

Sam Harrison

From: Caroline McHardy
Sent: 23 February 2021 18:13
To: Markwell, Jonathan (Jonathan.Markwell@reading.gov.uk)
Cc: Williams, Julie (Planning); Kim Cohen; Craig Pettit
Subject: FW: Vastern Road - Energy strategy conference call
Attachments: FW: Vastern Road, Reading - Energy Strategy Review Memo

Hi Jonathan,

Further to the below, I just wanted to clarify that we were a bit confused by Elements request this afternoon to Hodkinson for a meeting after we responded last week stating we didn't think one was required and just asked they finalised their report?

By all means if this meeting is further to our written response and will help you finalise your committee report for the 31st we would be happy to do so but Hodkinson didn't get that impression when they spoke to Sam at Elements and so we assumed more likely just crossed wires?

If you want to liaise with them and if there are specific matters they want to go through please set them out as Hodkinson suggested and we can review?

I hope that makes sense and is helpful.

Kind regards

Caroline McHardy
Land and Development Director

Berkeley
Designed for life



Berkeley Homes (Oxford and Chiltern) Ltd
Berkeley House, Farnham Lane, Farnham Royal, SL2 3RQ

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From: Jonathan Peck <jonathan@hodkinsonconsultancy.com>
Sent: 23 February 2021 17:13
To: Sam Benjamin <Sam.Benjamin@element-energy.co.uk>; Markwell, Jonathan <Jonathan.Markwell@reading.gov.uk>
Cc: Ian Walker <ian.walker@element-energy.co.uk>; Caroline McHardy <Caroline.McHardy@berkeleygroup.co.uk>; Matthew Bailey <matthew@hodkinsonconsultancy.com>
Subject: RE: Vastern Road - Energy strategy conference call

This message was sent from Jonathan Peck <jonathan@hodkinsonconsultancy.com>. Please be careful opening attachments or clicking links and report any suspicious emails to securitythreats@berkeleygroup.co.uk

Afternoon Sam, Jonathan,

Having discussed with Berkeley, we feel that a meeting next week would be premature. In line with the response sent to Jonathan on the 12th and then forwarded to Element on the 17th (see attached) we are awaiting the final report to be issued to us. Our position has been set out within and in previous reports.

It was also noted that at an update on proceedings with Berkeley and Julie Williams only yesterday the wish for a meeting on this was not raised.

Please could we therefore have the final report sent to us so we can proceed accordingly.

Kind regards,

Jon Peck
BA (Hons), MSc, MEI



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Company Registration Number: 03823513/England

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From: Sam Benjamin <Sam.Benjamin@element-energy.co.uk>
Sent: 23 February 2021 11:17
To: Markwell, Jonathan <Jonathan.Markwell@reading.gov.uk>; Jonathan Peck <jonathan@hodkinsonconsultancy.com>
Cc: Ian Walker <ian.walker@element-energy.co.uk>
Subject: Vastern Road - Energy strategy conference call

Hi Jonathan,

Jon has agreed a conference call between Element, RBC, Hodkinson and Berkeley Homes would be helpful in discussing the energy strategy for Vastern Road, and agreeing a way forward re the planning application.

Could you please provide your availability from the following:

- Wednesday 3rd March, PM

- Thursday 4th March, PM
- Friday 5th March, AM

Jon will be doing the same within Hodkinson and with Berkeley, and hopefully we can find a suitable time for all.
[@Jonathan Peck](#) once a time is agreed I am happy to set up the conference call.

Kind regards,

Sam Benjamin

Senior Consultant

elementenergy

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Lille: 14 rue du Vieux Faubourg, 59042 Lille Cedex, France tel +33(0)608 157 924

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From: [Jonathan Peck](#)
To: [Sam Benjamin](#); ian.walker@element-energy.co.uk
Cc: [Matthew Bailey](#)
Subject: FW: Vastern Road, Reading - Energy Strategy Review Memo
Attachments: [image001.jpg](#)
[image004.png](#)
[FW Vastern Road Reading \(200188\).msg](#)

Afternoon Sam, Ian,

The attached was sent from Berkeley Homes to RBC. They have asked that we also forward onto you, to help expediate the process and in case you haven't been sent it.

Kind regards,

Jon Peck
BA (Hons), MSc, MEI



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From: Matthew Bailey <matthew@hodkinsonconsultancy.com>
Sent: 12 February 2021 17:48
To: Caroline McHardy <Caroline.McHardy@berkeleygroup.co.uk>
Cc: Bruce Lawton <Bruce.Lawton@berkeleygroup.co.uk>; Jonathan Peck <jonathan@hodkinsonconsultancy.com>; Joseph Harding <Joseph.Harding@berkeleygroup.co.uk>
Subject: Vastern Road, Reading - Energy Strategy Review Memo

This message was sent from Matthew Bailey <matthew@hodkinsonconsultancy.com>. Please be careful opening attachments or clicking links and report any suspicious emails to securitythreats@berkeleygroup.co.uk

Dear Caroline

In response to the comments received from Element Energy (MEMO: Vastern Road revised energy strategy review, Undated) we would raise the following key points:

- The revised energy strategy submitted is fully compliant with Local Plan Policies CC4 and H5C. It has been developed to achieve significant carbon dioxide savings whilst future proofing the site to connect to a wider network following extensive discussions with the

Council and their advisors. The strategy is the most suitable heat network solution for this scale of development and is emerging as a common solution in other areas where similar zero carbon policies are applied.

- Due to the scale of development the use of open loop GSHP or WSHP from the Thames is considered completely inappropriate for the following reasons which have been addressed in detail in previous reports submitted to the Council.
 - Running costs –these systems would result in significantly higher running costs to residents than the ASHP/boiler solution, even allowing for improved efficiency associated with these technologies, which is far from guaranteed. Element Energy’s own cost assessment also concluded that significantly higher running costs would be incurred if GSHP or WSHP were deployed on this site. Our own assessment has indicated that approximately £200/yr/customer would be added to heat bills by using these technologies at such a small scale.
 - Environment Agency licensing – additional monitoring and reporting costs will be incurred. On larger sites 24/7 monitoring and management can be carried out to ensure breaches of licenses do not occur. On smaller sites where the economy of scale is not present to facilitate such monitoring, breaches of licenses are more likely and may result in all low-carbon heating supply being lost to the site when a license is revoked.
 - Potential ground contamination is also a significant concern for GSHP systems, particularly given the site’s former use as a power station.
 - The studies needed to confirm the detailed feasibility of these systems are lengthy and come with no guarantee of a successful outcome and are therefore not considered suitable for this scale of development.

Do let me know if we can assist further in any way.

Best regards

Matthew Bailey
BA (Hons), MSc, CEnv, MEI

We have moved office. New address below.



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Company Registration Number: 03823513/England

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From: [Caroline McHardy](#)
To: [Markwell, Jonathan \(Jonathan.Markwell@reading.gov.uk\)](#)
Cc: [Williams, Julie \(Planning\)](#); [Kim Cohen](#); [Craig Pettit](#)
Subject: FW: Vastern Road, Reading (200188)
Date: 12 February 2021 18:03:19
Attachments: [image008.png](#)
[image009.jpg](#)
[image010.png](#)
[image011.png](#)
[image012.jpg](#)
[image013.jpg](#)
[image014.jpg](#)
[image015.jpg](#)
[image016.jpg](#)
[image017.jpg](#)
[Vastern Road Reading - Energy Strategy Review Memo.msg](#)

Dear Jonathan,

Thank you for your email and for sharing the note prepared by Elements.

We were a little surprised that this was only an interim note and not the finalised review we were expecting to be issued w/c 15th February as per your email below. However, the note was clear and concise, so I am pleased to say that Hodkinson's have been able to respond to the matters raised this afternoon and this response is attached for your attention so not to cause any delay to Elements concluding the report next week as promised.

Our Energy Strategy is based upon de-centralised energy provision on site, as per Policy CC4, based on an Air Source Heat Pump led heat network, utilising low carbon electricity. We have also included a future proofed connection to enable future building operators to consider connecting into a wider heat network (should one become available). The strategy complies with the policies set out in your Local Plan. As such we do not consider that there is a requirement for other solutions to be explored. In addition, we have highlighted previously during our submissions and historic meetings with Elements, that the other methods they refer to are not suitable for a scheme of this quantum, and especially given the scheme is subject to a viability, yet we are still offering 20% on site affordable housing.

I am sure you will agree that in light of our response a meeting in a couple of weeks' time (solely on the Energy) is not required and will only delay the conclusion of the report which can hopefully now occur next week. We are therefore more than happy with your suggestion to ask Elements to complete their assessment, but with the benefit of Hodkinson's response to help them.

If it is of assistance to either yourself or Julie for a meeting in the slots you suggested to discuss more general matters please let me know as I am available Monday 22nd or 23rd (Before 11am).

I look forward to hearing from you.

Kind regards

Caroline McHardy
Land and Development Director

BerkeleyUR-signature



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From: Markwell, Jonathan <Jonathan.Markwell@reading.gov.uk>

Sent: 12 February 2021 12:32

To: Caroline McHardy <Caroline.McHardy@berkeleygroup.co.uk>

Cc: Craig Pettit <Craig.Pettit@bartonwillmore.co.uk>; Kim Cohen <Kim.Cohen@bartonwillmore.co.uk>; Williams, Julie (Planning) <Julie.Williams@reading.gov.uk>

Subject: RE: Vastern Road, Reading (200188)

This message was sent from Jonathan.Markwell@reading.gov.uk <jonathan.markwell@reading.gov.uk>. Please be careful opening attachments or clicking links and report any suspicious emails to securitythreats@berkeleygroup.co.uk

Dear Ms McHardy,

Further to my email below (for which I have received no response), I can update you in terms of the on-going energy review by Element Energy.

Element Energy has produced an initial note (attached in full) and requested, as per their instruction (which you were agreeable to at the time), a meeting with yourself and your representatives Hodkinson to discuss this further, with view to this then facilitating Element Energy producing their full report to the local planning authority. I would be grateful for your clarification as to whether this is a meeting you wish to undertake? On the one hand such a meeting is accounted for in the instruction, but I am also conscious that you subsequently detailed your request to “draw matters to a close” and “you determine the application in its current form”. Accordingly, I would be grateful if you could please clarify if you wish to undertake such a meeting (solely relating to this matter) to enable Element Energy to then produce a fuller response? If you do not wish to undertake a meeting, please let me know. In this scenario I will simply advise Element Energy of this and ask for them to complete their assessment on the basis of the information already submitted.

In terms of timescales for such a future meeting, I can suggest the morning of Monday 22nd, 23rd or 24th February. If appropriate, please indicate your availability.

I trust that this is of assistance and look forward to hearing from you.

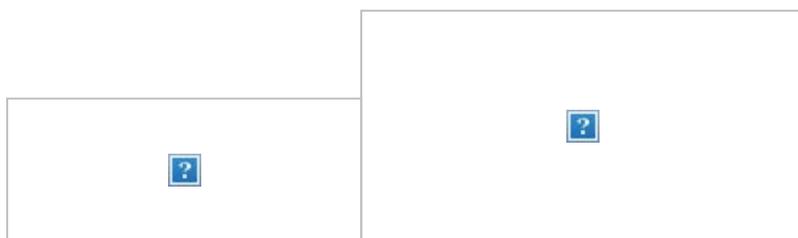
Yours sincerely,

Jonathan Markwell
Principal Planning Officer
Planning Section | Directorate for Economic Growth and Neighbourhood Services

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In addition, please note that the advice contained within this email (and attachments – if applicable) is that of an officer of the Borough Council and is provided without prejudice to the decision of the Borough Council.

From: Markwell, Jonathan

Sent: 21 January 2021 17:07

To: Caroline McHardy <Caroline.McHardy@berkeleygroup.co.uk>

Cc: Craig Pettit <Craig.Pettit@bartonwillmore.co.uk>; Kim Cohen <Kim.Cohen@bartonwillmore.co.uk>; Williams, Julie (Planning) <Julie.Williams@reading.gov.uk>

Subject: RE: Vastern Road, Reading (200188)

Sent without prejudice

Dear Ms McHardy,

Thank you for your email. Sorry for the short delay in responding, I have been in separate meetings for much of yesterday and today.

Your request to “draw matters to a close” and “determine the application in its current form” is accepted. Accordingly, no further information will be accepted or taken into account from you on this application. This is a somewhat surprising and disappointing turn of events, given that only three working days earlier you had submitted further information for consideration (including a further updated overall viability position) and confirmed your position regarding other matters. In addition, just last week you agreed to fund an independent review on behalf of officers of the revised energy strategy recently submitted, with the timescales for that review being received being the middle of February (which you were aware of prior to my instruction).

In the circumstances I can advise that the application will be determined in its current form following receipt of the already underway energy review by Element Energy. Moreover in the intervening time period, in responding to a request from an elected member seeking an update on the application, the application has subsequently been called into committee for determination regardless of the officer level recommendation. Accordingly, the application will be progressed to the next available committee meeting after the energy review has been considered and officers have weighed the merits against any shortcomings of the application, to arrive at a critical planning balance as to whether to support the application at officer level or not (which will be able to be made once the energy review has been received and all other matters are taken into account - as discussed in conversation on Monday). At this point in time, this is likely to be the 31st March committee given the timeframes for the energy review to be received and committee scheduling/deadlines. Ultimately, elected members of the planning applications committee will determine the application, regardless of the future officer level recommendation. To clarify, your request for the application determined and issued by tomorrow is not possible, or appropriate given the independent energy review is already underway and the critical planning balance cannot be applied at this juncture.

I hope that this update is of assistance to you. I will update you in due course of the outcome of the energy review, the officer level recommendation and details of which committee the application will be presented at. To reaffirm, given your email below, no further information will be accepted or taken into account from you or your representatives in the determination of the application.

Yours sincerely,

Jonathan Markwell

Principal Planning Officer

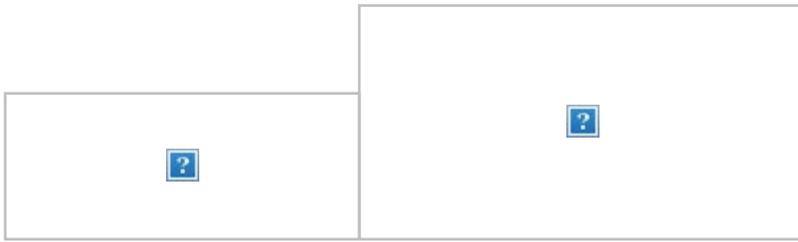
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From: Caroline McHardy <Caroline.McHardy@berkeleygroup.co.uk>

Sent: 19 January 2021 13:01

To: Markwell, Jonathan <Jonathan.Markwell@reading.gov.uk>

Cc: Craig Pettit <Craig.Pettit@bartonwillmore.co.uk>; Kim Cohen <Kim.Cohen@bartonwillmore.co.uk>; Williams, Julie (Planning) <Julie.Williams@reading.gov.uk>

Subject: RE: Vastern Road, Reading (200188)

Dear Jonathan,

Thank you for your time yesterday on our call.

As discussed, the letter we sent last week did not present any new information but was intended to help officers by setting out the latest position on the scheme.

The only new information confirmed was our position on the North/South Link which you had asked for us to confirm before progressing the application further. As set out in the letter and discussed yesterday, after much consideration, given the other elements which Berkeley have conceded on, including the Energy Strategy; Affordable housing; and full payment of the Vastern Road Crossing, we were unable to make any further changes to the central section of the North/South Link without impacting further the viability of the scheme and our ability to deliver the key planning benefits for the Council.

We asked officers to consider the application in its current form and were hoping that given the wider benefits, officers would be able to support the scheme and we could agree a detailed strategy and timeline to ensure we hit the next possible committee date with your full support. Following our discussion yesterday I understand that you are not in a position to do this and will not be for some time. I hope that you can appreciate that we are now approaching 12 months since submission of the application which was validated 16th March. Our application was

originally due to be determined by the 15th of July. Without a firm commitment from officers to getting to even a 31st March committee with officer support is not sufficient for us to continue.

Therefore, it is with much disappointment that I must suggest that we draw matters to a close and I ask that you determine the application in its current form. In the spirit of our relationship I am willing to agree an EOT until the end of this week (22nd) to allow officers to finalise your report.

Kind regards

Caroline McHardy
Land and Development Director



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From: Markwell, Jonathan <Jonathan.Markwell@reading.gov.uk>
Sent: 18 January 2021 10:38
To: Caroline McHardy <Caroline.McHardy@berkeleygroup.co.uk>; Craig Pettit <Craig.Pettit@bartonwillmore.co.uk>
Subject: RE: Vastern Road, Reading (200188)

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Dear Ms McHardy / Mr Pettit,

Thank you for your email and various attachments. Obviously this will require detailed consideration from a variety of colleagues. In the meantime, conscious that the

Element Energy review is scheduled to be received during w/b 15 February, can we please agree a further extension of time for the determination of the application until 7th April 2021 (a week after the next practicably available committee on 31st March)? Bearing in mind our current extension of time expires today, I would ask for your response/agreement today too please?

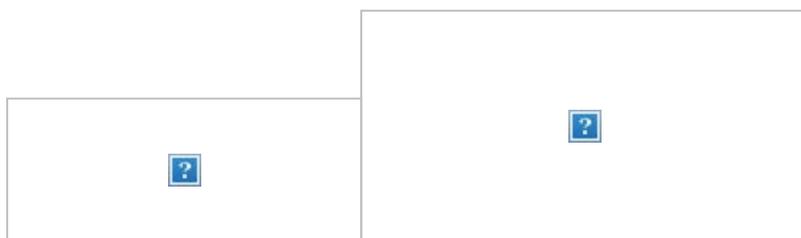
Yours sincerely,

Jonathan Markwell
Principal Planning Officer
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From: Caroline McHardy <Caroline.McHardy@berkeleygroup.co.uk>

Sent: 14 January 2021 09:29

To: Markwell, Jonathan <Jonathan.Markwell@reading.gov.uk>; Williams, Julie (Planning) <Julie.Williams@reading.gov.uk>

Cc: Kim Cohen <Kim.Cohen@bartonwillmore.co.uk>; David Taylor (Oxford) <Dave.Taylor@berkeleygroup.co.uk>; Craig Pettit <Craig.Pettit@bartonwillmore.co.uk>

Subject: Vastern Road

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Dear Jonathan,

Please find attached correspondence for both yours and Julie's attention following our meeting in December discussing the North South Link and River Thames mitigation.

I have also attached an updated to our Viability Appraisal (submitted Feb 20) taking into account the additional costs to the scheme following your feedback to date such as our increased contribution of £200k for RBC to deliver a new crossing at Vastern Road, and an additional £1.6m due to the change in our Energy strategy submitted on the 10th December. Thank you for instructing Elements Energy to review our submission and we will await to hear back from you once they have completed their assessment.

I hope the letter is clear but do not hesitate to contact me should there be anything further you wish to discuss.

Kind regards

Caroline McHardy
Land and Development Director



Berkeley Homes (Oxford and Chiltern) Ltd

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From: [Matthew Bailey](#)
To: [Caroline McHardy](#)
Cc: [Bruce Lawton](#); [Jonathan Peck](#); [Joseph Harding](#)
Subject: Vastern Road, Reading - Energy Strategy Review Memo
Date: 12 February 2021 17:48:15
Attachments: [image001.jpg](#)
[210209_SB MEMO - Vastern Road revised energy strategy review \(10.12.2020\) 00.pdf](#)

This message was sent from Matthew Bailey <matthew@hodkinsonconsultancy.com>. Please be careful opening attachments or clicking links and report any suspicious emails to securitythreats@berkeleygroup.co.uk

Dear Caroline

In response to the comments received from Element Energy (MEMO: Vastern Road revised energy strategy review, Undated) we would raise the following key points:

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- Due to the scale of development the use of open loop GSHP or WSHP from the Thames is considered completely inappropriate for the following reasons which have been addressed in detail in previous reports submitted to the Council.
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 - The studies needed to confirm the detailed feasibility of these systems are lengthy and come with no guarantee of a successful outcome and are therefore not considered suitable for this scale of development.

Do let me know if we can assist further in any way.

Best regards

Matthew Bailey
BA (Hons), MSc, CEnv, MEI

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MEMO: Vastern Road revised energy strategy review

Introduction

The following memo provides a review of Hodkinson's revised energy strategy (dated 10/12/2020) for the Vastern Road development in Reading.

This revised strategy was produced in response to Element Energy's previous review (September 2020). Since this last review, the Applicant has adopted the requirement from Reading Borough Council (RBC) for a decentralised heat supply solution, employing heat pumps as the primary source of space heating and hot water.

The key outstanding issue for the development in relation to RBC energy and carbon policy is the selection of air source heat pump (ASHP) heat supply, and the omission of more efficient ground source heat pump (GSHP) and water source heat pump (WSHP) technologies.

Selected heat supply strategy

The proposed heat supply strategy for the Vastern Road development is defined as:

- 2no. ASHPs with total capacity of 365kWth for primary heat supply
- 1MWth natural gas boilers for top-up and back-up heat supply
- ASHPs = 67% of annual heat supply, gas boilers make up the remaining heat consumption (33%)

Hodkinson state that the employment of ASHPs necessitates the reliance on gas boilers for top-up heat, due to ASHP technology inefficiencies during winter months.

Whilst gas boiler heating to supplement heat pumps on new developments is not explicitly discouraged in RBC planning policy, the fact that there are alternative technological solutions yet to be fully discounted through further technical assessment (see next sections on GSHP and WSHP) means gas boilers for top-up heat should not be considered compliant at this design stage. Gas boilers for back-up heat (i.e. in case of heat pump failure) may be considered acceptable to ensure uninterrupted heat supply.

It is noted by Hodkinson that an ASHP + gas boiler approach provides residents with the least-cost method of heat supply. However, relative to pure ASHP supply the difference is marginal (~£900/yr for ASHP + gas boiler vs ~£940/yr for ASHP-only), or £3/month more on average per residential unit. This does not feel significant enough to discount a pure ASHP approach. The reliance on gas boilers therefore does not appear justified on a carbon or cost basis.

Should the alternative heat supply solutions not be technically viable for the development (see below), a full ASHP approach should be taken for the development (i.e. no gas boiler top-up). Gas boilers for back-up supply is an acceptable approach.

Alternative heat supply solutions

Closed-loop GSHP

Hodkinson state that 1,939m² of area has been identified as suitable for closed-loop boreholes on the development. This is stated as insufficient to serve the full heat demand. It is assumed that Hodkinson has estimated the closed-loop GSHP borehole requirements such that they would provide the full heat demand (i.e. no top-up gas boilers as per the ASHP approach).

A simple analysis by Element Energy suggests that this assessment of closed-loop GSHP is accurate, given the spatial constraints of the development. Assuming 3-5kWth of capacity per borehole (spaced 5m x 5m apart), this suggests the average borehole = 0.16 kWth/m². With 1,939m² available, total available heat capacity = 388kWth, which is not sufficient to cover the full peak heat demand (assumed as 1MWth, i.e. the capacity of the back-up boilers in the ASHP solution).

The exclusion of closed-loop GSHP from the development as a heat supply solution is therefore valid.

Open-loop GSHP

Whilst there are no known boreholes deeper than 30m in the immediate vicinity of the proposed Vastern Road development, this does not necessarily signify that deeper open-loop boreholes are not possible in the area. There are a number of boreholes in and around Reading town centre (e.g. Forbury Retail Park) that are ~100m deep, therefore there is scope for deeper boreholes to access aquifer water.

Hodkinson state that as brownfield site, the land on which the Vastern Road development sits may be contaminated due to its previous use, but no evidence is provided to support this. Without further evidence, open-loop GSHP cannot be discounted at this design stage.

It is recommended that open-loop GSHP not be discounted until further technical assessments have been undertaken at detailed design stage:

- Commission desktop study by hydrogeological consultants to establish depth of aquifer water on development.
- Commission ground investigations to understand the potential barrier to deployment due to contaminated land.

WSHP

Hodkinson state:

“For the proposed development, the River Thames is the most likely heat source. This, like the open loop GSHP would require complying with several regulatory requirements laid down by the Environment Agency, which could ultimately prevent heat provision to the development.”

The potential non-compliance with Environment Agency regulation should not discount WSHP at this stage of design, but engagement with the Environment Agency should be undertaken as soon as possible to confirm whether a river source heat pump approach is not viable for the development.

Further:

“Further to this, the plant required to collect the water from the Thames would be required to be as close as possible to the water source. This would place the plant outside the redline of this development.”

Hodkinson must liaise with RBC to understand the barrier to infrastructure deployment due to land ownership and easement issues. WSHP cannot be discounted on this basis as this has not yet been confirmed as a barrier.