

Formal Objection Letter: Harcourt House Energy Strategy Review and Non-Compliance



Cook & Cardenas Ltd.
Energy Solutions

Planning Service
London Borough of Haringey
L6 River Park House
225 High Road
Wood Green
N22 8HQ

23 March 2025

Dear Council,

Development at Harcourt House N8 9JB
Planning application reference: HGY/2024/0921

Summary

This objection raises formal concerns about the adequacy and regulatory compliance of the Energy Strategy submitted for the proposed rooftop extension at Harcourt House. Following detailed review of the Energy Statements PR1v (Ref: JF458-RP-Z-0001, dated 6th August 2024) and PR2v (Ref: JF458-RP-Z-0001, dated 19 March 2025), it is clear that the proposal remains incomplete and materially non-compliant with the London Plan and Approved Document Part L (2021).

Critical issues include outdated SAP worksheets that don't reflect the proposed development, lack of clarity over energy system selection, conflicting performance figures, and failure to address overheating risk. These shortcomings are compounded by technical inconsistencies and a lack of supporting evidence for the claimed performance metrics. Unless these issues are resolved, the proposal cannot be considered robust, nor can it be relied upon to meet the borough's zero carbon requirements.

Actions and Verifications Required

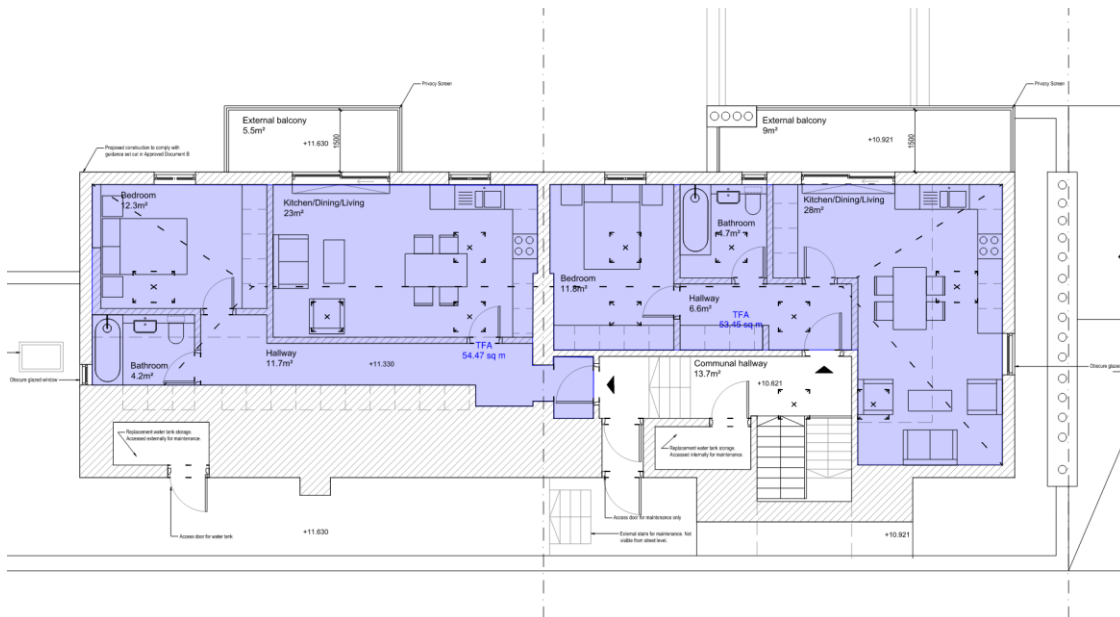
- Submit updated SAP worksheets consistent with current architectural plans (Rev C).
- Confirm if the proposed Exhaust Air Heat Pump (EAHP) provides 100% of the heating and hot water load, and whether the system is individual or communal.
- Provide an Overheating Risk Assessment in line with CIBSE TM52.
- Confirm if Mechanical Ventilation with Heat Recovery (MVHR) is proposed and clarify the full ventilation strategy.
- Provide detailed psi-value and U-value calculations supported by build-up specifications.
- Describe how the proposed structure interfaces with the existing fabric to ensure thermal continuity and avoid thermal bridging.
- Justify the omission of floor insulation where proposed above heated spaces, and confirm detailing for thermal continuity.

1. Review of Energy Statement

Document Ref: JF458-RP-Z-0001 dated 6th August 2024

1.1 SAP Calculations Do Not Reflect the Proposed Design

Key SAP inputs, including floor areas and fabric dimensions, do not correspond with the latest architectural drawings (Rev B). For instance, Total Floor Areas (TFAs) for Units 1 and 2 are recorded as 63.3 m² in the included SAP calculations but shown as 54.47 m² and 53.45 m² on the submitted plans; similar discrepancies can be observed on other measurements. The SAP calculations (dated 01/08/2024) reflect an outdated design iteration and cannot be relied upon to verify claimed performance improvements.



Inconsistencies Between SAP Outputs and Reported Carbon Figures

The carbon emissions figures presented in the Energy Statement cannot be reliably reconciled with the submitted SAP calculations:

- For example, the Target Emission Rate (TER) in the SAP worksheet is shown as 14.01 kgCO₂/m²/year. When multiplied by the stated total floor area, this equates to 1.77 tCO₂e/year.
- However, Table 3 of the Energy Statement cites a baseline figure of only 1.49 tCO₂e/year, with no explanation for the discrepancy.

These inconsistencies call into question the accuracy of the reported carbon savings and undermine confidence in the Energy Strategy's compliance claims. A clear and consistent carbon accounting methodology must be provided, with all figures traceable to the SAP output documents. **Moreover, the submission must include updated SAP outputs aligned to the current scheme.**

1.2 Be Lean – Fabric Efficiency Claims Cannot Be Substantiated

The applicant claims a 63.38% improvement over the Part L 2021 notional dwelling; however, this figure is derived from outdated and unsupported SAP assumptions. Several technical concerns are noted:

- Glazing g-values of 0.45 are unusually low and imply high-specification coatings not evidenced in the report.
- Door U-values of 1.0 W/m²K are ambitious and require product-specific data.

- A roof U-value of 0.10 W/m²K is difficult to achieve with the shown roof thickness and without exceptional insulation, yet no build-up is provided.
- Thermal bridging inputs use bespoke psi-values without documentation. **SAP 10 Appendix K** require either accredited junctions or validated modelling (e.g. via THERM) with full build-up details. The report contains no such evidence.

It also remains unclear how the new structure interfaces with the existing building. Poor junction detailing at this interface poses a risk of thermal bridging and undermines the energy strategy.

1.3 Be Clean – Space Heating Demand Below GLA Benchmarks

The reported Space Heating Demand (SHD) of 25.89 kWh/m²/year fails to meet the GLA benchmark of 15 kWh/m²/year for new dwellings. Furthermore, this value has not been substantiated with SAP calculations.

$$\text{Annual AC output (kWh)} = \text{kWp} \times \text{Kk} \times \text{SF}$$

1.4 Be Green – No Renewable Energy Generation Proposed

The Energy Statement cites a 3.8 kWp solar PV array composed of 10 panels. However, the submitted roof plan drawing (CF-214-DR-1140-C) shows only 9 panels. While the 3.8 kWp capacity is technically achievable using high-efficiency panels, the claimed annual generation figure of 3,279.40 kWh is not credible based on standard MCS estimation methods.

Using the MCS Standard Estimation Method:

- Installed capacity (kWp) = 3.8
- Performance factor (Kk) = 766 (based on an 8° tilt and 160° deviation from south)
- Shading factor (SF) = 0.91

This results in an estimated annual output of 2,649 kWh, which is **19% lower than stated in the Energy Statement**.

Using the current SAP 10.2 carbon factor for electricity (0.136 kgCO₂e/kWh), the estimated carbon savings equate to 360 kgCO₂e/year total, or 180 kgCO₂e per flat. This is approximately **50% lower** than the figures presented on page 14 of the Energy Statement. Due to unreliable data around SAP assessments and carbon accounting, it could not be determined if Be Green policy is met with the proposed PV system.

In practice, generation will likely be lower still due to:

- Reduced panel inclination, which limits rain-based self-cleaning,
- Long-term degradation of panel performance.

The PV contribution to the Be Green stage is therefore significantly overstated and undermines the claimed compliance with carbon targets

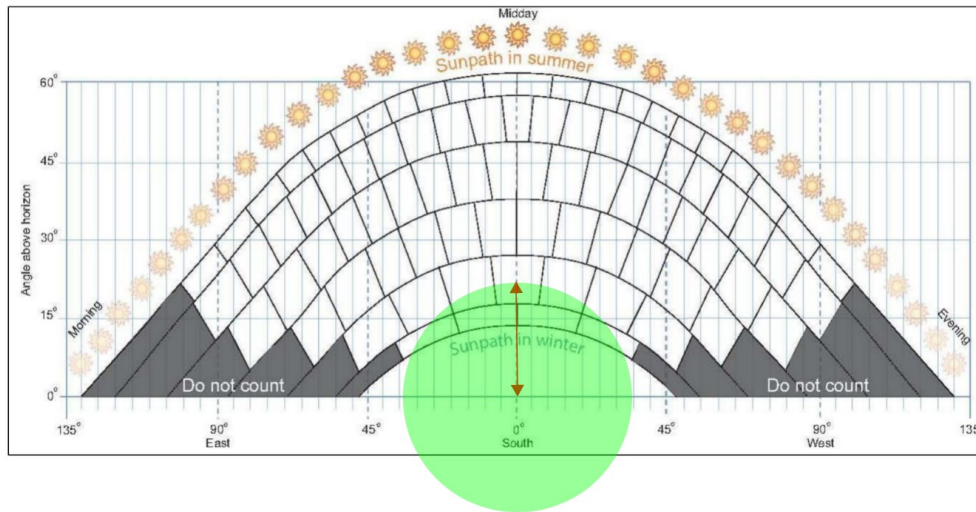
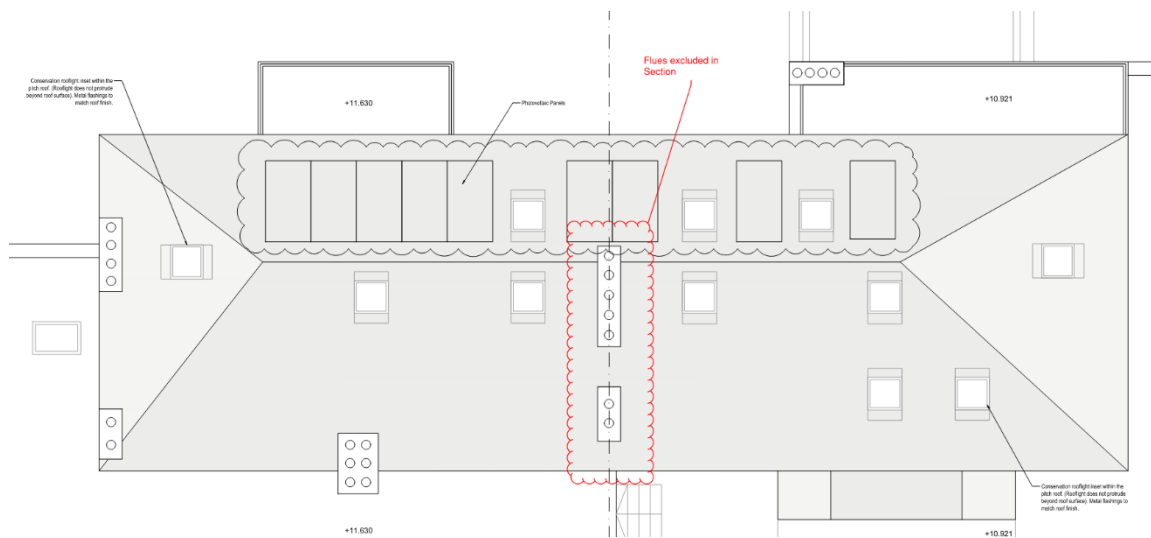


Figure 1 MCS Shading Factor Calculation for objects closer than 10m



- The calculation of carbon savings is based on an outdated electricity carbon factor of 0.232 kgCO₂/kWh, rather than the current SAP 10.2 factor of 0.136 kgCO₂e/kWh. This materially overstates the environmental benefit of the system.
- The Energy Statement provides no evidence that the solar PV system has been designed to align with on-site demand profiles (i.e. demand-side response). Nor does it address battery storage, which is a key consideration for improving on-site renewable energy utilisation and future compliance.
- The panels are proposed at an 8° incline, which is insufficient to ensure self-cleaning by rainfall. This would likely lead to reduced performance over time, unless regular manual cleaning is arranged. No provision for safe access or maintenance has been included.

These inaccuracies further compromise the validity of the Energy Strategy and cast doubt on the proposal's compliance with London Plan Policy SI 2 and associated guidance.

With regards to the second revision to the energy Statement, PR2v dated 19th March 2025, the Energy Statement fails to meet 20% reduction from on-site renewables; no renewable energy technology is included in the current scheme. The report (page 13) attempts to attribute renewable benefits to the use of Exhaust Air Heat Pumps (EAHP), but this is incorrect:

EAHPs are not a form of renewable energy generation, they are electrically-driven appliances that recover heat from exhaust air. GLA guidance does not classify them as on-site renewables.

1.5 Overheating Risk (Policy SI 4 – London Plan)

The application does not include an overheating strategy. The omission is especially concerning given the development's rooftop position, single-aspect layout, and large areas of glazing—all of which are high-risk factors for overheating.

No dynamic thermal modelling (in line with CIBSE TM52) has been submitted.

The applicant must also confirm whether MVHR is included, particularly as EAHPs are typically designed to work in conjunction with mechanical ventilation systems.

2. Previous Objections

Substantive objections raised in earlier representations by residents (including letters from John Howes and Will Chan, dated March 2025) remain valid and unresolved. The key concerns raised were:

- **Non-compliance with Building Regulations and Building Safety Act:**
The proposed extension fails to comply with Approved Documents B and J. Key issues include the absence of sprinkler systems, protected fire lobbies, and smoke ventilation systems required for buildings over 11 m in height and more than four storeys. Additionally, flue outlets on the party wall are too close to proposed openings, contravening **Part J, Diagram 17**.
- **Feasibility and constructability concerns:**
The roof extension appears technically unbuildable based on current drawings. The proposed structural and drainage arrangements (e.g. flat resting on existing timber roof, shallow floor zones) do not reflect necessary structural interventions. No information is provided on how the new structure will tie into the existing Victorian building or accommodate additional loads.
- **Poor daylight, sunlight, and outlook standards:**
Proposed units are single aspect and north-facing, failing to meet **London Plan Policy D6** and **Housing Design Standards LPG 2023**. Obscured windows and rooflights are incorrectly described as contributing to dual aspect. Views are further compromised by 1.8 m high privacy screens.
- **Accessibility shortfalls:**
The dwellings do not meet **Part M4(2)** of the Building Regulations, with no level access or lift provision. This is contrary to **London Plan Policy D7**, especially as the building will exceed four storeys following the extension.
- **Inaccurate and misleading drawings:**
Key architectural sections omit structural features (e.g. chimney flues), misrepresent window positions, and show unfeasible access arrangements. These inconsistencies undermine the credibility of the application.
- **Missing planning documentation:**
Essential supporting documents—such as a Construction Method Statement remain absent or incomplete.

These previous concerns are still relevant and should be revisited in any planning decision.

We recommend that the application be denied on the grounds of insufficient and inconsistent evidence, as outlined in this letter. Alternatively, the applicant must provide comprehensive and verifiable documentation demonstrating compliance with planning policy outlined in the Energy Strategy – including accurate and complete SAP assessments; a complete Overheating Risk Analysis in accordance with TM52; correction of discrepancies in carbon calculations; and a credible renewable energy strategy. The latter must include realistic PV generation figures, alignment with on-site energy demand, clarification on system sizing, and confirmation that appropriate maintenance access is provided, particularly given the low panel incline. Without this information, the Energy Statement cannot be considered a reliable basis for compliance with London Plan Policy SI2, the GLA Energy Assessment Guidance (2022), and Haringey Local Plan Policy SP4.

Sincerely,

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