

		Our ref: HGY/2022/2619 Contact: Valerie Okeiyi Date: 21/02/2024
Town and Country Act 1990 (As amended)		
Location:	Land at Haringey Heartlands, between Hornsey Park Road, Mayes Road,, Coburg Road, Western Road and the Kings Cross / East Coast Mainline,, Clarendon Gas Works, Olympia Trading Estate, and 57-89 Western Road, London, N8	
Proposal:	Approval of details pursuant to conditions 53 - partial discharge (updated energy strategy) of planning permission HGY/2017/3117 relating to Blocks F1, G1, G2, H1, H2, H3, J1, and J2 (known as Phases 4 and 5)	
Wording of condition:	Notwithstanding the submitted details and alongside the submission of any reserved matters, excluding demolition and site preparation works, an updated energy strategy shall be submitted to and approved in writing by the local planning authority. The Energy Strategy shall, unless otherwise agreed by the local planning authority, be based on connection of all residential and non-residential buildings to a district energy and heating network. Details of the site wide heating and hot water facilities, the phasing of delivery, and associated network infrastructure will be submitted for approval to the Council. The strategy shall explore all reasonable options for improving the energy efficiency of the building and reducing carbon dioxide emissions in accordance with the energy hierarchy set out in London Plan policy 5.2 'Minimising carbon dioxide emissions'. The Strategy will comply with the targets and measures set out in London Plan (2016) Policy 5.2 and will be submitted using the format set out in the GLA guidance on Energy Strategies. The development shall be carried out strictly in accordance with the details approved. Reason: To ensure that the development hereby approved is energy efficient and to contribute to the avoidance of need for new fossil fuel or other primary energy generation capacity and to reduce emissions of greenhouse gases and to minimise the impact of building emissions on local air quality in the interests of health, in accordance with policies 3.2, 5.3, 5.5, 5.6 and 7.14 of the London Plan.	

Carbon Management Response 16/08/2023

Documents submitted:

- Cover Letter by St William dated 2nd September 2022
- RM Energy Statement by Hodkinson dated August 2022
- Other relevant documents

Response

The development achieves 47% carbon reduction against Part L 2013, which is supported in principle. However, the development fails to achieve possible carbon reduction under Be Green stage which is not policy complaint (London Plan 2016, Policy 5.2, 5.7). Furthermore, this is also not complaint with Local Plan Policy SP4 minimum 20% carbon reduction under Be Green scenario. **We, therefore, do not recommend the discharge of the condition 53.**

Overall Energy:

The overall predicted reduction in CO₂ emissions for the development shows an improvement of approximately 47.8% in carbon emissions with SAP10 carbon factors, from the Baseline development model (which is Part L 2013 compliant). This represents an annual saving of approximately 559 tonnes of CO₂ from a baseline of 1170 tCO₂/year.

Phase 4	Residential		Non-residential		Site-wide	
	tCO ₂	%	tCO ₂	%	tCO ₂	%
Baseline emissions	373		105		478	
Be Lean savings	17	5%	5	5%	22	5%
Be Clean savings	169	45%	19	18%	189	40%

Be Green savings	0	0%	22	21%	22	9%
Cumulative savings	186	50%	46	44%	232	49%
Carbon shortfall to offset (tCO₂)	187		59		245	

Phase 5	Residential		Non-residential		Site-wide	
	tCO₂	%	tCO₂	%	tCO₂	%
Baseline emissions	394		298		692	
Be Lean savings	18	5%	14	5%	32	5%
Be Clean savings	178	45%	55	18%	233	34%
Be Green savings	0	0%	62	21%	62	17%
Cumulative savings	196	50%	131	44%	327	47%
Carbon shortfall to offset (tCO₂)	198		168		365	

Energy – Lean

The applicant has proposed a saving of 50 tCO₂ in carbon emissions 5% based on SAP10 carbon factors. While this is not the best practice it is policy compliant with the London Plan (2016) Policy 5.2.

The following u-values are proposed:

Building Element	Proposed specifications for residential	Proposed specifications for non-residential
Floor u-value	0.10-0.20 W/m ² K	0.14 W/m ² K
External wall u-value	0.24 W/m ² K	0.25 W/m ² K
Roof u-value	0.14 W/m ² K	0.14 W/m ² K
Window u-value	0.90 W/m ² K	1.40 W/m ² K
Air permeability rate	4 m ³ /hm ² @ 50Pa	5 m ³ /hm ² @ 50Pa
Ventilation strategy	Mechanical Ventilation with Heat Recovery (MVHR) system	Mechanical Ventilation with Heat Exchanger SFP 1.50 W/l/s, 85%
Thermal bridging	Accredited Construction Details	Accredited Construction Details
Low energy lighting	100%	100%
Heating system Be Lean only	Communal gas boiler (95.7%), Community Heating Scheme	Energy Centre
Thermal mass	High	High
Fabric energy efficiency improvement	16%	16%

Energy – Clean

The site is within a reasonable distance from a proposed Decentralised Energy Network (DEN). The applicant has proposed a saving of 45% for residential and 18% for non-residential scheme.

The residential dwellings of Phases 4 & 5 are proposed to connect with existing Heat Network.

For Phase 4, 100% of heat is expected to come from the Heat Network currently provided for by DEN1 in the Southern Quarter. This will enable a 75% provision of low-carbon heat via an optimised CHP with a Heat to Power ratio of 1.06 with an efficiency greater than 78%.

For Phase 5, the uncertainties associated with compliance with Part L 2025 subject to its enforcement timings, gas CHP may not be complaint. Therefore, an alternative heating strategy using air source heat pumps is proposed which will be installed on the roof of Phase 5.

Comments (also shared via email on 24/03/2023)

- a. In the event the development does not connect to the offsite DEN, we agree it is sensible for you to use the 'Existing District Heat Network' approach to comply with Part L2021 due to the elevated carbon intensity of heat allowed.

Further commentary – in this case, the CHP will need to have been installed at time of completion of dwellings. The current s106 prevents installation of CHP until connection to

DEN2 is resolved. We anticipate the timings will work and connection to DEN2 will be resolved in 2024. If the connection to the offsite network is not considered viable, there will be good time for CHP to be installed before completion of Phase 4. However, St William may wish to consider this.

- b. It would be helpful if the energy strategy were expanded to also considered Part L compliance in the event the development connects to the off-site DEN.

Further commentary - we suggest that in this case, the mechanism in paragraph 2.12 of Part L 2021 should be used. This will require the development to be treated as a 'new district heating network'. Para 2.12 allows for low carbon plant to be added to a network after the completion of dwellings as long as this is before December 2027. To be able to factor in future low-carbon plant to Part L compliance calculations at point of completion, the developer will need to demonstrate that there is a legal obligation to connect and that the proposed low carbon plant has approval. We anticipate the timings will work and, by the time dwellings in Phase 4 complete, the offsite network will have planning approval, a connection agreement should be in place and the network will be delivered by end 2027. However, St William may wish to consider this.

Please note, the use of this approach has been discussed with LBH Building Control. They agree para 2.12 of Part L1 allows for the Dwelling Efficiency Rate (DER) calculation to be based on the heating system that will be in place by 31/12/2027 rather than the system in place at completion. They read the wording '*the calculation should include all heat sources to be used up to 31 December 2027*' to mean that the period of 100% gas use should feed into the assessment of the long-term performance. The heat mix fed into SAP for those homes would be based on the projected heat mix taking into account this phased installation up to and including 2027 over the 50yr life of the building (e.g. you might have 100% gas boilers for 18-months and then EFW for 48.5yrs).

- c. While we appreciate why you have included the future potential ASHP solution for Phase 5 to respond to potential changes to the Future Homes Standard (and agree the approach seems sensible), we want to be clear that we cannot approve this option for Phase 5 at this time. A revised energy strategy would need to be submitted. Please clarify that the proposed FHS concept is included for information only at this time and that a revised energy strategy would be submitted for approval if changes to Part L required this.

Further commentary – the approach you are putting forward of assigning the ASHP heat to the Phase 5 dwellings makes sense to us. In our meeting on 24/3/23, you explained there may be physical constraints in the network preventing the ASHP heat from reaching the wider network. Please expand on this to support your argument for allocating the heat to Phase 5. However, St William may wish to consider that SAP10.2 and the PCDB are currently unclear on how to assign the heat from a heat source installed in a later phase of a network. One interpretation (that we disagree with) is that the heat should be shared between existing and new phases. Haringey Council has been working with ESNZ/DLUHC to formalise a method for 'sleeving' heat from plant installed in a later phase to the dwellings built alongside the plant and we expect this will be included in SAP11 (if not before).

Actions:

1. Please can you confirm the carbon factor used for displaced electricity produced by CHP in Table 8?
2. Please can you provide a datasheet/justification for gross boiler efficiencies of 95+%
3. Please provide details of the 75% CHP fraction in terms of plant sizing, store sizing and the annual consumption profile
4. Please provide a commentary on the assumptions modelled under Be Clean scenario for non-residential part of the scheme achieving 18% carbon reduction for both phase 4 and phase 5.

Energy – Green

The applicant is not proposing any Solar PV installation with the reasoning to prioritise carbon reduction under Be Lean and Be Clean stages following the energy hierarchy. However, the London Plan (2016) Policy 5.2 (adopted at the time of the approval) requires major developments to be net-zero, prioritising the maximisation of carbon reduction on-site and only offset when further reduction is not possible on-site (Policy 5.E). The development requires to *maximise opportunities for renewable energy by producing, storing, and using renewable energy on-site* under 'Be Green' stage. Furthermore, the Haringey Local Plan Policy SP4 requires all new developments to achieve a minimum reduction of 20% from on-site renewable

energy generation. It is clear that the development can achieve further savings on site and this should be maximised to help achieve the borough's carbon reduction targets.

Furthermore, the applicant proposes Heat Pumps as the most appropriate technology for installation for non-residential scheme saving 84 tCO₂ (21%) for non-residential scheme. The commercial units are shell only, the end users/subsequent owners may choose to install cooling with reversable heat pump solution of estimated SEER of 6 and EER of 3.5.

Actions:

- Please maximise the opportunities to generate electricity through the introduction solar PV arrays on the proposed buildings to further reduce the on-site emissions, meet Policies 5.2 and SP4, and aim to meet the 20% reduction under the Be Green stage.
- Please identify on the plans where the internal and external parts of the air source heat pumps will be located and how the units will be mitigated in terms of visual and noise impact.
- How much of the heating/hot water demand will be met by the proposed type of heat pump? If this cannot be met fully, how will this be supplemented?
- What is the modelled cooling demand?
- Please provide a commentary if the commercial units have designed with the ability to connect to the wider energy network, depending on the end user.

Conclusion

Further information is required so we therefore **do not recommend** discharging Condition 53.

The applicant should provide a response to the points raised above and issue updated information where required.

Carbon Management Response 21/02/2024

Documents submitted:

- Cover Letter by St William dated 2nd September 2022
- RM Energy Statement by Hodkinson dated August 2022
- Other relevant documents

Response

The development fails to achieve possible carbon reduction under Be Green stage of the energy hierarchy which is not policy complaint (Policy 5.2, 5.7, SP4). **We, therefore, do not recommend the discharge of the condition 53.**

Energy – Clean

The applicant has responded to all the action points under this section.

The applicant confirmed the carbon factor of 0.311 kg. CO₂/kWh based on new CHP, standard as a worst-case position.

Four Hoval Ultragas 2300D boilers are proposed within the Energy Centre of the development with UK seasonal efficiency of 95.7%.

Energy – Green

The London Plan (2016) Policy 5.2 requires developments to be net zero, minimise carbon dioxide emissions in accordance with the energy hierarchy. The development is required to explore all possibilities to further reduce carbon dioxide emissions using on-site renewable energy generation. This is supported by Policy 5.7 which requires major development to provide a reduction in expected carbon dioxide emissions through the use of on-site renewable energy generation, where feasible.

The Energy Strategy dated October 2017, submitted during the application deems solar panels as a feasible technology for the proposed development. However, the development is not proposing any Solar PV which is not policy complaint (Policy 5.2, 5.7, Policy SP4). It is to be note that, this was also mentioned in the sustainability comments dated February 2018.

Actions:

- Please maximise the opportunities to generate electricity through the introduction solar PV arrays on the proposed buildings to further reduce the on-site emissions, meet Policies 5.2 and SP4, and aim to meet the 20% reduction under the Be Green stage.
- Please submit the revised energy statement including Solar PV under Be Green scenario in compliance with London Plan Policy 5.2, 5.7 and SP4.
 - o Please provide some commentary on how the available roof space has been maximised to install solar PV. Has your feasibility shown that other roofs will not be viable / will they be used for other purposes?
 - o What is the peak output of the PV array, how much of the roof area will be covered approximately, what is the assumed efficiency, angle, and orientation of the panels?
 - o How will the solar energy be used on site (before surplus is exported onto the grid)?

Conclusion

Further information is required so we therefore **do not recommend** discharging Condition 53.

The applicant should provide a response to the point raised above and issue updated information where required.