J6846: 100 & 88 GRAY'S INN ROAD, 127 CLERKENWELL ROAD

LBC PLANNING ENERGY AND SUSTAINABILITY COMMENTS RESPONSES

06/03/2023

Issue 2: The exploration of local heat networks does not seem to have considered the up to date map on the Camden website – Supplying low carbon energy which indicates the Bloomsbury and Gower Street DEN potentially within 1000m of the site. Distance and potential for connection should be considered. If not feasible to connect immediately safeguarding for future connection, which is indicated in Figure 7.4 should be secured through s106. **ACTION: Further information required and secure future proofing through s106.**

Project Team response

As measured via roadways from the London Heat Map, the current Bloomsbury DEN's nearest pipework connection point is circa 1300m from the project site located to the East and is further than the closest available Citigen network that has already been investigated. The Gower Street DEN is located further away to the Northwest. As a results both heat networks have been discounted due to the distance.

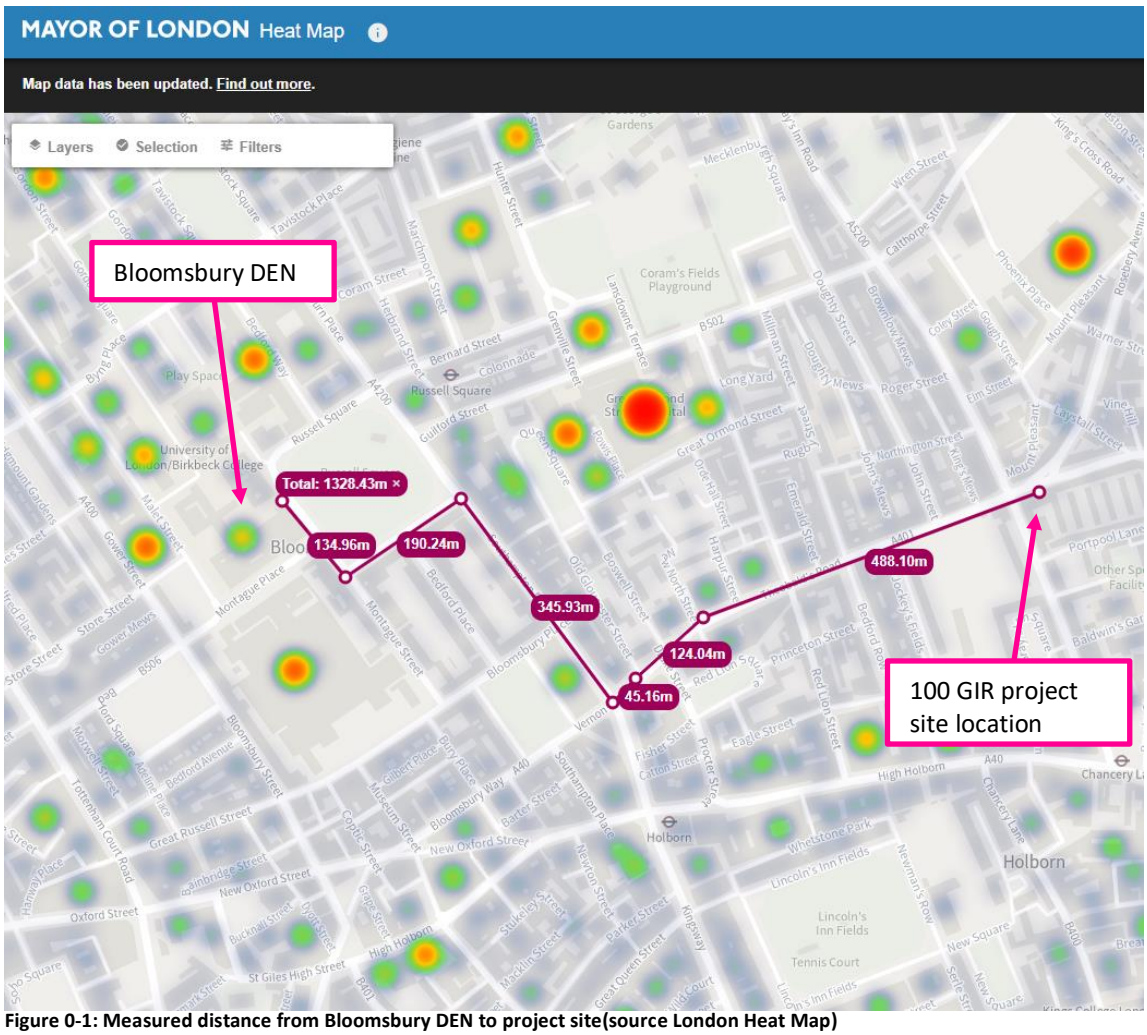

Figure 0-1: Measured distance from Bloomsbury DEN to project site(source London Heat Map)

Should a heat network become available in the future, the plant space and pipework routes into the development shall be safeguarded as described within the planning energy statement.

Issue 6: The pre assessment scores meet the requirement of BREEAM excellent with an overall score of 75%. They are targeting 65% of available energy credits, 60% of water credits and 67% of material credits which meets the requirements although the water credits only just meet the requirements and therefore it is recommended that potential credits are targeted to ensure this score is achieved post construction. **ACTION: Additional water credits recommended to be targeted. BREEAM Excellent and at least 65% for Energy, 60% for Water and 67% for materials should be secured through s106.**

Project Team response
Noted. The design team shall review any potential additional water credits.

Issue 7: For both 88 and 100 GIR the calculated carbon emissions meet and exceed the aspirational benchmark for modules A1-5 and overall whole life carbon but do not meet the benchmark (let alone the aspirational benchmark) for modules B-C for 100 GIR and meet the benchmark but not the aspirational benchmark for 88 GIR. Modules B-C stages refer to the use stage such as maintenance, repair and replacement (excluding operational energy use B6 and water supply and waste water treatment B7 which are considered in the Energy Strategy). Module C relates to the end of life stage. As such more should be done to consider the carbon impact of these elements of the design in order to at least meet the benchmarks and aim for the aspirational benchmarks. **ACTION: Further action needed to reduce the emissions to within at least the benchmarks for modules B-C. Condition recommended.**

Project Team response
100GIR:
The carbon emissions associated with the B-Modules predominately comes from 5 key areas - making over 50% of the impact. They are:

- Raised Access Floor - 22%
- Electrical Distribution - 12%
- Carpet Tiles - 8%
- Refrigerant - 8%
- Lighting - 7%

These are all short-lived elements with large coverages within the project. The new Steel Raised Access Floor is the element which tips the scheme performance over the GLA Benchmark and is something the Client is very keen to source refurbished (estimated Embodied Carbon reduction of around 110 kgCO2e/m2) either from the existing soft strip and storage of the existing office building or from the refurbishment market. Given the inherent uncertainty with procurement of refurbished items (you never know availability until it comes time to order) we felt it was best to assume the worst case. Lower embodied carbon options such as unencapsulated tiles and GGBS plinths (e.g. MicroFloor system) are also on the table but will only be pursed in the event that refurbished elements are unavailable and achieving the required performance criteria.

Lighting and cabling at the time of assessment are based on benchmark data and will reviewed in the later design stages when more detail is available.

Carpet Tiles will be reviewed again once performance specifications and scope of quantities are available. Low carbon alternatives will be strongly encouraged (estimated Embodied Carbon reduction of around 38 kgCO2e/m2).

88GIR:
The current proposal is well below both upfront and embodied limits. The B-C emissions are driven by R410a refrigerant which the design team are very keen to eliminate in the coming design stages. Alternative options include using lower GWP refrigerants or reducing in the total refrigerant volume through provided by the heat demands of 88 GIR by the plant in 100 GIR. Both are being pursued as per the future design opportunities.