**Energy and Sustainability Consultation Response**

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| **Scheme address** | 18-22 Haverstock Hill, NW3 2BL |
| **Planning reference number** | 2018/2179/P |
| **Description of development** | Demolition of existing buildings and ancillary structures (11 flats, A1 unit, A5 unit) and construction of a new building comprising ground plus basement and five upper floors for use as 29 no. dwellings (Class C3) and flexible Class A1/A2/A3/A4 together with cycle parking, landscaping, refuse and associated works. |
| **No. of residential units** | 29 |
| **Non-residential floor space (GIA m2)** | 280 m2 |
| **Type of non-residential floor space** | Flexible retail |
| **Building regulations requirements**  | Assessed under L1A and L2A |
| **Relevant documents for reference** | ‘Energy Assessment Version 3.0’ dated 11/04/2018, prepared by Silcock Dawson & Partners on behalf of PPR Estates‘Sustainability Assessment Version 1.0’ dated 01/05/2018, prepared by Silcock Dawson & Partners on behalf of PPR Estates |
| **Recommendation**  | Approve subject to condition |

**POLICY REQUIREMENT:**

**MAJOR RESIDENTIAL NEW BUILD >10 units (AND DEEP REFURBISHMENTS) ASSESSED UNDER PART L1A**

*Applicants must submit an* ***energy statement*** *showing how the development will meet the following policy requirements:*

* *Follow the hierarchy of energy efficiency, decentralised energy and renewable energy technologies set out in the London Plan (2011) Chapter 5 (particularly Policy 5.2) to target zero carbon for the residential part of the development, with a minimum of 35% reduction in regulated CO2 emissions below the maximum threshold allowed under Part L 2013 achieved on site and any remainder offset. Please visit* [*this page*](https://www.camden.gov.uk/ccm/content/environment/planning-and-built-environment/two/planning-applications/making-an-application/supporting-documentation/sustainability-statements-design-and-construction/) *for more information about carbon offsetting. GLA guidance on preparing energy assessments and CPG3 should be followed. [NOTE: Decentralised Energy Priority Areas are shown on* [*this map*](http://www.camden.gov.uk/ccm/navigation/environment/green-camden/supplying-low-carbon-energy/)*]*
* *CC1 requires all developments to achieve a 20% reduction in CO2 emissions through renewable technologies (the 3rd stage of the energy hierarchy) wherever feasible, and this should be demonstrated through the energy statement.*
* *Where the London Plan carbon reduction target cannot be met on-site, we may accept the provision of measures elsewhere in the borough or a financial contribution (charged at £60/tonne CO2/yr over a 30 year period), which will be used to secure the delivery of carbon reduction measures elsewhere in the borough. Further information on this can be found* [*here*](https://www.camden.gov.uk/ccm/content/environment/planning-and-built-environment/two/planning-applications/making-an-application/supporting-documentation/sustainability-statements-design-and-construction/)*.*

*Applicants are also expected to submit* ***a sustainability statement*** *- the detail of which to be commensurate with the scale of the development showing how the development will:*

* *Implement the sustainable design principles as noted in policy CC2*
* *Demonstrate that the residential development is capable of achieving a maximum internal water use of 105 litres per day (plus an additional 5 litres for external water use).*

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**MINOR NON-RESIDENTIAL NEW BUILD <500 sq.m GIA ASSESSED UNDER PART L2A**

*Applicants are expected to submit an* ***energy statement*** *showing how the development will meet the following policy requirements:*

* *Follow the hierarchy of energy efficiency, decentralised energy and renewable energy technologies set out in the London Plan (2011) Chapter 5 (particularly Policy 5.2) to secure the* ***maximum feasible CO2 reduction*** *beyond Part L 2013. GLA guidance on preparing energy assessments and CPG3 should be followed. In particular, improvements should be sought on the minimum building fabric targets set in Part L of the building regulations*
* *CC1 requires all developments to achieve a reduction in CO2 emissions through renewable technologies (the 3rd stage of the energy hierarchy) wherever feasible, and this should be demonstrated through the energy statement.*

*Applicants are also expected to submit* ***a sustainability statement*** *- the detail of which to be commensurate with the scale of the development showing how the development will:*

* *Implement the sustainable design principles as noted in policy CC2*

**ENERGY STATEMENT**

**ENERGY HIERARCHY RESULTS:**

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| Energy Statement | **New build commercial** | **New build residential** |
| Total tCO2 | Stage reduction, tCO2 | Stage reduction, % | Total tCO2 | Stage reduction, tCO2 | Stage reduction, % |
| **Baseline** | 9.79 | N/A | N/A | 37.13 | N/A | N/A |
| **Be Lean** | 7.82 | 1.97 | 20.1% | 32.28 | 4.85 | 13.1% |
| **Be Clean** | 7.82 | 0.00 | 0.0% | 32.28 | 0.00 | 0.0% |
| **Be Green** |  7.69 | 0.13 | 1.7% | 27.15 | 5.13 | 15.9% |
| **TOTAL** | **7.69** | **2.10** | **21.5%** | **27.15** | **9.98** | **26.9%** |
| *Target* |  |  |  | *0.00* | *37.13* | *100.0%* |
| **Shortfall** |   |   |   | 27.15 | 27.15 | 73.1% |
| Offset payment |   | £48,870 |

***RESIDENTIAL***

*Overall CO2 saving does not meet 35% on site requirement for the residential parts.*

*Renewable energy contribution does not meet 20% Be Green stage CO2 reduction for residential parts.*

*A carbon offset payment of £48,870 should be secured via legal agreement*

* *To meet both shortfalls, should be asked to consider improvements, such as an Air Source Heat Pump heating strategy – also encouraged for air quality reasons. This would also reduce the carbon offset payment amount.*

***COMMERCIAL***

*Compliant. CO2 savings are made in both demand reduction and to a much lesser extent through renewables.*

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| **Has sampling been used to model the carbon savings and is sampling representative?** | Resi: Nine of 29 flats. Commercial: Entirety of commercial floor area. |
| **Have the DER/ TER worksheets/ BRUKL report been provided?** | *None submitted*  |

**BE LEAN:**

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| **Proposed specification:** |
| **Building fabric u-values (W/m²K)** | ***RESIDENTIAL*** ***COMMERCIAL*** |
| **Air permeability (m2/hr/m2)** | ***RESIDENTIAL & COMMERCIAL***4.0  |
| **Approach to limiting thermal bridging** | Equal to or better than Accredited Construction values |
| **Glazing %** | Not stated |
| **Low carbon technologies and building services** | ***RESIDENTIAL***  ***COMMERCIAL*** |

**BE CLEAN:**

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| **Connection to an existing decentralised energy network:** |
| **Proximity to existing decentralised energy networks and proposals to connect** | N/A |
| **Future proofing:** |
| **Opportunities to connect to a future network**  | N/A |
| **On-site CHP** |
| **Suitability for on-site CHP** | Not suitable |

**BE GREEN**

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| **Proposed technologies:** |
| **Solar Thermal** | * Not selected
 |
| **Solar PV:** | * 80 m2 flat roofarray proposed.
* Indicative layout:

* Final details should be secured by condition, see wording at end of document, to include:
* *Panel and array size*
* *Drawings and cross-sections showing layout, tilt, location of inverters and generation meter*
* *No., kWp & type of panels, inverters – data sheets*
* *3D overshadowing impact assessment should be undertaken*
* *Maintenance schedule including safe access arrangements for regular inspections and repairs*
 |
| **GSHP** | * Not selected
 |
| **ASHP** | Proposed for commercial parts. Ruled out for flats: “Due to the compact nature of the site and the relatively small amount of heat that could be withdrawn. The integration of a complicated technology is not appropriate for such a low potential CO2 reduction.”*Argument not substantiated. Should also be considered for residential parts, for reasons mentioned above.* |
| **Biomass:** | * Not selected
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| **Wind:** | * Not selected
 |

**SUSTAINABILITY PLAN**

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| **Summary of proposed measures** |
| **BREEAM rating** | N/A - commercial under 500 m2 A BREEAM Pre-Assessment has been voluntarily undertaken.*While we would not enforce the BREEAM submission or targets, the proposals should be secured as a Sustainability Plan via the Legal Agreement.* *Applicant should be asked to confirm that actions targeted in BREEAM pre-assessment and Sustainability Statement are confirmed proposals.* |
| **Cooling hierarchy**1. Minimising internal heat generation through energy efficient design
2. Reducing the amount of heat entering the building in summer
3. Use of thermal mass and high ceilings to manage the heat within the building:
4. Passive ventilation:
5. Mechanical ventilation:
 | “modelling has been undertaken following the procedure set out in CIBSE Technical Memoranda 49, 52 and 59.”No cooling proposed for residential“Non dwelling units will have ventilation plant with an assumed specific fan power is 1.1W/l/s or better and to have a plate heat exchanger with minimum efficiency of 75%”“a reduction in the glazed area would be necessary to achieve the significant improvements required to achieve full compliance with CIBSE TM59.However, further improvements are possible through the use of: High performance solar control glazing Blinds applied to fixed panes Increase thermal mass through the use of exposed heavyweight walls.”*The above cited measures including a reduction in glazed area should be incorporated into the proposals as appropriate. Details to be confirmed in writing prior to planning decision or secured by condition.**Details of air intakes for the MVHR systems should also be secured by condition to ensure they are correctly sited away from sources of emissions i.e. on roof and away from main road and gas flues* |
| **Materials, sourcing and waste** | * The majority of the materials used in the proposed development for the construction of the walls, roof and windows in particular are expected to achieve an A+ to B rating.
* Wherever possible all building and finishing materials will be sought from suppliers and manufacturers registered to an environmental management scheme such as FSC or PEFC for timber based products and BES6001 or ISO14001 for all other materials.
* All insulation materials selected for this development will have a Global Warming Potential of below 5
* Attention will also be paid to materials specified for the internal environment with a focus on materials/finishes containing low/no volatile organic compounds (VoCs)
* All materials selected will be assessed for their durability in line with their proposed level of use and exposure
 |
| **Green infrastructure and biodiversity (including green/brown roofs)** | Proposing 20.5 m3 storage tank, limiting site runoff to 5 l/s.*Secure by condition the submission for approval prior to commencement of* * *Drainage Pro-forma*
* *Detailed SuDS proposals and drawings*
* *MicroDrainage calculations*
* *Lifetime SuDS maintenance schedule*
* *Overland flow routes for exceedance events*
 |
| **Water efficiency and SuDS (including rainwater and greywater harvesting)** | ***RESIDENTIAL***Proposed consumption 104.26 litre/person/day***COMMERCIAL***“the ability to undertake rainwater or grey water harvesting is limited on this site due to the nature of the design of the buildings, which seek to maximise the use of the land available” |
| **Building Management Systems, metering, monitoring and management** | Individual water meters, with pulsed outputs (to allow for connection to a Building Management System) will be supplied to the non residential units |
| **Other** |  |

**FURTHER ACTIONS FOR APPLICANT**

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| **See items in red above.** |

**Condition wording and s106**

* ***Sustainability measures to be secured through S106 sustainability plan***
* ***Water efficiency targets to be secured through S106***
* ***Energy provisions to be secured through S106 EE&RE plan –***
	+ ***RESIDENTIAL A minimum 26.9%\* beyond Part L 2013 AND minimum 20%\* Be Green stage reduction through renewables***
	+ ***COMMERCIAL A minimum 21.5% beyond Part L 2013 AND minimum 1.7% reduction through renewables***
* ***Carbon Offset Fund to be secured through S106 = £48,870 \****

*\*subject to any revisions made prior to planning decision, as recommended above*

***Solar PV***

*Prior to commencement, detailed plans and data sheets showing the location and extent of photovoltaic cells and associated equipment to be installed on the building shall have been submitted to and approved by the Local Planning Authority in writing. The measures shall include the installation of a meter to monitor the energy output from the approved renewable energy systems. A site-specific lifetime maintenance schedule for each system, including safe roof access arrangements, shall be provided. The cells shall be installed in full accordance with the details approved by the Local Planning Authority and permanently retained and maintained thereafter.*

*Reason: To ensure the development provides adequate on-site renewable energy facilities in accordance with the requirements of policy CC1 of the London Borough of Camden Local plan Policies*

***SuDS:***

*Prior to commencement of the development, full details of the proposed sustainable drainage systems shall be submitted to and approved in writing by the local planning authority. Such a system should be designed to accommodate all storms up to and including a 1:100 year storm with a 40% provision for climate change such that flooding does not occur in any part of a building or in any utility plant susceptible to water, and shall demonstrate greenfield run off rates or as close as possible thereto. Details shall include a lifetime maintenance plan, full drainage calculations, and overland flow routes for exceedance events, and shall thereafter be retained and maintained in accordance with the approved details.*

*Reason: To reduce the rate of surface water run-off from the buildings and limit the impact on the storm-water drainage system in accordance with policies CC2 and CC3 of the London Borough of Camden Local Plan Policies*

***SuDS: Evidence of installation***

*Prior to occupation, evidence that the system has been implemented in accordance with the approved details as part of the development shall be submitted to the Local Authority and approved in writing. The systems shall thereafter be retained and maintained in accordance with the approved maintenance plan.*

*Reason: To reduce the rate of surface water run-off from the buildings and limit the impact on the storm-water drainage system in accordance with policies CC2 and CC3 of the London Borough of Camden Local Plan Policies*

***Mechanical Ventilation***

*Prior to commencement of development (excluding demolition and site preparation works), full details of the mechanical ventilation system including air inlet locations shall be submitted to and approved by the local planning authority in writing. Air inlet locations should be located away from busy roads and any boiler stack and as close to roof level as possible, to protect internal air quality. The development shall thereafter be constructed and maintained in accordance with the approved details.*

*Reason: To protect the amenity of residents in accordance with London Borough of Camden Local Plan Policy CC4 and London Plan policy 7.14.*