

London's 'Retrofit Revolution': What's Going Wrong?

New Green Retrofit Report asks Mayor: What happened to the ‘Retrofit Revolution’ you promised?

Image of retrofit materials in London

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Foreword

Cities should be beacons of hope.

London should be the national and global leader that, even amid a climate emergency, a cost of living crisis, and rampant inequality, demonstrates a better way.

Net zero policies like retrofitting homes do not make people worse off: they reduce bills, lower emissions, and even create good, green jobs.

So, as I watch government undermine workers’ rights and taunt unions, I cannot understand why it seems intent on peeling back what remains of its net zero policies, when net zero policies can be the solution to so many of Londoners’ most urgent problems.

That is why the Mayor’s leadership here is so urgently needed. He has a chance to show that green policies can and do work for working people – protecting Londoners from soaring energy costs while providing good, skilled

jobs.

To give credit where it is due, some of the Mayor's environmental actions are commendable, like the expansion of the Ultra Low Emissions Zone and his Climate Budgeting.

But there are still huge gaps in his plans. From his refusal to condemn the egregious private jet use in London to the building of the Silvertown Road Tunnel – the Mayor continues to have major gaps that undermine London's race to net zero.

The Mayor's so-called 'Retrofit Revolution' is an example of where the Mayor has talked a good game, but – so far – failed to deliver for Londoners. In fact, his brash claims about the level of funding going towards 'green skills', taken together, are greenwashing his training offer.

I have met with retrofit workers, skills providers and campaigners, and it is absolutely clear that the supply chain is not delivering as it should.

While the Government need to up their investment in retrofit dramatically, there is plenty the Mayor could and should be doing to retrofit London homes and develop the supply chain for future investment.

Every home retrofitted and every job created is a win for Londoners.

The clock is ticking on his own 2030 net zero goal. It's time the Mayor provides the strategic leadership on retrofit London urgently needs, and delivers the revolution he promised.

Zack Polanski AM
September 2023

1. Executive Summary

London's 'retrofit revolution', proclaimed by the Mayor in 2021, hasn't materialised. Buildings in London are still being retrofitted and insulated at an incredibly slow rate. Meanwhile, as we approach another winter, Londoners will again foot the huge energy bills for their leaky homes.

As the Mayor has pointed out, this is primarily a funding issue. But his hands-off approach to retrofit – particularly his failure to provide the skills workers need – means the supply chain is already struggling to keep up with demand, a trend that will only become more acute when new funding arrives.

This report shows that the Mayor's current approach will increasingly prove costly for Londoners and the environment should it continue, and outlines what actions the Mayor should take to change course.

Key findings

Slow retrofit delivery in London

- London is retrofitting its homes 10x slower than it needs to be to hit net zero by 2030. The Mayor's Warmer Homes Scheme is upgrading less than 1 per cent of the homes needing to be upgraded each year.
- Despite limited Government investment in retrofit, London councils and the GLA have failed to use the limited funds that have been made available.
- In the first year of the Social Housing Decarbonisation Scheme, just 157 homes were upgraded in London. Less than 5 per cent of available funding was spent, and two-thirds of councils failed to upgrade any homes at all.
- The Mayor's flagship Warmer Homes Scheme has predominantly relied on central government funding, and the latest round underspent by £1.6 million in its first year.
- A number of stakeholders, including the GLA itself, have pointed to skills shortages as one of the factors delaying delivery.
- There are just 16 Retrofit coordinators based in London qualified to oversee public sector retrofit projects, according to Trustmark.

The Mayor's lack of leadership

- The Mayor has failed to meaningfully develop the retrofit supply chain, or pathways into retrofit work – leaving London unable to meet current demand and ill-prepared for the arrival of more investment. Specifically, the Mayor's skills programmes have:
 - Failed to develop and fund specialist (Level 3+) retrofit training courses for existing construction workers.
 - Failed to ensure retrofit training is incorporated into all introductory (Levels 1 and 2) construction courses, alongside new-build.
- The Mayor has control over the £320 million per year Adult Education Budget, yet there is no strategy or monitoring in place to ensure London gets the retrofit qualifications they need.
- Retrofit has been lost into a nebulous category of 'green skills' education, obscuring the real job opportunities available to Londoners, and greenwashing the Mayor's training offer.

- Across 17 colleges and training providers funded by the Mayor's 'green skills' hubs, there are just three courses that provide technical skills training relevant to retrofit, only one of which is accredited by the Mayor's own 'green' Quality Mark
- Of the £32 million 'Good Work For All Fund', which the Mayor said would specifically fund new specialist skills in retrofit, "for example, Regeneration Air Conditioning and Heat Pump Engineering, Energy Efficiency, Understanding Retrofit qualifications", no grantees offer any specialist retrofit skills training.

Possible actions for a GLA retrofit strategy:

Training provision

- Develop pathways to specialist retrofit work and fund learners on specialist (Level 3+) retrofit-relevant courses via AEB & other Mayoral funding programmes (like the UKSPF), moving past the nebulous category of 'green skills'.
- Work with providers to embed retrofit modules on all construction courses the Mayor funds or supports.
- Use Mayoral convening powers to bring together key retrofit and wider construction employers and suppliers with the aim of encouraging investment in training for their own workforces, and across businesses where appropriate.
- Develop a comprehensive method of assessing the development of London's construction and retrofit skills capacity, via engagement with training providers, to ensure the Mayor maintains clear oversight of the skills gap's evolution. This includes consideration of current qualifications and apprenticeship standards, to ensure the Mayor can lobby for improvement if needed.

Procurement

- Explore how procurement processes can link funding to skills development via the Warmer Homes Scheme, and provide strategic advice to local authorities on how to follow a similar model, for instance by:
- Requiring contractors to train a certain number Londoners in an accredited qualification or apprenticeship, with that number based on contract value.
- Requiring contractors to show workforce skills development strategy.

- Explore how procurement processes can develop the supply of trainers for different aspects of retrofit, such as Requiring Tier 1 contractors to get their skilled professionals and tradespeople to ‘train the trainer’ at colleges and other providers.

Public awareness

- Launch public campaign about importance of retrofit, quality of work and salaries, encouraging diverse recruitment into retrofit-based construction work.

Demand

- Identify additional ways to stimulate demand beyond Government funding, for instance:
- assessing efficacy of Warmer Homes’ individual home upgrade approach, vs. alternative approaches that consider geography & housing typology to spread funding further.
- providing further funding for Warmer Homes scheme in next years’ budget, ensuring minimum funding level to guarantee set level of demand.
- facilitating community investment in the able-to-pay group.
- providing Mayoral advice service for the able-to-pay group.

2. Introduction

London’s buildings are incredibly inefficient. It takes much more energy to heat and power our homes, public buildings and commercial buildings than it should. Moreover, the infancy of the UK’s renewables sector means London is overly reliant on the volatile international fossil fuel market for its energy. As a result, London’s homes and workplaces are responsible for 68 per cent of the capital’s carbon emissions and 72 per cent of its energy use.ⁱ Meanwhile, energy price rises have fuelled a surge in the cost of living over the past two years, with the worst-off families suffering most.ⁱⁱ

But there is a solution. Widescale retrofitting of London’s buildings would transform how we consume and generate energy in the city. Retrofitting is the process of installing new measures to improve the energy efficiency of homes (like insulation and double-glazing), or generate cleaner energy (like solar panels and heat pumps). Mass retrofitting would bring what climate campaign group Ashden call a ‘triple win’: lowering bills, reducing emissions and creating skilled work.ⁱⁱⁱ

The scale of the challenge

With the clock ticking on the Mayor's 2030 net zero goal, rapid action is urgently needed to deliver the wholesale retrofit of London's homes. Analysis for the GLA by Element Energy said 210,000 homes and 26,500 public and commercial buildings need to be retrofitted each year from 2022 to 2030.^{iv} London Councils estimate that 110,000 people need to be working in the London retrofit sector at the height of delivery to ensure this – a huge opportunity for London's green economy.

At present, there are around 4,000 people working in retrofit in London.^v Less than 0.5 per cent of London's homes are being retrofitted annually. That's over ten times slower than the rate we need to be moving to hit the Mayor's 2030 net zero target.^{vi}

The Mayor's own Warmer Homes scheme is upgrading just a tiny fraction of the homes needing to be retrofitted each year for 2030 net zero. And, by the GLA's own admission, London is not on track to achieve its retrofit net zero goals until the 22nd century.^{vii}

The Mayor's Warmer Homes programme^{viii}

How London meets this challenge

To retrofit London's buildings at the scale and pace required for 2030 net zero needs massive investment and a robust supply chain of skilled workers. Funding from the current Government has been insufficient and inconsistent, and the Mayor has criticised the Government's single-year funding settlements as insufficient and too short-termix – echoing calls from research organisations and environment advocacy groups up and down the country for larger scale, multi-year funding packages.^x

Both the Government and opposition have acknowledged this gap to some extent. The Government's 'Help to Heat' schemes have had an additional £6 billion promised for 2025-28.^{xi} The Opposition has gone significantly further, doubling down on its commitment to retrofit two million houses in the first year of the Government, as part of a £60 billion home retrofitting scheme.^{xii}

While the Government needs to dramatically step up its support in terms of both capital investment and skills strategies, the urgency of the task before London demands that the Mayor acts.

The Mayor has huge responsibility to make sure London can meet retrofit demand. This means developing the supply chain now, and developing pathways into the sector that are ready to support a pipeline of workers when demand further ramps up. Meanwhile, he should be pursuing every avenue to unlock further funding.

The Mayor's lack of leadership on retrofit

For a long time, the Mayor has talked up his commitment to taking on the challenge of retrofitting London's homes. In 2016, the year he was first elected, the Mayor talked up how he would address fuel poverty through home retrofit.^{xiii} Five years later, in 2021, retrofit was a plank of his second Mayoral manifesto, and he proclaimed the advent of London's 'retrofit revolution' to help reach net zero by 2030. This was followed by a goal to retrofit all London's residential properties to an average EPC B by 2030, and a partnership of the GLA and London Councils under the name Retrofit London. Recently, the Mayor has announced that City Hall is developing a 'Retrofit Delivery Model' alongside London Councils – something which, at last, sounds like it might be a GLA strategy.

Along this road, there have been some commendable schemes – the Mayor’s ‘Retrofit Accelerator – Homes’, for instance, has enabled London boroughs to win Government funding for retrofit, and has expanded to become a nationwide, Government-backed scheme.

But, ultimately, the Mayor’s actions aren’t the actions of someone for whom retrofit is a key priority, with a 2030 net zero target looming on the horizon. The Mayor’s Warmer Homes Scheme has barely received any funding from GLA coffers since its first round, back in 2018, relying on fluctuating, uncertain sums from the Government. It’s not clear what the Mayor’s ‘Retrofit Revolution’ has actually achieved, two years on from its announcement. And, crucially, despite the Government’s inaction, the Mayor has not yet launched his own retrofit strategy that connects all aspects of retrofit – procurement with skills, public and private funding, and so on.

This report identifies a crucial missed opportunity in relation to skills development – the area relevant to the retrofit supply chain where the Mayor has most direct influence. It demonstrates that the Mayor’s current approach to retrofit skills development is wholly incompatible with his net zero goal – but offers routes forward.

3. Retrofit Delivery in London

London boroughs and the GLA are failing to use even the negligible funding pots that the Government have already made available – and skills shortages are at least partly to blame.

Failure to deliver on available funding

The Government is funding upgrades to the social housing stock across England through its Social Housing Decarbonisation Fund (SHDF), a government pledge that promised £3.8 billion to retrofit social housing over a decade. The first official phase of the SHDF awarded £179 million to councils across England in April 2022, of which a total of £23.8 million was made available to 12 London boroughs.^{xiv}

Available SHDF funding was supposed to be spent by the end of March 2023. However, in February, the Government announced it would be extending Phase 1 of the scheme by three months (later extended to six months) following chronic under-delivery across the country.^{xv} Data covering the first year of the scheme, after which delivery was supposed to be complete, showed that:

- London boroughs had spent just 4.6 per cent of the funds made available to them. This resulted in just 157 homes across the whole of London being upgraded in the year since the start of the scheme.^{xvi}
- Eight of the 12 London councils awarded funding had failed to upgrade any homes at all.

At the time of writing, the latest available data shows there has been a recent uptick, but councils across London have still only reported that 912 households have had works completed. Four of the 12 London councils awarded funding have still not delivered any retrofit measures at all.^{xvii} Meanwhile, £131.5 million has been awarded to London in the next wave of the SHDF and is waiting to be released.^{xviii}

The Government has also made grant funding available to homeowners and private renters. This funding has been delivered to London households in a range of ways, including through the Mayor's Warmer Homes Scheme, in operation since 2018.

We are still waiting on the delivery cycle of the latest round of the Mayor's Warmer Homes scheme to wrap-up. The first two rounds of the Warmer Homes scheme were very successful in meeting their targets.^{xix} But, as the Mayor has scaled up the scheme in Round 3 following an uptick in Government funding, the scheme has not delivered as effectively. The GLA's finance Report from March 2023 reported a year-end underspend of £1.6 million on the Warmer Homes Scheme.^{xx}

This underspend precedes a concerning decline in funding from the Government for Warmer Homes, an already small scheme (Round 4 of the Warmer Homes will be funded with around £30 million less from the Government than the previous round. There is no sign of any top-up funding from the Mayor).^{xxi}

Understanding the underspend

The retrofit supply chain is complex. There are a range of potential causes of this underspend aside from skills shortages that are beyond the scope of this report, such as material supply chain issues and under-resourced local authorities managing procurement. Nonetheless, the shortage of appropriately skilled labour is undoubtedly playing a part in slow delivery rates.

According to the GLA, the latest round of the Mayor's Warmer Homes scheme has struggled to deliver as a result of skills shortages. The GLA's Group Monitoring Report said of the Mayor's Warmer Homes Programme: "Supply chain capacity showing signs of strain including around materials, costs and skills, causing delivery challenges for programmes such as Warmer Homes."^{xxii}

On social housing upgrades, in response to the Government's initial extension of the SHDF, a representative of the Chartered Institute of Housing (CITB), said:

Labour is the really big problem... There's a really big skill shortage for people trained to do retrofit and it's not just being able to do it, you need to be trained to do it in a specific way. There's a barrier in getting people trained up but there's also quite frankly not enough people with the skills across the country to do it and everybody's bidding for the same contractors to do the same work at the same time.^{xxiii}

She went on to say that local authorities are all competing for the same retrofit coordinators who are trained up to PAS2035 standards – the new Government standard for all publicly-funded retrofit projects.^{xxiv} Indeed, London mirrors the rest of the UK when it comes to PAS2035-trained coordinators. At the time of writing, the TrustMark website shows there are just 16 PAS2035 accredited Retrofit Coordinators across the GLA area.^{xxv} The Mayor said he estimated almost 900 retrofit coordinators would be needed by 'the mid-2020s' to hit his net zero goal.^{xxvi}

Already, despite relatively minimal funding, London boroughs and the GLA have failed to capitalise on what funding is already available. If the gap between supply and demand keeps growing, this could have huge repercussions for the Mayor's net zero goal. And, as the next chapter explores, there's no plan in place to address this.

4. The Mayor's Lack of Leadership

The chief strategic leadership on retrofit at a London level has so far been provided by London Councils, the membership body representing London boroughs, with support from the GLA, under their Retrofit London programme.xxvii

Under Retrofit London, London Councils have published an overarching Action Plan as well as an Implementation Plan for 2022-23, each of which outline steps that London's strategic partners (the GLA and local authorities) could take to increase retrofit take-up across London.xxviii Each of these documents has a dedicated section for skills. But for all the ambition of these strategies, the previous chapter showed that gaps in the supply chain are already rearing their head. The vacuum left by a lack of strategic oversight from City Hall has to partly be to blame.

Conversations I have had with the Mayor at Mayor's Question Time illuminate his hands-off approach to skills development. On 22 March 2023, the Mayor said retrofit was a "chicken and egg" situation – more Government funding would need more retrofit workers, but more retrofit workers would need more Government funding. To get round this bind, the Mayor placed his faith in the flexibility of the adult education sector, particularly his own Adult Education Budget, to rapidly adapt to new market conditions on the occasion of new investment. In the meantime, the Mayor said continuing to expand the construction sector generally will provide the platform for later skills development in retrofit.

This overlooks the opportunity to use the AEB to forward plan, to be proactive and develop pathways ahead of new influxes of investment, rather than allowing an apparently flexible AEB to respond when needed. Skilled trainers need themselves to be trained, appropriate courses developed and learning pathways into the sector allowed to multiply. This is particularly true given the looming 2030 goal, and how little time there is to waste. And the Mayor has a vast array of levers he can deploy (from direct cash investment to procurement practices) to stimulate enough demand to get those pathways in place if there are shortfalls of demand. Finally, his prescription of what the sector needs now fails to recognise how dominated construction training is by new-build, and the value of having a construction workforce literate in retrofit, whether they are skilled or semi-skilled workers, which need not funnel them down a route into solely retrofit work.

With this in mind, this chapter describes how the Mayor is failing to strategically develop the retrofit supply chain, meaning London cannot capitalise on current investment, nor be able to rapidly respond to an uptick in demand.

Not only is the Mayor failing to provide pathways to specialist retrofit roles, he is also failing to ensure that lower-level construction courses have retrofit components baked in. These failures have been underpinned by a clear strategic failure on the part of the Mayor – lumping retrofit into a nebulous 'green skills' training category.

Understanding the skills required

For the sake of simplicity, I will break down retrofit work into three categories:

1. Assessment, design and coordination
2. Skilled installation

3. Semi-skilled installation

The first category, ‘assessment, design and coordination’, refers to highly-skilled professionals whose work may include assessing buildings to ascertain energy efficiency weaknesses, designing solutions, overseeing the installation of those measures and evaluating outcomes.^{xxix} Those undertaking work in this area – particularly retrofit designers and coordinators – require a strong understanding of how to take a ‘whole house’ approach to retrofit, ensuring individual upgrades are joined-up, complimentary and tailored to the needs of a particular dwelling.^{xxx} As such, they require specialist training and, ideally, a significant amount of construction experience.

Retrofit coordinators managing publicly-funded projects are required to follow PAS2035 standards, the latest Government retrofit standards, which requires that buildings are retrofitted through a whole house, ‘fabric first’ approach (i.e. prioritising insulation, draught-proofing, repairs and other measures that can reduce energy use).^{xxxi}

The physical installation of retrofit measures requires a range of skilled and semi-skilled work. While many energy efficiency measures can be installed by those with limited formal qualifications (providing they have appropriate experience), this picture becomes more complicated with certain retrofit measures or type of building. Specialist training is required for someone to install heat pumps or solar panels, but also for those whose work may be considered ‘semi-skilled’ in a less challenging environment. For example, insulation technicians working in older buildings will require specialist expertise and experience, and thus more advanced qualifications.^{xxxii} This is particularly important in the context of London, which has a far higher proportion of older homes compared to elsewhere in the country.^{xxxiii} In seven London Boroughs, over 45 per cent of the housing stock was built before 1919. As a result, London will need a higher proportion of skilled versus semi-skilled workers to upgrade its housing stock than anywhere else in the UK.

While retrofit demands specialist skills, people who work in retrofit can be readily upskilled from other jobs in the construction industry – something the Mayor recognised during my conversation with him during Mayor’s Question Time in March 2023.^{xxxiv} Retrofit coordinators, for instance, require experience and knowledge of construction, and individuals may upskill from roles as a building surveyor, or project manager.^{xxxv} This is also true in regard to installation. For example, plumbers will already have much of the core skillset and knowledge needed to become air source heat pump engineers, so will just require some additional training to make that step.

On the back of this analysis, to build pathways into the sector, a GLA retrofit skills strategy needs to prioritise:

1. Funding or supporting the development of (Level 3+) courses enabling construction workers to upskill into more specialist retrofit roles
2. Ensuring introductory (Level 1 and 2) construction courses funded or supported by the Mayor have retrofit components ‘baked-in’

As discussed, the Mayor does not have a retrofit skills strategy. A look at the Mayor’s existing skills offer, with these two priorities in mind, shows why this is a major issue.

Training for specialist roles

The Mayor should be providing pathways into skilled retrofit work for people already working in construction. These pathways will help meet current demand, and provide a platform to develop a strong pipeline of workers in the future.

The Mayor's primary lever to upskill Londoners is his annual £320 million Adult Education Budget (AEB) – the most significant skills budget of any devolved authority in England. Through the AEB, the Mayor funds education and training for adults aged 19-plus in a range of areas deemed to be a priority for London and Londoners.^{xxxvi} Other funding for skills flows from the Government to the Mayor's office ad hoc, including from the UK Shared Prosperity Fund^{xxxvii} (which has £38 million set aside to 2025 for 'People and Skills') and Skills Bootcamps funding from the Department for Education, amounting to £19 million in 2023-24.^{xxxviii}

But there are very few courses developed or funded by the Mayor through the AEB, or the Mayor's other skills development streams, designed to support this specialist skills development – be it skills needed for installation, or assessment, design and coordination.

Pathways into skilled retrofit work need to be established now, to meet current demand and provide a platform for the future.

Mayor's Academies Programme

The Mayor's £44 million Academy Programme (MAP) can be seen as an attempt to outsource strategic oversight of skills development for core sections of the economy to local partnerships. The Mayor launched the MAP on 31 January 2022. It funds six 'academies' across priority sectors of the economy. Serving each academy are multiple 'hubs', each of which "brings together employers, education and training providers and sector bodies to work together to develop clear pathways into employment". The aim of the MAP is to coordinate training and work experience, and provide advice and guidance to Londoners.^{xxxix}

Outsourcing strategic oversight of the 'green' economy seems to have been an expensive way of not getting very far with retrofit, while still asking students to fund their own learning. Of the 22 MAP hubs, five are considered 'green' hubs. These five hubs won funding for 17 colleges and training providers, across the 2021/22, 2022/23 and 2023/24 academic years.^{xl} In August 2023, I could only find three courses across these 17 colleges that provide technical skills training relevant to retrofit.^{xli}

Part of the remit of the MAP hubs is to assess which providers they work with meet the Mayor's Skills Academies Quality Mark, an accreditation stamp commending high quality training providers. Only one of the three training providers offering a course specific to retrofit is considered eligible for the Mayor's 'green' Quality Mark – West London College. The other two providers providing retrofit training apparently do not meet the Mayor's own quality standards for green skills education.

Directly funded courses

A look at where the Mayor is directly funding learners shows a similar negligence towards technical skills training:

- The Mayor's Good Work for All Fund has been delivering £32 million of grant funding to 40 independent training providers in the academic years 2021/22 and 2022/23.^{xlii} The Mayor said this grant would specifically fund new specialist skills in retrofit, "for example, Regeneration Air Conditioning and Heat

According to Jules Pipe, the Deputy Mayor for Planning, Regeneration and Skills, four of the 40 training providers funded by Good Work for All were ‘delivering courses that include essential retrofit skills in 2021/22’ – Learning Curve Group, The Forward Trust, The Skills Centre Ltd. and Westminster City Council.xliv However, at the time of writing, none of these organisations offer any specialist retrofit skills training – despite the claim made by the Mayor at the inception of the scheme.

- The Mayor’s Skills Bootcamps, funded separately to the AEB, are helping adults get access to “in-demand skills training and a guaranteed interview”. The Mayor secured an allocation of £19 million by the Department for Education (DfE) to deliver the Government’s Wave 4 (2023-24) Skills Bootcamps programme in London.xlv

There are three Skills Bootcamp courses categorised as ‘Green’. The ‘Net Zero Futures’ at London South Bank University is the only course relevant to retrofit, as of July 2023.xlvi This broad course provides some introductory training on solar engineering – but does not provide specific qualifications for learners, nor meet either of the two priorities outlined above.

Indeed, looking at a cross-section of the Mayor’s AEB funding highlights the chronic lack of funding for specialist retrofit training courses.

Discussing the academic year 2021-22 in a letter to me on 27 March 2023, the Deputy Mayor for Planning, Regeneration and Skills, said that 44 Adult Education Budget providers ‘delivered green skills (including retrofit skills) to 4,800 learners in London taking 6,000 qualifications’. The Deputy Mayor stated the total contribution of ‘green skills’ development was £33.2 million, or just over 10 per cent of the total AEB. He identified three categories of skilled work, of which the first is most relevant for specialist retrofit work – amounting to just over one-hundredth of the total AEB funding:

- “£3.9m spent on technical green skills including installation of heat pumps, solar panels and EV charging points
- £15.9m spent on providing green skills to supporting trades such as electricians, carpenters, insulation technicians and other roles that are seeing increasing demand
- £13.4m on ‘enabling’ green skills that are required to support the growth of the green sector, including STEM, digital and data skills”

A closer look at the first category cited, ‘technical green skills’, shows that – as well as being a tiny amount of his yearly budget – this funding is doing very little to support specialist skills training at all. The Mayor provided the 20 most popular learning aims under each of these three categories, organised by numbers enrolled. xlvii None of the technical skills learning aims is around developing skills on heat pump or solar panel installation – the two relevant skills specifically identified by the Deputy Mayor – nor any other specific retrofit skill. The most relevant learning objectives were not ‘technical skills’, but general courses on environmental issues and sustainability. Only one of these objectives is specific to construction, and likely refers to sustainable building practices, rather than retrofit itself.

Indeed, the lack of specialist technical skills development is borne out in a report analysing the AEB's green skills offer, published in 2022, which said:

“Only a small number of AEB-funded learners are taking courses that are providing very specific green skills, such as installing heat pumps or electric vehicle (EV) charging points or supporting the development and maintenance of renewable energy sources.”^{xlvi}

As well as comprising just a fraction of the Mayor's overall budget, drilling down into where this funding has gone illustrates the lack of specialist training opportunities and pathways into skilled retrofit work.

Baking retrofit into construction

As described above, there need to be routes into the construction industry that provide learners with an understanding of retrofit work, as well as new build.

The best way to do this is embed retrofit components into existing entry-level and introductory construction courses, which are almost exclusively geared towards new-build at present.

Holding the AEB lever, the Mayor has a huge opportunity to mandate this shift in courses he funds, and precipitate a wider change in London's 19+ plus education sector. However, there is no indication the AEB is being used to reorient construction training in this way.

Training for 'supporting trades'

According to the Deputy Mayor, £15.9 million of the £33 million going on green skills development is being spent on 'supporting trades', which might be considered more generic construction training, non-specific to retrofit. These are precisely the kind of courses that should be incorporating retrofit components.

Upon request, the Mayor could not provide a list of the specific courses funded on account of commercial confidentiality. Instead, he provided a list of the 20 most popular learning aims in this category and the corresponding numbers of learners enrolled.^{xli} The most popular learning objectives were around developing basic construction, plumbing and electrical skills – which could indeed be relevant to retrofit – but this data provides no evidence that retrofit (or other 'green') learning elements have been baked into these courses.

To interrogate this point in the absence of information provided by the Mayor, let's return to the four colleges funded by the Good Work for All fund that were said to provide retrofit training. As discussed above, these colleges did not run specialist training, but neither, apparently, do they run other construction courses with retrofit components:

- Learning Curve Group does not provide any construction courses based in London.^l
- The Forward Trust does not provide any construction training courses, only a generic pathway to 'green jobs' that leads to Level 2 qualifications in climate change, environmental awareness or digital skills for the workplace.^{li}

- The Skills Centre Ltd. provides a range of general construction and health and safety qualifications. There is a week-long taster course called Sustainability in Construction, focused around building materials and minimising waste, rather than practical skills, which leads to a Level 1 qualification in health and safety.^{lii}
- Westminster City Council, via the Westminster Adult Education Service, provides no specific retrofit training. On its website, there is one generic course on Environmental Sustainability, again not to do with construction skills training.^{liii}

The only introductory construction course which clearly contains retrofit components, fully funded by the Mayor (apparently out of leftovers from the European Social Fund), is the Retrofit Revolution course at London South Bank University, where students can gain a Level 2 Award in Retrofit Awareness.^{liv} Indeed, returning to the Mayor's Green Academies, as of August 2023 I could find only two construction courses across these 17 colleges that provided evidence of retrofit training – both were introductory, retrofit specific courses.^{lv}

This is just a sample of courses funded by the Mayor. But there is a clear pattern, that retrofit is treated as distinct from construction, not a key part of it. Only by building retrofit into all construction courses will London develop the pipeline of workers required to meet the close the retrofit skills gap, now and in the future.

The nebulous 'green skills' category

This analysis touches on a broader issue concerning the allocation of funding via the AEB, and how it is being tracked. There is no evidence that this £15.9m being spent on 'supporting trades' is actually supporting the development of green skills within those trades. Seemingly, existing construction courses have simply been labelled 'green' without going through a shift, or 'greening', of their content – such as incorporating retrofit components.

This is concerning not just for the development of skills, but for tracking the development of skills in relation to demand, especially as and when 'green skills' training balloons.

The obfuscation of the green skills category is illustrated by GLA Economics' report from May 2023, entitled, 'Monitoring the employment impact of mayoral programmes and initiatives'. The introduction of the report puts "green jobs" in the types of jobs where "it was not feasible to categorise the number of jobs created".^{lvi}

Indeed, grouping 'retrofit' as 'green skill' rather than a construction skill obfuscates more than it illuminates. If it's not possible to understand the social and economic impact of types of skills training, how can the Mayor determine what courses deserve funding? How too, can Londoners be confident of a career in retrofitting or green construction skills, if the Mayor cannot communicate clearly what that career path, what qualifications are required, and what jobs they will get as a result?

London Councils say 110,000 people need to be working in retrofit in London for the capital to hit net zero by 2030. It is vital we know where the holes in training provision are to develop meaningful training programmes – and encourage Londoners into those programmes – to close the skills gap.

5. Recommendations & Actions

Training provision

- Develop pathways to specialist retrofit work and fund learners on specialist (Level 3+) retrofit-relevant courses via AEB & other Mayoral funding programmes (like the UKSPF), moving past the nebulous category of ‘green skills’.
- Work with providers to embed retrofit modules on all construction courses the Mayor funds or supports.
- Use Mayoral convening powers to bring together key retrofit and wider construction employers and suppliers with the aim of encouraging investment in training for their own workforces, and across businesses where appropriate.
- Develop a comprehensive method of assessing the development of London’s construction and retrofit skills capacity, via engagement with training providers, to ensure the Mayor maintains clear oversight of the skills gap’s evolution. This includes consideration of current qualifications and apprenticeship standards, to ensure the Mayor can lobby for improvement if needed.

Procurement

- Explore how procurement processes can link funding to skills development via the Warmer Homes Scheme, and provide strategic advice to local authorities on how to follow a similar model, for instance by:
- Requiring contractors to train a certain number Londoners in an accredited qualification or apprenticeship, with that specified number based on contract value.
- Requiring contractors to show workforce skills development strategy.
- Explore how procurement processes can develop the supply of trainers for different aspects of retrofit, such as Requiring Tier 1 contractors to get their skilled professionals and tradespeople to ‘train the trainer’ at colleges and other providers.

Public awareness

- Launch public campaign about importance of retrofit, quality of work and salaries, encouraging diverse recruitment into retrofit-based construction work.

Demand

- Identify additional ways to stimulate demand beyond Government funding, for instance:
- assessing efficacy of Warmer Homes' individual home upgrade approach, vs. alternative approaches that consider geography & housing typology to spread funding further.
- providing further funding for Warmer Homes scheme in next years' budget, ensuring minimum funding level to guarantee set level of demand.
- facilitating community investment in the able-to-pay group.
- providing Mayoral advice service for the able-to-pay group.

6. Response from London Mayor Sadiq Khan

[Find the response](#) from London Mayor Sadiq Khan.

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