

James Scantlebury

From: steve latner <[REDACTED]>
Sent: 02 September 2024 17:13
To: Local Plan
Subject: Newham Plan Regulation 19 response submission - Climate emergency
Attachments: Reg 19 response rep 1.docx; Reg 19 response rep 2.docx; Reg 19 response rep 3.docx

Dear Newham planning team

Please find attached three representations to the Newham Plan Regulation 19 consultation. These all relate to the Climate emergency section but are separate representations as they relate specifically to three different parts.

I have previously responded to Reg 18 consultation but this is a new response, which I have written specifically in line with Regulation 19 requirements.

Please see below evidence about burning wood (biofuels as 'renewable' energy) which I have referred to in my representation:

<https://www.nature.com/articles/d41586-024-02676-z> (specifically includes section on air pollution)

<https://www.theguardian.com/environment/2018/jun/30/wood-pellets-biomass-environmental-impact> (specifically includes section on air pollution)

<https://www.theguardian.com/environment/2018/mar/01/pollutionwatch-wood-burning-is-not-climate-friendly>

<https://foe.cymru/stop-biomass-it-adds-fuel-fire>

<https://unearthed.greenpeace.org/2021/04/20/eu-lobby-biofuel-biomass-bioenergy-renewable-sustainable-climate/>

<https://www.biofuelwatch.org.uk/2018/biomass-basics-2/>

<https://www.theguardian.com/business/2021/mar/23/green-groups-dispute-power-station-claim-biomass-carbon-neutral>

I will forward 3 more pieces of evidence that I have referred to in my comments in separate e-mails, as it would be too big to put all those attachments in one e-mail.

Please could you confirm receipt and ability to open attachments.

Thank you.

Kind regards

Kika Everington, [REDACTED]

James Scantlebury

From: steve latner <[REDACTED]>
Sent: 02 September 2024 17:17
To: Local Plan
Subject: evidence attached
Attachments: Item 13 - PUBLIC - Appendix 1 - LLDC Preparing for 1.5C future.pdf

Dear Newham planning team

Further to my previous e-mail with my Regulation 19 submission, please find attached evidence document that I have referred to in detail in my submission.

Thank you.

Kind regards

Kika Everington, Stratford resident

James Scantlebury

From: steve latner <[REDACTED]>
Sent: 02 September 2024 17:21
To: Local Plan
Subject: more evidence

Dear Newham planning team

Further to my previous e-mails, please see below the e-mail from the Centre for Alternative Technology that I have referred to as evidence in my Regulation 19 submission.

Kind regards

Kika Everington, Stratford resident

From: Info <info@cat.org.uk>
Sent: 13 August 2022 14:54
To: steve latner <[REDACTED]>
Subject: RE: questions on district heat network, communal heating and secondary heat

Dear Steve,

Thanks for your enquiry.

Here are some initial answers to your questions. Some of these are brief, due to limits on the time I have available, but hopefully it will help.

1. I don't understand why there is an emphasis on having decentralised energy and district heat(ing) networks. Is there any environmental benefit to having a district heat network?

A heat network can be a good way of delivering heat to dense housing, such as flats or terraces. So homes that lack the space to have their own heat pump – without space for either the outside collector or the indoor unit or store. So it's often for practical reasons like that.

2. Can an energy centre that is powered by CHP using gas and biomass be decarbonised? Is it scientifically possible? I have heard lots of problems with biomass and I don't think they are suggesting biomass. Is there any other way?

Water can be warmed up by a wide range of sources, especially in a large city. To be low carbon, the warm water needs to be produced without fossil fuels – so using renewable energy sources. This could be from a shared heat pump, or from digestion of food waste, or from waste heat from a factory process (if that's also powered by renewable energy), or from other options.

3. Can a district heating network in a highly built-up area of inner London be decarbonised? Is it practically possible?

Yes, as above – the water to be piped round can be heated up by lots of different sources, which can be low carbon.

4. I also read somewhere that a district heating network was not very good for homes fitted with photovoltaics. Is this correct?

I can't imagine any reason for this. Solar PV makes electricity that feeds into the electricity supply. So that will be completely separate from hot water flowing round radiators.

5. I've heard that Islington (in London) decarbonised their district heat network by using heat from the tube (train) and using this to power an energy centre run by a large ammonia heat pump that provides heat to a communal heating system. I don't know if this is the same thing as an airsource heat pump. However, I recall that in one of your articles, you state that a communal airsource heat pump does not work well and is inefficient. Can you confirm this?

Yes it's an air source heat pump as it uses air from the underground, as described at

<https://www.islington.media/news/bunhill-2-launch-pr>

I can't find any reference on the CAT website about communal heat pumps not working well, so maybe you saw this somewhere else. I'm not aware of this being the case – a well designed communal heat pump can indeed work well.

6. The homes in my local district heat network do not have individual boilers; they are run by the communal CHP. The planning document says future homes should have a communal low-temperature heating system. I don't understand what they mean by this. The only low-temperature heating system that I know of is an airtsource heat pump, in the sense that the water heated by the airtsource heat pump that runs through the radiators is low-temperature. Again, I recall an article saying communal heating via airtsource heat pumps is inefficient – it might be the same as point 4. Is there such a thing as 'a low-temperature communal heating system' that is energy-efficient? Is there any environmental benefit to having a communal heating system?

Low temperature heating just means a low temperature flowing round radiators – such as water at 45 or 50 degrees C. The water used could be heated to that temperature by anything – by a heat pump, a gas boiler, an electric immersion, from waste heat, and so on.

The efficiency of a heat pump will vary depending on source temperatures and delivery temperatures – and specifically to the gap between the two.

The Islington one has a high delivery temperature, but it also has a high source temperature – as the air used is at 18 to 28 degrees. So although it delivers a high temperature, the ratio of electricity to heat can still be about 1 to 3 (see <https://heatpumpingtechnologies.org/annex47/wp-content/uploads/sites/54/2019/07/bunhill-heat-and-power.pdf>). That makes it competitive with other fuels.

A standard home heat pump will get much lower source temperatures as outdoor air might be 5 degrees. So could be 20 to 25 degrees lower (on average) than the Islington one. Therefore you want to keep the deliver temperature much lower to keep it efficient. So for example to a flow temperature of 45 or 50 degrees C.

For example with a communal heat pump with air collectors on the roof of a block of flats (so using outdoor air), you'd want to design the system to heat water to a low temperature of perhaps 50 degrees or less.

With a large district heating scheme, piping over a long distance and so needing hotter water, it can still work as long as there is a warm heat source (like the London underground or other waste heat from industry).

7. It also goes on to say that ideally the system should have a 'zero-emissions heat source. Is there such a thing as a 'zero-emissions' heat source? Does it exist, either actually or theoretically? What is it?

It basically means renewable energy like wind power, tidal power, water power, geothermal, solar power (in summer), etc. They might mean nuclear power too.

8. Our policy also says developers should look for 'opportunities for low and ambient temperature heat networks'. What does this mean? The only thing I've heard of is low and ambient temperatures are needed to efficiently operate an airtsource heat pump. I don't know what a 'low and ambient temperature heat network' is. Does it result in low carbon emissions?

As far as I can tell, the term ambient temperature heat network just means the lower temperatures as used in standard heat pump systems, which draw on the ambient air or ground temperatures, as described above. This is in contrast to more unusual sites like the Islington one, where a high source temperature is possible.

9. There is also an emphasis in the local policy on using 'secondary heat'. I don't know what this is – the main thing I can think of is heat from a waste incinerator, but that doesn't sound very good environmentally. I'm not sure if the heat from the station/train at the Bunhill heat Centre in Islington counts as secondary heat. What is 'secondary heat' and is it a good thing environmentally?

Yes, secondary heat is basically heat otherwise wasted – vented away and lost – such as from the underground or from other industrial processes.

It does indeed then raise the issue of ensuring the process giving the waste heat of is actually in itself sustainable, or if it should be replaced with something better (and so would not be a source of heat anymore).

10. What is a 'smart grid' and a 'local micro grid'. These seem to being proposed as a means of reducing peak demand and having short-term energy storage. Do they help with that?

I think there are various definitions of what makes a 'smart grid' or micro grid, but as you say it generally just involves having some electricity storage to smooth out peaks and troughs in supply. CAT's Zero Carbon Britain report has much more on what we think a future energy system could look like, and you can see that here:

<https://cat.org.uk/zero-carbon-britain-rising-to-the-climate-emergency/>

I hope this is of initial help.

You can support us and the other work CAT does by donating or joining CAT Membership: <https://cat.org.uk/join-donate/>

Best wishes,

Canolfan y Dechnoleg Amgen / Centre for Alternative Technology
Llwyngwern Quarry, Machynlleth, Powys, SY20 9AZ
Rhif Ffon / Tel. no: 01654 705989



<https://www.cat.org.uk>

Follow us:  [Twitter](#) |  [Facebook](#)

We need to reach net zero greenhouse gas emissions by mid-century to avoid catastrophic climate change. We already have all the practical solutions we need. Help us to make it happen [here](#)

JOIN THE CHANGE

Centre for Alternative Technology Charity Limited; a company limited by guarantee. Charity no. 265239; Company no. 1090006, registered in Wales. Registered office: Llwyngwern Quarry, Machynlleth, Powys, SY20 9AZ

Please note: mention of a company does not necessarily constitute a recommendation for that company's products or services. Potential customers are advised to contact several companies to compare products, services and prices.

From: steve latner <[REDACTED]>

Sent: 09 August 2022 19:19

To: Info <info@cat.org.uk>

Subject: questions on district heat network, communal heating and secondary heat

Dear Centre for Alternative Technology

I am writing to you to find out some technical information about district heat networks, communal heating systems, and secondary heat. We have a district heat network near where I live. Yet that is heated by a CHP that according to the borough's own report has higher emissions than the normal gas heating from the grid. They are talking about decarbonising the district heat network. There is currently a consultation going on about this district heat network. They want to continue to connect new developments to this district heat network.

I am really confused and don't have enough technical knowledge to make sense of this. I realise that you cannot get involved in any political issues, but I wondered if you could answer the following technical questions, from a purely factual, objective, technical viewpoint. If there are any that you can't answer for any reason, that's fine, I would really appreciate it if you could just answer as many as you can.

Questions

1. I don't understand why there is an emphasis on having decentralised energy and district heat(ing) networks. Is there any environmental benefit to having a district heat network?
2. Can an energy centre that is powered by CHP using gas and biomass be decarbonised? Is it scientifically possible? I have heard lots of problems with biomass and I don't think they are suggesting biomass. Is there any other way?

3. Can a district heating network in a highly built-up area of inner London be decarbonised? Is it practically possible?
4. I also read somewhere that a district heating network was not very good for homes fitted with photovoltaics. Is this correct?
5. I've heard that Islington (in London) decarbonised their district heat network by using heat from the tube (train) and using this to power an energy centre run by a large ammonia heat pump that provides heat to a communal heating system. I don't know if this is the same thing as an airsource heat pump. However, I recall that in one of your articles, you state that a communal airsource heat pump does not work well and is inefficient. Can you confirm this?
6. The homes in my local district heat network do not have individual boilers; they are run by the communal CHP. The planning document says future homes should have a communal low-temperature heating system. I don't understand what they mean by this. The only low-temperature heating system that I know of is an airsource heat pump, in the sense that the water heated by the airsource heat pump that runs through the radiators is low-temperature. Again, I recall an article saying communal heating via airsource heat pumps is inefficient – it might be the same as point 4. Is there such a thing as 'a low-temperature communal heating system' that is energy-efficient? Is there any environmental benefit to having a communal heating system?
7. It also goes on to say that ideally the system should have a 'zero-emissions heat source. Is there such a thing as a 'zero-emissions' heat source? Does it exist, either actually or theoretically? What is it?
8. Our policy also says developers should look for 'opportunities for low and ambient temperature heat networks'. What does this mean? The only thing I've heard of is low and ambient temperatures are needed to efficiently operate an airsource heat pump. I don't know what a 'low and ambient temperature heat network' is. Does it result in low carbon emissions?
9. There is also an emphasis in the local policy on using 'secondary heat'. I don't know what this is – the main thing I can think of is heat from a waste incinerator, but that doesn't sound very good environmentally. I'm not sure if the heat from the station/train at the Bunhill heat Centre in Islington counts as secondary heat. What is 'secondary heat' and is it a good thing environmentally?
10. What is a 'smart grid' and a 'local micro grid'. These seem to be proposed as a means of reducing peak demand and having short-term energy storage. Do they help with that?

Thank you so much for any information you can give me on this.

Kind regards

Kika Everington, [REDACTED]

James Scantlebury

From: steve latner <[REDACTED]>
Sent: 02 September 2024 17:26
To: Local Plan
Subject: document
Attachments: East London Energy Decarbonisation Report 2022.pdf


Dear Newham planning team

Further to my previous e-mails, please find attached the Olympic Park District Heat Network 'decarbonisation plan' that I have referred to in detail in my Regulation 19 response submission.

Kind regards

Kika Everington, Stratford resident

Response Form for Regulation 19 Consultation.

	<p>Local Plan Publication Stage Response Form</p>	<p>Ref:</p> <p>(For official use only)</p>
---	--	--

**Name of the Local Plan to which this representation
relates:**

Newham Draft Submission
Local Plan

Privacy Notice

Who we are

London Borough of Newham (LBN) is registered with the Information Commissioner's Office (ICO) as a 'Data Controller' This privacy notice applies to you ('the service user') and LBN ('the Council'). The Council takes the privacy of your information very seriously.

This privacy notice relates to our functions relating to the Newham Local Plan Review Consultation (Regulation 19). It also provides additional information that specifically relates to this particular consultation, and should be read together with our [general privacy notice](#), which provides further detail.

What data do we collect and process

We collect your name, contact details, email address, job title and organisation if applicable and demographic equalities data if you choose to share it.

Why we collect your data

The consultation is a requirement of the Town and Country Planning (Local Planning) (England) Regulations 2012. We collect your data so that we can get your views on the legal compliance or soundness of the Local Plan, as well as its compliance with the duty to co-operate.

The lawful basis for processing your data

The lawful basis we use to process your data as set out in UK data protection legislation is:

Article 6 (a) Consent: the individual has given clear consent for us to process their personal data for a specific purpose.

Article 9 (a) Explicit Consent: the data subject has given explicit consent to the processing of those personal data for one or more specified purposes.

We will only process personal data where we have consent to do so, and you can withdraw your consent at any time. By submitting your personal data in the response form you are consenting for us to process your data and/or consenting to be added to the database. If added to the database, they can be removed upon request.

You can withdraw your consent at any time.

How we use your data

This data is collected, collated and then submitted to the Secretary of State, who will appoint an Inspector to conduct an independent examination of the Local Plan. Demographic data will be processed anonymously to assess the effectiveness of our consultation.

Where you have consented, your contact details will be added to our consultation database for future consultations and updates on the Examination in Public.

At submission representations will be made public on the council's website, including name of person and organisation if applicable making representation. Other personal information will remain confidential.

Representations, in full, submitted along with the Local Plan, evidence base and documents

For guidance on how to complete this representation form please view the Regulation 19 Consultation Guidance <https://www.newham.gov.uk/planning-development-conservation/newham-local-plan-refresh>.

This form has two parts –

Part A – Personal Details: need only be completed once.

Part B – Your representation(s). Please fill in a separate sheet for each representation you wish to make.

Part A

1. Personal Details*

2. Agent's Details (if applicable)

**If an agent is appointed, please complete only the Title, Name and Organisation (if applicable) boxes below but complete the full contact details of the agent in 2.*

Title	<input type="text" value="Ms"/>	<input type="text" value="n/a"/>
First Name	<input type="text" value="Kika"/>	<input type="text"/>
Last Name	<input type="text" value="Everington"/>	<input type="text"/>
Job Title (where relevant)	<input type="text" value="n/a"/>	<input type="text"/>
Organisation (where relevant)	<input type="text" value="n/a"/>	<input type="text"/>
Address Line 1	<input type="text" value="REDACTED"/>	<input type="text"/>
Line 2	<input type="text" value="REDACTED"/>	<input type="text"/>
Line 3	<input type="text" value="REDACTED"/>	<input type="text"/>
Line 4	<input type="text"/>	<input type="text"/>
Post Code	<input type="text" value="REDACTED"/>	<input type="text"/>
Telephone Number	<input type="text" value="REDACTED"/>	<input type="text"/>
E-mail Address (where relevant)	<input type="text" value="REDACTED"/>	<input type="text"/>

Part B – Please use a separate sheet for each representation

Name or Organisation:

3. To which part of the Local Plan does this representation relate? (Please be as specific as possible)

Policy

Implementation Text

Paragraph

Policies Map

4. Do you consider the Local Plan is :

4.(1) Legally compliant

Yes

No

4.(2) Sound

Yes

No

4 (3) Complies with the
Duty to co-operate

Yes

No

Please tick as appropriate

5. Please give details overleaf of why you consider the Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate. Please be as precise as possible.

If you wish to support the legal compliance or soundness of the Local Plan or its compliance with the duty to co-operate, please also use this box to set out your comments.

This paragraph has been inserted into the local plan since the version shown in the Regulation 18 guidance. It is under 'justification', but it is making assertions for which there is no evidence. It also states methods that the plan can be implemented, so should really be under 'implementation text'. This differentiation is important, because by putting it in anew under justification, it could be an unlawful way of avoiding comments under Regulation 19 guidance

I contest the line: 'Low carbon heat can be produced with electricity or **using waste heat sources.**' (my emphasis). This was not in the Regulation 18 draft guidance and has been inserted into the plan with no evidence. **There is nothing at all to back up this assertion in the evidence base.**

Rather, it is highly contested and controversial, and to attempt to slip this in now without any consultation about this assertion, or any evidence to back it up, I imagine is unlawful and certainly not sound. The term '**waste heat sources**' is not defined anywhere in the plan or mentioned at all in the evidence base.

For further comments on how this is not legally compliant or sound, please see my representation on Implementation text CE2.2.

'The use of electricity for heating also benefits air quality, as there are no local emissions'.

Again, this line has also been inserted into the text since the plan consulted in in the Regulation 18 guidance, and again, with no evidence. **There is no evidence of this in the evidence base.** It is only true when the electricity is produced using particular low-carbon technologies/sources. Electricity can be produced from incinerators burning plastic, and from burning wood. Both of these damage rather than benefit air quality. Whether that damage is local or not depends on where the burning is done, but it damages air quality. The production of wood pellets also damages air quality, for the residents living near the wood pellet processing plants. I'm not sure it would be compatible with the aims of a just transition if Newham residents' improved air quality was dependent on worsening air quality for residents in other boroughs, or other countries.

Evidence that air quality is damaged by burning wood for electricity can be found in this article in the prestigious international scientific journal 'Nature':

<https://www.nature.com/articles/d41586-024-02676-z>

And also in this article in the Guardian:

<https://www.theguardian.com/environment/2018/jun/30/wood-pellets-biomass-environmental-impact>

I have put these 2 links in the body of the e-mail I have sent this attached document to, for your ease.

6. Please set out the modification(s) you consider necessary to make the Local Plan legally compliant and sound, in respect of any legal compliance or soundness matters you have identified at 5 above. (Please note that non-compliance with the duty to co-operate is incapable of modification at examination). You will need to say why each modification will make the Local Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.

The lines that have been added to the draft plan should be removed and the original text should be restored. The phrase 'or using waste heat sources' should be removed for the reasons that I have explained and the line 'The use of electricity for heating also benefits air quality, as there are no local emissions' should also be removed, for the reasons that I have explained.

The paragraph should revert to the original as follows:

'New buildings cannot continue to burn fossil fuels for heating if the London Borough of Newham is to stay within carbon budgets. Low carbon heat is therefore an essential component of a Net Zero Carbon building. Electricity can be provided through on-site renewables and through grid electricity, which is becoming increasingly de-carbonised. To achieve electrification of heat, several viable technologies are already available, including heat pumps (including air, ground and water source) and direct electric radiators.'

I would also add: 'Air, ground and water source heat pumps are more energy efficient than gas boilers and direct electric heating'.

(Continue on a separate sheet /expand box if necessary)

Please note In your representation you should provide succinctly all the evidence and supporting information necessary to support your representation and your suggested modification(s). You should not assume that you will have a further opportunity to make submissions.

After this stage, further submissions may only be made if invited by the Inspector, based on the matters and issues he or she identifies for examination.

7. If your representation is seeking a modification to the plan, do you consider it necessary to participate in examination hearing session(s)?

☐

No, I do not wish to participate in hearing session(s)

☐ yes

Yes, I wish to participate in hearing session(s)

Please note that while this will provide an initial indication of your wish to participate in hearing session(s), you may be asked at a later point to confirm your request to participate.

8. If you wish to participate in the hearing session(s), please outline why you consider this to be necessary:

I think it is necessary in the interests of independent scientific scrutiny, for similar reasons as I have given in my answer to question 8 in my representation on CE2.2.

This part I think has been added under pressure from Equans via the LLDC, as they wish to use 'waste heat' for their district heat network. Which informed and independent person is asking exactly what 'waste heat' is? The line 'The use of electricity for heating also benefits air quality, as there are no local emissions' has I think also been added on the basis of Equans/LLDC's unscientific claims. Which independent scientist has been asked to verify this claim? For more of an explanation on why I think it is necessary for me to participate in the hearing session, please see my response to question 8 in my representation on CE2.2.

Please note the Inspector will determine the most appropriate procedure to adopt to hear those who have indicated that they wish to participate in hearing session(s). You may be asked to confirm your wish to participate when the Inspector has identified the matters and issues for examination.

9. Do you wish to be notified about:

a. the submission of the local plan for independent examination YES

Yes ☒ No ☐

b. the publication of the Inspector's report YES

Yes ☒ No ☐

c. the adoption of the Local Plan YES


Yes ☒ No ☐

10. Would you like to be added to our consultation database to be notified about future planning policy consultations? YES

Yes ☒ No ☐

Please return to London Borough of Newham by 5pm 6th September 2024

Response Form for Regulation 19 Consultation.

	<p>Local Plan Publication Stage Response Form</p>	<p>Ref:</p> <p>(For official use only)</p>
---	--	--

**Name of the Local Plan to which this representation
relates:**

Newham Draft Submission
Local Plan

Privacy Notice

Who we are

London Borough of Newham (LBN) is registered with the Information Commissioner's Office (ICO) as a 'Data Controller' This privacy notice applies to you ('the service user') and LBN ('the Council'). The Council takes the privacy of your information very seriously.

This privacy notice relates to our functions relating to the Newham Local Plan Review Consultation (Regulation 19). It also provides additional information that specifically relates to this particular consultation, and should be read together with our [general privacy notice](#), which provides further detail.

What data do we collect and process

We collect your name, contact details, email address, job title and organisation if applicable and demographic equalities data if you choose to share it.

Why we collect your data

The consultation is a requirement of the Town and Country Planning (Local Planning) (England) Regulations 2012. We collect your data so that we can get your views on the legal compliance or soundness of the Local Plan, as well as its compliance with the duty to co-operate.

The lawful basis for processing your data

The lawful basis we use to process your data as set out in UK data protection legislation is:

Article 6 (a) Consent: the individual has given clear consent for us to process their personal data for a specific purpose.

Article 9 (a) Explicit Consent: the data subject has given explicit consent to the processing of those personal data for one or more specified purposes.

We will only process personal data where we have consent to do so, and you can withdraw your consent at any time. By submitting your personal data in the response form you are consenting for us to process your data and/or consenting to be added to the database. If added to the database, they can be removed upon request.

You can withdraw your consent at any time.

How we use your data

This data is collected, collated and then submitted to the Secretary of State, who will appoint an Inspector to conduct an independent examination of the Local Plan. Demographic data will be processed anonymously to assess the effectiveness of our consultation.

Where you have consented, your contact details will be added to our consultation database for future consultations and updates on the Examination in Public.

At submission representations will be made public on the council's website, including name of person and organisation if applicable making representation. Other personal information will remain confidential.

Representations, in full, submitted along with the Local Plan, evidence base and documents

For guidance on how to complete this representation form please view the Regulation 19 Consultation Guidance <https://www.newham.gov.uk/planning-development-conservation/newham-local-plan-refresh>.

This form has two parts –

Part A – Personal Details: need only be completed once.

Part B – Your representation(s). Please fill in a separate sheet for each representation you wish to make.

Part A

1. Personal Details*

2. Agent's Details (if applicable)

**If an agent is appointed, please complete only the Title, Name and Organisation (if applicable) boxes below but complete the full contact details of the agent in 2.*

Title	<input type="text"/>	<input type="text"/>
First Name	<input type="text"/>	<input type="text"/>
Last Name	<input type="text"/>	<input type="text"/>
Job Title (where relevant)	<input type="text"/>	<input type="text"/>
Organisation (where relevant)	<input type="text"/>	<input type="text"/>
Address Line 1	<input type="text"/>	<input type="text"/>
Line 2	<input type="text"/>	<input type="text"/>
Line 3	<input type="text"/>	<input type="text"/>
Line 4	<input type="text"/>	<input type="text"/>
Post Code	<input type="text"/>	<input type="text"/>
Telephone Number	<input type="text"/>	<input type="text"/>
E-mail Address (where relevant)	<input type="text"/>	<input type="text"/>

Part B – Please use a separate sheet for each representation

Name or Organisation:

3. To which part of the Local Plan does this representation relate? (Please be as specific as possible)

Policy

Implementation Text

Paragraph

Policies Map

4. Do you consider the Local Plan is :

4.(1) Legally compliant	Yes	<input type="text"/>	No	<input type="text" value="NO"/>
4.(2) Sound	Yes	<input type="text"/>	No	<input type="text" value="NO"/>
4 (3) Complies with the Duty to co-operate	Yes	<input type="text"/>	No	<input type="text"/>

Please tick as appropriate

5. Please give details overleaf of why you consider the Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate. Please be as precise as possible.

If you wish to support the legal compliance or soundness of the Local Plan or its compliance with the duty to co-operate, please also use this box to set out your comments.

This paragraph has been inserted into the local plan since the version shown in the Regulation 18 guidance. It is under 'justification', but actually states a new policy, so should be under 'implementation text'. This differentiation is important, because by putting it in anew under justification, it could be an unlawful way of avoiding comments under Regulation 19 guidance

I am against the new policy stated in this paragraph:

'Therefore, connections to existing heat networks will only be permitted where a fully funded decarbonisation plan that will be implemented within the lifetime of the plan has been agreed'

That is, I do not think that this new measure, to allow new developments to connect to fossil fuel heat networks or high carbon heat networks, as long as they have a decarbonisation plan, should have been added as it is not in keeping with anything in the evidence base and completely contradicts and undermines the overall policy of CE2.2 and prevents Newham from meeting its mandatory carbon emissions reduction targets.

For full details of my reasoning as to why this is not legally compliant and not sound, please see my representation on Implementation Text CE2.2.

6. Please set out the modification(s) you consider necessary to make the Local Plan legally compliant and sound, in respect of any legal compliance or soundness matters you have identified at 5 above. (Please note that non-compliance with the duty to co-operate is incapable of modification at examination). You will need to say why each modification will make the Local Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.

Paragraph 3.250 should be removed.

(Continue on a separate sheet /expand box if necessary)

Please note In your representation you should provide succinctly all the evidence and supporting information necessary to support your representation and your suggested modification(s). You should not assume that you will have a further opportunity to make submissions.

After this stage, further submissions may only be made if invited by the Inspector, based on the matters and issues he or she identifies for examination.

7. If your representation is seeking a modification to the plan, do you consider it necessary to participate in examination hearing session(s)?

☐

No, I do not wish to participate in hearing session(s)

☐ yes

Yes, I wish to participate in hearing session(s)

Please note that while this will provide an initial indication of your wish to participate in hearing session(s), you may be asked at a later point to confirm your request to participate.

8. If you wish to participate in the hearing session(s), please outline why you consider this to be necessary:

Please see my reasons given in response to question 8 in my representation on policy CE2.2

Please note the Inspector will determine the most appropriate procedure to adopt to hear those who have indicated that they wish to participate in hearing session(s). You may be asked to confirm your wish to participate when the Inspector has identified the matters and issues for examination.

9. Do you wish to be notified about:

a. the submission of the local plan for independent examination YES

Yes ☒ No ☐

b. the publication of the Inspector's report YES

Yes ☒ No ☐

c. the adoption of the Local Plan YES


Yes ☒ No ☐

10. Would you like to be added to our consultation database to be notified about future planning policy consultations? YES

Yes ☒ No ☐

Please return to London Borough of Newham by 5pm 6th September 2024

Response Form for Regulation 19 Consultation.

	<p>Local Plan Publication Stage Response Form</p>	<p>Ref:</p> <p>(For official use only)</p>
---	--	--

**Name of the Local Plan to which this representation
relates:**

Newham Draft Submission
Local Plan

Privacy Notice

Who we are

London Borough of Newham (LBN) is registered with the Information Commissioner's Office (ICO) as a 'Data Controller' This privacy notice applies to you ('the service user') and LBN ('the Council'). The Council takes the privacy of your information very seriously.

This privacy notice relates to our functions relating to the Newham Local Plan Review Consultation (Regulation 19). It also provides additional information that specifically relates to this particular consultation, and should be read together with our [general privacy notice](#), which provides further detail.

What data do we collect and process

We collect your name, contact details, email address, job title and organisation if applicable and demographic equalities data if you choose to share it.

Why we collect your data

The consultation is a requirement of the Town and Country Planning (Local Planning) (England) Regulations 2012. We collect your data so that we can get your views on the legal compliance or soundness of the Local Plan, as well as its compliance with the duty to co-operate.

The lawful basis for processing your data

The lawful basis we use to process your data as set out in UK data protection legislation is:

Article 6 (a) Consent: the individual has given clear consent for us to process their personal data for a specific purpose.

Article 9 (a) Explicit Consent: the data subject has given explicit consent to the processing of those personal data for one or more specified purposes.

We will only process personal data where we have consent to do so, and you can withdraw your consent at any time. By submitting your personal data in the response form you are consenting for us to process your data and/or consenting to be added to the database. If added to the database, they can be removed upon request.

You can withdraw your consent at any time.

How we use your data

This data is collected, collated and then submitted to the Secretary of State, who will appoint an Inspector to conduct an independent examination of the Local Plan. Demographic data will be processed anonymously to assess the effectiveness of our consultation.

Where you have consented, your contact details will be added to our consultation database for future consultations and updates on the Examination in Public.

At submission representations will be made public on the council's website, including name of person and organisation if applicable making representation. Other personal information will remain confidential.

Representations, in full, submitted along with the Local Plan, evidence base and documents

For guidance on how to complete this representation form please view the Regulation 19 Consultation Guidance <https://www.newham.gov.uk/planning-development-conservation/newham-local-plan-refresh>.

This form has two parts –

Part A – Personal Details: need only be completed once.

Part B – Your representation(s). Please fill in a separate sheet for each representation you wish to make.

Part A

1. Personal Details*

2. Agent's Details (if applicable)

**If an agent is appointed, please complete only the Title, Name and Organisation (if applicable) boxes below but complete the full contact details of the agent in 2.*

Title	<input type="text"/>	<input type="text"/>
First Name	<input type="text"/>	<input type="text"/>
Last Name	<input type="text"/>	<input type="text"/>
Job Title (where relevant)	<input type="text"/>	<input type="text"/>
Organisation (where relevant)	<input type="text"/>	<input type="text"/>
Address Line 1	<input type="text"/>	<input type="text"/>
Line 2	<input type="text"/>	<input type="text"/>
Line 3	<input type="text"/>	<input type="text"/>
Line 4	<input type="text"/>	<input type="text"/>
Post Code	<input type="text"/>	<input type="text"/>
Telephone Number	<input type="text"/>	<input type="text"/>
E-mail Address (where relevant)	<input type="text"/>	<input type="text"/>

Part B – Please use a separate sheet for each representation

Name or Organisation:

3. To which part of the Local Plan does this representation relate? (Please be as specific as possible)

Policy

Implementation Text

Paragraph

Policies Map

4. Do you consider the Local Plan is :

4.(1) Legally compliant	Yes	<input type="text"/>	No	<input type="text" value="NO"/>
4.(2) Sound	Yes	<input type="text"/>	No	<input type="text" value="NO"/>
4 (3) Complies with the Duty to co-operate	Yes	<input type="text"/>	No	<input type="text"/>

Please tick as appropriate

5. Please give details overleaf of why you consider the Local Plan is not legally compliant or is unsound or fails to comply with the duty to co-operate. Please be as precise as possible.

If you wish to support the legal compliance or soundness of the Local Plan or its compliance with the duty to co-operate, please also use this box to set out your comments.

The following paragraphs in the policy implementation text CE2.2 are not sound or legally compliant, (reasons detailed further below):

1. The submission of an energy statement and the design of a scheme will not in all cases be sufficient to enable the council to determine if the application complies with planning policy. (Thereby making the plan undeliverable.)
2. The paragraph about heat networks is not sound or legally compliant.
3. The paragraph about waste heat is not sound or legally compliant.

Reasons:

1. Problems with the following paragraph on energy statement:

‘Development should demonstrate they will not use fossil fuels in operation – whether for heat or energy. Development should use low carbon heat sources for heating. This should be demonstrated through the submission of an energy statement and in the design of a scheme.’

The problem with this is that it will not always be evident, to anyone other than a technical specialist, in the design of the scheme or the energy statement whether or not the development will meet the requirements of the Newham local plan. Where the technology used is straightforward, and the absolute energy that will be generated by renewables and used by the heating can be shown, then Newham council will be able to verify the statement themselves. This should be relatively easy when, for example, PV solar and air source heat pumps are used on the buildings directly. Where however very complex explanations are given as to how it will meet the Newham Plan requirements, such as is the case in the Olympic Park District Heat Network decarbonisation plan for example, it is doubtful whether the council’s own staff will have the time and necessary specialist expertise to verify the statements. This would lead to the developers self-regulating – not something that is compatible with assuring carbon emissions targets. The evidence base shows how some methods of reporting can be extremely misleading and actually lead to energy reports that bear no resemblance to reality. **Therefore, relying on the submission of an energy statement and wrongly expecting the design of a scheme to make the carbon emissions reductions self-evident, will not in the case of schemes like district heat networks lead to the plan being actually deliverable, as it will not ensure carbon emissions reductions.**

2. Problems with the following paragraph on heat networks:

‘Decarbonisation of existing fossil fuel powered heat networks is strongly encouraged. A development may connect to a heat network powered by gas only where there is a fully funded decarbonisation plan that will be implemented within the **lifetime of the plan**. (my emphasis) The Council will not support development that will use fossil fuels in a heat network beyond the **lifetime of the Plan**, (my emphasis) nor will the Council support the installation of new fossil fuel powered heat networks.’

This paragraph is not compliant with carbon emissions reductions policy and legislation, or the London plan, and flies in the face of everything in the evidence base:

It is unclear which plan is being referred to. I assume it means the Newham local plan. If so, this means that new developments would be able to be built even where they would use fossil fuels until 2038. It is also worth noting that the carbon emissions from the Olympic District Heat Network are higher than those homes that are connected to the National Grid for both their heating and electricity. I will forward the evidence document for this in a separate e-mail. It is a report commissioned by the LLDC on how to be compliant with emissions reductions necessary for a staying at a 1.5degrees temperature increase. It is written by Levitt and Bernstein, and Etude, the same people who wrote the Newham local plan evidence base. Please see the chart on pages 20 and 21 which show the Olympic Park district heat network is higher carbon emissions than normal gas boilers. Allowing new buildings to be built that would use fossil fuels until 2038 – which is what you are doing if allowing homes to be connected to the district heat networks with decarbonisation plans - is not compliant with international, UK, London Plan, and Newham CO2 emissions targets. It is not compliant with the evidence base, which states very clearly that new buildings must immediately be Net Zero and not continue to add to the problem.

The Newham Plan evidence base page 6 shows that if we carry on emissions at our current rate, we will use up our entire CO2 budget by 2030-2034. If then, we allow new homes to be built that are not only not net zero, but are actually higher emissions than ordinary gas boilers, we will use up our entire CO2 budget before this. If we carry on business as usual, there will be a 4-5 degrees temperature rise, shows the evidence base.

The evidence base states that the London Plan says we must achieve Net Zero carbon by 2030. Given the information above, clearly allowing new developments to connect to the district heat network is not compliant with the London Plan net zero by 2030. The evidence base states that the Mayor has chosen the Accelerated Green Pathway which bans gas boilers in new developments by 2025. Allowing new developments to connect to district heat networks that are powered by gas boilers does not seem compliant with this.

The Newham Plan evidence base presents the necessity of Newham complying with the Tyndall Carbon budget for Newham. The carbon budget is a carbon budget from 2020 to 2100. The evidence base shows that if emissions continue at 2017 levels, the entire carbon budget would be used up by 2027 ie. we could not emit any CO2 at all after 2027. The evidence base also shows that emissions reductions should average - 12.4% a year. So the evidence base demonstrates that we can't just suddenly cut emissions in 2038, which would be the case if new developments were allowed to connect to district heat networks not required to decarbonise until 2038. The evidence base states that new construction must be net zero in operation immediately and that new buildings are using up far too much of Newham's carbon budget. The evidence base also shows a graph that shows emissions must drastically reduce between 2023 and 2027.

I am unclear what is meant by 'a development may connect to a heat network powered by gas only where there is a fully funded decarbonisation plan that will be implemented within the lifetime of the plan.' I assume this means new developments ie new buildings – it seems unlikely to me that a building that is currently getting its heat from the National Grid will be disconnected and connected to the district heat network. So given the information above, this paragraph completely undermines the rest of the Zero Carbon development policies by allowing new buildings to be built that do nothing at all to comply with the policy, on the promise that everything will be well in the future when the district heat networks decarbonise. Even if the decarbonisation takes place – which I doubt, see below – it still is not sound or legally compliant for all the reasons explained above.

The other problem with this policy is that it seems – with the exception of the excellent paragraph on hydrogen – to equate low carbon with just not being fossil fuels. This is entirely false and is not based on any evidence. The Newham plan evidence base gives details of technologies that are indeed low carbon. But there are other technologies that are not fossil fuels that are actually higher carbon emissions than fossil fuels and are not compliant with other parts of the local plan and undermine other environmental targets. See more below. See also the evidence against burning wood given in the main body of the e-mail and in my representation on paragraph 3.249.

It should be noted that the fact that the previous government's policy encouraged a particular fuel or technology should not be relied upon as evidence that it is compliant with mandatory emissions targets or indeed that it is legally compliant. A court case earlier this year, not long before the General Election, held that the previous government's climate plan was unlawful as their policies did not actually deliver the mandatory emissions targets. It is also important to remember this where parts of the London Plan have encouraged policies and technologies because the previous Government compelled the GLA to do so, despite being in contradiction with other parts of the London Plan and with the London Plan's own emissions targets.

Allowing new developments to connect to a high-carbon district heat network with a decarbonisation plan as a means of passing carbon emissions requirements undermines the Newham Plan's policy's aim of bringing in genuine low-carbon in operation developments from their inception. There is no incentive to do this if they can pass just by saying that they will connect to a heat network that 'will'/may become zero carbon in the future.

The policy about district heat networks is not deliverable:

There is no evidence at all that the decarbonisation plans will actually materialise, be implementable, and will be able to meet the emissions targets and policies set out above, even by 2038. The Council will not know that until it is too late to do anything about it and too late to stop missing the non-negotiable emissions targets. If it proves that it is not actually possible to decarbonise the networks, there will be many, many new developments that have not been designed to be net zero that will then require difficult, expensive retrofits. Who is going to pay for them and how can the Council know that this will not be too late? There is no absolutely no evidence that it will be

deliverable.

Indeed, the evidence does not look promising. In February 2021, the LLDC published 'Preparing for a 1.5% future', which was written by Levitt and Bernstein, and Etude, the same companies as the evidence base for the Newham Plan. This stated clearly that every development connected to the district heat network took the LLDC further and further away from meeting its emissions targets, and that they understood the district heat network operator was investigating options to reduce the carbon emissions. That was three and a half years ago, but they are no closer to having a decarbonisation plan that gives definitely implementable, timed, definitely low carbon alternatives to the current fossil fuel operations. Equans, the district heat network operator, published what it referred to as a decarbonisation plan in 2022 – but this did not give any viable, genuine low-carbon options. We are not any closer to decarbonising as a result of this plan. The options included keeping the fossil fuel in the district heat network exactly the same but changing the way it is measured – quote from plan: 'Gas CHP: Action: Pursue robust accounting for carbon emissions savings and optimised operation' (p31) and 'Valuing the benefits of CHP in compliance and policy' (p33); connecting to the Edmonton incinerator, which the report states would require major river, rail and road crossings, costing more than £30 million, without specifying who would pay that. This clearly does not meet Newham plan's requirement that any decarbonisation must be fully funded, and does not sound at all achievable/deliverable. It would also lock us into a permanent dependence on burning increasing amounts of waste. Other options suggested included burning wood, which does not decarbonise at all as it is actually higher carbon emissions than coal as well as environmentally destructive in other ways (see evidence in main e-mail and in representation on paragraph 3.249); hydrogen, which the Newham plan correctly states is not currently low carbon. Heat pumps are also considered in the decarbonisation plan – but the decarbonisation plan discounts air source heat pumps as not possible. The heat pump they suggest is a heat pump to use the waste heat from the cooling towers of their boiler – so in other words, a heat pump just to use their fossil fuels more efficiently, not as an alternative to fossil fuels, so it is not a decarbonisation plan. They also suggest a heat pump using waste heat from TfL – to a non-engineer such as myself, this sounds as though it could be good – but is it possible? Have they got any further to actually delivering this? It seems not, from the recent documents regarding Newham consulting with the LLDC in the Reg. 18 consultation. I have e-mailed LLDC and the Mayor of Newham about this many times, and I have not received any updates since the 2022 plan, so I am assuming no progress. The 'decarbonisation plan' also suggests water source and ground source heat pumps, seemingly suggesting putting these in the river in the Olympic Park. Whilst these are low-carbon, a permit is needed for this and it is not allowed near certain habitats and species; the decarbonisation plan itself says this option is a threat to the ecosystem of the river. So it does not sound deliverable or in keeping with the habitats assessment or the biodiversity goals in the Newham Plan.

3. Problems with the following paragraph on waste heat:

The paragraph starting 'waste heat can be a potential source of low carbon heat' has been added to policy CE2.2 (or its equivalent in the original draft plan) since Regulation 18 consultation.

But there is no evidence at all for the assertion that 'waste heat can be a potential source of low carbon heat' in the evidence base. The term 'waste heat' is not defined – if 'waste heat' is suggested as being compliant with the plan in some circumstances, surely it must be defined. Whilst I am pleased that there are restrictions and qualifiers in this section, I am concerned that two quite different things – heat that is already being created and wasted by a process such as a factory or building – and energy from burning waste – are being conflated. The line is not sound as there is no evidence for it.

I contacted the Centre for Alternative Technology and asked them for their definition of 'secondary heat' and 'waste heat' and whether they considered it low-carbon. In their response – which I will send in a separate e-mail – they said the following:

'secondary heat is basically heat otherwise wasted – vented away and lost – such as from the underground or from other industrial processes. It does indeed then raise the issue of ensuring the process giving the **waste heat of is actually in itself sustainable, or if it should be replaced with something better (and so would not be a source of heat anymore).**' (my emphasis – ie I have put this in bold)

'To be low carbon, the warm water needs to be produced without fossil fuels – so using renewable energy sources. This could be from a shared heat pump, or from digestion of food waste, **or from waste heat from a factory process (if that's also powered by renewable energy),** or from other options.' (my emphasis – ie I have put this in bold)

The Centre for Alternative Technology does not then consider waste heat to be low-carbon if the process providing the heat is not in itself low-carbon. It does not consider the fact that it is 'waste' to be sufficient to be viewed as low-carbon.

It is difficult to see how setting up a heating infrastructure that is dependent on increasing amounts of waste heat or plastic waste can be considered compatible with the aims of the Newham Plan.

6. Please set out the modification(s) you consider necessary to make the Local Plan legally compliant and sound, in respect of any legal compliance or soundness matters you have identified at 5 above. (Please note that non-compliance with the duty to co-operate is incapable of modification at examination). You will need to say why each modification will make the Local Plan legally compliant or sound. It will be helpful if you are able to put forward your suggested revised wording of any policy or text. Please be as precise as possible.

NB The reasons given for my modifications are presented in detail in my comments above

CE2.2 should read as follows:

Development must demonstrate they will not use fossil fuels in operation – whether for heat or energy. Development should use low carbon heat sources for heating. This should be demonstrated through the submission of an energy statement and in the design of a scheme. Where the source of heat and energy is too specialist to be assessed directly by the council, the developer will pay for the council to commission an independent specialist to assess to independently verify the carbon emissions claims in the energy statement. This is most likely to be required where the technologies used differ from those recommended in the council's Climate Change evidence base. This charge would be in addition to the energy monitoring charge required from all developers.

Heat pumps (including air, ground and water source) are currently the most viable technology to achieve widespread electrification of heat at scale while limiting overall demand on the electricity network. Air source, ground source and water source heat pumps powered by electricity are much more energy efficient than direct electric radiators.

Decarbonisation of existing fossil fuel powered heat networks and heat networks powered by other high carbon sources is mandatory under the London Plan.

A new development will not be able to comply with the Newham Plan if it connects to a district heat network that is currently powered by fossil fuels or other high carbon fuels.

The Council will not support the installation of new fossil fuel or high carbon heat networks.

At the present time, technology such as green hydrogen (ie hydrogen produced without using fossil fuels) is unavailable or not commercially viable. We also cannot foresee what technology will emerge as we move away from gas and other fossil fuels. Given this context, future heating technologies will be supported if demonstrated that they are low carbon and sustainable – e.g. 'brown' or 'grey' hydrogen made from fossil fuels would not be supported.

The paragraph on 'waste heat can be a potential source of low carbon' should be removed from the Plan.

NB The reasons given for my modifications are presented in detail in my comments above

(Continue on a separate sheet /expand box if necessary)

Please note In your representation you should provide succinctly all the evidence and supporting information necessary to support your representation and your suggested modification(s). You should not assume that you will have a further opportunity to make submissions.

After this stage, further submissions may only be made if invited by the Inspector, based on the matters and issues he or she identifies for examination.

7. If your representation is seeking a modification to the plan, do you consider it necessary to participate in examination hearing session(s)?

☐

No, I do not wish to participate in hearing session(s)

☐

yes

Yes, I wish to participate in hearing session(s)

Please note that while this will provide an initial indication of your wish to participate in hearing session(s), you may be asked at a later point to confirm your request to participate.

8. If you wish to participate in the hearing session(s), please outline why you consider this to be necessary:

I believe that this part of the plan has not had sufficient independent scientific scrutiny and it has been changed due to undue influence from the LLDC representing Equans, the operator of the district heating network, despite flying in the face of all the evidence of Newham plan's evidence base. It seems to all rest on the concept of 'decarbonisation plans'. However, the decarbonisation plan provided by Equans is extremely technical and dense and is unlikely to be understood by anyone other than a technical specialist. Whilst Newham did commission an independent technical specialist to produce their evidence base, and the LLDC also commissioned the same independent technical specialist for their evidence base, there has not been, as far as I am aware, any further involvement from them or any independent scientific scrutiny of the decarbonisation plan that has been the reason given for this unsound, non-legally compliant change to the Newham plan. Indeed, the LLDC chose to ignore their own evidence base which clearly stated that every connection to the district heat network moves the LLDC further and further away from the carbon emissions targets.

In the absence of any scientific scrutiny, I feel I need to be there to give the best scientific evidence available. I would of course prefer it was an independent scientist, as I am not a scientist, and feel very nervous. However, as this does not seem to be forthcoming, I think I am the most informed and independent person available. I have studied the evidence for many hours. I am entirely independent and have nothing to gain or lose other than the planetary losses that we will all suffer.

Given that the plan was changed due to influence, not based on science, by the LLDC, which I think was given in private, I think it is important that I am there in the interests of transparency.

I am also aware and concerned that the GLA made representations that led to this change. As far as I am aware, the exact nature of these representations was not made public and there was no opportunity for an informed independent person such as myself to question the GLA on their reasoning. If the GLA are in favour of district heat networks, this does not make sense as it completely conflicts with other key parts and targets of the London Plan eg. to be carbon neutral by 2030 and to have no gas boilers in new-builds by 2025.

I am puzzled as to the GLAs reasoning and I will be writing to them to find out. I can only think that they were unduly influenced by the LLDC, and/or that the GLA are relying on out-of-date scientific evidence – Newham Council clearly explains as to why it is out of date in their papers – or on outdated policies about district heat networks enforced on them by the previous Government. It should be remembered that just before they lost power, a court case held the Conservative Government's climate plan to be unlawful as their policies did not deliver the mandatory carbon emissions cuts.

In short, I consider it necessary that I am at the hearings for the purposes of independent scientific scrutiny, transparency, and accountability.

Please note the Inspector will determine the most appropriate procedure to adopt to hear those who have indicated that they wish to participate in hearing session(s). You may be asked to confirm your wish to participate when the Inspector has identified the matters and issues for examination.

9. Do you wish to be notified about:

a. the submission of the local plan for independent examination YES

Yes ☒ No ☐

b. the publication of the Inspector's report YES

Yes ☒ No ☐

c. the adoption of the Local Plan YES

Yes ☒ No ☐

10. Would you like to be added to our consultation database to be notified about future planning policy consultations? YES

Yes ☒ No ☐

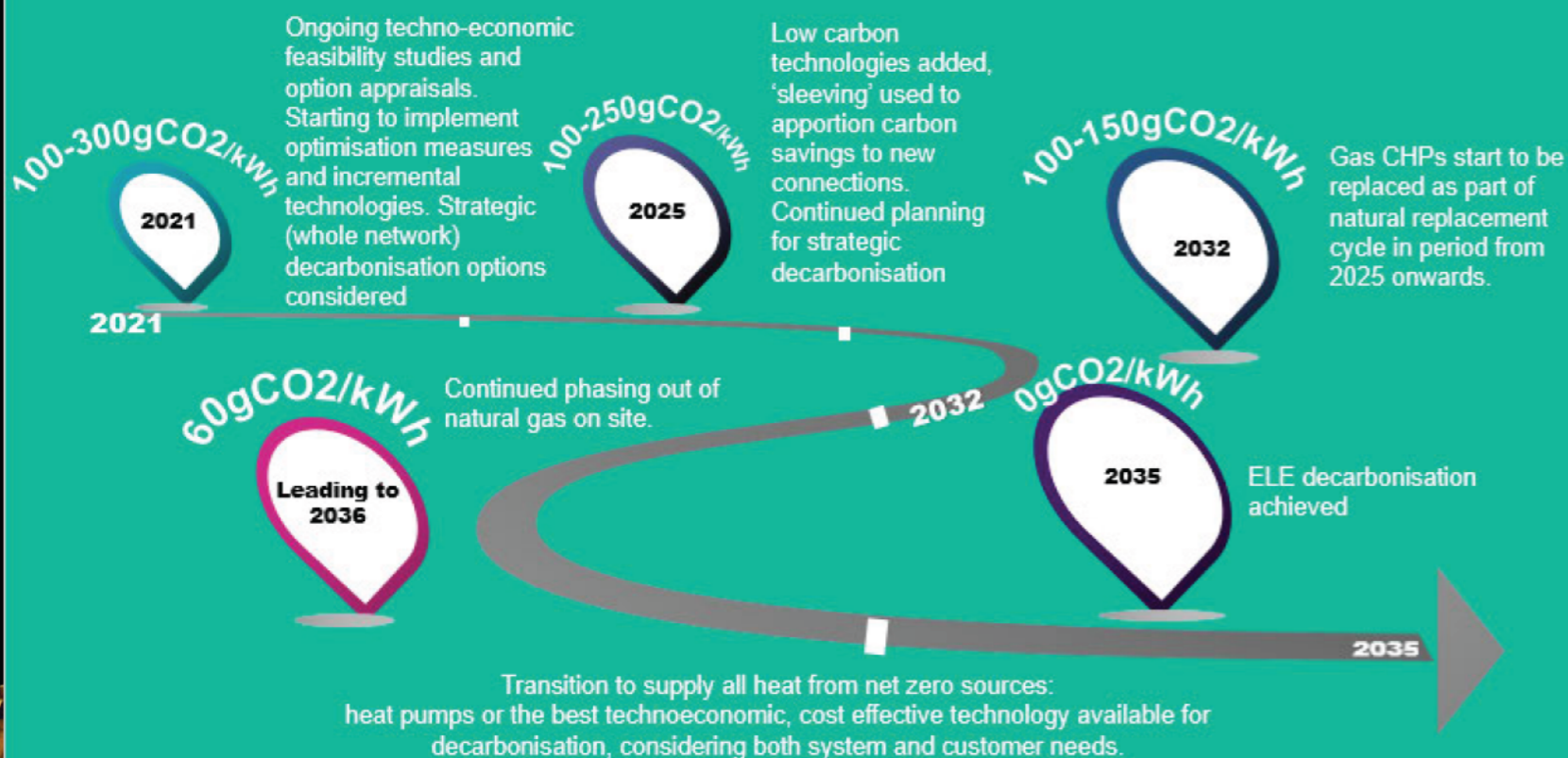
Please return to London Borough of Newham by 5pm 6th September 2024



East London Energy

Decarbonisation Opportunities

Future Decarbonisation Roadmap



N.B. Carbon intensity factors are illustrative until the techno-economic modelling work is complete.

Executive summary

EQUANS is a global energy and services business. EQUANS' ambition is to become the world leader in zero-carbon transition working with companies and local authorities to deliver zero carbon and 'Make net zero-carbon happen'

EQUANS own and operate multiple heating and cooling networks across the UK. Decarbonising these existing networks and delivering more low and zero-carbon heat through heating and cooling networks is key to our work to help companies and local authorities decarbonise.

We are a founding member of the UK Heat Networks Industry Council, which is working with the UK Government to develop zero-carbon heat networks via the development of appropriate policy and regulatory frameworks. The Council's members are committed to developing decarbonisation plans for all schemes and to only operate net zero schemes by 2035. We are committed to working with partners, customers and developers who share our ambition to lead this transition of the sector and to support the efforts of those with their own net zero targets. By decarbonising the network, we will allow all 71 currently connected buildings, and imminent upcoming connections, to be decarbonised to help transition the whole neighbourhood to net-zero.

Decarbonising our existing networks will require phasing out of local fossil fuel use for heating and investment in new lower carbon heat generating plant, networks and controls.

At the Queen Elizabeth Olympic Park, we are already looking to decarbonise the network and undertaking feasibility studies, to start integrating heat pumps within the next two years. Using locally available resources of water source or waste heat, and scope for using green gas and/or additional biofuels will support a transition away from natural gas in our CHP plants.

Our proposed carbon reduction goals, as set out in our roadmap (Fig.1), signal the intended carbon intensity of the scheme at key milestones.

Figure1: Proposed roadmap of declining scheme carbon factors as low-carbon technologies are introduced

Executive Summary

We will continue to develop and evolve our decarbonisation road map for the East London Energy (ELE) network and EQUANS networks across the UK. Our roadmaps will be agile to reflect an evolving policy and regulatory environment. The precise timing and scale of investments will be informed by robust techno-economic feasibility work to determine the most cost-effective approach, potential impact on customers and the business case for investment.

We are currently undertaking techno-economic feasibility work to assess the most appropriate and viable options for our next steps on the ELE decarbonisation roadmap as shown in our 12 month action plan below. We are also working with BEIS on their Greening Existing Networks (GEN) project to explore the opportunities and barriers to decarbonising existing heat networks.

Broadly our decarbonisation strategy is a 3-tier approach focusing on near term action to decarbonise alongside plans for longer term, wholesale decarbonisation, with actions and investigations undertaken in parallel:

1. System optimisation and efficiency improvements –

Adapting and getting the most out of existing on-park assets and benefiting from wider energy system carbon and price signalling:

- Optimising operational efficiency using 24/7 monitoring though software with the potential to operate CHP engines for optimal carbon savings.
- Upgrades to existing equipment. For example:
 - Changing cooling generation technology to match cooling demands most appropriately - moving from larger more traditional chillers to smaller two-way heat pumps for lower night-time loads.
 - Modifying existing boilers to utilise biofuels
- Green gas supply to the CHP engines (produced off-site and transacted via RGGOs/certificates)
- Maximising the flexibility benefits of existing equipment and introducing additional controls and storage.
- Improving return temperature / dT, which could have significant benefit to cooling and potential future benefit to heating in the future

2. Incremental installation of low carbon technology.

Investigating local lower carbon generation and heat source opportunities and determining their feasibility. At ELE we are looking at heat pumps utilising heat from water, sewage, air, chiller recovery and the scope for heat from solar thermal.

3. Strategic Decarbonisation

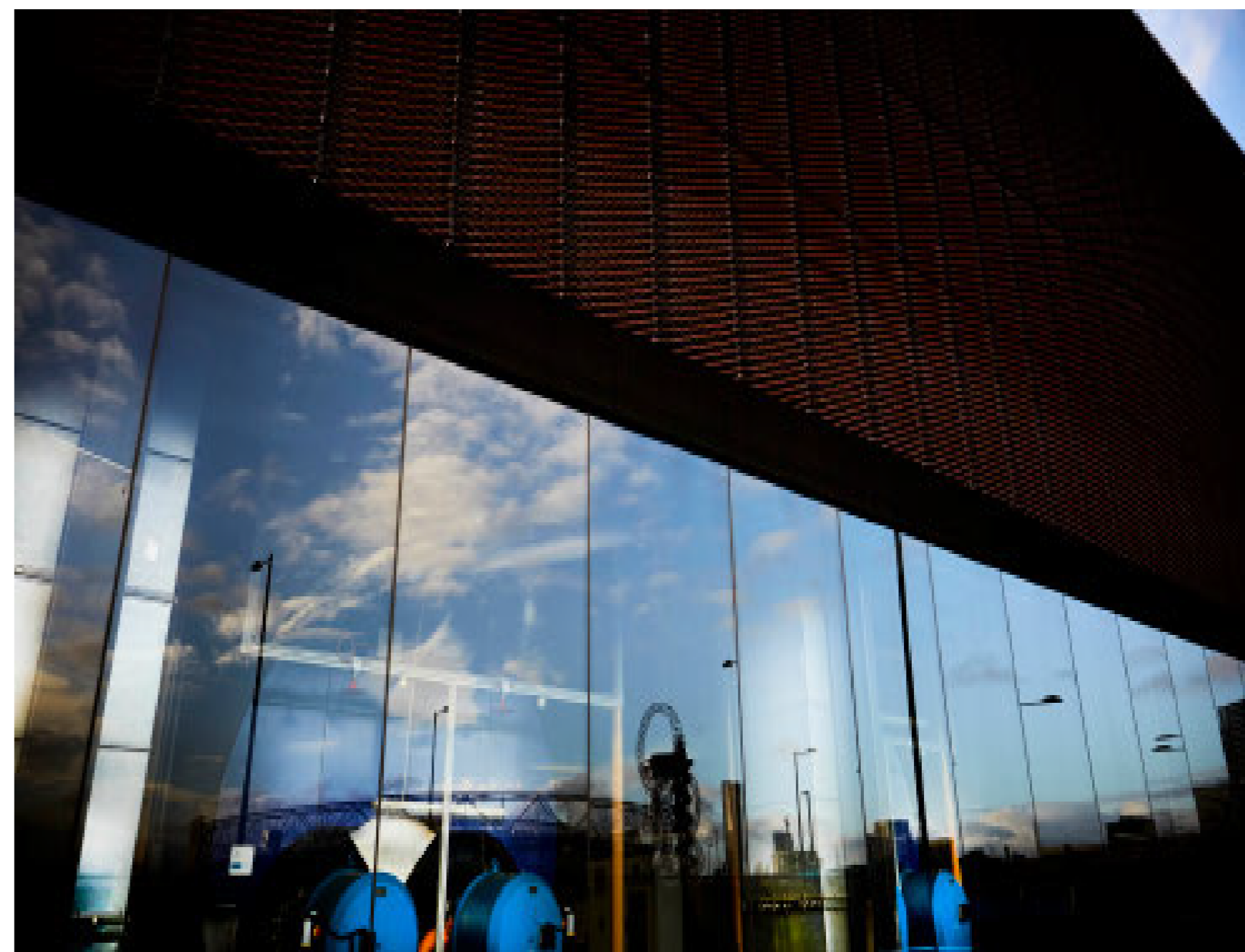
- asset replacement strategies, developing strategic roadmaps and plans for full reduction scheme carbon factors. EQUANS are considering:
 - Emerging technology options and innovation
 - The policy and regulatory environment
 - Existing asset replacement cycles over the next 15 years
 - Build out opportunities, master planning and zoning across the wider area to factor in scope for connection to large waste heat sources e.g. Edmonton EfW
 - Role (if any) of hydrogen for heating in UK.

This document presents the options for decarbonisation for ELE. The content of this report was written and agreed in September 2021. EQUANS and our partners (LLDC and Unibail-Rodamco-Westfield(URW)) are working to refine the decarbonisation options and develop a planned roadmap. Progress and updates on this work will be included as addendum's to the main body of this report.

The next stage of work is to complete the options appraisal, detailed design, financial models and investment case. We are working with partners to progress the investment case and grant funding applications for the new technologies to be installed and operating as soon as possible.

The work will be to fully evaluate and design the integration of these technologies into the scheme in technically and commercially viable ways. The following table shows our current 12- month action plan*:

*To be updated following outcome of ongoing techno-economic study



12 month action plan

		Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	2022
Strategic decarbonisation	Overarching Roadmap & TEF studies. Joint with LLDC and Westfield	Funding secured		High Level review	Technical and financial reviews followed by Report Finalisation & Roadmap review. Exploring opportunities for GHNF		
	Low carbon CHPs and carbon accounting	Addressing govt policy & accounting rules			Monitoring and reporting of operation vs marginal plant plus offsetting of any excess emissions (e.g. via green gas certificates)		
	EfW Connection	Monitor and join up local area HN projects, mapping and master planning Work with GLA to develop cross borough discussions. Awaiting outputs of BEIS GEN project. Continue dialogue with Energetik.				Potentially secure feasibility funding (HNDU) & develop potential business case	
	New development connection opportunities	8 development plots/~27MW of heat demand for planning approval (5 plots/13MW off-park) providing opportunity for funding contributions from connection fees or offset payments. Strategic review of connection opportunities to support decarbonisation.					
	Connection to EDEC and Docks	Explore integration of the EDEC and ELE decarbonisation roadmaps from a strategic perspective. Working with GLA to explore possibility and options, including possibility of developing strategic decarbonisation options form the river and other large-scale sources of waste heat e.g. sewage and industry.					
	Role for hydrogen	Explorations of the potential role of hydrogen in heat networks					
Sytem Optimisation	Biomass & Biofuels	If selected for further consideration - Improve future cost assumptions for biofuel conversion, consider EA and air quality assumptions, consider feasibility of getting a tanker delivery). Monitor stakeholder positions on biomass and air quality.					
	Green Gas	Ongoing dialogue with BEIS around the use and carbon accounting for biogas and green gas certification integration into existing networks.					
	2 way heat pumps for lower night-time chill loads	-x-	-x-	-x-	High-level Scoping	Investigating funding opportunities and undertaking further concept design.work	Outline Investment Case. If go - Detail Design and Procurement.
	Improving return temperature / dT	Continued exploration of opportunities to improve efficiencies. Identifying funding opportunities to implement solution e.g. HNES					
	Battery Integration	-x-	-x-	Installation of on-site battery at Kings Yard	Exploring opportunities for flexibility and DSR alongside integration of low carbon technologies		
Incremental Decarbonisation	Kings Yard heat pump integration	-x-	High-level Scoping	Concept Design	Securing LEA feasibility Funding Detailed Feasibility & Plume Modelling		Permitting and Investment Case. (start on site Q1 23)
	Waste heat recovery - cooling towers	-x-	-x-	-x-	High-level Scoping	Investigating funding opportunities and undertaking further concept design work	Outline Investment Case. If go - Detail Design and Procurement.
	Solar thermal	-x-	High level Scoping	Concept Design & Optioneering (TEF)	Business Case Review	Investment Case. If go - Detail Design and Procurement	
	Waste heat recovery - Sewage	-x-	Thames Water dialogue & design review	Due to ongoing existing works on the Abby Mills pumping station, water waste recovery site this project is unlikely to be able to be developed in the short term. There is however scope to further explore Greenway and ongoing engagement with Thames Water is required to ensure we can act on any opportunities as they arise.			
	Waste heat recovery - TfL Pudding Mill lane vent shaft scale	TfL dialogue	Concept Design & Optioneering (Techno Economic Feasibility)	Outline Investment Case. If go - Detail Design and Procurement. (would be integrated into the DH connection of Pudding Mill Lane redevelopment - heat on subject to developer's programme			

Background

About EQUANS - Urban Energy

EQUANS is a global energy and services business. We are a global market leader in city centre district heating schemes with an established and long track record of delivering energy and carbon savings consistent with government aspirations and client needs.

EQUANS' approach to the management and development of heating and chilled water networks is that they provide a technology agnostic form of transmission, selecting the source(s) of generation which best optimise benefits to the system, so that they remain flexible and responsive with time. To transition to net zero, our approach in the near term is to seize opportunities to integrate low-carbon technology into our schemes. This would provide near term carbon savings and progressively change the technology mix of the scheme and marginally improve the carbon intensity (against BAU) over time. For the longer-term achievement of net zero, we are exploring how best to either substitute natural gas with major net zero heat sources EfW, bioenergy, and replace the existing fossil based generating assets at the end of their natural operating lives with lower-carbon plant.

We have dedicated resource to work with the technical and engineering specialists within the business to develop a programme of work to assess the opportunities, secure funding and develop & install commercially viable solutions, with a commitment to collaborating widely to find the best way forward for each of our schemes and the places in which they operate.





Background

About East London Energy (ELE)

The concept of the ELE district energy system was developed by the Olympic Delivery Authority (ODA now the London Legacy Development Corporation (LLDC)) to supply low cost, low carbon heating and chilled water (CHW) to buildings across the Queen Elizabeth Olympic Park (QEOP) and surrounding areas. EQUANS (formerly Cofely) was awarded a 40-year contract by the ODA to develop the system, with EQUANS providing funding to design and build the scheme and then provide operation, maintenance and associated metering and billing services for the term. As part of the form of agreement with the ODA, new developments “on-park” are obligated to connect to the district energy system.

The ELE network currently operates with baseload heat provided by CHP and biomass boiler, with back-up and top-up provided by the gas fired boilers. The chilled water on the cooling network is generated from a combination of absorption chillers, supplied with heat by the CHPs, and electric vapour compression chillers, supplied with electricity from CHP generation and grid import. Carbon emissions are 72% lower than equivalent services, with biomass boilers offering over 1000 tonnes/year reduction in carbon emissions than if heating services were provided via gas boilers. To date, the East London Energy scheme has exceeded the carbon targets set out in the concession agreement and will continue to do so in the future based on the current operating regime

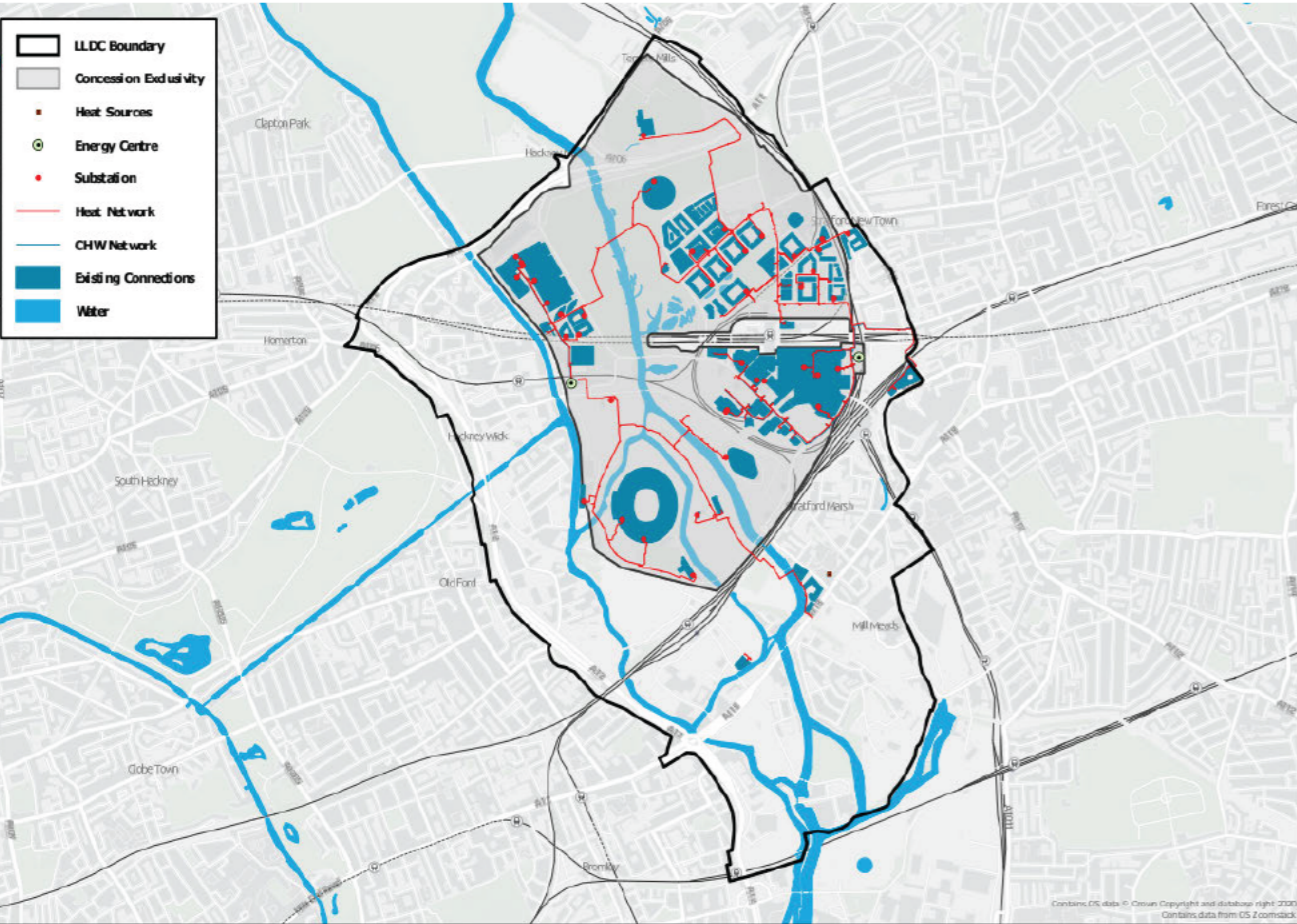


Figure 2. Overview of ELE and incremental decarbonisation opportunities

	Target	Delivered*	Target Met
Carbon emissions 20% lower than equivalent services	20%	72%	✓
Biomass carbon emissions are at least 1000 tonnes per annum less than heating services were provided via gas boilers, increasing in correlation with demand's growth	1,188	1,796	✓
Use all reasonable endeavours to procure a 15% reduction in carbon emissions	15%	73%	✓

*Based on 2006 Building regulations

Current challenges

The original £100m+ investment case was based upon the 9MW gas CHPs, 80MW gas boilers, 3.5MW biomass boiler and 57MW chillers installed in 2008-2010 being operated through to 2052, with additional CHPs being introduced in the 2020s and 2030s to provide additional baseload capacity. Departing from this technology mix changes the economics of the scheme, requiring detailed techno-economic appraisals to protect the original investment and future investment; and to ensure energy tariffs for consumers and connection fees to developers remain competitive in the wider market.

Grid data confirms the electricity generated by the CHP engines is currently displacing less efficient generation plant that is operating at the margin on the power grid - coal, gas turbines or imports. It is expected that the 'marginal plant' will gradually start to become cleaner sources of generation than the ELE CHPs, reducing the available periods in which operating the CHPs with natural gas provides carbon savings. The frequency and duration of these future periods of low-carbon marginal plant are difficult to predict, being dependent upon build rates for new renewable capacity, demand peaks coinciding with favourable weather for renewables and market signals for fossil-based assets.

We are working with the UK Government to better understand how we can transition away from gas dependency and optimise CHP operational hours in the future (to always provide carbon savings that benefit our connected customers in their journey to net zero) and what that means for when new baseload heat generating capacity will be required.

For new developments seeking to connect to the scheme, there remains significant uncertainty as to whether the ongoing but diminishing benefits of CHP will be recognised in the forthcoming updates to the building regulations and therefore whether CHP based schemes can offer compliant solutions. However, we are working closely with the GLA, ADE and UKDEA to engage with the government, manage the outcome and impacts in any changes to policy, and where necessary propose solutions (such as Sleaving see section 5.1) which enables new connections to be supplied with lower carbon heat and enables the transition away from gas for existing customers.

By decarbonising the network, we will allow all 71 currently connected buildings, and imminent upcoming connections, to be decarbonised to help transition the whole neighbourhood to net-zero.



Overarching Roadmap & TEF studies

EQUANS are undertaking a programme of activities for the decarbonisation of ELE which considered opportunities for:

- System optimisation and efficiency improvements
- Incremental installation of low carbon technology
- Strategic decarbonisation (strategic roadmap for decarbonisation over the next 15 years).

EQUANS are undertaking decarbonisation work jointly with LLDC and URW. We are currently undertaking a techno-economic feasibility study of the options available for introducing low-carbon sources of heat generation which both decarbonise the system and protect the needs of LLDC and URW.

- Identification of potential solutions available and operational characteristics and requirements
- Assessment of compatibility with scheme operating parameters and characteristics
- Definition of key constraints affecting their integration into the existing scheme and how they can be overcome (e.g. operating temperatures)
- Opportunity assessment for incremental decarbonisation presented by growth and new development connections within and outside the concession area
- Opportunity assessment presented by asset replacement cycles and commercial impact of accelerated asset replacements
- Concept designs for integration of low carbon solutions and associated energy model
- assessment of potential impacts on tariffs and/or commerciality
- Carbon performance under various scenarios of emissions factors (and SAP assumptions)
- Indicative delivery programme

We continue to work with the GLA and plan to further explore strategic growth opportunities and potential connections to major sources of heat, e.g. Edmonton EfW with the surrounding boroughs.

We are also working with BEIS on their GEN project to explore the opportunities and barriers to decarbonising existing heat networks. This work includes ELE as one of the focus projects. The outcome of the study will conclude in summer 2021 and we will incorporate the finding of the study into our wider techno-economic feasibility and decarbonisation studies.

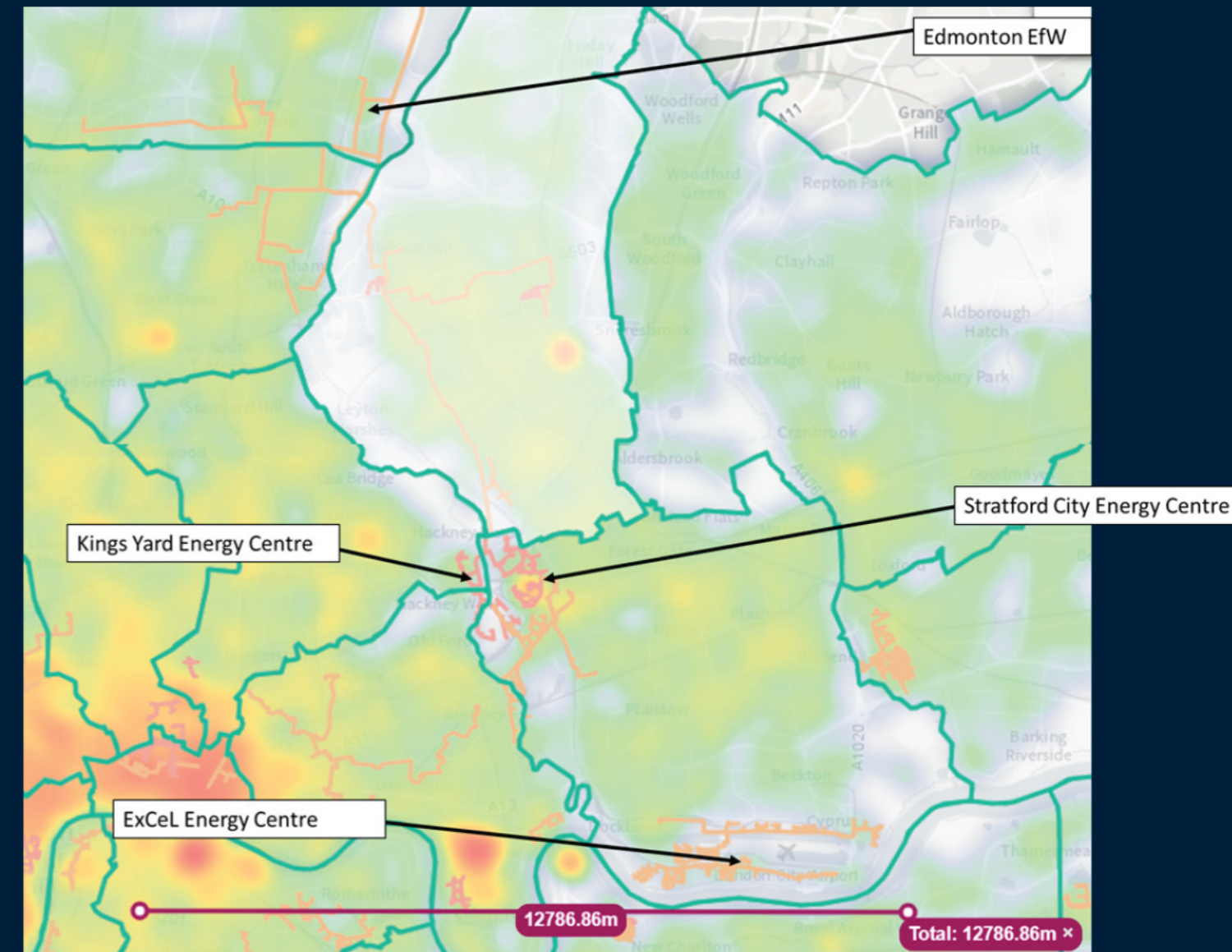


Figure 3. The London Heat Map showing existing (red lines) and potential (orange lines) heat networks in the vicinity of ELE.

Illustrative decarbonisation scenarios

Although plant operation varies from year to year, the heat output typically currently comprises approximately:

- 47% CHP (natural gas)
- 28% biomass
- 25% gas boilers

Stack emissions from this plant mix would be ~370g CO2/kWh, but this is offset by the carbon saved by the CHP electricity displacing the emissions from the marginal plant in operation on the national grid.

Assuming gas turbine marginal grid plant, with associated transmission and distribution losses, the avoided emissions could be ~240 g CO2/kWh, giving a scheme net heat carbon factor of ~110g CO2/kWh today.

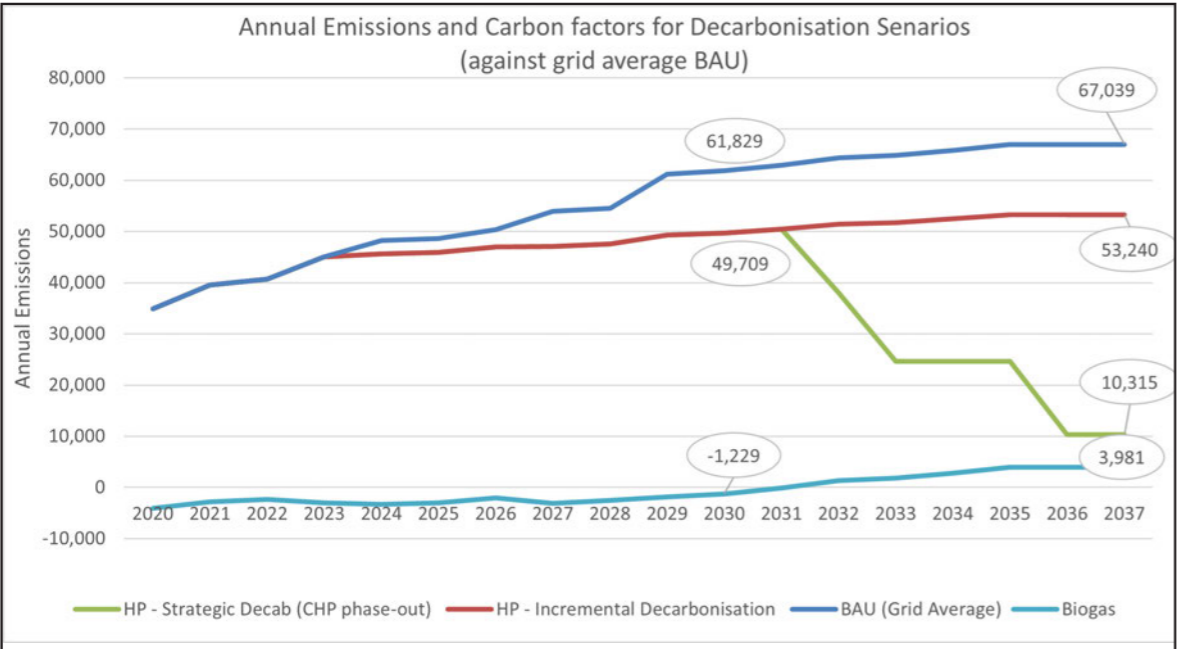
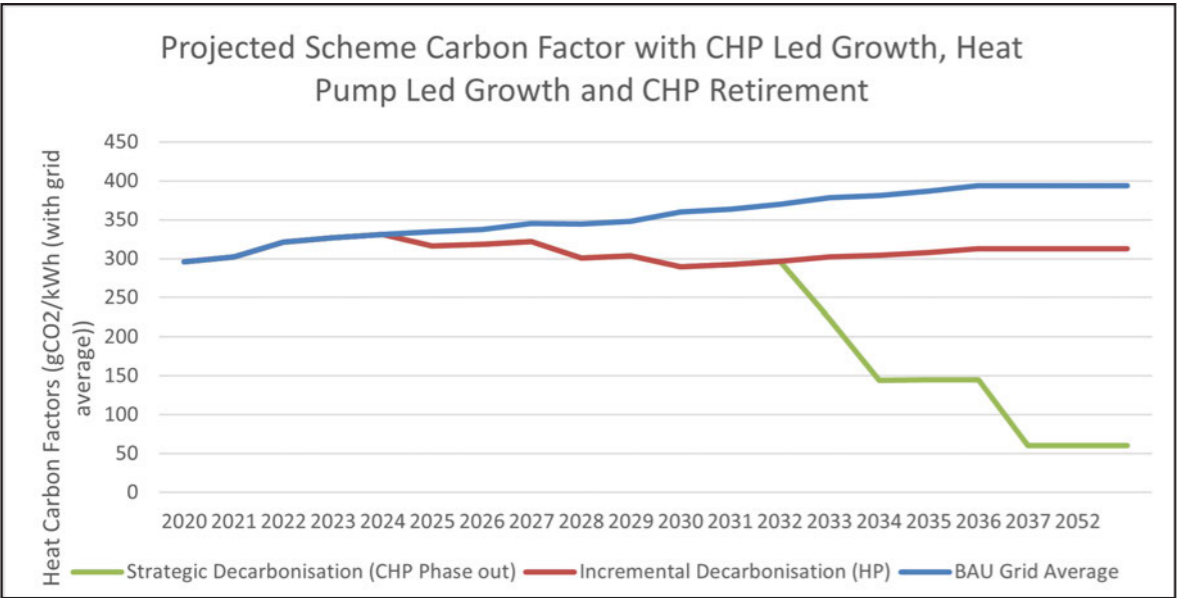


Figure 3. Graphs showing impact on carbon & emissions with introduction of low carbon technologies

The benefits of CHP will diminish when the marginal plant starts to become renewable sources of generation.

As an illustration we have completed some high-level assessments of how changes to the ELE technology-mix could help to reduce carbon emissions and change the scheme factor to meet the needs of customers:

- Maintaining CHP (discounting any carbon saved by the CHP electricity) whilst substituting gas boiler heat with waste heat, heat pump or bioenergy achieves ~240-255gCO2/kWh, similar to that from a typical gas boiler system;
- Using green gas in the CHP or replacing the CHP heat with heat pumps, could achieve ~110-120gCO2/kWh; This could be further reduced by introducing electric peaking boilers.
- Replacing existing plant with an energy from waste connection could result in ~132gCO2/kWh. This could be further reduced by increasing the base load form the EfW, offset z factor emissions and or introducing electric peaking boilers.
- Using only green gas in the existing scheme plant could achieve ~20gCO2/kWh (depending on the carbon content of the gas)

As indicated on the illustrative chart below, the gradual introduction of heat pump (HP) technology to displace CHP can reduce annual emissions (when measured against “grid average” emissions as utilised in the building regulations, and against the marginal plant reflected the day-day reality) helping to decarbonise the network. However, major strategic decarbonisation options will need to be considered to transition to net zero and phase out natural gas.

The planned techno-economic feasibility work will ensure we fully understand the technical constraints and commercial implications of such options. It will allow us to optimise their introduction (in the most appropriate sequence, timeframes and mix) to align with customer need.