduce carbon emissions through reducing energy consumption and thereby reduce fuel poverty. The pilot was procured using the GLA's RE:NEW framework. The RE:NEW framework is designed to help public sector organisations procure energy reduction and generation measures efficiently, effectively and economically. It reduces the time taken from procurement to installation, supports value for money, and gives assurance to buyers through pre-qualification of suppliers.

The funding for the pilot was secured from Tower Hamlet's Carbon Offsetting Fund. The carbon offsetting mechanism to secure funds is included within the adopted Planning Obligations Supplementary Planning Document (SPD) (2016), which identifies that where the policy requirement for carbon emission reductions cannot be met on-site, the 'Contributions will be placed in the carbon offsetting fund and will be used by the Council to reduce carbon dioxide emissions in projects elsewhere in the borough. The council allocated £200,000 for this pilot and anticipate that more funding will be provided to deliver additional phases for a further three years.

Local Energy Accelerator (LEA)

- 5.12. LEA provides expertise and support to organisations to develop clean and locally generated energy projects. Projects will include district energy networks that use renewable heat sources (including river water and waste heat from London Underground), and energy technologies such as heat pumps, solar panels, batteries and smart electric vehicle charging to transform the way London generates, supplies and uses clean local energy in buildings and transport. Carbon

²⁷ RE:NEW is the programme which preceded Retrofit Accelerator - Homes.

offset funds could be used to bring these schemes into operation. For further information contact: LEA@london.gov.uk.

Warmer Homes

- 5.13. Warmer Homes²⁸ is the Mayor's scheme to help Londoners stay warm and save on their energy bills. Combining Warmer Homes funding with carbon offset funds could create considerable opportunities for installing less typical, more expensive measures such as solid wall insulation.
- 5.14. When combining the two funding sources, the LPA would need to ensure that the use of offset funds is additional to what would be achieved by Warmer Homes alone and that carbon is being saved from the installed measures (as some Warmer Homes measures do not have a direct carbon saving e.g. damp remediation works).

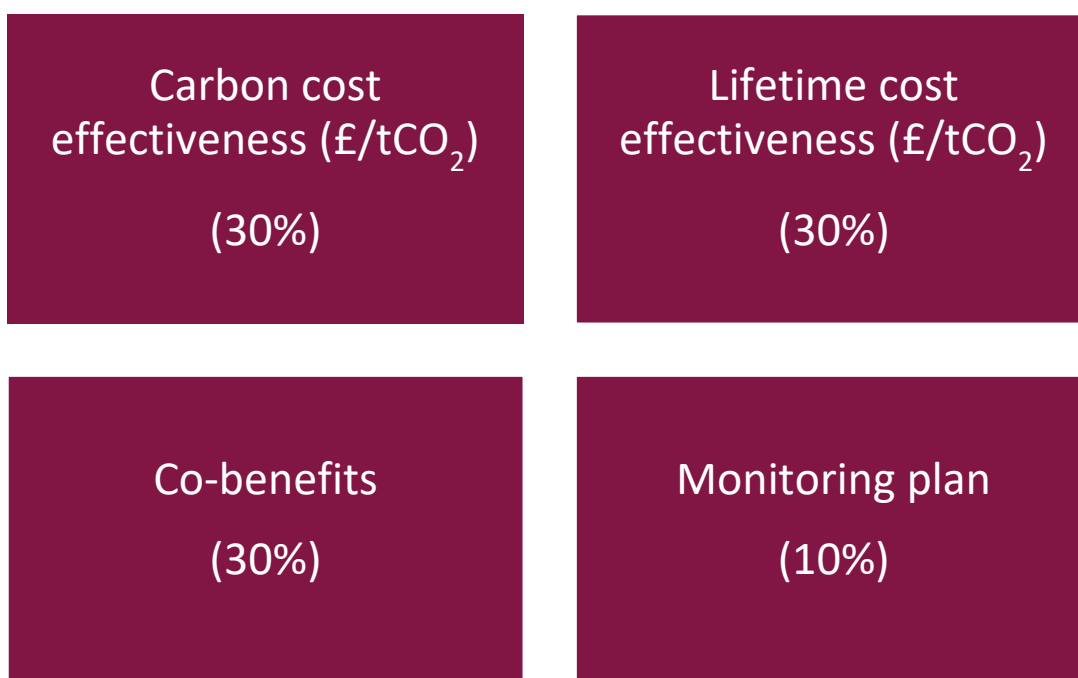
London Community Energy Fund

- 5.15. The Mayor's London Community Energy Fund (LCEF) is helping community groups to develop local community energy projects like putting solar panels on schools, community halls and sports centres. LPAs could consider using offset funds to contribute to the capital costs of delivering community energy projects, complementing the LCEF grant, <https://www.london.gov.uk/what-we-do/environment/energy/energy-buildings/london-building-stock-model> provided it can be demonstrated that the offset funding offers additionality. To keep up to date with future funding rounds and projects being supported by the Mayor please visit: <https://www.london.gov.uk/what-we-do/environment/energy/london-community-energy-fund>.

²⁸ <https://www.london.gov.uk/what-we-do/housing-and-land/improving-quality/warmer-homes>

6. How to compare projects

- 6.1. Once a carbon offset fund is established and a pipeline of projects is developed, LPAs may wish to prioritise projects based on their performance against a set of criteria. This can add another level of rigour in project selection on top of the considerations listed in chapter 4. LPAs with a limited pipeline of potential projects may only choose to do so as their pipeline widens.
- 6.2. We have proposed below a set of project evaluation criteria which LPAs could use to score projects, with suggestions as to how each criterion is weighted out of 100 per cent. This can be adapted by LPAs for their own use.



- 6.3. The higher a project's score out of 100 per cent the higher priority level it is given.

Carbon cost effectiveness

- 6.4. As described in chapter 4, LPAs may set a carbon cost effectiveness cap expressed as £capex/tCO₂ lifetime. LPAs may choose to set multiple bands to assess projects against, with the lowest band potentially set at the LPA's carbon offset price. Three to four bands could be set e.g. lower band (set at carbon offset price), mid-low band, mid-high band, high band (in line with the maximum cap).
- 6.5. Scores should be allocated to each of the bands. The lower the cost of carbon abatement the higher the score and the more attractive the project for offset funds

from a purely cost point of view. This metric may disincentivise more expensive innovative projects that trial new technologies and approaches. LPAs should consider reserving a proportion of their offset funds for innovative projects that have the potential to result in further carbon savings at scale in the future and therefore would not need to compete with projects with a lower cost of carbon.

Lifetime cost effectiveness

- 6.6. In addition to assessing projects against their carbon cost effectiveness, a further metric that can be used is to score projects based on their lifetime carbon cost effectiveness, expressed as £lifetime/tCO₂ lifetime.
- 6.7. This would be calculated as discounted whole life costs (including administration, fuel costs, maintenance and any associated revenue) per tonne of carbon saved over the lifetime of the project minus any savings (e.g. reduced maintenance and ongoing energy costs). The lower the present discounted cost per tonne of carbon saved, the higher the score and the more attractive the project for offset funds, purely from a cost point of view.
- 6.8. This metric inherently rewards projects that deliver cost effective carbon savings over their lifetime taking into account energy bill savings, technology operational costs and any income streams (e.g. from sale of electricity). As described in paragraph 6.5, LPAs could consider reserving a proportion of offset funds for innovative projects that may not perform as well using this metric.
- 6.9. This metric could also be linked to additionality. A negative net present cost will indicate a project is inherently financially viable without support from offset funds. In such instances, LPAs should consider requesting further information on the barriers to implementing the project (and the viability of co-funding from project beneficiaries to acknowledge the benefits that would accrue). Where project sponsors are capital constrained, they could be encouraged to seek loans, with or without part funding from the carbon offset fund.

Lifetime cost per tonne of CO₂

A 2013 report commissioned by the Commission on Climate Change (CCC) sets out indicative lifetime cost per tonne of CO₂ saved for energy efficiency measures and behaviour change interventions in the residential sector²⁹. The lifetime cost effectiveness includes cost of material, labour, VAT, any transaction costs (e.g. marketing etc.), and fuel cost savings. Please note that relative costs and savings of measures may vary by location, dwelling type, and complexity (e.g. access issues). However, these indicative figures may be used as a guide to set cost effectiveness

²⁹ <https://www.theccc.org.uk/wp-content/uploads/2013/12/Review-of-potential-for-carbon-savings-from-residential-energy-efficiency-Final-report-A-160114.pdf>

bandings. An older report commissioned by the CCC (2008) presents lifetime costs for carbon savings measures in the non-domestic and industrial sectors³⁰.

Co-benefits

6.10. To assess the wider benefits of a project, beyond carbon savings, projects may be scored based on quantified environmental and social benefits. Project scoring should reflect the number of local priorities the project addresses, and how widespread the benefits are expected to be to the wider community. Co-benefits should be quantified as far as possible. Some examples of co-benefits that projects could be assessed against are:

- number of fuel poor households benefitting from energy efficiency improvements, or air quality improvements.
- number of additional jobs and training opportunities that the project will deliver locally.
- expected health benefits where these can be referenced back to a relevant evidence base.

6.11. LPAs would need to determine which local priorities its projects will be assessed against. An overall score out of 30 per cent (or the percentage selected by the LPA) can be set depending on the number of co-benefits a project achieves or the contribution it makes to a particular priority.

Monitoring plan

6.12. The quality of a project's monitoring plan can help determine whether a project is advanced enough to be funded and provides assurance of delivery. It should provide data on project performance and wider benefits delivered that can be shared with the LPA on an agreed timescale.

6.13. The level of detail provided in the monitoring plan will determine the score out of 10 per cent (or the percentage selected by the LPA for this criteria). To gain the top score, a monitoring plan could include:

- assigned project manager/key contact point for the LPA throughout the project
- full description of the project, including approach taken to calculate expected carbon reductions to be achieved, the baseline to be used if appropriate, and total cost of the project. Larger projects should be required to undertake full lifetime costings whereas smaller projects can limit analysis to capital costs only.
- methodology for measuring co-benefits

³⁰ <https://www.theccc.org.uk/wp-content/uploads/2008/12/MACC-Energy-End-Use-Final-Report-v3.2.pdf>

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- timescales for delivering the project with key milestones and identified individuals/organisations responsible for activities
 - outline of potential project risks with mitigating actions and owners of those actions identified
 - an estimate of expected carbon savings. A sample of projects (e.g. larger scale projects) should provide should include ex-post monitoring to confirm the carbon reductions achieved.
 - a final report detailing the work carried out and estimated resulting carbon savings likely to be achieved over the lifetime of the project.
 - projects including 'softer' elements, e.g. behaviour change projects, should include a specific methodology for measuring impacts associated with the measure.

6.14. LPAs may decide to set more than one set of requirements for the monitoring plan depending on the size and complexity of the project. For example, innovative demonstration projects may be assessed against the entirety of the above criteria and more typical carbon offset projects may be assessed against a smaller set.

7. Reporting to the GLA

- 7.1. The GLA will report annually on overall progress of London's carbon offset funds. LPAs can expect the GLA to request information in a similar format to previous surveys and will require information including:
- Amount of carbon offset fund payments committed
 - Amount of carbon offset fund payments collected
 - Amount of carbon offset fund payments spent
 - The type of projects being funded, associated co-benefits and cost per tCO₂ saved.
 - The carbon offset price being used
- 7.2. See Appendix 1 for a list of questions used in previous surveys which LPAs should ensure they will be able to report against. The GLA will notify LPAs each year to confirm when this information will be required and a report will be published to track progress and ensure transparency. Monitoring reports can be found on the GLA's website.³¹

³¹ <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/energy-monitoring-reports>

Glossary

Carbon cost effectiveness - the capital cost per tonne of CO₂ saved over the lifetime of the carbon offset measure (£capex/tCO₂ lifetime).

Community Infrastructure Levy (CIL) - a planning charge that local authorities can choose to pay on new development to help develop infrastructure in the area.

Energy Company Obligation (ECO) - a government energy efficiency scheme in Great Britain to help reduce carbon emissions and tackle fuel poverty.

Energy for Londoners - The Mayor's £34m Energy for Londoners programme aims to make London's homes warm, healthy and affordable, its workplaces more energy efficient, and to supply the capital with more local clean energy.

Lifetime carbon cost effectiveness - the lifetime cost per tonne of CO₂ saved over the lifetime of the carbon offset measure (£lifetime/tCO₂ lifetime).

Local Planning Authorities (LPAs) – the London boroughs, the City of London and the two Mayoral Development Corporations (London Legacy Development Corporation and Old Oak and Park Royal Development Corporation)

Major development

For a full definition, see Part 1 of The Town and Country Planning (Development Management Procedure) (England) Order 2015. Generally, major developments are:

- Development of dwellings where 10 or more dwellings are to be provided, or the site area is 0.5 hectares or more;
- Development of other uses, where the floor space is 1,000 square metres or more, or the site area is 1 hectare or more.

Mayoral Energy Efficiency Fund (MEEF) – a £500m investment fund established by the GLA, which provides finance to enable viable low carbon projects across London.

Non-referable planning applications – planning applications that fall under the Mayor's threshold for review, i.e. those that are less than 150 units. Please see the Mayor of London Order (2008) for the full criteria.

Zero-carbon buildings - buildings forming part of major development applications (i.e. those with 10 or more units or over 1000m² of floorspace) and achieving at least a 35 per cent reduction in regulated carbon emissions on-site. The remaining regulated carbon emissions, to 100 per cent, are to be offset through a cash in lieu contribution to the relevant borough to be ring fenced to secure delivery of carbon savings elsewhere.

References

Carbon Offset Fund monitoring reports

<https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/energy-planning-monitoring>

Energy Monitoring Reports

<https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/energy-planning-monitoring>

Energy Assessment Guidance

<https://www.london.gov.uk/what-we-do/planning/planning-applications-and-decisions/pre-planning-application-meeting-service-0>

London Plan

<https://www.london.gov.uk/what-we-do/planning/london-plan>

LPA carbon offset publications:

Islington – Carbon Offset Fund allocations

<http://democracy.islington.gov.uk/documents/s14274/Carbon%20Offset%20Fund%20allocations%20Executive%201%20Feb%202018.pdf>

Islington - Promoting Zero Carbon Development Phase 2

<https://www.islington.gov.uk//~/media/sharepoint-lists/public-records/planningandbuildingcontrol/information/adviceandinformation/20112012/20120303promotingzerocarbonddevelopmentphase2report>

Lewisham Carbon Offset Study

<https://www.lewisham.gov.uk/myservices/planning/policy/LDF/evidence-base/Documents/LewishamCarbonOffsetStudy.pdf>

London Legacy Development Corporation – Carbon Offset Local Plan Supplementary Planning Document

<http://www.queenelizabetholympicpark.co.uk/-/media/lldc/planning/supplementary-planning-documents/carbon-offset-spd-august-2016.ashx?la=en>

Tower Hamlets – Carbon Offset Solutions Study

https://www.towerhamlets.gov.uk/Documents/Planning-and-building-control/Strategic-Planning/Local-Plan/Carbon_Offset_Solutions_Study_2015.pdf

Tower Hamlets – Carbon policy evidence base

http://www.towerhamlets.gov.uk/Documents/Planning-and-building-control/Strategic-Planning/Local-Plan/Evidence_base_2016_Local_Plan/LBTH_Carbon_Policy_Evidence_Base.compressed.pdf

Westminster Carbon Policy Feasibility Assessment

[http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwj9byY7dDTAhXCKcAKHQ4wB_EQFggpMAE&url=http%3A%2F%2Ftransact.westminster.gov.uk%2Fdocstores%2Fpublications_store%2FWCC_CarbonPolicyFeasibility_FINAL_2013-07-25%2520\(2\).pdf&usg=AFQjCNGw_vieWWbNxfO3QnTjiOv9Oj6zpw](http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwj9byY7dDTAhXCKcAKHQ4wB_EQFggpMAE&url=http%3A%2F%2Ftransact.westminster.gov.uk%2Fdocstores%2Fpublications_store%2FWCC_CarbonPolicyFeasibility_FINAL_2013-07-25%2520(2).pdf&usg=AFQjCNGw_vieWWbNxfO3QnTjiOv9Oj6zpw)

Westminster – Energy – Developing Westminster’s City Plan

http://transact.westminster.gov.uk/docstores/publications_store/Energy.pdf

Appendix 1

Previous survey questions

Targets
1. Price per tonne of carbon applied?
2. Policy mechanism to secure carbon offsets (e.g. local plan policy, sustainability SPD, contributions SPD).
3. Have any locally specific evidence documents being prepared to support the approach and price used?
4. Is there a specific local emissions reduction target for development (i.e. x% over Building Regulations 2010/13)?
5. What types of development are carbon offset payments applied to? I.e. to domestic/non-domestic/both? Only applied to major development?
Funds and project selection
6. What is the current balance of offset funds held?
7. Are carbon offset funds currently being spent? If not, what barriers are preventing spend of offset funds?
8. Is there a published list of projects which offset funds contribute to?
9. Are offsets applied only to only regulated CO ₂ emissions, or are unregulated emissions and other emissions (embodied material emissions) used in offset calculations?)
10. At what stage is the carbon offset payment calculated? (i.e. energy strategy at planning stage or a later 'as built' stage submitted to council.
Monitoring and reporting arrangements
11. What monitoring and reporting arrangements are in place for the spending of carbon offset funds?
12. Has any internal council review of carbon offsetting arrangements been undertaken?
Other

13. Please provide any other comments that your organisation feels the GLA should consider in its review of carbon offsetting arrangements in London?

Appendix 2

Examples from LPAs of Section 106 agreement wording

1. Waltham Forest Council

Carbon Off-setting Contribution: means the contribution to be paid by the Owner to the Council prior to Occupation of the Development and calculated post construction and prior to Occupation in accordance with the following formula: CO₂ emitted from the development (tonnes) per year minus CO₂ target emissions (tonnes) per year x £1800 and to be allocated by the Council (in the event of receipt) to its Carbon Offsetting Fund which is used for carbon reduction projects across the Borough to achieve the Council's overall carbon reduction targets. Such projects could include but not limited to (i) building energy efficiency retrofit measures; (ii) building integrated renewable energy installations; and (iii) awareness raising or behaviour modification programmes and for the avoidance of doubt such monies can be used to assist in the administration of the Carbon Offsetting Fund or as grant funding or as a repayable loan provided that the aim of such grant/loan is to seek to reduce carbon emissions across the borough.

2. Lewisham Council

The Owner will pay the Carbon Offset Contribution to the Council prior to or on Commencement and on the understanding that such contribution will be used to effect the reduction of carbon dioxide emissions in the Borough, and shall not be used for any other purpose.

3. Ealing Council

“Carbon Offsetting Contribution” means the sum of £X towards offsetting the annual residual carbon emissions of Y tonnes of the development payable on commencement of the development as set out in the approved Energy Strategy.

Ealing Council have an Additional Carbon Offsetting Contribution which is enforced in the event that the developer does not meet the approved CO₂ emissions reduction targets:

“Additional Carbon Offsetting Contribution” means a carbon offsetting contribution to be calculated and be paid by the Owner to the Council towards the Council's Carbon Offset Fund to offset additional residual carbon emissions (in tonnes CO₂ per year) in the event that the Development cannot fully meet the Actual Carbon Dioxide Emissions Target onsite as required by the Energy Strategy conditions [] & []. The contribution shall be covered by an one off payment calculated at £60 per tonne for each tonnage difference between the overall regulated carbon dioxide savings and the target savings as set out in Energy Planning –Greater London Authority guidance on preparing energy assessments (March 2016) over 30 years.

