



# GLA Energy Comments – Design Response

9,11 & 19 Osiers Road, Wandsworth, London

*Prepared by: Stroma Built Environment Ltd*

*On behalf of: Hollybrook Homes*

*March 2019*

**HOLLYBROOK**

  
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## Introduction

*The following document is aimed to address the comments raised by the GLA energy team with regard to the development proposals at 9,11 & 19 Osiers Road, Wandsworth, London*

*The document has been formatted in order to respond to all questions raised, and therefore does not address any factual statements relating to the application, that do not pose a query.*

*It is noted that the proposals do not comply with the October 2018 Energy Assessment Guidance, adopted in January 2019. This is predominantly because the proposed design was frozen long before this document was published – It is noted that the original planning application was submitted in July 2018. Therefore, the requirements of the October 2018 energy planning guidance cannot be deemed applicable to the scheme.*

*More importantly, the proposed energy strategy, as demonstrated in the submission and this note, is an appropriate response to the site and its constraints, complies with the relevant policies in the current London Plan and will perform well.*

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Report Prepared By:



Date: March 2019

Carl Cappuccini CEnv, CBuildE, LCC

Document History:

Issue	Date	Comment	Author
D.01	15.11.2018	Initial Draft for comment	C.C.
I.01	13.03.2019	First Issue	C.C.

## Design Response

GLA Comment	Design Response
<p>4.</p> <p><b>An Overheating Analysis using thermal dynamic modelling should be undertaken to assess the overheating risk within the conditioned areas of the building; this should be in line with CIBSE TM59 using all CIBSE TM49 weather files.</b></p>	<p><i>This is a requirement of the October 2018 Energy planning guidance, and is not applicable to this application.</i></p> <p><i>The current London Plan policy calls for an overheating assessment to be produced to CIBSE TM52 using the TM49 weather files. This is a methodology designed to assess risk in workplaces and is deemed unfit for purpose for assessment of a residential scheme.</i></p> <p><i>Therefore, the applicant has elected to assess the design to the more recent, and more stringent TM59 methodology, created to specifically address the issue of overheating risk in homes. In place of the TM49 weather data, the assessment has utilised the weather parameters detailed within the TM59 guidance, which involves a predictive weather scenario, based on a high-emissions scenario of potential weather during the 2020's. In contrast, the TM49 details weather data that is less stringent and less suited to the TM59 assessment methodology.</i></p> <p><i>As such, it can be demonstrated that the applicant has undertaken a more applicable, more stringent assessment than mandated by current planning policy, in order to ensure that any mitigation measures proposed are appropriate for the residential nature of the scheme.</i></p> <p><i>There is no requirement, and questionable relevance, in re-assessing the scheme using different weather data sets, and the provided assessment should be accepted as a valid, thorough assessment of overheating risk on the proposed dwellings.</i></p>
<p>5.</p> <p><b>The domestic overheating checklist included in the GLA's energy guidance should also be completed.</b></p>	<p><i>Please find attached as appendix A to this submission.</i></p>
<p>7.</p> <p><b>Based on the information provided, the residential elements of the proposed development do not appear to achieve any</b></p>	<p><i>The energy statement provided demonstrates a 0.12% improvement from energy efficiency alone compared to a Building Regulations</i></p>

<p><b>carbon savings from energy efficiency alone compared to a 2013 Building Regulations compliant development. The applicant should model additional energy efficiency measures and commit to the development exceeding 2013 Building Regulations compliance through energy efficiency alone.</b></p>	<p><i>compliant development, and as such is compliant with London Plan Policy</i></p>
<p><b>8.</b> Sample TER and DER sheets as well as the full BRUKL sheets of the ‘be lean’ scenario should be provided.</p>	<p><i>Please find attached as appendix D to this submission</i></p>
<p><b>10.</b> The applicant should be proposing a site heat network where all apartments and non-domestic building uses will be connected. A drawing showing the route of the heat network linking all uses/buildings on the site should be provided.</p>	<p><i>The site heat network is proposed to supply all residential units.</i></p> <p><i>The commercial aspects of the scheme are to be provided with cooling for commercial purposes, due to their proposed usages. Therefore, it was deemed a more appropriate and sustainable option to meet the heating and cooling demand via highly efficient VRF heat pump systems. The alternative option would be to provide heating via the district scheme, and cooling via centralised chiller systems. This was investigated, however found to be a less sustainable option, due to the lower efficiencies and greater distribution losses associated with such systems. These systems also mandate larger central plants, and increased noise issues etc. from their operation.</i></p> <p><i>Due to these technical and environmental concerns, a heat pump strategy is proposed for the commercial aspects of the scheme.</i></p>
<p><b>11.</b> The site heat network should be supplied from a single energy centre. Further information on the floor area, internal layout and location of the energy centre should be provided.</p>	<p><i>Please find additional information attached as appendix B to this submission</i></p>
<p><b>13.</b> Given the scale of the development, and in line with the GLA guidance on preparing energy assessments, a CHP-led heating strategy is not considered appropriate for the proposed development. The applicant should consider the potential of other, more appropriate, low carbon/renewable technologies that could supply the heating requirements of the site.</p>	<p><i>The M&amp;E design team have determined that CHP is a viable option for this development.</i></p> <p><i>The GLA 2016 and 2018 guidance refers to large scale CHP where the heat-to-power ratio of the building is not balanced, consequently resulting in significant electricity export. The proposed strategy is for a small packaged CHP that has the effective control measures to maintain the CHP output balanced with the</i></p>

	<p><i>buildings heat and power loads. The packaged CHP is able to modulate efficiently to follow the heat and power demands of the building, which for this building includes the parasitic loads of the energy centre, potable and non-potable water supply, CCTV and communications equipment, as well as general landlord's electrical power and lighting. Thermal buffer vessels are incorporated to store the excess heat (at times where the heat and power is not balanced) for use at peak demand periods. It is noted that the GLA have actively promoted this strategy for the past few years and have accepted applications based on this strategy.</i></p>
<p><b>15.</b></p> <p><b>A PV array with a rated output of 48kWp is being proposed. A roof layout should be provided indicating the proposed PV installation. The applicant should also confirm the proposed PV area and demonstrate that the site's full potential for a PV installation has been maximised, regardless of the on-site London Plan target having been met.</b></p>	<p><i>Please find a PV layout attached as appendix C to this submission. As can be seen, PV potential has been maximised. Any additional area of array (eg to lower roofs) would be visible from the high-level apartments, suffer from over-shading, and require additional inverters, cabling and maintenance. This would make additional PV unfeasible from an environmental, economic and quality perspective.</i></p>
<p><b>18.</b></p> <p><b>Sample 'be green' DER sheets as well as the full 'be green' BRUKL sheets should be provided.</b></p>	<p><i>Please find attached as appendix D to this submission</i></p>