MDA No.	1	1	5	3

Title: The Climate Emergency: Extreme Weather and Emissions report

Executive Summary

At the Environment Committee meeting on 15 January 2020, the Committee resolved:

That authority be delegated to the Chair, in consultation with party Group Lead Members, to agree any output from the discussion.

At the Environment Committee meeting on 13 February 2020, the Committee resolved:

That authority be delegated to the Chair, in consultation with party Group Lead Members, to agree any output from the discussion.

Following consultation, the Chair of the Environment Committee agreed publish the Committee's report, *The Climate Emergency: extreme weather and emissions*. The report will be formally noted at the Committee's next appropriate meeting.

Decision

That the Chair, in consultation with party Group Lead Members, agree the Committee's report, *The Climate Emergency: extreme weather and emissions.*

Assembly Member

I confirm that I do not have any disclosable pecuniary interests in the proposed decision and take the decision in compliance with the Code of Conduct for elected Members of the Authority.

The above request has my approval.

Signature Caroline Russell **Date** 1 May 2020

Printed Name Caroline Russell AM, Chair of the Environment Committee

Decision by an Assembly Member under Delegated Authority

Notes:

1. *The Lead Officer should prepare this form for signature by relevant Members of the Assembly to record any instance where the Member proposes to take action under a specific delegated authority. The purpose of the form is to record the advice received from officers, and the decision made.*

2. **The 'background' section (below) should be used to include an indication as to whether the information contained in / referred to in this Form should be considered as exempt under the Freedom of Information Act 2000 (FoIA), or the Environmental Information Regulations 2004 (EIR). If so, the specimen Annexe (attached below) should be used. If this form does deal with exempt information, you must submit both parts of this form for approval together.**

Background and proposed next steps:

At the Environment Committee meeting on 15 January 2020, the Committee resolved:
That authority be delegated to the Chair, in consultation with party Group Lead Members, to agree any output from the discussion.

At the Environment Committee meeting on 13 February 2020, the Committee resolved:
That authority be delegated to the Chair, in consultation with party Group Lead Members, to agree any output from the discussion.

Following consultation, the Chair of the Environment Committee agreed publish the Committee's report, *The Climate Emergency: extreme weather and emissions*. The report will be formally noted at the Committee's next appropriate meeting.

Confirmation that appropriate delegated authority exists for this decision

Signed by Committee Services	Lauren Harvey	Date	23/03/20
Print Name: Lauren Harvey		Tel:	x4383

Financial implications

NOT REQUIRED

Signed by Finance	N/A	Date	.....
Print Name	N/A	Tel:	.....

Legal implications

The Chair of the Environment Committee has the power to make the decision set out in this report.

Signed by Legal		Date	24/03/20

Print Name	Emma Strain, Monitoring Officer	Tel:	x4399

Additional information should be provided supported by background papers. These could include for example the business case, a project report or the results of procurement evaluation.

Supporting detail/List of Consultees:
Leonie Cooper AM (Deputy Chair), Tony Arbour AM and David Kurten AM

Public Access to Information

Information in this form (Part 1) is subject to the FoIA, or the EIR and will be made available on the GLA Website within one working day of approval.

If immediate publication risks compromising the implementation of the decision (for example, to complete a procurement process), it can be deferred until a specific date. Deferral periods should be kept to the shortest length strictly necessary. **Note:** this form (Part 1) will either be published within one working day after it has been approved or on the defer date.

Part 1 – Deferral
Is the publication of Part 1 of this approval to be deferred? No

Until what date: (a date is required if deferring)

Part 2 – Sensitive information

Only the facts or advice that would be exempt from disclosure under FoIA or EIR should be included in the separate Part 2 form, together with the legal rationale for non-publication.

Is there a part 2 form - No

Lead Officer/Author

Signed	Haley Bowcock	Date: 25/03/20
Print Name Job Title	**Haley Bowcock** **Senior Policy Adviser**	Tel: x4880
Countersigned by Director	E. Williams	Date 25/03/20
Print Name	**Ed Williams**	Tel: x4399

The Climate Emergency: Extreme Weather and Emissions

LONDONASSEMBLY

Environment Committee

The **Environment Committee** examines all aspects of the capital's environment, by reviewing the Mayor's strategies on air quality, water, waste, climate change and energy.

Caroline Russell AM
(Chair)
Green

Shaun Bailey AM
Conservative

Leonie Cooper AM
(Deputy Chair)
Labour

Nicky Gavron AM
Labour

Tony Arbour AM
Conservative

David Kurten AM
Brexit Alliance
Group

Jennette Arnold
OBE AM
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FOREWORD FROM THE CHAIR
Caroline Russell AM

The coming decade is pivotal if we are to meet the challenge of the climate emergency.

Our climate is already changing. Like the rest of the UK, London's average summer temperatures are becoming progressively warmer. London is already vulnerable to flooding, drought, and heat. Projected severe weather events make these risks more likely and more serious, posing a threat to Londoners' health and wellbeing. And we know that the most vulnerable people in our society – the very young, the old, those in poor health, those on the lowest incomes – will be the most impacted by the climate emergency.

London – like the rest of the world – needs to cut its carbon emissions and build resilience to the effects of the climate emergency, and quickly. This report underlines that action to prevent climate change, and adapt to its effects, can bring positive changes to people's lives, especially for some of London's poorest communities. Action like fitting homes with energy efficiency measures that in turn make them more comfortable and affordable to heat. Or like establishing local, renewable energy projects that bring communities together and build skills for the kinds of jobs we will need in the future.

The Mayor of London has a vital strategic role to play in all of this. While minds are rightly focussed on the immediate response to the COVID-19 pandemic, over the next ten years, London's Mayors need to make bold decisions, work collaboratively, and use their powerful voice to push national government into action to address the climate emergency. The recommendations put forward in this report can help London's Mayors to do so, for the benefit of this and future generations.

April 2020

INTRODUCTION

In December 2018, the **London Assembly** declared a climate emergency, and called on the Mayor to do likewise and put in place specific emergency plans so that London is carbon neutral by 2030.[1]

The Mayor declared a climate emergency shortly after the Assembly and in early 2020, set a target for London to be net zero-carbon by 2030. To meet this 2030 target, any future Mayor will need to take a wide range of ambitious actions and provide strong strategic leadership.

The effects of the climate emergency are already being felt in London. The capital urgently needs to build its resilience[2] and adapt to these changes, whilst also mitigating its own contribution to carbon emissions.

To gain a picture of what needs to be done across several key areas, the **London Assembly Environment Committee** sought answers to four questions:

1. How can London build resilience against heatwaves and drought?
London is getting warmer, with potentially fatal consequences, and unless action is taken London will soon not have enough water to meet demand.

2. How can London build resilience against flooding from extreme rainfall?
The city is at increasingly high risk of flooding, which poses risk to physical and mental health, and impacts property, transport infrastructure and the economy.

3. How can we reduce emissions from the buildings we live in?
Substantially and rapidly increasing the energy efficiency of London's housing stock is vital if the 2030 target is to be met.

4. How can we reduce emissions from the energy consumed in London's homes and communities?
There is great potential for the generation of clean energy within London itself.

The answers to all these questions are not necessarily distinct, and some of the most effective solutions can achieve both mitigation and resilience aims.

Whilst there is mayoral activity in all the areas considered by the Committee's investigation – through work programmes such as the London Plan,[3] the London Environment Strategy[4] and the London City Resilience Strategy 2020[5] – the Committee sought to understand whether current plans are sufficient to tackle, and adapt to, the climate emergency.

The Committee held two 'open-mic' meetings, hearing from a range of policymakers, community members, and research and academic experts. They were asked to explore what failure to adapt to the climate emergency could mean for Londoners, what actions need to be taken, and what the Mayor's role is in facilitating these actions. These meetings were also open to public attendance, and input was received from the public gallery at City Hall and online through Twitter. The video recordings[6] and transcripts[7] from the meeting are publicly available.

Three themes emerged across both meetings. First, that tackling the climate emergency should also ensure a reduction in **health and social inequalities** that already exist, and that there will be significant health and inequality implications if resilience to the effects of the climate emergency is not increased. Second, **communication and engagement** between policymakers and communities is vital to help people be resilient to the effects of the climate emergency, and to ensure that solutions put in place work for the communities they are designed to serve. Third, the **pace and scale of change** will need to increase significantly if London is to meet the Mayor's target of being carbon neutral by 2030.

The recommendations that emerged from the meetings are not exhaustive. However, based on what the Committee heard, they indicate a set of priorities for London's Mayors over the next decade and beyond. Of course, there also remains a pressing need for broad international and national action to tackle the climate emergency.

RECOMMENDATIONS

How can London build resilience against heatwaves and drought?

1. The Mayor, working with London Resilience Partners, should prioritise the review of non-potable water reuse contained within the London City Resilience Strategy 2020, with a particular focus on the role of using regulation to mandate water reuse. [a]

2. The Mayor should ensure that existing and proposed water sustainability and heatwave awareness activities are backed by targets and milestones, so that progress in raising Londoners' awareness, particularly amongst those most vulnerable to drought and heatwaves, can be evaluated over the next decade by successive Mayors.

How can London build resilience against flooding from extreme rainfall?

3. Programmes run by the Mayor and partners to communicate flood risk from extreme rainfall should be reviewed for effectiveness, should target those most at risk, and be backed by targets and milestones so that increased public awareness can be evaluated over the next decade by successive Mayors.

4. The Mayor should consider further and enhanced Community Green Space Grant rounds and extend the Greener City Fund with a proportion allocated to community led green SuDS, targeting communities in existing developments in areas of high surface water flooding and/or heat risk.

a The Conservative group does not support this recommendation. It is not felt that extra regulation is necessary to provide the solution.

RECOMMENDATIONS

How can we reduce emissions from the buildings we live in?

5 The Mayor should work with the boroughs and other partners to develop a lobbying strategy for a range of new and existing asks from central government. This should include:

- Allocating London's fair proportion of future national funding for housing energy efficiency and decarbonisation to the GLA where it would be strategic to do so, and allocating London's proportionate share of Energy Company Obligation funding;
- Abolishing VAT on all products and services used for energy efficiency retrofit; [b]
- Establishing a national interest-free loan scheme for able-to-pay households; and
- Providing funding to facilitate enforcement of the Minimum Energy Efficiency Standard.

6 The Mayor should allocate a portion of the Green New Deal Fund to extending and increasing retrofit programmes in London, continuing the focus on vulnerable and fuel poor households. An interest-free loan scheme for able-to-pay households in London should also be explored.

7 The Mayor should establish a workstream within Skills for Londoners focused on building skills and workforce capacity in the retrofit and energy efficiency sector.

b The Conservative group does not support this part of the recommendation. It is not felt that extra regulation is necessary to provide the solution.

RECOMMENDATIONS

How can we reduce emissions from the energy consumed in London's homes and communities?

8 The Mayor should increase funding for feasibility studies and set-up costs, for community clean energy programmes, perhaps through the Green New Deal Fund, and this should be backed by the provision of expert support to help ensure projects get off the ground.

9 The Mayor should prioritise wider roll-out of district heat networks, with a particular focus on clarifying long-term ownership and management models for this technology.

How can London build resilience against heatwaves and drought?

London is experiencing temperatures that are higher than the historic average and more frequent severe hot weather events. At the same time, London is particularly susceptible to these rising temperatures, and generates its own microclimate, known as an Urban Heat Island (UHI). The UHI is caused by an extensive built-up area absorbing and retaining heat during the day and night, and can result in London being 10 degrees centigrade warmer than the surrounding rural areas.[8] High temperatures can be fatal. Public Health England recently estimated that a total of 892 excess deaths occurred in the UK during the three heatwaves of 2019, with 223 of these in London.[9]

Droughts are natural events that occur when a period of low rainfall creates a shortage of water. The last recorded drought in London occurred in 2012. London has experienced the early stages of drought as recently as winter 2018. The London Risk Register (last updated in January 2019) classifies the risk of severe drought as 'very high'.[10] Significant action will be needed for London to mitigate its drought risk. Even with some projected water efficiency gains, London is forecast to have a water resource 'gap' of over 100m litres per day by 2020, rising to a deficit of over 400m litres per day by 2040.[11]

Health and inequality

Extreme heat can cause respiratory, cardiac and renal illness, and can ultimately be fatal.[12,13] Older people are particularly vulnerable: of London's 223 extra deaths during the 2019 heatwaves, 182 were people aged 65 or over.[14] Other groups at particular risk include the very young and those whose health, housing or economic circumstances make them especially susceptible.[15]

Water shortages due to a drought in London would have numerous serious and life threatening health consequences, as a result of lower water consumption and lower hygiene levels. Water shortages can also have a significant impact on the mental wellbeing of individuals and communities.[16] As with heatwaves, these effects will be felt most severely by the most vulnerable in society.[17] Heatwaves and drought also increase pressure on stretched health services. Some hospitals experienced record numbers of people attending during the 2018 heatwave, and NHS officials have warned of summer pressures equalling those seen in winter, placing the NHS in year-round crisis.[18,19]

Communication and engagement

Public Health England told the Committee that communicating the health risks of heat is challenging, as many people view the warmer weather positively.[20] The Committee also heard that many people are not sufficiently aware of the possible impacts of drought and what can be done to help mitigate both the likelihood and effects of drought. Thames Water told the Committee that Londoners use more water than they need to.[21] Londoners use 149 litres per day, higher than any other area of the country. The Environment Agency's recommended daily use is 100 litres per day.[22] Public engagement is required, alongside infrastructure developments that reduce water use and wastage, to help people realise the value of water and at least bring London's consumption in line with the rest of the UK.

Pace and scale of change

The Committee heard that stronger planning regulation is required to ensure non-potable water (water not fit for drinking, such as rainwater) is reused. Currently, through the Mayor's draft new London Plan[23] housing developers are encouraged, but not mandated, to build in solutions that reuse rainwater. As a result, it is likely that the provision of these 'dual systems' will remain low. The London City Resilience Strategy 2020 recognises this issue, and commits to exploring whether 'additional planning policy, guidance or regulatory change is necessary'. The evidence heard by the Committee suggests that regulatory change is required.

Attendees also discussed the importance of policymakers engaging with Londoners about valuing and reducing water use to help mitigate the likelihood of drought. The London City Resilience Strategy 2020 outlines a project to promote a decrease in water wastage, though details are currently light. This project must explore how the Mayor can best use his strategic position to disseminate information to Londoners, and set milestones for both water wastage reduction and public awareness of the value of water over the next decade.

The Mayor's leadership role would also be well suited to disseminating information about the health impacts of heat, and actions people can take to limit their exposure to these impacts, both in the home and outside. The London Environment Strategy sets out the development of a communications plan to Londoners in the event of extreme heat, and the London City Resilience Strategy 2020 plans to establish a network of 'cool spots' across the city to help Londoners deal with heat as they travel.[24] However, these programmes need to be complemented by a wider awareness and educational campaign.

“... we underestimate the value of water. Water is life.”

Sarah Green, Campaigner

“Heat for us [Public Health England] is also a priority because of the increasing vulnerability that we see.”

Emer O'Connell, Public Health England

“Heat is generally undervalued as a risk by organisations, by investors, and by the public.”

Bevan Jones, Climate and Sustainability Consultant

Recommendations

1. The Mayor, working with London Resilience Partners, should prioritise the review of non-potable water reuse contained within the London City Resilience Strategy 2020, with a particular focus on the role of using regulation to mandate water reuse. [C]

2. The Mayor should ensure that existing and proposed water sustainability and heatwave awareness activities are backed by targets and milestones, so that progress in raising Londoners' awareness, particularly amongst those most vulnerable to drought and heatwaves, can be evaluated over the next decade by successive Mayors.

[C] The Conservative group does not support this recommendation. It is not felt that extra regulation is necessary to provide the solution.

How can London build resilience against flooding from extreme rainfall?

London is at risk from three types of flooding caused, or exacerbated, by extreme rainfall. Surface water flooding and fluvial (river) flooding are both deemed to be 'very high' risk by the London Risk Register, and the risk of groundwater flooding is 'high'.[25] Severe flooding has the potential to affect hundreds of thousands of properties: overall, 17 per cent of London is deemed to be at either medium or high risk of flooding.[26]

Contributors at the meeting focused predominantly on surface water flooding. This type of flooding occurs when the drainage system becomes overwhelmed and rain cannot empty into local drains, sewers or watercourses. It can be caused either by the sheer intensity of rainfall, or by infrastructure failure such as blockages within the drainage network. Rapid urbanisation and development across the capital has resulted in an increase in impermeable surfaces.[27] River flooding and high groundwater levels can exacerbate surface water flooding: high river levels from either rainfall or high tides can reduce the capacity of storm water drainage systems, and high groundwater levels reduce the natural drainage capacity of permeable ground.[28]

The climate emergency means that London is likely to continue to experience wetter, warmer winters, and heavier summer showers. Coupled with the city's projected population growth, pressure on drainage systems will continue to increase.[30] The consequences of flooding are wide ranging. It can damage property, affect transport, impact the economy, pose a danger to health and wellbeing, and pollute the environment.

Health and inequality

Flooding can have lasting impacts on people's health and wellbeing, particularly for older and disabled people who are more likely to be trapped by rising water. The stress caused by damage to housing and having to move out of a home can have profound mental health implications.[30]

In addition, much of inner-London's sewer system carries both sewage and rainwater. When these sewers become overloaded, sewage can flow back up into showers and toilets, and end up in people's basements. Sewage can also be discharged into the Thames and its tributary rivers, with serious consequences for the ecosystem.[31]

Communication and engagement

In May 2018 the Mayor committed to work with partners to raise awareness of flood risk.[32] However, the Committee heard from several contributors that people in London are not aware of their flood risk, in particular from surface water flooding, and that flood awareness campaigns need to become more proactive and targeted. This is backed up by a 2019 YouGov poll, which found that 71 per cent of people surveyed in London had never checked their flood risk.[33]

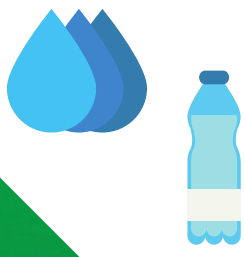
This suggests that the Mayor's proposal in the London Environment Strategy to increase flood awareness may not yet be taking effect, and broad Mayoral initiatives such as Flood Awareness Week may not be reaching the right audiences. Targets for public flood awareness would help drive awareness initiatives and measure their effectiveness, particularly amongst those most vulnerable to flood risk and its effects.

The Committee also heard about the importance of engaging communities in flood mitigation, adaptation and recovery plans. A dialogue between policymakers and communities is key to effective education about, and mitigation from, flooding, and can help to overcome some of the inherent inequalities in exposure to flood risk.[34]

Pace and scale of change

If rainwater is captured and stored for reuse rather than discharged onto the ground, pressure on drainage facilities is reduced. This also reduces demand for potable water, increasing available water for drinking.

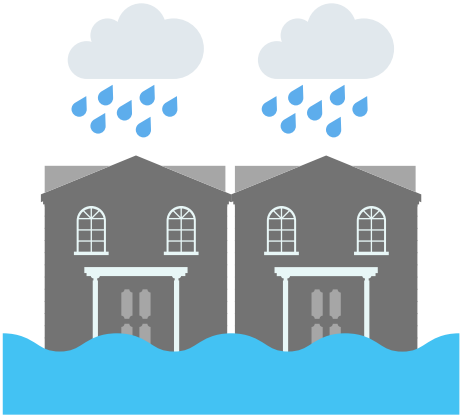
Significant action is needed to minimise impermeable surfaces in London, to help retain water and discharge it slowly, so that the risk of surface water flooding is reduced. Solutions such as sustainable urban drainage systems (SuDS) or 'blue-green' infrastructure, that incorporate urban water infrastructure and urban vegetation, can deliver wider benefits. For example, the Committee heard about how small community gardens can absorb water during periods of extreme rainfall, then release it slowly, whilst also enhancing the public realm for residents.



The Mayor has several policies and programmes designed to drive further SuDS in new developments and SuDS retrofitting, including in the London Environment Strategy, the Sustainable Drainage Action Plan, and the London Plan. However, the Committee heard that funding schemes at the scale and pace required, particularly in existing developments, remains a challenge.

Mayoral grants programmes provide some opportunities, albeit at a small scale, to invest in SuDS. For instance, the Community Green Space Grant has enabled communities to improve and create green infrastructure across London, including SuDS. This type of funding should continue. Green Capital grants[35] (part of the Greener City Fund) have also been used to support specific green infrastructure interventions with broader environmental benefits such as reducing flood risk.

> **71% of people surveyed in London have never checked their flood risk.**
>
> **YouGov, 2019**



> ***Most of the communities do not know that they are at risk from flooding, particularly surface water... Although we have flood awareness weeks and other things, that is quite a passive form of communication***
>
> **Victoria Boorman, London Borough of Hillingdon**

> ***...the policies designed to reduce the impacts of extreme weather are often conceived and possibly usually enacted without the inclusion of the people and populations who are most at risk, or at least defined as most vulnerable.***
>
> **Shona Paterson, Brunel University**

Recommendations

3 Programmes run by the Mayor and partners to communicate flood risk from extreme rainfall should be reviewed for effectiveness, should target those most at risk, and be backed by targets and milestones so that increased public awareness can be evaluated over the next decade by successive Mayors.

4 The Mayor should consider further and enhanced Community Green Space Grant rounds and extend the Greener City Fund, with a proportion allocated to community-led green SuDS, targeting communities in existing developments in areas of high surface water flooding and/or heat risk.

How can we reduce emissions from the buildings we live in?

There are 3.56 million homes in London,[36] which account for 37 per cent of the city's carbon emissions.[37] Dramatically reducing emissions from London's homes by increasing their energy efficiency is critical if London is to be net zero by 2030. But it is not just about the carbon savings: increasing the energy efficiency of homes reduces energy bills, helping to narrow social and health inequalities.[38]

Each London household spends an average of £1,175 on gas and electricity bills every year.[39] For many, this level of expenditure is simply not manageable.[40] The latest (2017) data shows that 11.8 per cent of London's households are in fuel poverty – when spending the average amount on fuel would leave a household below the poverty line.[41] This is the highest since the measurement began in 2003.[42] Inefficient homes contribute to fuel poverty and are associated with damp and mould, which can have severe health implications.

Retrofitting is the process of altering an existing home, usually through the addition of new technologies or materials, to make it lower-carbon, lower-energy and more resilient to the changing climate.[43]

There are a range of mayoral programmes designed to increase the energy efficiency of buildings. For example, the Retrofit Accelerator – Homes is a £3.6 million programme which aims to provide London boroughs and housing associations with the necessary technical expertise to commence 'whole-house' retrofit projects and help build the supply chain and business case to accelerate retrofitting in private homes. The Mayor also introduced London's first Fuel Poverty Action Plan, which includes a number of measures to support Londoners struggling to heat their homes.

The Mayor has recently earmarked £50 million for a 'Green New Deal Fund',[44] the specific details of which are yet to be provided and could deliver an opportunity to scale up retrofitting. However, the Mayor does not have the funding and powers needed from central Government to ensure that all his energy efficiency programmes, even in combination, can deliver at the scale or pace required. Unprecedented central government action is desperately required.

> ***"At one point there was four of us sleeping in one room and still you would wake up in the morning and you could see your breath. It was absolutely freezing."***
>
> **Leila Fortunato, Banister House Solar in Hackney**

Health and inequality

The inability to heat homes properly is a widespread issue in London. A 2016 survey by Shelter and YouGov found that 26 per cent of private renters in London have experienced poor insulation or excess cold, and 39 per cent have experienced damp or mould in their homes.[45]

Cold, damp and mouldy homes have serious consequences for Londoners' health, with vulnerable groups such as the old, the young and people with disability, particularly affected. Respiratory conditions, circulatory problems and poor mental health and wellbeing can all be caused or worsened by cold and damp homes.[46] These health impacts can be so severe that they lead to death. Over the winter of 2017-18, around 1,260 extra deaths were attributable to cold and damp homes. For every cold-related death, there are eight nonfatal hospital admissions.[47] Nationally, treating the health impacts of cold homes costs the NHS an estimated £1.36 billion each year.[48] The Committee heard powerful testimony from people with experience of living in fuel poverty, who talked about leaving some rooms in their house completely unheated, whole families sleeping in one room to stay warm, condensation dripping onto the floor, and mould growing on walls and ceilings.

Communication and engagement

The Committee heard that properties are frequently under-ventilated. This is worse in over-occupied homes and exacerbates damp and mould issues. It is vital when retrofitting properties for energy efficiency that both ventilation and insulation are considered together. Alongside insulation and making homes more airtight, through new windows and frames, moisture in the air needs to have a way out of buildings through continuous ventilation.[49] Retrofitted home improvements that focus solely on making homes warmer can unintentionally lead to damp.

Householders are often either unaware of the importance of ventilation, or are wary of letting any heat out because they are struggling to afford to heat their homes. Properly considered retrofit measures have a big role to play in solving this problem, by keeping homes warmer and lowering energy bills and, crucially, by installing continuous ventilation systems. As identified in the Environment Committee's report Keeping out the chill, energy advice and education should be provided along with retrofit measures, to help residents reduce damp and mould in their homes.[50]

> ***"As a young child I lived in very cold conditions to the point where my young sister who lives in France has a lifelong illness as a result of being brought up in these conditions."***
>
> **Chris Mason-Ryan, National Pensioners Convention**

Pace and scale of change

London's housing stock needs to be made much more energy efficient, quickly, and at scale. To facilitate this, the Committee heard that there needs to be significant investment, landlord accountability, and supply chain growth.

There needs to be a radical increase in investment from central government. The Energy Saving Trust has calculated that at least £1.5 billion per year extra funding will be required just to get all existing houses up to Energy Performance Certificate (EPC) level C. The Committee heard that, to maximise efficient and strategic use of new funds, the GLA would be best placed to utilise government funding, and should also assume responsibility for London's share of the Energy Company Obligation (ECO) – a national energy efficiency fund contributed to by energy companies.[51] London households pay for ECO through their energy bills, contributing more than 13 per cent to ECO nationally.[52] However, ECO activity in London constitutes only seven percent of national installations. London's fair share of ECO is estimated to be around £80m per year.

Attendees told the Committee that investment in retrofit should be stimulated by a reduction in VAT on products and services used for energy efficiency retrofit.[53] The Committee also heard that England is falling behind other countries by not offering low-interest or interest-free loans for able-to-pay homeowners to retrofit energy efficiency improvements. This absence is particularly acute given the failure of the Green Deal – a policy that allowed homeowners to offset expenditure on energy efficiency improvements through savings on energy bills.

25 per cent (854,800) of London's properties are privately-rented.[54] The Minimum Energy Efficiency Standard (MEES) requires any properties that are being rented out in the private sector to have a minimum EPC rating of E before they can be rented out or the renewal of an existing tenancy agreement can be issued.[55] Due to budget cuts, local authorities are experiencing challenges in identifying non-compliant properties, contacting landlords and resourcing enforcement activity,[56] meaning that during the first 12 months of the regulation being in place, local authorities were unable to bring any enforcement action.[57] The Committee heard calls which echoed previous mayoral requests for funding to help London's boroughs enforce the MEES.[58] There was also general agreement that the maximum amount a landlord is required to invest in energy saving measures should be raised from £3,500 to £5,000 - backing a previous London Assembly motion on the matter.[59]

> ***"London's homes account for 37 per cent of the city's carbon CO2 emissions."***

Contributors agreed that the retrofit industry will need to be expanded at pace, to be ready for increases in investment and regulatory changes. Unlocking capacity building in the supply chain will be key to realising the widespread retrofitting of London's homes. The Mayor would be well-placed to respond to this challenge, using Skills for Londoners [60] to initiate a workstream focused on building skills and capacity in the energy efficiency retrofit workforce.

Recommendations

5 The Mayor should work with the boroughs and other partners to develop a lobbying strategy for a range of new and existing asks from central government. This should include:

- Allocating London's fair proportion of future national funding for housing energy efficiency and decarbonisation to the GLA where it would be strategic to do so, and allocating London's proportionate share of Energy Company Obligation funding;
- Abolishing VAT on all products and services used for energy efficiency retrofit[d];
- Establishing a national interest-free loan scheme for able-to-pay households; and
- Providing funding to facilitate enforcement of the Minimum Energy Efficiency Standard.

6 The Mayor should allocate a portion of the Green New Deal Fund to extending and increasing retrofit programmes in London, continuing the focus on vulnerable and fuel poor households. An interest-free loan scheme for able-to-pay households in London should also be explored.

7 The Mayor should establish a workstream within Skills for Londoners focused on building skills and workforce capacity in the retrofit and energy efficiency sector.

d The Conservative group does not support this part of the recommendation.

“11.8 per cent of London’s households are in fuel poverty.”

Greater London Authority, 2017

“No insulation without ventilation.”

Peter Rickaby, UK Centre for Moisture in Buildings, and energy and sustainability consultant

“ The challenge we face is how to scale that up and roll those [energy efficiency] programmes out across a large stock.”

Sarah Cary, Enfield Council

“ Our view is that the scale of the challenge needs a national response.”

Naomi Baker, Energy Saving Trust

“ If you are asking about what more could the Mayor and the Government do... it is definitely look at capacity building in the supply chain.”

Sarah Cary, Enfield Council

How can we reduce emissions from the energy consumed in London's homes and communities?

London's homes should be as energy efficient as possible. However, they still require power and heat, and if London is to achieve net zero by 2030, this will need to come from renewable sources. London will continue to secure the bulk of its energy from the national grid, which will require central government action to decarbonise. There is, however, great potential for the decarbonisation of energy and heat within London itself through more local, decentralised low-carbon energy, such as community renewable energy projects and district heat networks.

Community energy projects, where energy is locally and cleanly produced, used, and can be sold back to the national grid, are already being established in London. Many are supported by the Mayor's London Community Energy Fund. As of February 2020, 48 projects had been supported, including solar panels on social housing[61] and schools,[62] and an anaerobic digester to supply biogas to a shared workspace.[63] District heat networks connect buildings to sources of low-cost, low-carbon waste and renewable energy – such as heat from the London underground – across a wide area, to provide them with heating and cooling. The Committee heard that district heat networks are critical to decarbonisation,[64] and this is reflected in their prominence in both the London Environment Strategy and Zero Carbon London plan.[65]

Health and inequality

The Committee heard how community energy projects can deliver social benefits. They allow individuals to invest, and receive a return on their investment through income generated by the sale of power to the national grid. Some of these returns are also ringfenced for community projects.

There is also the potential for decentralised energy to increase energy affordability. For instance, the London Infrastructure Plan[66] concluded that Londoners' bills could be up to 40 per cent lower under a highly decentralised energy scenario.

Communication and engagement

Community energy projects allow communities to connect with each other, and engage and learn about energy and energy saving. Organisations such as Repowering London train members of the community in technical and business skills during project installation, and these skills can then help boost individuals' employment prospects.[67] Energy schemes located in schools also provide a ready-made learning opportunity for children about energy and the climate emergency.[68]

The Committee heard that community energy projects fit within the framework of a 'just transition' to respond to the climate emergency. They do this, for instance, by allowing for community input and cooperation on solutions that work for them, and by providing training and education opportunities.

Pace and scale of change

The Committee heard that community energy projects will not meet London's energy needs alone, but they can make a substantial contribution.[69] There is significant potential for a growth in community energy projects in London. Those who help deliver projects said that continued and increased support for feasibility studies was key to their expansion.

This initial, speculative investment is often unattainable for communities; but once the viability of a project has been determined, projects are able to generate investment against expected returns. It is vital that the Mayor's London Community Energy Fund, which has supported these feasibility studies, begins new and increased funding rounds over future mayoral terms, to help rapidly expand the growth of community energy projects across the capital. The Committee heard about the key role that heat networks can have in energy decarbonisation and reducing bills.[70]

The Mayor has committed to district heating networks forming an integral part of London meeting its 2050 zero-carbon target.[71] This is supported by technical assistance programmes,[72] finance (through the Mayor's Energy Efficiency Fund), and planning policy.[73] However, if current build-out rates are to be increased, and ambitions are to be scaled up to meet 2030 targets, significantly more financial support will be required. Issues relating to network ownership monopolies and consumer rights[74] will also need to be resolved.

“By building co-operatives across different estates, we were able to come up with solutions that were estate-based. Community energy really focuses on power to, for and by people. It is about localised solutions.”

Agamemnon Otero, Repowering London

Can you power all of London through community [energy]? No, you cannot; and nobody in the community energy sector is saying that. Can you scale up the amount and work and projects that communities are doing? Absolutely.

Syed Ahmed, Energy for London

Recommendations

8 The Mayor should increase funding for feasibility studies and set-up costs, for community clean energy programmes, perhaps through the Green New Deal Fund, and this should be backed by the provision of expert support to help ensure projects get off the ground.

9 The Mayor should prioritise wider roll-out of district heat networks, with a particular focus on clarifying long-term ownership and management models for this technology.

The Environment Committee would like to thank all guests that contributed across both meetings.

January 2020: Drought, heatwaves and flooding

Alex Nickson, Thames Water
Alice Reeves, GLA Fire and Resilience
Dr Anastasia Mylona, Chartered Institution of Building Services Engineers
Barry Todman, National Pensioners Convention
Bevan Jones, Climate and sustainability consultant
Cassie Sutherland, GLA Environment
Charles Snead, TfL
Charlie Wood, Environment Agency
Chris Mason-Ryan, National Pensioners Convention
Christina Calderato, TfL
Emer O'Connell, Public Health England
Jacob Tompkins OBE, The Water Retail Company
James Dalton, Association of British Insurers
Sarah Green, Campaigner
Shona Paterson, Research Fellow at Brunel University
Vicky Boorman, London Borough of Hillingdon

February 2020: Reducing emissions from the buildings we live in, and from the energy consumed in London's homes and communities

Agamemnon Otero, Repowering London
Ben Coombes, GLA Environment
Chaitanya Kumar, Green Alliance
Chris Mason-Ryan, National Pensioners Convention (Greater London Region)
Darren Woolf, Loughborough University Building Energy Research Group / Blue Green UK
John Kolm-Murray, GLA Environment
Kamel Callender, Brixton Energy Solar
Leila Fortunato, Banister House Solar in Hackney
Naomi Baker, Energy Saving Trust
Peter Rickaby, Energy and Sustainability Consultant (Buildings and Housing) / UK Centre for Moisture in Buildings
Sarah Cary, London Borough of Enfield
Syed Ahmed, Energy for London
Sylvia Baron, GLA Environment

Appendix 1: Minority Report
David Kurten AM, Brexit Alliance Group

London needs to fully prepare for weather emergencies such as heatwaves, drought, flooding, severe storms and extreme rainfall, and must ensure it has the resilience to cope with any emergency.

However, this is an entirely separate matter from the political ideology of climate alarm-ism which claims that society must reduce carbon dioxide emissions to avoid some kind of future catastrophe. There is no climate emergency.

Items such as heat pumps and insulation should not be subsidised by the state; they should be subject to the free market.

Recommendations

1. The Mayor should continue to take action with Resilience partners to ensure preparedness for heatwaves, drought, flooding and extreme rainfall in London, and the Brexit Alliance Group accepts recommendations 2, 3, 4 and 7 concerning these issues.

2. District heat networks should be economically viable in the free market. The Mayor should not be involved in promoting or subsidising them.

3. It is not the place of the Mayor or government to provide subsidies to homeowners to retrofit their own homes with insulation or to 'decarbonise'. The Mayor should scrap his Green New Deal fund and spend the allocated sum of £50,000,000 on other priorities.

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OTHER FORMATS AND LANGUAGES

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