



**Retrofit  
Accelerator  
Workplaces  
Summative  
Assessment**

**A Report**  
for the Mayor  
of London  
September 2023



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## EXECUTIVE SUMMARY

The Retrofit Accelerator – Workplaces (RA-W), a £7.4m Programme jointly funded (50:50) by the Greater London Authority (GLA) and European Regional Development Fund (ERDF), provides free technical support to help the public sector in London to decarbonise. This evaluation assesses the effectiveness of RA-W in its final ERDF funded phase (2016 – 2023).

### PROGRAMME AND EVALUATION OVERVIEW

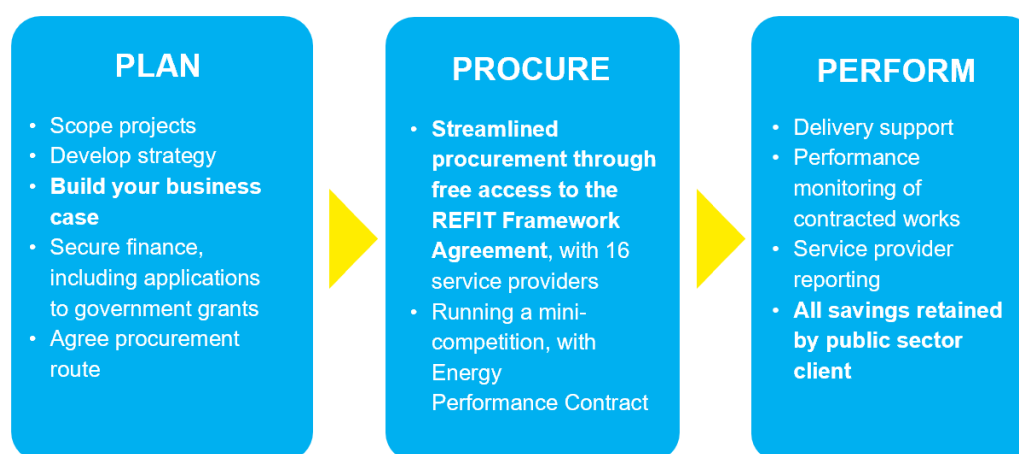
#### RETROFIT ACCELERATOR – WORKPLACES OVERVIEW

The Retrofit Accelerator – Workplaces (RA-W) has been active since 2009 (previously known as RE:FIT London) and supports public sector organisations in London to implement energy efficiency and carbon saving measures.

Using free end-to-end technical support to the public sector, a robust procurement framework, and guaranteed energy savings, RA-W seeks to address several market failures which constrain retrofitting within the public sector. RA-W's objective is to generate and accelerate substantial retrofit activity, achieving significant reductions in energy demand and carbon emissions for London's public buildings.

The public sector must increase the scale and pace of decarbonisation if it is to reduce carbon emissions in line with the Mayor of London's 2030 ambition and recent geopolitical events have further cemented the importance of increasing energy efficiency.

The GLA commissioned Turner and Townsend to deliver the free technical support to the public sector, which is carried out via the Programme Delivery Unit (PDU). The diagram below illustrates the delivery process for beneficiaries.



Source: GLA RA-W presentation slide 2020

## SUMMARY OF EVALUATION APPROACH

This Summative Assessment evaluates the RA-W Programme in line with ERDF guidance and was written in August 2023. The two aims of the study are:

- I. Evaluate the RA-W Programme against its two ERDF targets which aligns with ERDF objectives C32 and C34<sup>1</sup> and five broader performance indicators.
- II. Assess the effectiveness of RA-W's delivery via the PDU.

The evaluation has adopted the following methods to provide a robust assessment of RA-W:

- A desk review of Programme performance information and materials, and a review of the strategic, social, and economic context.
- Consultations with stakeholders, beneficiaries, and the delivery team to explore the Programme design, delivery, impacts and lessons.
- Assessment of impacts, value for money and wider benefits of RA-W.

The findings of the primary and secondary data analysis are synthesised to produce the final evaluation and the report is produced.

## SUMMATIVE ASSESSMENT PLAN

This final evaluation builds upon three previous RA-W reports (a) a baseline report (September 2018) (b) an interim evaluation (2020) (c) and a recommendations report on the future of RA-W (published January 2019).

The RA-W Programme is introduced in [Chapter one](#) which details the objectives, delivery model and wider context. [Chapter two](#) presents the Summative Assessment Plan including the study objectives, methodology, theory of change and rationale. In [Chapter three](#) the Programme performance is assessed and its value for money and economic impact is also considered. In [Chapter four](#) the delivery of RA-W is investigated based upon conversations with stakeholders, beneficiaries, and the delivery team. The Summative Assessment finishes in [Chapter five](#) which brings together the key messages from the research and finishes with recommendations which the GLA and partners may wish to consider.

## PERFORMANCE AND IMPACT

RA-W has exceeded all its contractual (ERDF) and non-contractual (GLA) performance targets. Regarding the ERDF targets by June 2023, the Programme had achieved 130% of its C32 target (Total kWh per annum) and 101% of the C34 target (Total tCO<sub>2</sub> per annum). Headline performance of RA-W is detailed in the infographic below.

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<sup>1</sup> C32 involves the decrease of annual primary energy consumption of public buildings and C34 is the estimated GHG reductions.

## The Retrofit Accelerator-Workplaces (Phase Three) – Final Achievements



RA-W has supported organisations across the public sector, predominantly London Local Authorities, NHS trusts and Education providers, to implement retrofit from installing insulation to solar panels and heat pumps. The Programme has supported access to a total of **£217m in capital investment**, with local authorities (42%) and NHS trusts (39%) obtaining the highest proportion. The successful delivery of retrofitting through RA-W is estimated to save at least **£7,880,000 on public sector energy bills per year** – with NHS trusts and local authorities each accounting for 38% of this figure.

The strong performance from RA-W is testament to the high-quality technical advice from the PDU, streamlined procurement processes, and access to capital funds through the Public Sector Decarbonisation Scheme<sup>2</sup> (PSDS). The RA-W project offers value for money in terms of effective procurement, substantial capital investment as facilitated by the programme's free, high quality support as well as wider productivity enhancements.

The impacts of RA-W are clear with public sector organisations reducing their carbon emissions and saving energy costs. RA-W has supported the public sector to retrofit their buildings which has delivered economic (energy bill savings) and environmental (reduced emissions) benefits, alongside benefits for estate management (reduced maintenance costs of newer technologies). RA-W provides clear added value with its free technical support which enables public sector organisations to plan and then procure retrofitting. Stakeholders and beneficiaries agreed much of this work would not have taken place without RA-W – a view reinforced by the counterfactual perspective.

In line with European Structural Investment Funds (ESIF) priorities, RA-W is helping reduce emissions, improve the environmental quality of buildings, and increase awareness and understanding of how good environmental management provides financial benefits.

### THE DELIVERY OF RA-W

#### STRENGTHS OF RA-W

The report highlights the following key strengths.

<sup>2</sup> The PSDS has provided significant levels of funding to the public sector to implement energy efficiencies to their buildings. Phase 1 of PSDS provided £1bn, Phase 2 provided £75m and Phase 3 will provide £1.425bn between 2022-2025. More information is [available here](#).



- The free technical end-to-end support for the public sector to implement retrofit including diagnostics and prioritisation, funding assistance, and tender/contract support. This has helped to overcome some of the capacity issues within the public sector.
- The simple and robust RE:FIT procurement framework with approved suppliers and use of templates for key documents accelerates the retrofit process and gives confidence to the public sector as it is '*tried and tested*'. The streamlined procurement process meant that projects which may have taken 18 – 24 months were completed in half the time.
- The high-quality support from the PDU provides expertise and guidance for the public sector throughout the RA-W Programme. Their position as experts provides confidence within public sector organisations which can reduce internal hurdles beneficiaries can face.
- The energy savings guarantee and no cost to the public sector until after the Investment Grade Proposal has been developed by the service provider is a key benefit for the public sector as it reduces their risk to engage in retrofit and helps them to build a clear business case.
- Running from 2009, RA-W has developed a strong reputation which is trusted by the public sector, a raft of resources and expertise, and improved its processes. RA-W's strong reputation encourages engagement with the Programme and the PDU's methodical approach to engagement further cements this.

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#### CHALLENGES FOR DELIVERY

As an ambitious programme supporting the public sector to decarbonise, RA-W has encountered challenges:

- The capacity within the public sector is a key challenge for RA-W, which can slow, pause, or end client engagement with the Programme or even prevent initial engagement. Capacity is required within the client teams responsible for delivering net zero and those departments who are indirectly involved such as legal services and procurement. A lack of capacity can create an absence of ownership which further challenges the delivery of RA-W.
- Related to the capacity issues, is a lack of understanding within some public sector organisations of their estate/portfolio in relation to sustainability, and the technical understanding of the retrofit process across departments who relate to estate management. This makes engaging with RA-W more challenging and opportunities for retrofit are missed. Capacity is also missing from the public sector regarding project management of the delivery of retrofit. Some public sector organisations hired external consultants to project manage and others handled it internally, but, at times, this was difficult.
- Access to capital funding is a pressing challenge for public sector decarbonisation. The Public Sector Decarbonisation Scheme (PSDS) has alleviated this in part for some organisations who were able to apply for this thanks to support through RA-W but not all bids were successful, primarily due to oversubscription to the funding which is allocated on a first-come first-served basis. Subsequently some organisations paused work until alternative funding became available.



Cycles of funding also create pressure points for delivery with accelerated timelines and extra pressure on supply chains.

- A lack of strategic prioritisation of net zero activities limits progress towards the decarbonisation of the public sector. Strategic prioritisation from senior levels of organisations highlights the importance of net zero, creates and sustains momentum around activities which reduces the frictions between departments, and increases the availability to resource.

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## PROGRAMME IMPROVEMENTS

Whilst stakeholders and beneficiaries widely praised RA-W, improvements could further increase the reach and impact of the Programme.

Improvements to simplify the RA-W process for clients could include updating and streamlining Programme templates, creating a high-level guide for clients to help them through the process, and exploring ways to tailor resources where appropriate.

It was felt the procurement process could be further streamlined to increase the speed and ease in which the public sector can deliver retrofit. The procurement process could also be improved with increased flexibility where appropriate to enable public sector organisations to award directly without a mini competition.

Options should be considered to help support and build capacity across the public sector to achieve net zero for example many organisations lack project management resource to deliver energy efficiencies.

Marketing and communications must continue to highlight the benefits and impacts of decarbonisation to public sector organisations to improve understanding at a delivery and strategic level. RA-W should continue to celebrate its success and promote best practice through its years of successful delivery supporting the public sector to implement retrofit.

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## LESSONS LEARNED

As an innovative and ambitious Programme, RA-W provides many important lessons.

RA-W has demonstrated the need to support the public sector to decarbonise and the clear demand from this sector. It provides a template of how this can be achieved through wrap around technical support and a simple, robust procurement framework which make it easier and quicker for the public sector to decarbonise. Moreover, the duration and consistency of the support offered through RA-W provides confidence to the public sector that decarbonisation is achievable and RA-W's reputation and proven model further reinforces this.

Yet the public sector can still encounter challenges to implement retrofit due a lack of capacity, strategic prioritisation, and capital funding. Addressing these factors will empower the public sector to decarbonise – as highlighted by the large demand for the PSDS.

RA-W continues to build on its strong successes and should celebrate and promote this more. This would help raise the profile of RA-W and awareness of how to implement public sector decarbonisation. The benefits of implementing retrofit in terms of savings of energy and costs (particularly given recent price

increases), reduced emissions, as well as wider environmental benefits to health and wellbeing need to be promoted more to the public (sector) to further build momentum at a strategic and delivery level.

The public sector requires a range of decarbonisation support (i.e domestic, workplaces, energy, and public spaces/realm). The GLA should consider how to design and deliver its support to achieve maximum impact and reach for example a 'one stop shop' programme for all decarbonisation support which includes diagnostics across an organisation's portfolio/estates and advice on prioritisation.

## RECOMMENDATIONS

The following recommendations may wish to be considered by the GLA and partners:

- I. Explore options to create a 'one stop shop' for public sector decarbonisation support which would include diagnostics to identify how the organisation can maximise its impact across its portfolio and signpost to relevant programmes and support.
- II. Consider a new governance structure which would include external partners (members of public sector organisations) to raise the strategic profile of RA-W and its activities.
- III. Identify options to boost capacity within the public sector to help deliver energy efficiency savings such as a new project management offer through PDU (additional paid for add-on) or activities to increase expertise within public sector organisations (i.e workshops/training).
- IV. Explore ways to further streamline procurement to increase the speed clients can deliver energy saving measures. Increase the flexibility within procurement by considering new options as used in the national programme.
- V. Review RA-W materials to increase the ease and speed in which these can be completed by clients.
- VI. Continue to celebrate the success of RA-W by showcasing case studies, best practice and learning in London and nationally to encourage new clients and help to 'demystify' decarbonisation within the public sector. Promote the Programme's clear positive economic and environmental impacts.
- VII. Investigate and test options to increase the engagement of smaller public sector organisations who may require a more nuanced approach and those from sectors who are 'harder to reach' such as cultural and heritage.

# 1 INTRODUCTION AND PROJECT CONTEXT

This chapter introduces the Retrofit Accelerator - Workplaces (RA-W) including the Programme objectives, activities, and delivery model. The local, national, and social and economic context in which RA-W was delivered is then considered.

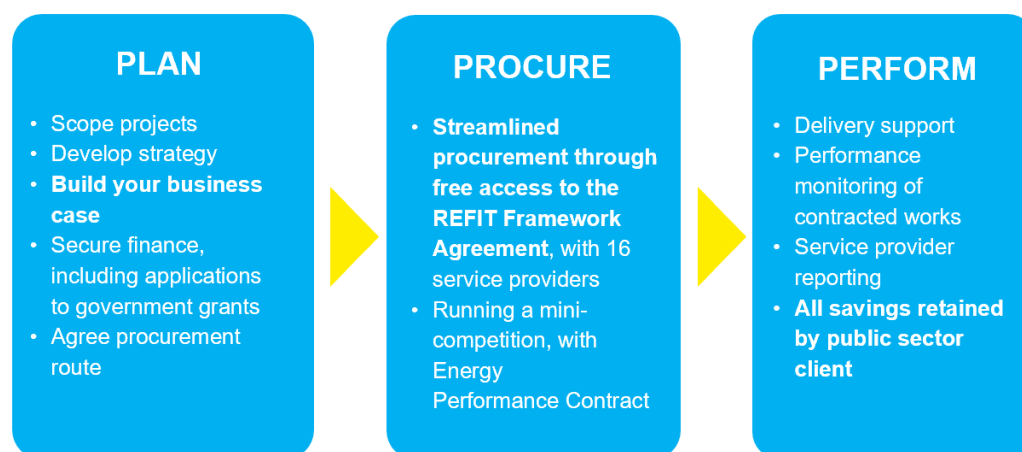
RA-W is in its third phase and this evaluation covers programme activities and performance from March 2016 to June 2023. It builds upon a baseline evaluation (September 2018), recommendations report (2019), and an interim summative assessment (2020).

## 1.1 PROGRAMME SUMMARY

### RETROFIT ACCELERATOR WORKPLACES (RA-W)

The Retrofit Accelerator - Workplaces (RA-W) is a £7.4m Greater London Authority (GLA)/European Regional Development Fund (ERDF) funded Programme to help public sector organisations save energy and carbon through retrofit projects via free technical support. It has been running since 2009 and was known as RE:FIT until 2019 (which is also the name of its national framework).

The free technical support is provided by the Programme Delivery Unit (PDU) run by Turner and Townsend. The diagram below provides a summary of the process clients follow through RA-W with a more detailed explanation of the delivery model in section 1.2.



Source: GLA RA-W presentation slide 2020

### RA-W OBJECTIVES

RA-W's objective is to generate and accelerate substantial retrofit activity, achieving significant reductions in energy demand and carbon emissions for London's public buildings. This will be achieved by supporting public sector organisations to implement large-scale retrofit projects which the market is currently failing to deliver.

RA-W aims to be a catalyst for other programmes in and outside London by promoting and demonstrating the benefits of energy conservation and the use of renewable energy sources, and by increasing awareness of the benefits and successes of Energy Performance Contracting.

It addresses the lack of technical expertise and capacity within many public-sector organisations by providing free expert support to public sector bodies such as local authorities, NHS bodies, schools, universities and colleges, central government departments and cultural and heritage organisations.

The established framework of 16 suppliers allows organisations to procure suppliers quickly and efficiently to deliver energy saving measures with guaranteed energy savings.

## 1.2 RA-W DELIVERY MODEL

The client-facing delivery model contains seven steps described below with the addition of the engagement/and marketing activity to secure client participation.

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### ENGAGEMENT

The RA-W Programme has developed a reputation through its longevity (established in 2009) and clear public sector offer. Workstream A is focused on engagement with new and existing clients to develop the pipeline into RA-W.

If the client wishes to formally enter the RA-W, a Support Plan and Access Agreement are drafted - a statements of intent signed by the GLA (or the PDU) and client which outlines the role, and legal obligations of each party such as confidentiality agreements, insurances, and other measures. Once signed, the client formally enters the Programme.

The PDU has a live dashboard which records the progress of clients through the seven project stages, which is reviewed weekly. Each stage is described below:

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### 1. SEE WHAT RA-W CAN DO FOR YOU

Stage one includes an appraisal of the options and potential client benefits (energy and CO<sub>2</sub> savings). The PDU advises the client on the practicalities of project design and procurement to maximise energy savings within budget, the feasibility and ease of the works to achieve these savings, and the attractiveness of works to the suppliers on the framework.

Energy savings are modelled using known benchmarks from a range of sources such as those from the Chartered Institution of Building Services Engineers (CIBSE), The Carbon Trust, and RA-W's own database of projects. The energy profiles, area (m<sup>2</sup>) of similar buildings with similar uses (e.g. Hospitals) can be used to appraise potential energy and cost savings. Cost and CO<sub>2</sub> benchmarks are applied to energy consumption profiles. The benchmarking provides energy savings that are ambitious, yet within the bounds of practical experience and feasibility. This approach is also used to put ambitious savings targets into the tender process.

There is scope to use more sophisticated technical assistance to assess the options and performance savings for a client, should the nature of their operations or buildings fall outside existing benchmarking models and criteria. If the building is under five years old, or the client already has undertaken energy saving measures, there may be limited scope for improvements and for the RA-W Programme to add substantial benefits. In this case, the client is advised whether to proceed or not.

## 2. SECURE FUNDING (CLIENT SECURES FUNDS FOR IMPROVEMENTS)

At Stage Two, the client needs to secure an approved budget required to deliver the improvements and proposed savings. It is a critical stage and is necessary to proceed to the development of tender documentation and technical specifications. The PDU provides advice on potential sources of external funding. Since its launch in 2020, funding has predominately been through the Public Sector Decarbonisation Scheme (PSDS).

## 3. START TENDER PROCESS

There are two types of tender:

- I. Partner bids – where the client has a broad headline target for energy savings but does not have a detailed specification of the solutions required. This allows prospective contractors to suggest the most effective solutions as part of the tender process.
- II. Target bids – where the client has some preference in terms of a target saving and/or technologies to be deployed for the energy savings proposed.

The service providers under the RA-W Framework Agreement, have been competitively procured based on their technical competency and financial standing to deliver a range of energy conservation measures with guaranteed savings. There are currently 16 Energy Service Companies (ESCos) on the framework. The PDU team provides a tender template, advice, and guidance on putting the tender together, and the tendering and contracting process. This includes hands on support like form filling and quality assurance checks. The tenders are assessed using a series of commercial and technical criteria including experience and team, supplier capacity, approach proposed, costs of works, energy and cost savings, and payback period. Other aspects include an outline of the Investment Grade Proposal (IGP) requirements, works/optimisation services, and Measurement and Verification (M&V) requirements.

## 4. MINI COMPETITION

The invitation to tender (ITT) which clearly sets out the requirement is released to the 16 framework providers. The PDU has a tracker to co-ordinate the timing of ITTs with the national RE:FIT team (Local Partnerships, who co-own the REFIT procurement framework). This ensures providers have enough time to respond and avoid conflicts.

## 5. ACTUAL SAVINGS ACHIEVED – INVESTMENT GRADE PROPOSAL (IGP)

Once an ESCo is shortlisted for the final tender award, they develop a high-level assessment (HLA) and a formal Investment Grade Proposal (IGP) which establishes the specific cost, energy and carbon savings which will be delivered. The output from agreed HLAs is used to set the Defined Performance Parameters against which the Contracting Authority will assess IGPs developed by the Service Provider. The IGP is a contractual guarantee with respect to the ESCo providing the works and improvements. The IGP contains all the technical details required such as the list of works, equipment and technology deployed and most importantly the savings guarantee which will form part of the Energy Performance Contract.

## 6. INSTALL ENERGY SAVING MEASURES

With the Contract (EPC) awarded, the ESCo undertakes the works to install the energy saving measures. The client is responsible for the management of the contractor and for monitoring that the works have

been implemented in line with the IGP and contracts. If necessary, the PDU can offer or advise on a range of external project management and monitoring services, should clients require them.

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## 7. MONITOR PERFORMANCE

The performance of the works is monitored by the client, using a standard M&V structure which is provided by the PDU, set out in the IGP, and contractually bound by the EPC. The PDU does not verify the performance once in contract, but it does verify the proposed M&V plan that is put forward as part of the IGP (Note this is done in Stage 5).

### 1.3 CONTEXT

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#### LOCAL STRATEGIC CONTEXT: NET ZERO IN LONDON

In May 2018, The Mayor's London Environment Strategy was published<sup>3</sup> which outlines how the Capital will become *Greener, Cleaner, and Ready for the Future* to become net zero by 2050 and recognises the importance and interconnectivity of the environment in every aspect of life. The integrated strategy includes immediate actions that will address some of the most pressing challenges which are damaging the health and wellbeing of Londoners now as well as developing pathways to a net zero future. Making London's workplaces more energy efficient is detailed within this strategy – a major part of which is reducing the public sector's carbon and energy through RE:FIT London (now RA-W).

More recently, the Mayor of London announced the new target for London to be net zero carbon by 2030 which requires significant, co-ordinated action. To achieve this the mayor has proposed adopting an 'Accelerated Green Pathway' presented in the *Analysis of a Net Zero 2030 Target for Greater London Report*<sup>4</sup>. It involves rapid decarbonisation activities in London, ahead of national targets, whilst allowing new technologies to be adopted in the future as they emerge. To achieve the 2030 target London will need to:

- Reduce building heat demand by nearly 40% which will involve the insulation of 250,000 non-domestic buildings.
- Install 2.2m heat pumps and connect 460,000 buildings to district heat networks.
- Reduce car vehicle km travel by 27% and end fossil fuel vehicle sales (aligning with national commitments).
- Provide 1.5GW of rooftop solar PV capacity.

The Accelerated Green Pathway details a mixture of retrofit measures but also behavioural change – both of which will be essential to successful decarbonisation at the pace and scale required to be net zero by 2030. Importantly, decarbonisation will produce health benefits for Londoners with improved air quality and the promotion of active travel. Between 2022 and 2030, Infrastructure investment of an estimated £75bn is needed for London to succeed in its Accelerated Green Pathway.

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<sup>3</sup> Mayor of London. 2018. London Environment Strategy. [Available here](#).

<sup>4</sup> Element Energy. 2022. [Available here](#).

The RA-W Programme is part of a suite of measures within the 'Energy for Londoners' initiative<sup>5</sup> which aims to make homes warm, healthy, and affordable, workplaces more energy efficient, and provide London with cleaner, local energy. It includes the Retrofit Accelerator for Homes Programme which like RA-W works with the public sector to provide whole-house retrofit to social housing in London.

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#### ESIF FOR LONDON AND ENGLISH ERDF PROGRAMME (PRIORITY AXIS 4C)

There are two contractual outputs under the ERDF Priority Axis 4c axis of *supporting energy efficiency, smart energy management and renewable energy use in public infrastructure*:

- C32 - decrease of annual primary energy consumption of public buildings.
- C34 - estimated ghg reductions.

This Priority Axis encourages ERDF to be used for innovation-based technologies and demonstrator activities. The London Economic Action Partnership (LEAP) were responsible for €748m of ESIF (European Structural Investment Fund) funding between 2014 – 2020. Sustainable development is a cross-cutting theme of LEAP's ESIF and Sustainable Development Strategy<sup>6</sup> and deliver positive environmental impacts and minimize negative ones.

The Strategy also aims to ensure that activities support the low-carbon market so that London can become a global leader in high value low-carbon innovations and grow the green economy.

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#### NATIONAL STRATEGIC CONTEXT

In response to the Paris Agreement<sup>7</sup> in 2019, the UK Government updated the Climate Change Act (2008) to commit the Government by law to net zero greenhouse gas emissions by 2050.

In 2021, the COP26 Conference was attended by nearly 200 countries and concluded with the signing of the Glasgow Climate Pact<sup>8</sup> which committed signatories (including the UK) to deliver the actions to cap the increase in global temperatures to 1.5C. The Clean Growth Strategy (2017)<sup>9</sup> details how the government intends to decarbonise all key economic sectors during the 2020s. Since the 1990s, the UK has reduced emissions by 47% which was faster than any other G7 country.

Despite this success, the Climate Change Committee<sup>10</sup> who monitor the UK progress towards cutting emissions and meeting net zero by 2050, has been critical of the Government's progress in its latest annual review with the progress being made 'too slowly'. It recommends the Government reconfirm its commitments to reducing emissions and broaden its approach to decarbonisation.

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#### SOCIAL AND ECONOMIC CONTEXT

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<sup>5</sup> Greater London Authority. 2023. Energy for Londoners. [Available here.](#)

<sup>6</sup> [Available here.](#)

<sup>7</sup> Department for Business, Energy and Industrial Strategy. 2019. UK becomes first major economy to pass net zero emissions law. [Available here.](#)

<sup>8</sup> United Nations. 2021. The Glasgow Climate Pact: key outcomes from COP26. [Available here.](#)

<sup>9</sup> Department for Business, Energy and Industrial Strategy. 2017. Clean Growth Strategy. [Available here.](#)

<sup>10</sup> Climate Change Committee. 2023. Progress in reducing emissions. [Available here.](#)



There are several events which have occurred in recent years which have created economic and social shocks that have had global and local impacts – the Covid-19 pandemic, the war in Ukraine and rising energy costs, and for the UK specifically the exit from the EU.

The Covid-19 pandemic saw restrictions on movement occur around the world between 2020 – 2022 causing significant disruption to supply chains globally and highlighting their fragility. The closure of manufacturing and distribution centres, challenging global logistics (border closures) and the increased unpredictability of workforce absence, created instability for markets and consumers<sup>11</sup>. As a response to the global insecurity, some companies have begun to build more resilience and diversity into their supply chains through increasing inventory and exploring options to localise supply networks<sup>12</sup>. Due to the challenges within the global supply chain which resulted in rising costs, solar panel prices rose in 2021 for the first time in seven years<sup>13</sup> – which has serious implications for retrofitting.

The restrictions to tackle the Covid-19 pandemic also saw construction stop in the early stages of the pandemic and subsequently slow due to social distancing requirements.

The supply chain challenges occurred at a time of increasing demand for net zero implementation and due to the pandemic, an increase in consumer demand as more people spent time at home which has further intensified this issue.

The war in Ukraine, which saw Russia invade the country in early 2022, has further challenged global supply chains, caused increased geopolitical uncertainty, and brought food and energy insecurity. It has both increased the need for net zero and made it more challenging to achieve<sup>14</sup> with a restriction of resources from Russia (due to sanctions) which reduces access to some of the natural materials necessary for decarbonisation. However, the energy insecurity caused by the war has accelerated the need for energy resilience and other forms of sustainable energy (to not be reliant on gas imports). The rising energy costs due to the war in Ukraine have increased the importance of decarbonisation to homes and businesses throughout the UK.

The UK exit from the EU has also impacted the construction labour supply which is coupled with a post pandemic increase in demand. Moreover, analysis<sup>15</sup> comparing the cost of construction materials in the EU and UK has found between 2015 and 2022 costs in the UK increased by 65% compared to 35% in the EU. The research also found the UK had higher increases in labour costs compared to several European countries.

This phase of RA-W has been delivered during several unprecedented events which have created social and economic conditions that are challenging yet in some instances have reinforced the need to decarbonise.

## 1.4 REPORT STRUCTURE

In [Chapter two](#) the Summative Assessment Plan is outlined including the study objectives, methodology, theory of change and rationale. [Chapter three](#) investigates the Programme performance, its value for

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<sup>11</sup> World Economic Forum. 2021. How Covid-19 exposed the fragility of global supply chains. [Available here](#).

<sup>12</sup> McKinsey & Company. 2021. How Covid-19 is reshaping supply chains. [Available here](#).

<sup>13</sup> World Economic Forum. 2021. Here's how supply chain issues are affecting renewable energy projects. [Available here](#).

<sup>14</sup> McKinsey & Company. 2022. The net-zero transition in the wake of the war in Ukraine: A detour, a derailment, or a different path? [Available here](#).

<sup>15</sup> UK Trade & Business Commission. 2023. Costs for UK construction outstrips EU while exports fall. [Available here](#).

money, and economic impact. In [Chapter four](#) the delivery of RA-W is explored based upon conversations with stakeholders, beneficiaries, and the delivery team. The Summative Assessment ends in [Chapter five](#) which brings together the key messages from the research and finishes with recommendations which the GLA and partners may wish to consider.

## 2 SUMMATIVE ASSESSMENT PLAN

This chapter details the approach for the Summative Assessment including the evaluation objectives, logic model and theory of change, and the methods used to assess the Programme.

### 2.1 STUDY OBJECTIVES

The aim of this Summative Assessment is to evaluate the RA-W Programme in the final ERDF funded phase, in line with the guidance. The report was written in August 2023. The two key aims of the study are to:

- I. Evaluate the RA-W Programme against its two ERDF targets which aligns with ERDF objectives C32 and C34<sup>16</sup> and five broader performance indicators.
- II. Assess the effectiveness of RA-W's delivery via the PDU.

### 2.2 LOGIC MODEL, ACTIVITIES AND RATIONALE

The Summative Assessment guidance notes the importance of a logic model as it demonstrates the connections between the RA-W's activities, inputs and intended results (outcomes and impacts) for the public sector beneficiaries. The logic model for RA-W is below as featured in the interim evaluation (it has been updated slightly).

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<sup>16</sup> C32 involves the decrease of annual primary energy consumption of public buildings and C34 is the estimated GHG reductions.

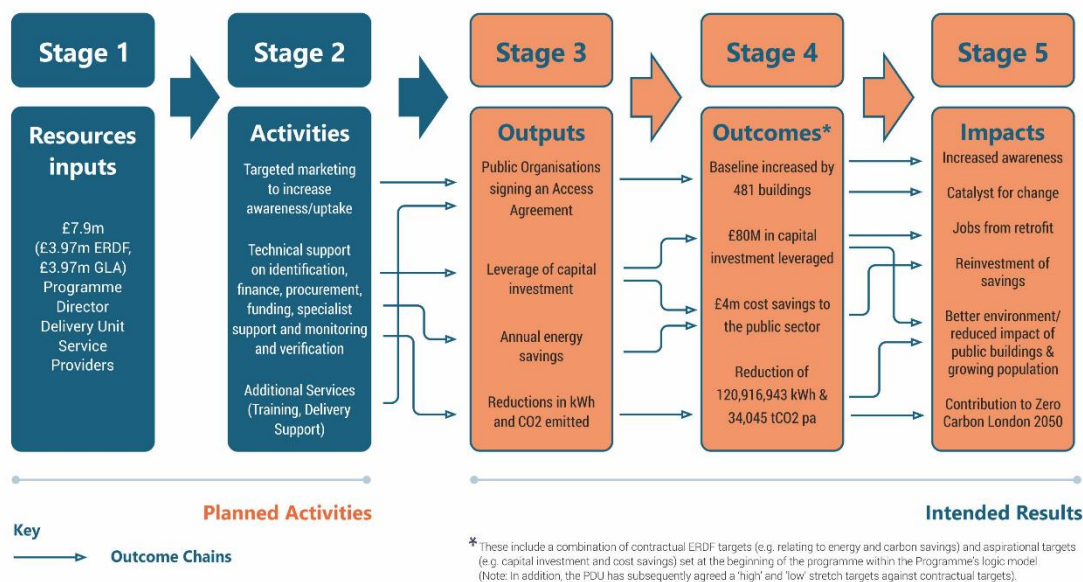
## The Retrofit Accelerator Programme: Logic Model Overview

**Context:** (a) London Environment Strategy and Mayor's commitment to become a zero carbon city by 2030 (b) London ESIF / ERDF OP (c) EU 2030 and Glasgow Agreement.

**Rationale:** (a) Support public sector organisations to deliver/implement a retrofit project (b) Reduce procurement time/costs (c) Transfer risk to the service provider (d) Boost low carbon/renewable energy technologies take up/measures (e) Support innovation eg new technologies (f) Identify and develop investment ready energy efficient projects.

**Market Failure:**

**Prioritisation of energy conservation, lack of capacity/expertise, protracted and complex procurement, financial risk**



### MARKET FAILURES AND RATIONALE

The market failures which RA-W sought to address included: a lack of prioritisation, capacity, and expertise within the public sector to decarbonise; lengthy and complex procurement processes; information failures; and financial risk to the public sector.

Subsequently, the underlying rationale for RA-W was to:

- I. Support public sector organisations to deliver and implement retrofit.
- II. Reduce the procurement time and costs.
- III. Transfer the financial risk from the public sector to the service provider.
- IV. Boost the take up of low carbon measures and renewable energy technologies.
- V. Support innovation.
- VI. Identify and develop investment ready energy efficient projects.

The design of RA-W, as detailed above and in section 1.3, is underpinned by the rationale outlined here. For example, reducing procurement time and costs is achieved through RA-W thanks to a robust procurement framework which streamlines the process for the public sector. Furthermore, transfer of risk to the service provider is accomplished through guaranteed energy savings.

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## ACTIVITIES

The RA-W activities are organised under six workstreams with the overarching aim to address the barriers to public sector retrofit as highlighted in the previous section:

- Workstream A: Acquisition and Business Development - focuses on engagement to secure more clients in the Programme to meet the KPIs and grow a strong future pipeline.
- Workstream B: End-to-End Technical Assistance - (see section 1.3 for more details of delivery).
- Workstream C: Associated Support - includes the development and provision of enabling services to build and target market blockers. This support ranges from additional procurement, funding and finance support to intensive in-house client support and training.
- Workstream D: Programme Strategy and Operational Management - involves overall oversight, direction, and management of the Programme.
- Workstream E: Programme Management Office - includes data management, reporting and digital tech.
- Workstream F: Marketing and Communications.

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## SUMMARY OUTCOMES ACHIEVED

The summary outcomes anticipated for the public sector beneficiaries (see logic model for details of process) include: significant implementation of energy conservation measures, extensive roll-out of low/zero carbon microgeneration technologies such as Solar PV and ground source heating / cooling, leveraging £80m in capital investment and implementation of energy conservation measures with a reduction of 120,916,943 kWh per annum and 34,045 tCO<sub>2</sub> per annum and annual energy cost savings of over £4m.

## 2.3 STUDY APPROACH AND METHOD

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### METHODOLOGY SUMMARY

The method for the evaluation follows the ERDF Summative Assessment guidance and includes the following:

- An inception meeting confirmed the evaluation approach and gave the team an opportunity to learn more about RA-W recent developments and progress.
- A desk review to assess the Programme context, objectives, and targets, providing a clear narrative for RA-W. This also included a review of national and local strategic documents and evidence to produce details of the economic and social context the Programme was delivered in.
- Consultations with stakeholders were undertaken to evaluate the Programme including its strengths and weaknesses, impacts and lessons. A workshop with the PDU and individual interview with the RA-W GLA lead explored the effectiveness of Programme delivery. Individual interviews with beneficiaries investigated the experiences and impacts of the Programme and

one counterfactual interview took place to provide an understanding of what would happen without RA-W. Consultees are listed in Annex One.

- An assessment of impacts, value for money and wider benefits of RA-W.
- Analysis and synthesis of the primary and secondary data draws together the findings and lessons of the study to produce a final evaluation.

The research questions shaping the evaluation, which build upon the Summative Assessment guidance, are detailed in the diagram below.

#### **Summative Evaluation Content and Principal Lines of Inquiry**

Section 1. Programme Context	Section 2. Programme Progress	Section 3. Project Delivery & Management	Section 4. Project Outcomes & Impact
1. Rationale 2. Economic & policy (Context & change) 3. Market failures 4. Objectives & targets	1. Delivery against expected spend/outputs 2. Factors explaining this performance 3. Expected achievements	1. Project management & governance 2. Delivery of activities & possible improvements 4. Effectiveness of targeting strategy? 5. Stakeholder/beneficiary perceptions 6. Integration of horizontal principles?	1. Progress towards outcome & impacts 2. Attribution 3. Quantification of net benefits 4. Contribution to ERDF result indicators 5. Strategic Added Value 6. Value for Money
Section 5: Conclusions, Lessons and Recommendations			

### 3 PERFORMANCE AND ECONOMIC IMPACT

This chapter reports on the spending and outputs of RA-W as of the end of June 2023. The section also estimates the economic impact of the investment for RA-W. It assesses the gross value added (GVA) and the extent to which the Programme is making a difference to the local economy.

#### 3.1 EXPENDITURE PERFORMANCE

At the completion of the RA-W Programme (end of June 2023), the overall project spend total was £7,411,604.44, exhibiting 50% match funding. The RA-W Programme has underspent against its original contracted total of £7.9m by 6%, but this budget was reduced to £7.4m through a Deed of Variation with ERDF during the latter stages of the Programme.

	ERDF	Public Sector Match	Total Programme Expenditure	Contracted Expenditure Target	Proportion of target achieved (%)
Total Expenditure	£3,652,174.29	£3,652,174.29	£7,304,349	£7,411,604	99%

Source: GLA RA-W ERDF Deed of Variation

#### 3.2 OUTPUT AND OUTCOME PERFORMANCE

##### The Retrofit Accelerator-Workplaces (Phase Three) – Final Achievements



**157,376,203 kWh**

Decrease in annual energy consumption



**34,284 tCO<sub>2</sub>**

Decrease in GHG



**711**

Buildings retrofitted



**2,026,608 m<sup>2</sup>**

Retrofitted

The RA-W Programme has supported the retrofitting of 711 buildings and retrofitted 2,026,608m<sup>2</sup> of floor area. The table below shows the outputs achieved against contracted ERDF targets.



Indicator	Targets by September 2023 ERDF	Delivery by 24 June 2023	Proportion Achieved (%) ERDF
ERDF Total kWh per annum (C32)	120,916,943	157,376,203	130%
ERDF Total tCO <sub>2</sub> per annum (C34)	34,046	34,284	101%

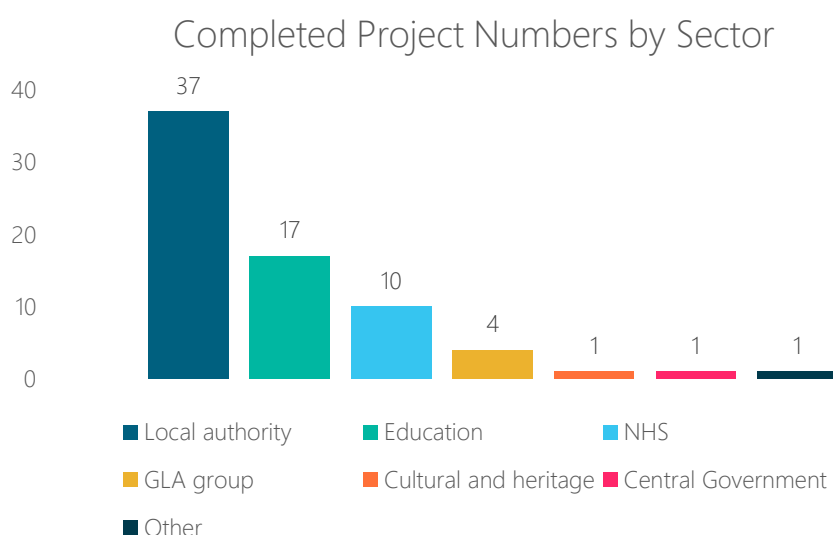
Source: PDU Monitoring Data

There are two main contracted ERDF outputs; C32 and C34. By June 2023, the C32 target which measure a decrease in the annual primary energy consumption of public buildings<sup>17</sup>, at 157,376,203 kWh, against a September 2023 target of 120,916,943 kWh. The project has overperformed in this C32 target as the proportion achieved is at 130%. The C34 target measures the total reduction in Green House Gas (GHG) emissions. As per June 2023, 101% of the C34 output has been achieved against the September 2023 target and GHG reduction estimates are at 34,284 tCO<sub>2</sub>.

The strong performance from RA-W, in which all targets were exceeded, is testament to the high-quality technical advice from the PDU, streamlined procurement processes, and access to capital funds through PSDS. The engagement workstream has continued to develop the pipeline into RA-W and its successes over the three phases has strengthened its reputation. Chapter four provides further details on the delivery of RA-W and the factors which enabled its successful achievement of the ERDF and GLA targets.

### 3.3 PROFILE OF CLIENTS AND ACTIVITIES

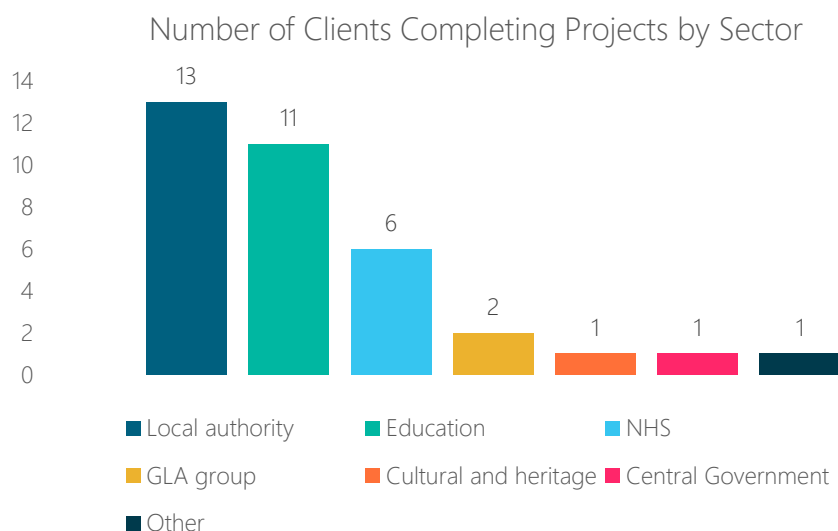
Clients who have completed projects through RA-W in this phase (2016 – 2023) include local authorities, NHS Trusts, the GLA and central government, education providers, and more unique organisations of cultural and strategic importance. Local authorities have completed most projects (37) followed by education providers (17) and the NHS (10). Public sector organisations within central government, the cultural and heritage sector, and 'other' have recorded the fewest completions through RA-W.



<sup>17</sup> Note gas, electricity and diesel measured separately.

Source: PDU Monitoring Data

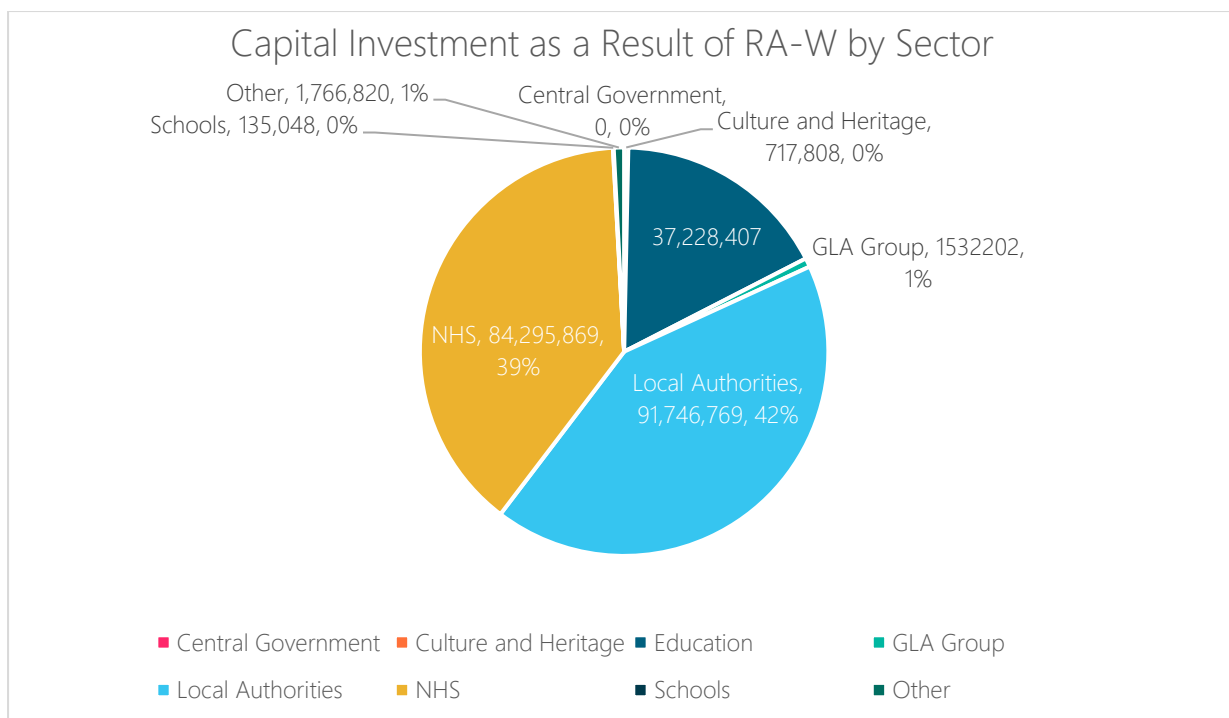
A similar picture is found when looking at the number of clients who have completed projects by sector, with local authorities most engaged in through this phase of RA-W. Local authorities have a mixed portfolio of buildings within their estates (i.e., offices, leisure, and schools) – notably schools have been the largest beneficiary of retrofitting.



Source: PDU Monitoring Data

The two charts highlight how clients have engaged in multiple phases of works through RA-W, with thirteen local authorities successfully delivering 37 retrofit projects through the Programme. Similarly, 11 education providers have delivered 17 projects, and six NHS trusts have completed 10 projects. The three clients categorised as cultural and heritage, central government, and Other have only completed one project and this was in the early stages of this phase of RA-W.

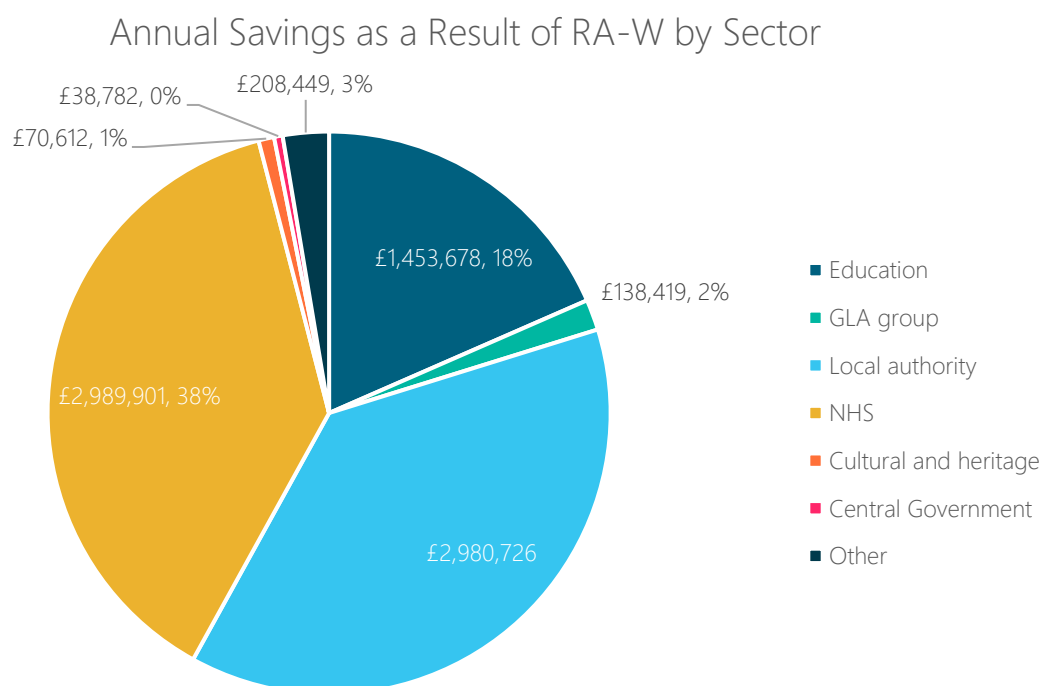
The completed projects included a range of retrofit activities including upgrading LED lighting, replacing boilers, upgrading windows, installing heat or ground source heat pumps, solar panels, insulation, and upgrading building control systems. Clients can combine multiple interventions within their retrofit projects to maximise and tailor interventions to their buildings.



Source: PDU Monitoring Data

The sum of capital investment of the public sector organisations who have completed RA-W projects in this phase is £217m. The majority was invested by the 13 local authorities (42%) and the six NHS trusts (39%).

The Programme's total annual savings amount to an impressive £7,880,566 per annum.

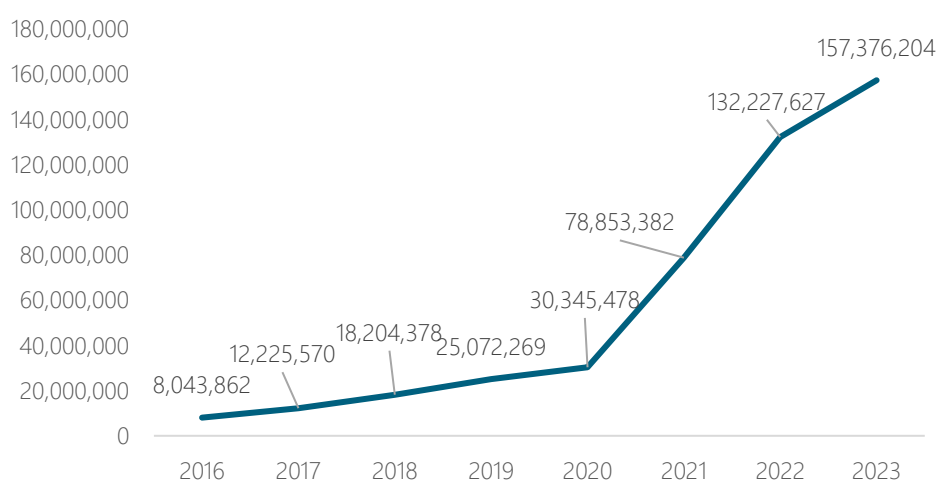


Source: PDU Monitoring Data

As expected, the resulting annual savings were achieved in the majority by the same sectors with the local authorities (£2,980,725) and NHS trusts (£2,989,900) both accounting for 38% of total annual savings.

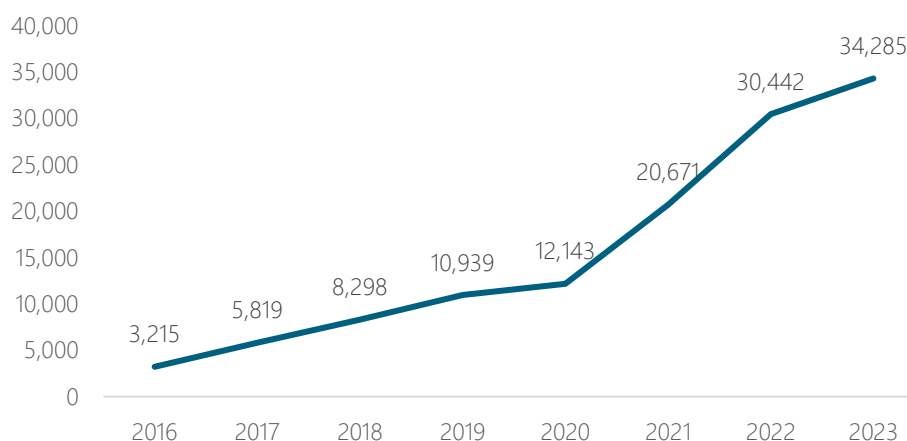
RA-W's performance against its key indicators has gained momentum over time as the charts below detail. The data for 2023 in the following three charts are for the first two quarters only.

kWh Energy Savings Total Performance (Actual)



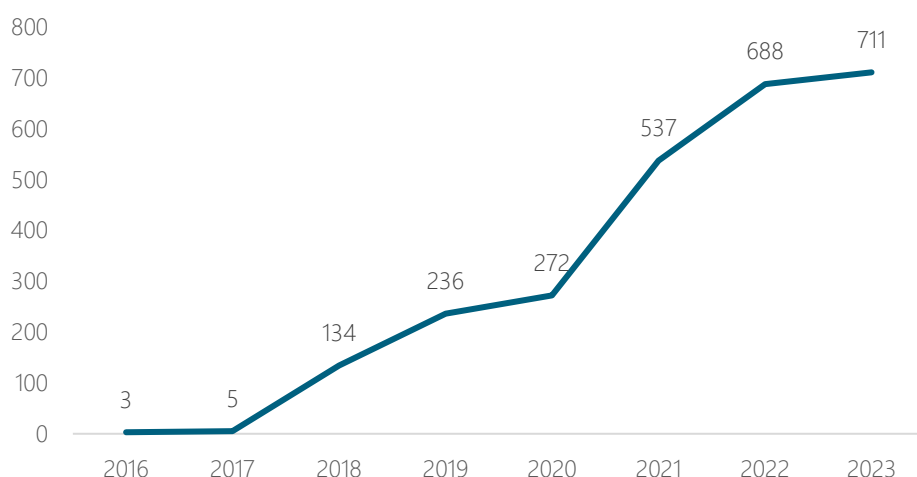
Source: PDU Monitoring Data

Carbon Dioxide (tCO2) Savings Total Performance (Actual)



Source: PDU Monitoring Data

### Number of Buildings Retrofitted

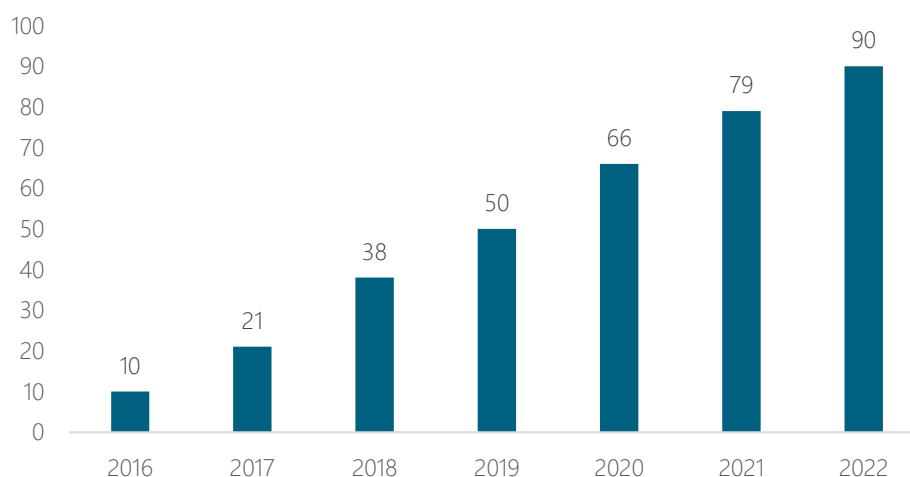


Source: PDU Monitoring Data

The data across the energy (kWh) savings, carbon dioxide savings, and number of retrofitted buildings demonstrate a significant uplift post 2020 which is the when the PSDS became available. Between 2020 and 2021, kWh performance grew by 159.8%, c02 savings performance grew by 70.2%, and buildings retrofitted by 97.4%.

This section has only considered the RA-W projects which have been completed, the Programme continues to support clients with various ongoing projects at different stages of delivery. In total, between 2016 and 2022 90 support plans have been signed with RA-W clients which shows the wider reach of the support within the public sector.

### Total Number of Signed Support Plans



Source: PDU Monitoring Data

### 3.4 PROGRAMME TARGETS, IMPACTS AND BENEFITS

Stakeholders were confident that RA-W would exceed the ERDF performance targets. Notably, the PSDS has accelerated public sector decarbonisation and subsequently improved RA-W's performance. Without the technical support and robust framework of RA-W public sector organisations would have struggled to implement decarbonisation and at the speed which RA-W enables.

The impacts of RA-W are clear with public sector organisations reducing their carbon emissions and saving energy costs. RA-W has supported the public sector to retrofit their buildings which has delivered economic (energy saving) and environmental (reduced emissions) benefits, alongside benefits for estate management (reduced maintenance costs of newer technologies). One London Borough with an estate of 130 corporate buildings (offices, schools, and leisure) reported £8.8m of total energy cost savings (over project lifetime) through three phases of work supported by RA-W and 1,947 tCO<sub>2</sub> saved. The improved energy efficiency was achieved through works including insulation, new lighting, replacement boilers, air source heat pumps, and solar PVs.

An NHS trust in East London has reported £234k of energy cost savings over four years since implanting energy saving measures through RA-W which saved 2,130 tCO<sub>2</sub> since implementation. This was achieved over two phases of work which replaced and upgraded the air handling units within the Hospital. Another NHS trust reported a reduction of backlog maintenance of £10m through the retrofit works supported by RA-W and a saving of £1.6m annually.

There are also social value returns from implementing retrofit with one public sector beneficiary forecasting a social return on investment (SROI) of £15m which is a social return of £2.98 for every £1 invested.

There are also organisational/staff benefits (improved workplaces – comfort and décor, raised awareness of environmental factors in estate management) from engagement with RA-W. One NHS trust commented on the improvement of the hospital environment for their patients. A London university explained how the retrofit had improved the environment for students and created a better learning experience.

For some organisations the RA-W Programme led to the development of new skills for staff such as project management. Another organisation described the upskilling of staff for the monitoring and verification of the retrofitted buildings with new sustainable heating technologies (ground and air source heat pumps, and solar thermal panels).

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#### PROJECT ADDED VALUE/ADDITIONALITY

RA-W provides clear added value with its free technical support which enables public sector organisations to undertake retrofitting. Stakeholders and beneficiaries agreed much of this work would not have taken place without RA-W – a view reinforced by the counterfactual perspective.

The PDU support the collection and analysis of data to help organisations identify and prioritise future activities and improve the understanding of the building stock more widely. The diagnosis and PDU support allow organisations to plan and think more strategically about how to decarbonise. RA-W has helped organisations scale up their decarbonisation plans as they work with clients over multiple phases.

Beneficiaries are also able to deliver a mixture of interventions through projects supported by RA-W such as installing insulation, double glazing and low carbon heating and energy and the PDU help to advise on the best possible solutions for each building.

The design of RA-W which offers public sector organisations a service at no costs until after receiving Investment Grade Proposals from pre-approved contractors and the use of energy guarantees provide clear added value. This strengthens the business case for the public sector which further promotes the need (and ease) of decarbonisation. Notably, this support has helped public sector organisations take advantage of grant funding such as PSDS of which many RA-W beneficiaries have been successful.

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#### HORIZONTAL PRINCIPLES

The horizontal principles around sustainable development and inequalities have shaped the design of RA-W which is centered upon supporting the public sector to implement energy efficiency measures. In line with ESIF priorities (p99), it is helping reduce emissions, improve the environmental quality of buildings, and increase awareness and understanding of how good environmental management provides financial benefits – as noted by stakeholders and beneficiaries in the previous section.

The Programme has clear positive impacts for the organisations and surrounding communities in reducing emissions, saving costs to the public sector, and creating healthier workplaces. The project makes valuable contributions to employee physical and mental well-being (better working environments reduce absenteeism and sickness) with evidence children can concentrate better with less harsh lighting. The project is alleviating climate change and therefore minimizing the societal effects of climate change.

### 3.5 ECONOMIC IMPACT

This section addresses the economic impact of the investment. It assesses the Gross Value Added (GVA) of the Programme and the extent to which it is making a difference (compared to if the investment had not been implemented). Economic impact, expressed as GVA, of GHG savings realised by the Programme, has been calculated based on C34 final output claims and the cost of carbon savings<sup>18</sup>.

The approach to the model is outlined below.

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#### APPROACH TO ECONOMIC IMPACT MODEL

A comprehensive assessment of the economic impact of GHG savings was undertaken considering the following values:

- Cost of carbon savings valued at £252 tCO<sub>2</sub>e in 2023<sup>19</sup>.
- C34 output total of estimated GHG reduction savings of 34,284 tonnes.

The Treasury's Green Book offers guidelines in assessing the true impact of investments. In line with these, steps were taken to assess gross and net GVA, GHG saving impacts and net present value:

- In line with outlined benchmarks, deadweight was assumed at 43% and displacement at 29.6% at a regional level. Leakage was assumed low at 11.3% at a regional level as the Programme implemented physical interventions, therefore all benefits accrue in the target geography.

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<sup>18</sup> [Valuation of Greenhouse Gas Emissions for Policy Appraisal and Evaluation](#)

<sup>19</sup> [Valuation of Greenhouse Gas Emissions for Policy Appraisal and Evaluation](#)



- The persistence of the benefits i.e., how many years the benefits are expected to persist and the period over which benefits will accrue until they reach their full potential. In this instance, a 10-year time frame was used for the benefits of estimated GHG reductions as based on previous experience.
- A decay of 10% per annum has been used i.e., the proportion of annual benefits expected to be lost from one year to the next due to economic changes, other investment decisions etc.
- Calculation of the Net Present Value (NPV)<sup>20</sup> of the GHG reduction GVA benefit stream over a 10-year persistence was discounted back and utilised an appropriate rate. The Green Book guidance has been followed which recommends discounting by 3.5% to determine NPV.
- A cost benefit ratio calculated by Net Present Cost (NPC) against NPV i.e., the amount each £1 of investment generates.

The following estimates of the economic impact and value for money is based on what has been achieved to date from the monitoring data on GHG reductions and spend.

#### HEADLINE ECONOMIC IMPACT

The economic analysis draws upon UK Government Green Book guidance to assess the benefits of greenhouse gas reductions. The guidance outlines that the numerical value of carbon savings amounts to £252 per tonne; this figure was used in the economic model.

Economic Impacts	
	NPV/GVA over 10 years
GHG Reduction Savings	£17,748,358

Source: Kada Research

### 3.6 VALUE FOR MONEY ASSESSMENT

The RA-W project offers value for money in terms of effective procurement, capital investment and productivity enhancements.

#### VALUE FOR MONEY IN THE PROCUREMENT OF THE PDU

The procurement exercise for the PDU ((OJEU) Reference No. 2019/S 223-547341) was conducted in accordance with the GLAs drive to deliver best value whilst meeting its own requirements. The Most Economically Advantageous Tender (MEAT) criterion was used based on 70% Quality (Technical) and 30% Price (Commercial). To ensure value for money and a continued focus on performance from the PDU contract the GLA introduced an incentivisation model, whereby a proportion of the Contractor's total day rates is payable only on the achievement of targets relating to the Retrofit Accelerator KPIs.

#### CAPITAL INVESTMENT

Support provided by the PDU has enabled around £217m of capital investment between 2016-23. The technical advice and expertise provided over the course of the project at no charge, has enabled this substantial capital investment in energy efficiencies, and has facilitated the achievement of decreased

<sup>20</sup> Net present value is a calculation that compares the amount invested today to the present value of the future cash receipts from the investment. In other words, the amount invested is compared to the future cash amounts after they are discounted by a specified rate of return.

annual energy consumption in public buildings and reduced greenhouse gas emissions. In view of this, RA-W demonstrates high value for money.

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#### PRODUCTIVITY ENHANCEMENTS

Value for money in productivity enhancements can be outlined through improvements in energy efficiency leading to improved indoor air quality and thermal comfort which can have productivity benefits as fewer days of work missed<sup>21</sup>. Every euro invested in insulation, can result in 0.78 euros benefit in reduced days of work missed<sup>22</sup> and productivity improvements due to better air quality can reach 8-11%<sup>23</sup>.

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<sup>21</sup> Wyon, D. P., The effects of indoor air quality on performance and productivity 2004

<sup>22</sup> Copenhagen Economics, 2012, Multiple benefits of investing in energy efficient renovation of buildings

<sup>23</sup> World Green Building Council, 2014. Health, Wellbeing & Productivity in Offices. The next chapter for green building

## 4. PROGRAMME DELIVERY

This section of the report explores the delivery of RA-W through interviews with stakeholders and beneficiaries and a workshop with the PDU. It reports on the discussions on delivery, the strengths and challenges of the Programme, and the lessons learnt.

### 4.1 RATIONALE AND MARKET FAILURE

Stakeholders and beneficiaries agreed the RA-W's rationale<sup>24</sup> remained valid. The support to public sector organisations to implement retrofitting of their buildings continued to be recognised as important particularly given the budgetary pressures they have faced over the last decade and recent increases in energy costs. The transference of risk to the supplier (from the public sector) was key for organisations and eased the process internally for example it enabled engagement with RA-W without requiring any sign off costs from other departments or managers.

RA-W was designed to address several market failures (barriers) that prevent or limit public sector decarbonisation which include the prioritisation of energy conservation, lack of capacity/expertise, protracted and complex procurement, and the financial risk. The Programme has successfully streamlined the procurement process through the framework and panel of approved suppliers and reduced the financial risk through the energy performance guarantee contracts, the offer by some service providers of free Investment Grade Proposal (IGP) and using the RA-W not incurring a fee.

It has helped public sector organisations deliver retrofit works and has provided excellent service through the Project Delivery Unit (PDU) but the lack of capacity within organisations particularly Local Authorities continues to constrain decarbonisation. The lack of capacity is across Local Authority organisations from the sustainability teams to legal and has caused delays to projects. Yet, without RA-W such barriers may have proved insurmountable as one local authority representative commented:

*"I think a lot of this stuff just would not have occurred without the support of the programme".*

The prioritisation of energy conservation has improved throughout the Programme and has become a more pressing issue nationally. The rising costs of energy has reinforced the need for buildings to become more energy efficient. However, the prioritisation of energy conservation at a strategic level in some public sector organisations was lacking and causing a blockage on decarbonisation progress.

*"They [public sector organisations] might have a net zero plan but how much of a priority is it really?"*

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<sup>24</sup> (a) Support public sector organisations to deliver/implement a retrofit project (b) Reduce procurement time/costs (c) Transfer risk to the service provider (d) Boost low carbon/renewable energy technologies take up/measures (e) Support innovation eg new technologies (f) Identify and develop investment ready energy efficient projects.

Clear and consistent messages on the importance of decarbonisation from senior decision makers is required to enable public sector organisations to act at the scale and pace required to achieve net-zero targets over the next decade.

Finances and internal resources remain a key barrier to public sector decarbonisation. The introduction of the Public Sector Decarbonisation Scheme (PSDS) in 2020 has provided significant levels of grant funding for the sector to implement energy efficiencies. The PSDS<sup>25</sup> has enabled beneficiaries of RA-W to accelerate their decarbonisation plans and the Programme was well placed to support applicants. The PDU has helped organisations formulate PSDS bids and scale up their activities. According to the GLA RA-W helped public sector organisations in London to secure approximately £240m from the PSDS phases 1 to 3b.

Access to the PSDS has been a key enabler for RA-W since its introduction in 2020 and is reflected in its increased performance (see chapter three). However, stakeholders reflected the stop/start nature of grant funding can also hinder decarbonisation plans as if an organisation is unsuccessful, it may pause plans until the next round of grants are released. On the other hand, one RA-W beneficiary explained their organisation was going to move ahead with their decarbonisation plans despite missing out on PSDS. Subsequently, the organisation was investing their own capital to replace their heating system (which accounted for half of their emissions) to a more sustainable option.

Conversations have highlighted three important, interconnected, barriers to public sector decarbonisation which are capacity, access to funding and strategic prioritisation. These barriers continue to impact the sector.

## 4.2 PROGRAMME DELIVERY

### PROGRAMME RECRUITMENT AND REACH

The PDU were proactive in the recruitment of public sector organisations to RA-W and have a separate workstream focused on engagement of potential beneficiaries (workstream A). Intelligence is collected and prospects prioritized to enable the PDU to target the organisations most suited to engage with RA-W. The PDU have honed their approach to engagement over each iteration of RA-W adopting different approaches depending on the readiness of the public sector organization.

RA-W has a strong reputation built from its decade of support (it was previously known as RE:FIT London) which has also driven recruitment. It has built strong personal contacts over the years with relevant personnel.

Beneficiaries were motivated to join RA-W for the free technical support provided by the PDU and the streamlined process the framework provided. The passion for addressing climate change was also a strong motivation of individuals for signing up to RA-W who used this enthusiasm to initiate engagement.

Stakeholders reflected that despite the positive levels of engagement more could have been done to extend the reach of the Programme within the public sector, particularly for those organisations who are

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<sup>25</sup> Phase 1 of PSDS provided £1bn, Phase 2 provided £75m and Phase 3 will provide £1.425bn between 2022-2025. More information is [available here](#).

smaller and have less resource to engage in such activities. Capacity, particularly within local authorities, is a key barrier to engagement in programmes like RA-W.

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#### ADMINISTRATION, GOVERNANCE AND PARTNERSHIP WORKING

RA-W has a series of systems in place to ensure the smooth administration of the Programme with the PDU providing regular performance updates to the GLA and subsequently the GLA reporting to the ERDF as per the funding requirements. The PDU has strong project management structures and clear workstreams which has enabled the successful delivery of RA-W. The relevant GLA and PDU leads meet regularly to ensure the Programme runs smoothly and any issues are quickly raised and resolved.

The administration of RA-W is supported by good partnership working between the GLA and the PDU with regular meetings and clear lines of communication. The partnership working within the PDU was also praised by stakeholders with consultants benefiting from the expertise and support of their peers, which was particularly helpful when challenges arose during projects.

The partnership between the GLA and Local Partnerships (co-owner of the RE:FIT framework and delivers nationally excluding London) has worked well with the Programme being '*owned by the public sector and working for the public sector*'. The simultaneous delivery of the framework nationally and in London provides an opportunity to reflect on best practice and different ways to offer support to the public sector to decarbonize.

The governance of the Programme within the GLA has worked well. Stakeholders reflected it could be improved to promote RA-W more strategically across the public sector in London. The inclusion of external stakeholders within the governance structure for RA-W would increase the visibility of the Programme, strengthen its governance, and increase the strategic prioritisation for public sector decarbonization.

### 4.3 STRENGTHS AND WEAKNESSES

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#### STRENGTHS

The Programme design which offers technical support to public sector organisations without a fee was widely praised. Many commented the retrofit work would not have taken place without RA-W with the support overcoming internal capacity issues within the public sector organisations. One local authority commented:

*"RA-W is brilliant and enables us to move fast".*

The fact that organisations do not incur any costs up to the proposal stage was seen as a strength of the Programme (although this also created challenges as discussed later). The reduced financial commitments were key for public sector organisations to promote decarbonisation internally and to get initial buy in from decision makers through the development of business cases.

The accessibility of the technical support is a further strength as is the quality and level of technical advice and support the PDU provide. The PDU was widely praised by stakeholders and beneficiaries and has successfully delivered activities to a high standard. The PDU were seen as experts who 'plugged gaps' within public sector organisations to help implement decarbonisation. The support provided by the PDU

enables beneficiaries of RA-W to easily transverse the different stages of delivering retrofit. The PDU's position as experts provided confidence within public sector organisations which can reduce internal hurdles (such as between departments).

The regular roundtable with local authorities provides a space for peer support and allows people to share their experiences and learn from each other.

The PDU provide templates of key documents which makes the process far simpler for beneficiaries. The panel of pre-approved suppliers and the clear tender processes are straightforward for beneficiaries to use and a selling point of RA-W. The streamlined procurement process meant that projects which may have taken 18 – 24 months were completed in half the time.

As RA-W (or REFIT London) has been active since 2009, it is a 'tried and tested' model and has developed a strong reputation for helping the public sector decarbonise.

*"The Programme makes achieving net zero ambition easier for organisations".*

The PDU has also developed its experience and expertise over this time and created new diagnostic tools and resources to increase the effectiveness of their support.

*"The benchmarking tool developed by PDU which collates data of RA-W to quickly help identify potential of carbon reduction, investment, payback period, and prioritisation of buildings. This provides a good understanding to organisations".*

Having access to this data and the expertise of the PDU to help navigate it is a strength of RA-W which can help beneficiaries prioritise decarbonisation activities and develop a long-term plan of how to become net zero. The PDU also identifies and evaluates potential funding streams and promotes these to relevant beneficiaries. The PDU support helps to anticipate and address challenges and ensures the project makes progress in a timely manner. The timeliness of projects is important as often if external funding is being used (such as PSDS) there are short deadlines for submitting applications and delivery of the works if successful.

RA-W has assisted the public sector in accessing large sums of capital investment through the PSDS which has helped to accelerate retrofit activities.

*"The Programme is accessible and has capitalised on PSDS. The PDU has helped formulate bids and enabled public sector to scale up activities".*

The quality of the Investment Grade Proposals and the fact that some service providers delivered these at no cost was praised by some of the beneficiaries, although zero cost IGPs also can bring challenges.

The RA-W Programme has enabled beneficiaries with the support of the PDU to bundle different decarbonisation works together (of various sizes) to maximise their energy savings. This has worked particularly well when beneficiaries have committed to several phases of the project. The delivery of work to decarbonise buildings also improves the general estate condition as it often includes updating cosmetic features.

The Energy Performance Contracts have reduced the risk for the public sector organisations as this has now been transferred onto the contractor who must deliver the agreed level of energy efficiency savings.

*"The performance guarantees at the core of the framework offer a compelling proposition".*

The performance guarantees alongside RA-W's track record in supporting the delivery of public sector decarbonisation provides a level of confidence to organisations that the projects will go smoothly. Additionally, the suppliers on the framework have all been working with RA-W since the beginning and therefore have been able to grow their own experience and expertise to improve the service they offer.

*"The framework works well with contractors and is flexible to accommodate needs, change scope, and creates a space for a long-term relationship to develop between contractors and local authorities".*

*"It provides added value for contractors".*

A benefit for contractors of being on the framework is access to a large pipeline of work in a growing sector and creates the space for a long-term relationship to be developed with the client.

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## CHALLENGES

The levels of resource and capacity within the public sector is a major challenge for implementing decarbonisation. Stakeholders advised that the limited resources available have been focused on services which are client facing and subsequently there is less capacity within other departments. In many organisations, the departments which deliver decarbonisation do so with limited resource and are often coupled with other workstreams. This lack of resource and capacity makes it challenging for organisations to engage with RA-W and to make timely progress whilst participating in the Programme. The lack of capacity in connected departments also creates challenges for example within legal departments.

For one organisation who has not fully engaged with RA-W, they lacked the capacity to even meet with the Programme officers or to consider bidding for funds to decarbonise. This is an issue for smaller organisations.

Public sector organisations need a good level of understanding and data about the buildings they wish to decarbonise which some organisations lack, or the tools required to assess costs and savings. Many public sector organisations also lack the sustainability expertise to identify and address decarbonisation needs. This information and expertise are essential to formulating and prioritising decarbonisation action plans. Opportunities to retrofit can also be missed when departments responsible for estate management lack the understanding of the benefits and importance of energy efficiency improvements.

Once engaged with RA-W and in contract with a supplier, some public sector organisations lack the project management and quality assurance resource to manage the delivery of the works. This is a challenge which some organisations have overcome by employing external consultants to manage the process, as there is currently no support through RA-W for this.

Linked to limited capacity, is a lack of client ownership over the RA-W process. It was felt in part this may be due to client's not recognising the value of the service given that RA-W is free to use. The lack of



client ownership of the process caused delays and meant more resource is required from the PDU to manage and drive the process. This is also challenging for the PDU when faced with procurement delays as they do not have the control to drive actions within the public sector organisations.

Staff turnover within public sector organisations has also created challenges for RA-W as replacement workers take time to get up to speed and this creates delays.

Within some public sector organisations, there is a lack of strategic buy-in for decarbonisation and this creates barriers for the delivery of energy efficiency measures.

*"There are difficulties internally to convince [senior staff] RA-W is a good idea at a strategic level and this would be even harder to convince without PSDS".*

Increased visibility and importance need to be placed on decarbonisation for net zero to be achieved. More broadly, decarbonisation and retrofitting need to be demystified so that people understand them within the general maintenance of buildings. This lack of understanding leads to a perception of decarbonisation as too difficult to attempt which deters organisations from engagement.

Across the public sector, the challenging financial situation over the last decade has left many buildings without maintenance and in decline. Organisations cannot retrofit buildings before resolving more pressing repairs such as a leaky roof and making sure it meets or health and safety requirements.

The timeframes connected to funding can make RA-W and the decarbonisation activities challenging to deliver. The PSDS hastened the time in which beneficiaries needed to progress and deliver decarbonisation plans. Whilst RA-W fortunately offered a robust framework to do this, it was a challenge to ensure deadlines were met. Additionally, PSDS created a rush in demand for contractors to deliver the work which pressurised supply chains that were already challenged.

*"There are market pressures caused by PSDS and looming net zero goals, which increases the demand for technologies such as heat pumps and solar panels which is within the wider context of global supply chain issues which means getting materials is challenging".*

The supply chain issues were also exacerbated by the Covid-19 pandemic which caused delays and required sensitive handling of some sites, such as care homes, which were inaccessible for significant periods during this time.

Prior to PSDS, the lack of capital funding for decarbonisation was a key challenge for the public sector and the reliance on grant funding can delay or end activities. Whilst PSDS has enabled many organisations to decarbonise not all bids were successful and there is still a significant amount of work required for the public sector to achieve net zero.

The measurement and verification process, which measures and reports the energy savings of the intervention throughout the payback period, is complicated and there was some uncertainty surrounding how this process worked on the ground, which caused scepticism for some beneficiaries. This was a particular concern where public sector organisations had limited capacity to monitor the process to ensure energy saving guarantees were being met.

The mixture of London's public sector buildings architecturally can make delivering energy efficiency measures difficult, and especially when there is limited space to work in. There is also the added challenge of accessing public spaces. In some cases, this has meant work has had to be done at night which subsequently creates new challenges of managing local resident's expectations surrounding the potential disruption to them. A further challenge comes where listed building consent and/or planning permission is required to make changes for some sites.

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## PROGRAMME IMPROVEMENTS

There are several areas which could improve the experience and impact of RA-W surrounding the Programme's processes, design, and strategic reach and communications.

The templates used in RA-W could be improved to reduce the time and complexity of completing them for example more pre-population or streamlining. It was also suggested there could be some tailoring of the templates based on the potential user for example the NHS.

The RA-W guidance is currently lengthy and complex, the introduction of a high-level guide to help clients navigate the process would make it more accessible and less daunting for beneficiaries.

Time should be built into the future iterations of RA-W to regularly review and improve resources and processes where applicable. A more iterative approach would enable the PDU to reflect on their practice whilst the Programme was live.

*"Currently procurement has a 6-month timeline, potentially 4 months if aggressive. Could this be streamlined to 3 months?"*

Whilst RA-W has already accelerated procurement, the process could be further streamlined to speed up the delivery of public sector decarbonisation for example by improving existing project documentation. Also, it was suggested alongside the 'mini competition', beneficiaries could be given the option to make a direct award where appropriate.

To overcome the delivery challenges stemming from a perceived lack of drive or commitment from the client it was suggested that incentives could be used to ensure timely progress or that a fee could be charged - as is in the national RE:FIT scheme.

There is a need to support local authorities to build capacity to implement decarbonisation as many currently do not have the resources in place to diagnose, plan, implement and deliver retrofit. The support provided by the PDU has highlighted the 'gaps' which vary across local authorities, but a lack of project management capacity was common throughout. It was suggested that the PDU could be developed to offer additional payable services such as project management to support the delivery of public sector decarbonisation. Capacity building within local authorities would enable them to become proactive, rather than reactive, towards funding opportunities with readymade business cases.

In terms of capital funding, it was also suggested RA-W could explore options to support access to alternative modes of funding such as an approved financial supply framework akin to the current approved supplier panel.

Further development of the measurement and verification process would increase confidence in this process, strengthen the case for future interventions, and demonstrate the true impact RA-W has had, which is likely to be greater than the estimated savings.

Across the local authorities there are varying levels of capacity, a mixture of needs and readiness for decarbonisation. A more nuanced understanding of local needs, capacity and context could improve the offer to local authorities who have not previously engaged with RA-W or those who have disengaged. For example, an account manager for several geographically close areas would develop a clear understanding of the local authorities and be able to target support as well as increasing the visibility of RA-W in these areas.

The combination of RA-W with the other Mayoral energy programmes would make the process simpler for beneficiaries to engage with, identify more opportunities for sustainability improvements and enable resources to be spent more efficiently. For example, a 'one stop shop' approach followed by an in-depth diagnosis of the beneficiary needs would allow organisations to be signposted to the relevant programmes and ensure maximum impact.

To increase the reach and success of RA-W there is a need to improve the marketing and communication of the Programme to make it clearer what it is and the impacts of decarbonisation (saving energy and reducing costs). It is important that retrofitting is demystified to encourage more organisations to decarbonise. This could be done in part through the celebration of RA-W's successes and promotion of learning through case studies.

There is a particular need to improve marketing and communications targeted at the strategic level within organisations who have the power to accelerate change. The GLA could promote and influence strategically to drive sustainability as *'it can't be the cherry on the top, it needs to become business as usual'*.

Strategic buy in could be improved through regular forums with key decision makers within organisations and by establishing an external governance process with people who can drive change from the top which will alleviate some pressures of delivery.

#### 4.4 LESSONS LEARNT

##### DELIVERY LESSONS

RA-W has highlighted the need to support the public sector to decarbonise and provides a template of how this can be achieved through wrap around technical support and a simple and robust procurement process.

For public sector organisations to successfully engage with RA-W and implement retrofit they need sufficient capacity across the organisation. Capacity is required within sustainability teams, legal departments, project management, quality assurance and data analysis. The lack of capacity prevents, pauses, or delays public sector decarbonisation.

To use RA-W most effectively, organisations must have a good understanding of their estate and what is required to become more sustainable across the organisation. This technical gap can hinder decarbonisation efforts.

Barriers to retrofitting can be eased when there is a strategic drive which actively promotes the need to decarbonise and its benefits (reduced energy emissions and cost savings). Public sector organisations need to see decarbonisation as a priority action not an optional extra – and require the resource to do this.

Access to funding is essential for public sector decarbonisation. The three phases of PSDS have highlighted the huge demand for funding to decarbonise within the public sector, which was over-subscribed. Alternative forms of funding, particularly longer term, are required to support public sector decarbonisation over several phases of works.

Whilst RA-W offers a ‘tried and tested’ procurement model, stakeholders suggested additional route, such as direct award to a service provider, with more flexibility could increase the reach of the Programme.

RA-W should continue to explore ways to tailor its offer to organisations due to the differing needs, context and capacity across the public sector and geographies of London.

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#### LESSONS FOR POLICY MAKERS AND FOR THOSE IMPLEMENTING SIMILAR PROGRAMMES

There is clear demand for programmes like RA-W which offer free technical advice and support to the public sector. The robust framework and streamlined procurement processes make it easier and quicker for the public sector to implement decarbonisation.

The longevity of the support offered through RA-W provides confidence to the public sector that decarbonisation is achievable and RA-W’s reputation and proven model further cements this.

The public sector needs more internal capacity to become net zero as well as access to clear, long-term funding routes. Strategic prioritisation within public sector organisations can ease and accelerate decarbonisation.

The benefits of implementing retrofit in terms of savings of energy and costs (particularly given recent price increases), reduced emissions, as well as wider environmental benefits to health and wellbeing need to be promoted more to the public (sector) to further build momentum around this important work.

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#### LESSONS FOR THE GLA

RA-W continues to build on its strong successes and should celebrate and promote this more. This would help raise the profile of RA-W and awareness of how to implement public sector decarbonisation.

Clear marketing on the wide benefits of decarbonisation and how RA-W can help to achieve this are required to improve understanding across the public sector.

More could be done to increase the understanding and buy-in of RA-W at strategic levels within public sector organisations. For example, a new governance structure which included external strategic partners.

The demand from the public sector for RA-W continues and it has been greatly helped by the PSDS, which highlights the importance of funding to enact such work.

Without improved levels of capacity, the public sector will struggle to decarbonise at the pace and scale required to meet net zero pledges.

The public sector has a wide range of decarbonisation support needs (i.e domestic, workplaces, energy and public spaces/realm) which the GLA currently support through a range of programmes such as the two Retrofit Accelerators (one for workplaces and one for homes). The GLA should consider how to design and deliver its support to achieve maximum impact for example a 'one stop shop' Programme for all decarbonisation support which includes diagnostics across all their portfolio and advice on prioritisation. This 'one stop shop' would aim to simplify the process for clients and increase accessibility by hiding the 'wiring' which sits behind the support.

## 5. CONCLUSIONS AND RECOMMENDATIONS

This section reflects brings together the primary and secondary evidence to assess the effectiveness of RA-W. Recommendations are provided which include suggestions at both a strategic and delivery level.

### 5.1 CONCLUSIONS

RA-W has successfully helped public sector organisations across London to deliver retrofit, increase energy efficiency and save running costs. The Programme has exceeded all its contractual (ERDF) and non-contractual (GLA) performance targets and has demonstrated its value for money.

RA-W has supported organisations across the public sector, predominantly local authorities, NHS trusts and Education providers, to implement retrofit from installing insulation to solar panels and heat pumps. The Programme has supported access a total of **£217m in capital investment** and the successful delivery of retrofitting has led to **yearly savings for the public sector of £7,880,800**.

RA-W has demonstrated the benefit of providing free technical support to the public sector to '*plug the gaps*' which has previously constrained decarbonisation and helped to accelerate the process through the '*tried and tested*' RA-W model.

There are several connected success factors for public sector decarbonisation – capacity, strategic prioritisation, and capital funding. First, the research has highlighted the importance of **public sector capacity** to engage with RA-W and deliver retrofit works, yet for many organisations capacity is large challenge both within teams responsible for sustainability and across organisations. The lack of capacity hinders efforts to decarbonise and makes it more difficult to progress through the RA-W process which creates pressure for the organisation and extra work for the delivery team.

Second, without **strategic prioritisation** within public sector organisations, efforts to decarbonise are constrained as there is a lack of momentum around the process and the importance of sustainability is not realised across the organisation which creates extra hurdles (planning, legal, finance). The strategic prioritisation of net zero and the wider sustainability agenda empowers organisations and sends a clear message of its importance – "*it can't be the cherry on the top, it needs to become business as usual*".

Third, **access to capital funding** is central to enable the public sector to decarbonise at the scale and pace required to meet net zero. The introduction of the PSDS has highlighted the clear demand for funding, yet more is required for the public sector to achieve its goal. There is a need for a long-term funding pathway to enable the public sector to plan and prioritise work over extended periods of time and end the stop/start cycle which limits the implementation of retrofit.

### 5.2 RECOMMENDATIONS

The following recommendations should be considered by the GLA and partners:

- I. Explore options to create a 'one stop shop' for public sector decarbonisation support which would include diagnostics to identify how the organisation can maximise its impact across its portfolio and signpost to relevant programmes and support.
- II. Consider a new governance structure which would include external partners (members of public sector organisations) to raise the strategic profile of RA-W and its activities.
- III. Identify options to boost capacity within the public sector to help deliver energy efficiency savings such as a new project management offer through PDU (additional paid for add-on) or activities to increase expertise within public sector organisations (i.e workshops/training).
- IV. Explore ways to further streamline procurement to increase the speed clients can deliver energy saving measures. Increase the flexibility within procurement by considering new options as used in the national programme.
- V. Review RA-W materials to increase the ease and speed in which these can be completed by clients.
- VI. Continue to celebrate the success of RA-W by showcasing case studies, best practice and learning in London and nationally to encourage new clients and help to 'demystify' decarbonisation within the public sector. Promote the Programme's clear positive economic and environmental impacts.
- VII. Investigate and test options to increase the engagement of smaller public sector organisations who may require a more nuanced approach and those from sectors who are 'harder to reach' such as cultural and heritage.

## ANNEX ONE: CONSULTEES

Name	Organisation
Tony Lawson	Local Partnerships
Syed Ahmed	Community Energy London
David Reilly	Carbon Energy Trust
Roger Simpson-Jones	Procurement specialist
Matthew Thomas	GLA
Members of PDU (Workshop)	Turner and Townsend
Joe Baker	London Borough of Haringay
Emma Bushell	City of London
Edmund Tran	City of London
Quinten Babock	TfL
Richard Groves	TfL
Paul Graham	NHS Kingston
Iliana Koutsou	London Borough of Barnet
Sarah Cox	London Borough of Bexley
Rose Bedlow	London Borough of Bexley
Paul Casey	Westminster City Council
John Hamilton	Westminster City Council





**KADA Research**

10 South Street, Park Hill,  
Sheffield, S2 5QY. UK

T: 0114 350 3303

M: 07714 136463

E. [karl.dalgleish@kadaresearch.co.uk](mailto:karl.dalgleish@kadaresearch.co.uk)

[www.kadaresearch.co.uk](http://www.kadaresearch.co.uk)