Skills for the transition to net zero

Activity across London government

LONDON COUNCILS

Contents

Executive Summary

This report provides an overview of green skills activity across London local government, identifying any key gaps, duplication and opportunities for better co-ordination, as well as setting out some of the main skills challenges and opportunities around the green economy. London government is committed to achieving net zero and doubling the size of the green economy by 2030. National government has ambitious net zero targets and a range of strategies to achieve them. The commitment is there but delivery faces challenges, including ensuring that there are enough Londoners with the skills needed to support the transition.

The green economy provides many opportunities but skills shortages exist now and are predicted for the future in key areas and occupations

Green jobs are defined here as 'Those jobs that facilitate meeting net zero and broader environmental goals". Consequently, green jobs can be found across many sectors of London's economy. Research commissioned by London's sub-regional partnerships found that the number of green jobs is expected to grow by 505,000 by 2030 and almost quadruple to over a million jobs by 2050. Four key sectors will provide much of this growth – homes and buildings, power, low carbon transport and green finance. This demand cannot be met by Londoners leaving education alone; reskilling existing workers will be vital too.

Yet key sectors and occupations are experiencing skills shortages both now and predicted for the future. These includes occupations in retrofitting and Electric Vehicle (EV) infrastructure, where London government is looking to scale up its activity through the £54m Social Housing Decarbonisation Fund and £40m to increase Electric Vehicle (EV) charging infrastructure across the city. The achievement of key programmes will be stalled if London does not have access to people with the right skills to deliver them – both in the supply chain and in boroughs and London government.

London government has an important role to play in delivering green skills but does not have all the levers for this and central government needs to play its part too

Councils are well placed to drive progress locally, drawing on their role as leaders of place, their relationships with business, training providers and local communities. The GLA has identified green as one of its five priority sectors for skills. It has been delegated the Adult Education Budget (AEB) and oversees the following programmes around green skills: Skills Bootcamps, Skills Academies and the AEB Jobs and Skills for Londoners Programmes. But London government is responsible for only part of the skills system – key parts such as apprenticeships, 16-18 vocational provision, higher education and FE capital funding are controlled by central government. Central government also has a key role in creating the funding and policy environment to support investment in green skills by the public and private sectors. A clear, long term policy framework and longer-term funding is crucial to stimulate demand for training and job creation in the green economy, as well as more investment.

Ensuring a just transition will be vital if the growth of the green economy is to be

inclusive and create opportunities across all communities. Many green jobs require higher level skills, so developing coherent careers pathways into key green occupations is needed.

Developing a green skills pipeline – key activity across London government

London Councils mapped activity to develop green skills by interviewing 9 London government and other key stakeholders between October-November 2022 and again in March 2023. We analysed the results of a survey of London boroughs in November 2021 and collated data on each borough's published climate action plans as of July 2022. This analysis showed:

- All stakeholders are undertaking policy development and research around green skills and co-ordinating green skills policy and activity, such as running officer networks.

- A majority of stakeholders are carrying out careers activity around green skills and providing skills provision for green construction and retrofit of homes and buildings.

- A minority of stakeholders (a third) were focused on skills provision for low carbon transport – mainly around Electric Vehicle (EV) installation and renewable energy.

- Most boroughs are making significant efforts to address green skills shortages but there appears to be a strategic disconnect between the individual activities a borough is undertaking and the commitments made, if any, in their climate action plans.

- Boroughs are facing significant gaps in

their ability to support green skills due to resource and capacity constraints. Skills and knowledge about developing green skills and activity is sometimes lacking in existing staff and it is proving challenging to resource this or attract people with those skills if funding is available. Activity is often dependent on external funding, hampering the development of longer-term strategies.

- There is lack of a strategic overview and little co-ordination of activity across London. It is currently not clear how funding streams and programmes such as the AEB, the Mayor's Skills Academies, Skills Bootcamps, Strategic Development Fund, careers hubs and borough activities are linked together and how they are supporting different net zero programmes to deliver.

The report therefore makes the following recommendations:

1. **London government should establish a senior co-ordinating group to develop a net-zero skills strategy and action plan covering the next five years**. In the short term, the plan should focus on how to deliver existing London government net zero programmes, including the Social Housing Decarbonisation Fund and EV charging infrastructure, using existing skills programmes wherever possible. In the longer term, it should focus on the priority sectors for green skills where public intervention is needed and the recommendations of the London Local Skills Improvement Plan (LSIP). It should build on existing structures for skills in London.

2. **The GLA should consider, as it reviews the Adult Education Budget, what role the AEB can play in developing progression pathways for more disadvantaged Londoners into green jobs. Inclusion and diversity should also be systematically integrated into all green skills provision commissioned by London local government. The GLA should also consider how best to implement the LSIP recommendation to embed 'carbon literacy' or green skills training into AEB courses as standard.**

3. **London Councils should encourage boroughs to clearly set out their green skills priorities and activities, when updating their climate action strategies.** This will ensure that there is a strategic link between their broader net zero ambitions and their local green skills priorities.

4. **London Councils should explore the feasibility of bringing together borough officers responsible for delivering green skills at a pan-London level to share expertise and practice and opportunities for collaboration.** These events should build on the work and networks run by Sub-Regional Partnerships (SRPs) and add value to them.

5. **London Councils and the GLA should jointly lobby government to:**

   a. Set out, implement and provide resources for a clear policy plan to stimulate demand for priority areas of green skills shortages, so stakeholders can develop plans and actions to address those shortages.

   b. Provide short term certainty in a demand-led skills system by funding a large scale retrofit programme to pump prime the necessary training.

   c. Recognise the role that local government plays in developing green skills and provide additional resources to enable boroughs to fulfil those responsibilities and address financial and staff capacity challenges.

   d. Agree an ambitious devolution deal with London government, including a local first approach to employment provision and single funding pot for skills.

Overview

London Councils is committed to playing its part in doubling of London's green economy by 2030 through the Building the Green Economy Programme, whilst also achieving net zero. Currently, there is no overview of activity to support green skills across London government, where gaps in service provision exist and the extent of co-ordination. This paper therefore aims to identify:

- Current green skills activity undertaken by London local government (boroughs, sub-regional partnerships, and the GLA) and their delivery status to provide an overview

- Gaps in skills provision that London local government could consider addressing

- Any instances of duplication where multiple local authority bodies are working on the same piece of work

- Opportunities for better coordination by London local government

To build a picture of current London local government green skills activity and identify where we can take action, London Councils has undertaken a short literature review, detailed interviews with key stakeholders and analysed a survey of London borough activities and strategies relating to their green skills activities. This paper builds on the work of the Green Economy Programme, complements the programme's Action Plan and presents partners with an understanding of the green skills landscape to better help target their efforts towards those areas that need the greatest intervention.

The commitment to net zero and the role of skills

Since 2008, the government has committed itself in law to achieve net zero and has launched a series of strategies to support this objective including:

- The 2020 ten-point plan to launch a "green industrial revolution"[1], investing £12bn to create and support up to 250,000 green jobs in the UK.

- The 2021 Heat and Buildings Strategy[2] on how the government will seek to decarbonise homes.

- The 2021 Net Zero Strategy[3] that sets out how the UK will decarbonise the economy.

- A revised climate strategy 'Powering Up Britain'[4] which sets out how the government will green the nation's energy production, and its response to the Skidmore Net Zero Review[5], which reviewed government efforts to address the climate crisis and how it could better meet its net zero commitments.

Achieving net zero is also a priority for London local government. Through London Councils, all London boroughs have committed to a joint statement addressing climate change through our seven climate programmes. These include the Green Economy Programme, which seeks to double London's green economy by 2030 and is led by LB Hounslow. There are also programmes to increase the use of low carbon transport and to retrofit London's homes. Achieving net zero and expanding the green economy is embedded in London's Economic Framework as a cross cutting theme and endorsed by the London Partnership Board.

Increasing the size of London's green economy is a huge economic opportunity – London's green sector is already worth £48bn in sales, more than construction and manufacturing combined and could create an average of 41,000 jobs a year[6]. London government will receive £54m over the next four years for the Social Housing Decarbonisation Fund and £40m to increase Electric Vehicle (EV) charging infrastructure across the city. Yet these opportunities could be lost and the achievement of net zero slowed down if London does not have access to people with the right skills to support key programmes and the growth of the sector. Currently there are significant projected skills gaps in some key parts of London's green economy.

1   https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution
2   https://www.gov.uk/government/publications/heat-and-buildings-strategy
3   https://www.gov.uk/government/publications/net-zero-strategy
4   https://www.gov.uk/government/publications/powering-up-britain
5   https://www.gov.uk/government/publications/independent-review-of-net-zero-government-response
6   https://www.londoncouncils.gov.uk/sites/default/files/Policy%20themes/Economic%20development/MoL_
    LC_Economic_Recovery_Framework_2022_FA.pdf

Skills to support the transition to net zero in London and a green economy

In 2021, the four Sub-Regional Partnerships (SRPs) commissioned research by WPI Economics to determine a working definition of a green job and project London's green economy growth into the future. The working definition for green jobs is: "Green jobs are those jobs that facilitate meeting net zero and broader environmental goals". Consequently, green jobs can be found across many sectors of London's economy. For examples of the types of jobs that are green jobs and the salaries they attract, please see South London Partnership's Green Careers Tree.

The research forecasts that London's green economy is expected to near double to 505,000 jobs by 2030 and almost quadruple to over a million jobs by 2050[7]. The number of consultancy-based jobs is projected to increase by around 13,400 per year over the next decade, while craft-based jobs are similarly expected to grow by around 13,600 per year. While this projected job growth is not completely additional to London's economy, as many existing non-green jobs will be lost during the transition, they estimate that net employment will increase by 50,000 by 2030 and 20,000 by 2050.

There are four main sectors that will produce the majority of this growth:

- Green finance (387,000), representing 37% of total green jobs in London.

- Power (232,500), representing 22% of total green jobs in London (renewable energy).

- Homes and buildings (151,700), representing 15% of total green jobs in London (construction and retrofit).

- Low Carbon Transport (147,200), representing 14% of total green jobs in London.

Current levels of FE and HE provision are insufficient to provide enough people to meet the projected expansion of these priority sectors - employers would need to attract at least half of all education leavers to meet their skills shortages, representing a ten-fold increase from current levels. There is an urgent need to increase education provision in subjects and courses that are relevant for green jobs to attract more students to go onto careers in the priority sectors.

To meet the growth projections, upskilling people already in the labour market in non-green jobs to gain relevant skills will be crucial. These priority sectors pose a significant growth opportunity for London but ensuring that there is sufficient skills provision to meet the anticipated demand will be a critical challenge. Skills provision by London local government should therefore be targeted more towards these sectors.

The green economy is struggling with skills shortages – both currently and in the future

For **electric vehicles** (EV), the UK currently has enough trained workers to meet current and near-future demand for servicing and repairs, but from 2027, a skills gap will develop to create a 25,000 shortfall of EV

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7   http://wpieconomics.com/site/wp-content/uploads/2021/10/Green-Jobs-and-Skills-in-London-Final-Report-1.pdf

technicians by 2030[8]. Given that London has a third of the UK's total charge points, and anticipating future take-up of electric vehicles, this skills gap is likely to impact the capital and its EV infrastructure significantly[9].

Sectors with the most pressing emissions reductions by 2030 face the most immediate skills shortages, such as **retrofitting housing**[10]. To meet the government's climate objectives through heat pumps as set out in their Heat and Buildings Strategy, the UK is estimated to need an additional 50,000 heat pump installers by 2030, but it is unknown how many tradespeople exist with the requisite skills nationwide, let alone in London[11]. Additionally, retrofit coordinators are another role in short supply; while 539 retrofit coordinators were trained during 2022, the total number of those coordinators within London is unclear[12]. This figure stands against a national target of having 30,000 accredited retrofit co-ordinators in place by 2028[13]. These shortages are part of a wider recruitment challenge within the construction industry as a whole – something highlighted in the Skills for a Sustainable Skyline 2023 report[14].

The process to develop a London Local Skills Improvement Plan[15] (LSIP) has identified the need for carbon and sustainability managers to bring core carbon literacy skills; green skills roles such as electric vehicle charging point installers; heat pump engineers and installers; electrical engineers and skilled trades roles such as electricians, plumbers, heating and ventilation installers as key green skills shortages. The LSIP builds on work with employers around skills provision across London government (the boroughs and the Mayor of London).

Identifying the number of current trained tradespeople across key occupations in the four priority sectors and comparing this to potential demand could be crucial to understanding the scale of the challenge pan-London. It would help to identify which occupations should be prioritised to increase the number of practitioners.

There are also a range of reasons why FE and HE providers are not responding to the emerging skills needs, including lack of funding within the system, lack of certainty around demand and a challenge of recruiting and retaining staff with the skills needed to deliver the provision needed[16]. The skills system is demand-led, which enables it to

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8   https://www.smf.co.uk/wp-content/uploads/2022/12/A-vehicle-for-change-December-2022.pdf

9   https://lruc.content.tfl.gov.uk/london-2030-electric-vehicle-infrastructure-strategy-executive-summary-december-2021.pdf

10 https://green-alliance.org.uk/wp-content/uploads/2022/01/Closing_the_UKs_green_skills_gap.pdf

11 https://www.smf.co.uk/wp-content/uploads/2022/02/Installing-for-time-Jan-2022.pdf

12 https://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2022/11/CZ-Performance-Framework-Dashboard-November-2022-Final.pdf

13 https://www.constructionnews.co.uk/skills/pitiful-progress-made-towards-retrofit-skills-target-27-10-2022

14 https://www.cityoflondon.gov.uk/assets/Business/skyline-skills-recommendations-report-pdf-9mb.pdf

15 The LSIP identifies employer-led skills shortages across London and the four sub-regions.

16 Much of this is set out in the Local Skills Improvement Plan (LSIP) for London.

respond to learner choice and more immediate employer demand but does not equip it to manage large scale structural changes well, such as the transition to net zero.

London government has a key role to play in developing green skills provision but does not have all the levers it needs

The government has acknowledged the essential role that local authorities will play in achieving net zero as both strategic and delivery partners[3]. The LSIP recommends that training provider specialisms should be delivered according to place-based demand (tailoring to the specific needs of local areas)[17]. Councils are well placed to drive progress locally, using their role as leaders of place, their relationships with business, training providers and local communities[18]. Green skills are a critical area for councils to develop not only to play their part in achieving net zero, but to support the development of the green economy, address skill shortages, and equip residents with the skills needed to enter employment in a growth sector[19]. London government is also well placed to identify to demand side for green skills – for example, current and planned retrofit activity across its buildings and housing stock.

The GLA has identified green as one of its five priority sectors for skills. But as highlighted earlier, the skills needed to support the green economy cut across different sectors. The GLA's Adult Education Budget (AEB) funds education and training for adults aged 19+. It supports a wide range of courses and qualifications, but with a focus on lower level qualifications. The AEB funds a small number of technical qualifications, such as installing heat pumps or EV charging points, while developing broader skills useful to green professions like project management and customer services. However, both the number of specific green skills courses and rates of learner take-up are very low, which can disincentivise FE providers from making those qualifications available for study. The LSIP recommends that a form of 'carbon literacy' or green skills training is embedded into AEB courses as standard[20]. Green skills have been one of the priorities for initiatives such as Skills Bootcamps, Skills Academies and the AEB Jobs and Skills for Londoners Programmes. But London government does not have control over 16-18 provision, careers advice and guidance or apprenticeships in London, so its levers to support green skills are limited.

Central government needs to create the conditions to stimulate demand for green skills

The Green Economy Action Plan highlights several gaps around service delivery and institutional knowledge in green skills, including a lack of direction from central government and the low demand for green skills due to a lack of immediate market

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17 https://www.businessldn.co.uk/sites/default/files/documents/202308/BLDN_LSIP_Report%20DIGITAL%20FINAL%20compressed_0.pdf

18 https://policy.friendsoftheearth.uk/download/road-zero-carbon-council-action-green-jobs-and-skills

19 https://www.localis.org.uk/wp-content/uploads/2022/11/050_MappingARoute_AWK.pdf

20 https://www.businessldn.co.uk/sites/default/files/documents/202308/BLDN_LSIP_Report%20DIGITAL%20FINAL%20compressed_0.pdf

demand[21]. The LSIP also highlights that the lack of government policy in areas such as retrofit dampens ultimate employer demand, which acts as a barrier to developing the skills supply side[22]. For example, many installers are now reluctant to commit time and resources towards investing in skills relating to heat pump installation due to inconsistent government policy, with others preferring to wait until policy becomes clearer[23]. The absence of clear government policy and demand stimulation negatively affects the ability of employers, providers, and boroughs to try and address skills shortages.

Ensuring a just transition[24]

While much of the focus to date has been on shortages in higher-level green skills, there is also a need to raise awareness of the availability of entry level pathways into the green economy[25]. In London, green jobs for people with low qualifications are present primarily in the homes, low-carbon transport, and circular economy sectors. The number of green skills associated apprenticeships is 20,000, but a significant majority of those apprenticeships, which cover areas such as business, engineering technologies, and construction, are higher level (L4+)[26]. This poses a potential just transition challenge that local authorities should address to

prevent Londoners from being locked out of the green economy in the future. Identifying lower-level apprenticeships that could serve as potential gateways into the green economy across the priority sectors is one option that could help to address this challenge.

London government has recognised the green economy and green skills as a priority, but there are significant challenges. The next section looks at the activity London government and other key London stakeholders are taking to develop a pipeline of green skills that can effectively support the development of the green economy and transition to net zero.

21 https://www.londoncouncils.gov.uk/our-key-themes/climate-change

22 https://www.businessldn.co.uk/sites/default/files/documents/202308/BLDN_LSIP_Report%20DIGITAL%20FINAL%20compressed_0.pdf

23 https://www.businessldn.co.uk/sites/default/files/documents/202308/BLDN_LSIP_Report%20DIGITAL%20FINAL%20compressed_0.pdf

24 A Just Transition means greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind. See https://www.ilo.org/global/topics/green-jobs/WCMS_824102/lang--en/index.htm

25 https://www.catch-22.org.uk/news/giving-the-green-light-creating-green-jobs-for-all

26 https://www.rand.org/content/dam/rand/pubs/research_reports/RRA1600/RRA1603-1/RAND_RRA1603-11.London.pdf

Developing a green skills pipeline – key activity across London government

To better understand current London government activity and its level of coordination, London Councils interviewed 9 London government and other key stakeholders between October-November 2022 and again in March 2023. These were the four sub-regional partnerships (Central London Forward, Local London, South London Partnership and West London Alliance), the GLA, LB Hounslow as the lead for the Green Economy Programme and the City of London Corporation to cover the 'Skills for a Sustainable Skyline' focusing on skills needs for the full life cycle of sustainable commercial buildings. London Councils also interviewed BusinessLDN who led on the development of the LSIP and the Association of Colleges (AoC) as other key London stakeholders around skills. A table summarising activity across the stakeholders follows this section and details of activity is contained in Appendix 1. We also drew on an analysis of individual borough climate action plans in July 2022 and a survey of boroughs on green skills activity in November 2021 to complete the picture.

Common activity among the nine stakeholders set out above included:

- Policy development and research around green skills – all nine stakeholders do this.

- Co-ordinating green skills policy and activity, such as running officer networks – again, activity covered by all nine stakeholders. This included four stakeholders co-ordinating skills activity via the Mayor's green skills academy hubs.

- Careers activity to highlight the pathways into the green economy for existing workers and learners, while educating school students about opportunities in the future (two thirds of all stakeholders).

- Skills provision for green construction and retrofit of homes and buildings (just over two thirds of stakeholders).

A minority of stakeholders (a third) were focused on:

- Skills provision for low carbon transport – mainly around Electric Vehicle (EV) installation.

- Skills provision for renewable energy, which includes solar power, heat networks and electrical infrastructure.

No stakeholder is currently delivering any green skills activity for green finance – the final priority green skills sub-sector.

The focus of activity around green skills for construction and retrofitting is not surprising – retrofitting is a key part of London local government's climate plans and local authorities have agency over social housing stock and their own buildings. The sector is a substantial source of employment across the capital, has significant projected growth but also projected skills shortages. It is a sector that has a supply chain of mainly SMEs and high levels of self-employment, so co-ordinating and providing skills provision is important[27]. It is clearly a priority sector for London government. However, despite significant activity, skills shortages exist in this sector.

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27 https://www.theccc.org.uk/publication/a-net-zero-workforce

Activity Type/ Stakeholder	Green Skills Co-ordination		Green Skills Provision						Green Skills Policy and Research		
	Focus on green skills in academy hubs (e.g. green retrofit, EV charging, low-carbon transport, etc.)	Green Skills Policy Co-ordination (e.g. maintenance of green skills officer networks, co-ordination of green academy hub activity, etc.)	Green Finance Priority Sector Course Provision (e.g. accountancy, stewardship, investment, etc.)	Low-Carbon Transport Priority Sector Course Provision (e.g. Electric vehicles, public transport, bicycles, etc.)	Homes and Buildings Priority Sector Course Provision (e.g. heat pumps, insulation, retrofit, etc.)	Power Priority Sector Course Provision (e.g. solar power installation, heat networks, electrical infrastructure, etc.)	FE/HE Green Skills Provision (e.g. green skills bootcamps, FE/HE courses, etc.)	Green Skills Careers Provision (e.g. careers fairs, careers hubs, development of online resources, etc.)	Green Skills Policy Development (e.g. development of policy documents, stakeholder engagement, etc.)	Green Skills Associated Research (e.g. commissioned research, publication of research, data collection, etc.)	Strategic Development Fund green skills investment (e.g. FE infrastructure, development of new courses, etc.)
South London Partnership (SLP)	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
Local London (LL)	✓	✓	✗	✗	✗	✗	✓	✓	✓	✓	✓
West London Alliance (WLA)	✓	✓	✗	✓	✓	✗	✓	✗	✓	✓	✓
Central London Forward (CLF)	✗	✓	✗	✗	✓	✗	✗	✓	✓	✓	✓
GLA	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗
City of London Corporation – Skills for a Sustainable Skyline Taskforce	✗	✓	✗	✗	✓	✗	✗	✓	✓	✓	✗
Green Economy Programme - LB Hounslow	✗	✓	✗	✗	✓	✗	✓	✓	✓	✓	✗
BusinessLDN – lead on the LSIP	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗
Association of Colleges (AoC)	✗	✓	✗	✗	✓	✓	✓	✗	✓	✓	✓

The absence of green finance skills provision by London government, can be partly explained by the fact that the financial industry has predominantly taken the lead on recruiting workers into different green finance sectors, reducing the need for publicly funded skills provision. The finance sector is made up of mainly large companies, who should be well placed to identify and meet skills needs in this sector. London's financial sector is also concentrated in the Central London Forward subregion – it accounts for 34% of central London's green sector jobs compared with 22% for London as a whole[28].

The lack of low-carbon transport green skills provision is a gap for London local government due to the significant number of jobs that exist in that sector, particularly for people with lower-level qualifications. All subregions are expected to significantly grow their share of low-carbon transport green economy jobs and transport infrastructure is delivered via the boroughs and TfL. Consequently, these stakeholders could benefit from collaborating to increase the skills provision in this area. Whilst provision provided directly by London government is clearly only a partial picture of skills provision, the LSIP has identified skills gaps in roles such as electric vehicle charging point installers.

The transition to renewable energy is another key element of local authority climate action plans, through the development of heat networks and potential use of hydrogen. It is a key growth sector for the green economy. However, energy related roles were not identified as a key skills shortage in the LSIP and this is a sector that is comprised of large

companies which may require less public support in managing the skills transition needed. Work on the development of a London Infrastructure Framework, however, has indicated that local authorities themselves may lack the necessary skills to bring forward low-carbon energy schemes.

Most stakeholders were undertaking research, policy development and some co-ordination activities. The skills research commissioned from WPI jointly by the Sub-Regional Partnerships shows that some collaboration and co-ordination is taking place. But there are many different organisations operating in this space. Our discussions with stakeholders suggested that collaboration should be deepened and coordination improved across London.

Strategic co-ordination and an agreed action plan for green skills in key areas is needed across London government stakeholders. This report and research shows there are many different initiatives and activities taking place but there is no strategic overview and little co-ordination of activity across London. It is currently not clear how funding streams such as the Adult Education Budget, the Mayor's Skills Academies, Skills Bootcamps, Strategic Development Fund, careers hubs and borough activities are linked together and how they are supporting different net zero programmes to deliver. There is a green skills and jobs working group, linked to the Green Economy Programme where knowledge and information is exchanged between some key partners. London government needs to be delivering on net zero now and there are some programmes and funding in place which will scale up

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28 https://centrallondonforward.gov.uk/wp-content/uploads/2022/03/CLF-green-jobs-and-skills-Final.pdf

activity, but there's a real danger that these programmes could stall because there are insufficient skilled people to deliver them – both in London government itself and the supply chain. A focused practical action plan, linked to programmes such as the Social Housing Decarbonisation Fund and EV charging infrastructure should be developed by London Councils and the GLA. This should have the buy-in and support of senior officers and members.

London Boroughs Green Skills Survey

To understand the strategic importance that London boroughs have placed on developing green skills in their localities, London Councils has analysed collated data on how each borough's published climate action plans as of July 2022 correspond to the seven pan-London climate programmes, including the green economy programme. Whilst this analysis found some skills specific activities – such as LB Hammersmith and Fulham's climate education programme, LB Islington's skills strategy and LB Newham's initiatives around digital and green skills for the construction and built environment industries – these and other boroughs were in a minority in outlining specific green skills activities as part of their climate strategies. Most boroughs did not mention green skills at a strategic level.

In November 2021, London Councils undertook a survey of London boroughs to understand their current activities in developing green skills and any gaps in service provision that they have identified. 26/33 boroughs responded to the survey, including one SRP. More detail is set out in Appendix 2. There were two key findings from this analysis and the borough survey:

- Most boroughs are making significant efforts to address green skills shortages in their localities. However, these individual activities by a borough are often not reflected in the commitments in their climate action plans, with different boroughs at varying stages of delivery.

- Boroughs are facing significant gaps in their ability to support green skills due to resource and capacity constraints and a lack of immediate levers. A lack of capacity within boroughs to undertake further green skills activity was a consistent theme within the survey. The challenging financial situation that boroughs have been experiencing since 2010, exacerbated by the impact of the pandemic, is preventing them from being able to invest in hiring enough staff with the requisite skills and knowledge to deliver on addressing their local green skills priorities. Skills and knowledge about developing green skills and activity is sometimes lacking in existing staff and it is proving challenging to resource this or attract people with those skills if funding is available. Activity was often dependent on external funding, hampering the development of longer-term strategies.

A greater acknowledgement of the importance and role of skills (both in the public sector and the supply chain) in delivering the transition to net zero, longer term funding for skills provision from government and exploring whether boroughs can share resources or undertake activity collectively would go some way in addressing these challenges.

Conclusions and recommendations
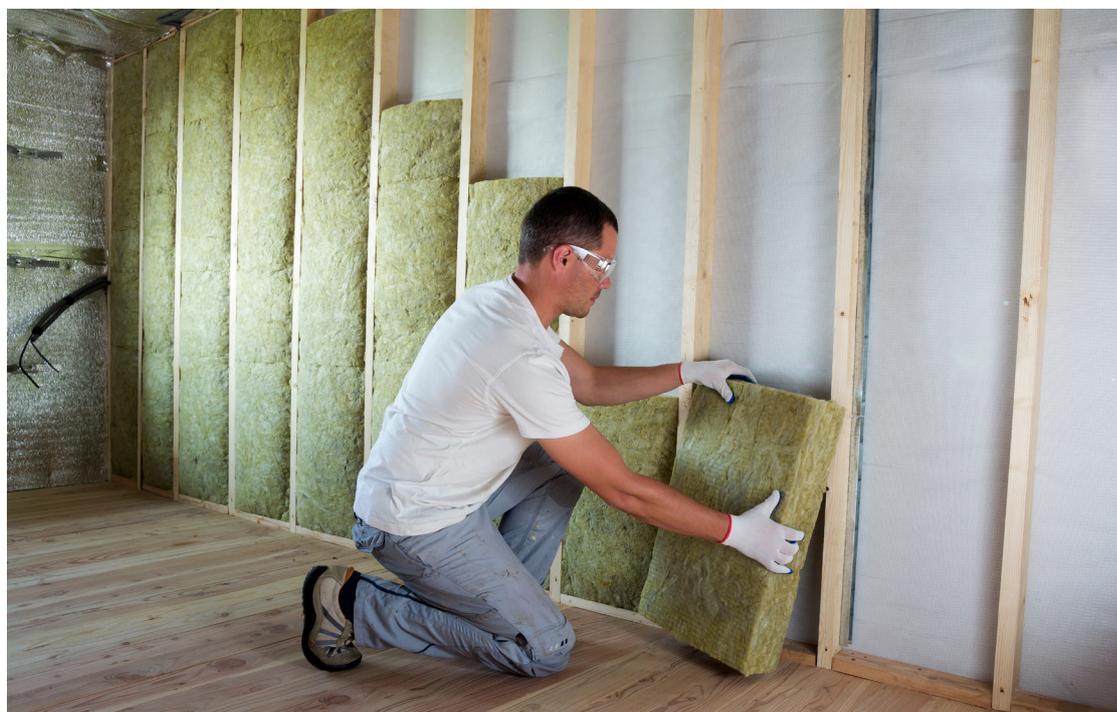
A significant amount of green skills activity is underway within London. Construction and retrofit have emerged as a key cluster of activity by London government stakeholders alongside green skills policy development and research. However, gaps have emerged within skills provision for the renewable energy and low-carbon transport sectors, which should be addressed if the objective to double the green economy is to be achieved. There is a need to increase coordination among London government around skills provision and address capacity issues and to deliver on existing net zero programmes. London Councils, the GLA and SRPs should consider how different green skills provision can be joined up and clear pathways into key occupations developed.

Better coordination of existing programmes and a focus on practical delivery

If London government is to deliver its and the government's net zero ambitions, then it needs to take a strategic view of the current skills provision, join this up and use it to deliver its key net zero programmes. **London government should establish a senior co-ordinating group to develop a net-zero skills strategy and action plan covering the next five years.** In the short term, the plan should focus on how to deliver existing London government net zero programmes, including the £54m Social Housing Decarbonisation Fund and £40m EV charging infrastructure, using existing skills programmes wherever possible. It should establish what provision exists already and at what scale and where the gaps are, building

on the work to develop the London Local Skills Improvement Plan (LSIP). In the longer term, it should focus on the priority sectors for green skills where public intervention is needed, looking at the whole life cycle of green infrastructure including maintenance and the upskilling of the existing workforce, in addition to new entrants. It should consider conducting research and maintain a pipeline of skills demand at a more granular level in terms of forecasting demand by occupations, matching that to existing workforce by occupation, and identifying pinch points[29]. For example, to establish the current number of qualified tradespeople for specific occupations experiencing high skill shortages where the number of practitioners within London is unknown, such as EV technicians, retrofit coordinators, and heat pump installers within London. It should also consider how to take forward the recommendations of London's LSIP. This senior group could be practically supported by the green skills and jobs working group, linked to the green economy programme. It should build on existing structures for skills in London where possible.

A systematic approach to achieving a just transition

As part of this work, **the GLA should consider, as it reviews the Adult Education Budget, what role the AEB can play in developing progression pathways for more disadvantaged Londoners into green jobs. Inclusion and diversity should also be systematically integrated into all green skills provision commissioned by London local government.** London local government should share good practice around diversity and inclusion and agree common mechanisms to achieve that through the commissioning of skills provision. The GLA should also consider how best to implement the LSIP recommendation to embed 'carbon literacy' or green skills training into AEB courses as standard.

Support for boroughs to collaborate to build capacity and expertise

We also found that very few boroughs explicitly highlighted skills activities in their strategic plans, indicating a strategic disconnect between operational activities and broader borough strategy. Boroughs themselves were undertaking a wide range of green skills activities to address local challenges in their own way, but as highlighted in the research and by London government stakeholders, they faced gaps in service provision relating to key skills shortages in areas such as retrofit, the absence of knowledge of key green economy sectors by boroughs and providers, and a paucity of financial and staff resources to expand existing green skills work.

London Councils should encourage boroughs to clearly set out their green skills priorities and activities, when updating their climate action strategies. This will ensure that there is a strategic link between their broader net zero ambitions and their local green skills priorities.

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29 CLF and SLP have undertaken research to establish skills demand by trade for key sectors, such as retrofitting homes and buildings.

London Councils should explore the feasibility of bringing together borough officers responsible for delivering green skills together at a pan-London level to share expertise and practice and opportunities for collaboration. These events should build on the work and networks run by Sub-Regional Partnerships (SRPs) when a pan-London perspective will add value.

Lobby for the levers and environment needed to deliver on green skills for London

If the government is to fulfil its commitments on net zero, it needs to create the conditions for greater investment in green skills both publicly and by the private sector. More certainty over the policy direction and longer term funding are both vital conditions for this. Uncertainty and the reliance on short term funding is severely restricting London's government ability to deliver the green skills needed.

London Councils and the GLA should jointly lobby government to:

- **Set out a clear policy plan to stimulate demand for priority areas of green skills shortages, including homes and buildings, low-carbon transport, and renewable energy, to enable key stakeholders to develop plans and actions to address those shortages.**

- **Provide short term certainty in a demand-led skills system by funding a large scale retrofit programme to pump prime the necessary training.**

- **Recognise the role that local government plays in developing green skills and provide additional resources to enable boroughs to fulfil those responsibilities and address financial and staff capacity challenges.**

- **Agree an ambitious devolution deal with London government, including a local first approach to employment provision and single pot for skills that includes careers advice and guidance, apprenticeships, 16-18 provision, Further Education Capital Funding and any successor fund to the UKSPF.**

Appendix 1:
Summaries of stakeholder activity

LB Hounslow: LB Hounslow leads the London Councils Green Economy Programme (GEP), which aims to double London's green economy by 2030. Consequently, Hounslow's green skills activity is predominantly focused around the GEP, coupled with some localised activity within Hounslow. In February 2022, LB Hounslow published the Green Economy Action Plan - a roadmap aimed at helping boroughs to identify key actions they can take to address their local green economies. The Action Plan provides a suite of interventions councils can apply in collaboration with partners to build the green economy alongside an evaluation framework to ensure that the emphasis of every action is to deliver a just, fair, and equitable transition. The action plan is underpinned by four domains, one of which is green jobs and skills, and summarises the current landscape relating to green jobs and skills, sets out short, medium, and long-term objectives relating to green skills, and highlights actions that boroughs can undertake to begin addressing their local challenges.

LB Hounslow is delivering a number of Green Skills Pilots with a view to long-term establishing a comprehensive Green Skills offer using a sustainable mix of borough and partner led mechanism.

Current pilots are: A green careers cluster project that brings businesses into schools to highlight green careers to students within the borough and raise awareness of careers advisors. Entry level and upskilling course opportunities focused on domestic energy and retrofit assessors. Green Skills Bootcamps funded by the GLA focused on land management and arboriculture, these are short courses where training is delivered directly by the potential employers with guaranteed interview at conclusion of the course. However, LB Hounslow has identified gaps around a lack of focus on provision to

upskill existing workers to address workforce shortages and a lack of associated employer intelligence. Capacity of its skills and employment team to lead on green skills is also a limiting factor.

Central London Forward (CLF): CLF's green skills efforts are usually focused around supporting individual boroughs to deliver their own activities, such as supporting the City of London with its Skills for a Sustainable Skyline Taskforce (SSST), unless there is agreement to commission a sub-regional approach. An example of this is the publication of the WPI economics research into London's green economy in 2021, which CLF led in partnership with the other sub-regional partnerships. CLF hosts two officer policy networks, one on construction skills such as retrofit, and another recently launched network on net zero more broadly, that aim to co-ordinate related activity across the sub-region. CLF is also developing its own LSIP annex focusing on its own subregion, which will include a green skills strand. Additionally, CLF has won £2.7m from the Strategic Development Fund (SDF) to invest in provider infrastructure to deliver courses in areas including green construction and green energy[30].

However, CLF's small size - they have only one dedicated net zero officer - presents resource and capacity challenges regarding its ability to undertake further work on green skills. A key gap identified in their subregion that they have yet to address is a lack of upskilling provision for existing workers, but they are taking action to address two separate service gaps – commercial retrofit through supporting

the SSST, and collaboration with member boroughs through their net zero officer network.

City of London Corporation: The City of London's primary efforts relating to green skills is through its Skills for a Sustainable Skyline Taskforce (SSST), which aims to identify skills gaps in the commercially built environment sector and develop solutions to address them in partnership with business. The taskforce has three main workstreams: To develop an evidence base for the skills and qualification gaps, deliver impactful interventions that can directly address issues identified within the evidence base, and launching an industry engagement campaign to promote upskilling and reskilling among the existing workforce. The City is currently finalising the evidence base and key findings, which will be launched in August 2023, while preparing for the simultaneous launch of the two subsequent workstreams. The City of London is the only interviewed stakeholder that is focusing on addressing green skills challenges across the full life cycle of sustainable commercial buildings.

Beyond the SSST, which aims to conclude in 2024/25, however, the City does not currently plan to undertake any green skills activity.

West London Alliance (WLA): WLA operates a green skills academy hub funded by the GLA that brings together employers, providers, and other partners with boroughs to create pathways into green skills and jobs. The hub has three groups that support its work: An employer board to provide it with insight into

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30 https://www.gov.uk/government/publications/strategic-development-fund-awards-2022-to-2023/strategic-development-fund-2022-to-2023-financial-year#greater-london

green skills training needs, a provider group to coordinate course provision and related matters between HE and FE providers, and a broader partners group that serves as a way to share best practice and information. They have also published a sub-regional annex for the WPI research that outlines West London's green skills landscape. Additionally, WLA has won £2.4m of SDF funds to invest in college infrastructure in areas such as electric and hybrid vehicles, green construction, and green energy [26]. Furthermore, WLA is also developing an annex to the LSIP that will focus on West London's skills needs, including a green skills strand, that will utilise the preparatory work that they have undertaken to-date. WLA has identified an absence of an information campaign towards young people to educate them about the range of green jobs that are available as a key gap in their careers provision.

South London Partnership (SLP): SLP channels much of its green skills activities through their green skills academy hub. The hub focuses on several different objectives, including facilitating the development of new green skills training such as apprenticeships, identifying new funding opportunities and new ways to fund green skills retrofit training, and working with green employers to enable pathways for a more diverse workforce. Some of their member colleges, including South Thames College Group, Croydon, and Richmond Colleges are delivering courses relating to solar panel installation and EV installation. SLP have also developed their careers provision relating to green skills by creating online resources, holding careers fairs, and supporting the GLA's climate kickstart programme. Additionally, SLP has

won £1.8m of SDF funds to invest in college infrastructure in areas such as electric and hybrid vehicles, green construction, and green energy [26]. Furthermore, they are developing an annex to the LSIP that will have green skills as a strand.

SLP has identified several gaps in service provision relating to green skills. One is the need for better communications between the GLA, academies, and sub-regional partnerships and boroughs to better coordinate activity. They have also highlighted a lack of officer knowledge and capacity within many of their member boroughs regarding net zero, which has the potential to reduce its consideration in day-to-day operations. Additionally, providers face funding challenges to support delivery of green skills provision due to increased energy costs, which poses a short-to-medium term financial risk. The lack of clarity around funding streams beyond the short-term also poses a threat to SLP's ability to plan green skills provision.

Local London (LL): Local London is unique among the three sub-regional partnerships that operate a green skills hub in also hosting a digital skills hub, led by London South-East Colleges, and channels much of its green skills activity through the academy. It aims to, among other objectives, retrain and upskill existing workers to help them transition into new jobs in the green sector, upskill college staff to enable them to teach new courses, and develop a responsive and innovative green skills plan and curriculum. The hub has developed a multi-stakeholder governance approach that combines providers, employers, and member local authorities together. Additionally, LL have won £2.4m in

SDF funds to upgrade college infrastructure in areas such as green construction, green energy, and electric and hybrid vehicles[26]. LL is also developing an annex to the LSIP that will include green skills as a strand.

Local London has identified several gaps that affect their green skills service provision. There is an interest in launching a curriculum relating to hydrogen for their providers, but there is a lack of expertise to commencing development. Additionally, providers struggle with funding challenges to attract sufficient specialists to work with them, which prevents existing staff from upskilling on green skills.

GLA: The GLA is undertaking a significant amount of green skills activity pan-London primarily through the Adult Education Budget, provision of green skills bootcamps, funding green skills academy hubs, and supporting careers hubs to provide green skills opportunities for both children and adults. In 2021/22, AEB-funded green skills courses spent £33m overall on green skills, including £3.9m on technical skills in areas such as EV charging point installation, £15.9m on green skills relating to tradespeople, such as carpentry, and £13.4m on enabling green skills required for green subsectors to grow, such as STEM provision. Additionally, the GLA has awarded £760,000 to three green skills bootcamps focusing on operating and installing solar and hydrogen systems, rail engineering for the prioritised green transport sector, and land management and arboriculture skills.
However, the GLA has identified several gaps in its green skills activities, including the absence of higher-level green skills qualifications (although some Level 4 qualifications are being made eligible under the AEB, including retrofit assessors and Skills Bootcamps can cover Level 4-5), the lack of provision for key occupations such as insulators and retrofit coordinators, and the difficulty in assessing the need for demand for such services. Given that the GLA's total AEB allocation for 2022/23 was £318m[31], and that only around 10% of the AEB is currently spent on green skills related courses, it is not possible for the AEB alone to fund the scale of green skills courses within London that are needed to meet future demand. Additionally, the AEB is primarily spent on qualifications up to level three, but the projected need for green skills for London's future green economy is focused more around higher level and craft-based skills[1], which require higher level qualifications. Consequently, this raises questions as to how the GLA can better utilise its different funding streams to improve the development of a talent pipeline, in co-ordination with boroughs and sub-regional partnerships, to meet both current and future green skills demand in key areas of skills shortages within London's green economy. As highlighted before, London government does not have all the levers to deliver on this agenda – higher education and apprenticeships sit with central government.

BusinessLDN: BusinessLDN, formerly known as London First, is a business membership advocacy organisation that is leading the development of a Local Skills Improvement Plan (LSIP) for London on behalf of other London business membership organisations.

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31 https://www.london.gov.uk/decisions/md2958-adult-education-budget-allocations-and-funding-adjustments?ac-135619=135611

The purpose of the LSIP is to develop a London-wide plan to match training provision to business skills needs while identifying and addressing systemic barriers.

One of the intended outcomes of the LSIP is to link up the GLA's Adult Education Budget, borough skills strategies, and provider learner demand with business skills needs. The four London local government sub-regional partnerships will produce annexes for the LSIP, which will outline their own skills and training needs in their sub-regions. The LSIP highlights green jobs and skills as one area where there is a clear skills shortage across London.

Consequently, BusinessLDN's green skills activities are primarily framed around the development of the LSIP. They held a series of roundtables with employers, providers, and other stakeholders to gather information around the needs of different skills areas, including two green roundtables in December 2022 and March 2023. They also undertook a general skills survey of over 1000 businesses in February 2023, which found that 21% of firms surveyed reported skills gaps in green skills, and 23% anticipated green skills to increase in demand over the next two-five years[32]. The LSIP was published in August 2023, and will be reviewed annually until 2025.

AOC: The Association of Colleges (AoC) has obtained funding to develop local collaborative approaches to designing and delivering green construction skills to Level 2 learners. They are funding pilot projects with two college groups, London South-East Colleges (LSEC), and South Thames Colleges Group (STCG), which are directly linked to their respective subregional SDF bids, that are anticipated to begin delivery in November 2023. The college groups will work with employers to design a suitable curriculum that meets their needs, raising awareness of green jobs among learners through career information, advice, and guidance, and map training onto progression pathways into employment. AoC will oversee the delivery of this programme, commission an evaluation report of its outcomes, and disseminate programme learnings.

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32 https://www.businessldn.co.uk/news-publications/news/high-vacancy-rates-and-skills-shortages-continue-to -hold-back-capitals-firms

Appendix 2:
Borough Survey Results Summary

Many boroughs are undertaking a wide variety of different activities relating to green skills, with different boroughs at varying stages of preparation and delivery. 23% of boroughs were undertaking activity aiming at supporting the development of green skills academies either in their area or as part of the wider sub-regional effort. Similarly, 23% were supporting the publication of the WPI research to map the green economy in their areas to gain insight into their local dynamics. 19% were developing entry level green skills provision for their residents, including a service to support residents to gain pre-employment green skills and the launch of a green skills bootcamp. An additional 19% engaged with their local FE/HE providers and industry to assess how to plug skills provision gaps in their areas.

Borough activity can be grouped into two main areas: Attempting to understand the demand and opportunities around green skills provision, and organising green skills provision locally. The fact that there was no one activity that boroughs gravitated towards where green skills were concerned could be considered encouraging as it shows that boroughs were developing their own solutions to local problems. However, the range of activity could also indicate that boroughs lack sufficient funding within their own budgets to fully address green skills challenges, and are thus reliant upon individual pots of funding from government to meet needs within their localities.

Boroughs reported a wide range of challenges and gaps in provision that were affecting their ability to deliver green skills training. By far the most frequently raised gap by boroughs were skill shortages in different areas, with half of respondents highlighting an absence of different types of skills. The most commonly highlighted area was construction in occupations such as heat pump installers, heat pump engineers, and retrofitters more generally. Higher level professional skills like project management, critical thinking, and customer management were also cited as areas of skills shortages more generally. This chimes with findings within the research about a clear absence of critical occupations within the green economy.

Additionally, 31% of boroughs raised the absence of knowledge in different spheres as a key capability gap. The retrofit sector in particular was cited as an area where employers and apprentices lacked information about the requisite skills needed to train for roles within the industry. Furthermore, the absence of a compelling narrative around the attractiveness and variety of jobs in the green economy was raised due to the hampering of recruitment of potential learners by businesses, boroughs, and providers. 31% of boroughs also noted that there was an absence of funding beyond their own budgets alongside staff capacity limits more generally, which prevented them from expanding their internal green skills efforts further.