

Energy Statement

Annex at 80 Wightman Road, London N4 1RN

This revised statement has been reformatted and updated to remove unrelated wording, correct policy references and reflect the latest drawing issue list supplied for the planning submission.

Contents

1. Executive Summary
2. Introduction
3. Site & Proposal
4. Policy Context
5. Methodology
6. Be Lean
7. Be Clean
8. Be Green
9. Conclusion

Appendix A. SAP Data and Compliance Outputs

1. Executive Summary

This Energy Statement has been prepared in support of the planning application for a proposed detached annex dwelling at 80 Wightman Road, London N4 1RN.

The statement explains how the proposed development applies a fabric-first approach, efficient all-electric heating and onsite renewable energy generation in order to reduce regulated energy demand and operational carbon emissions.

The strategy has been informed by SAP 10 calculations undertaken in Elmhurst Design SAP10 for the proposed dwelling. The SAP outputs show performance beyond the notional Part L baseline, with the scheme achieving a Dwelling Emission Rate (DER) of -0.18 kgCO₂/m²/yr compared with a Target Emission Rate (TER) of 12.54 kgCO₂/m²/yr.

2. Introduction

This report supports the planning application for the construction of a detached annex dwelling within the curtilage of 80 Wightman Road.

It sets out the proposed energy and sustainability measures, demonstrates how the design responds to relevant national, London-wide and local planning policy, and summarises the building regulations compliance position derived from SAP 10 calculations.

The appraisal should be read as an assessment of the design intent for the proposed dwelling. Actual energy use in operation will vary according to weather conditions, occupancy patterns and the way the building systems are used.

Drawings referenced

The energy statement has been updated to reflect the following drawing register and revision status:

2513_P01B.pdf

2513_P02B.pdf

2513_P20A.pdf

2513_P21A.pdf

2513_P23A.pdf

2513_P24A.pdf

2513_P102D.pdf

2513_P103D.pdf

2513_P104B.pdf

2513_P105B.pdf

2513_P220A.pdf

2513_P221B.pdf

2513_P223B.pdf

2513_P224B.pdf

2513_P226A.pdf

3. Site & Proposal

The site lies within an established residential area in the London Borough of Haringey and benefits from access to local services, public transport and existing utility infrastructure.

The proposal is for a detached two-storey annex dwelling. The energy strategy combines an enhanced building fabric, airtight construction, efficient lighting, an air source heat pump for space heating and domestic hot water, and a roof mounted photovoltaic array.

Together, these measures reduce the dwelling's regulated energy demand at source and provide a robust all-electric, low-carbon solution appropriate to the scale of the development.

4. Policy Context

National policy and regulations

The National Planning Policy Framework (NPPF, 2024) supports the transition to a low carbon future and expects the planning system to help shape places in ways that contribute to radical reductions in greenhouse gas emissions.

Building Regulations Part L (2021) sets the energy performance standard for new dwellings and forms the baseline against which the proposed dwelling has been assessed. Building Regulations Part O (2021) also informs the design response to overheating risk.

London Plan

Relevant London Plan (2021) policies include:

Policy SI 2 – Minimising greenhouse gas emissions: applies the London energy hierarchy and seeks major reductions in regulated carbon emissions through energy efficient design and low carbon energy supply.

Policy SI 3 – Energy infrastructure: promotes efficient energy infrastructure and requires applicants to consider existing and planned heat networks, while using the heating hierarchy to select suitable systems.

Policy SI 4 – Managing heat risk: requires overheating risk to be addressed through passive design, ventilation, solar control and other cooling hierarchy measures.

Policy SI 5 – Water infrastructure: supports efficient use of water resources and encourages reductions in potable water demand in new development.

Local plan

The site is within the London Borough of Haringey. The relevant local planning framework includes the Haringey Local Plan, the Development Management DPD (adopted 24 July 2017), the Site Allocations DPD and supporting supplementary planning guidance.

Key local policies relevant to the proposed annex dwelling include:

SP11 – Design: requires high quality development that responds positively to local character and protects residential amenity.

DM1 – Delivering High Quality Design: seeks well-designed development that reinforces local distinctiveness and achieves a high standard of layout and appearance.

DM12 – Environmental Protection: protects neighbouring amenity in relation to daylight, sunlight, outlook, privacy, noise and disturbance.

DM21 – Sustainable Design and Construction: requires development to minimise carbon emissions, improve resource efficiency and respond positively to climate change.

Sustainable Design and Construction SPD (2013): provides further guidance on energy efficiency, water use, materials and sustainable construction measures.

5. Methodology

The energy strategy has been developed in line with the recognised energy hierarchy of Be Lean, Be Clean and Be Green.

SAP 10 calculations have been undertaken for the proposed dwelling to assess regulated energy demand, carbon emissions and compliance with Part L 2021. The results are then used to explain how the strategy performs against policy and regulatory requirements.

The methodology applied is summarised below:

Be Lean – reduce energy demand through passive design, efficient fabric, low air permeability, efficient lighting and good controls.

Be Clean – meet the remaining demand as efficiently as possible, considering whether a heat network connection is available or appropriate.

Be Green – incorporate onsite renewable energy generation to offset part of the remaining regulated energy demand and associated carbon emissions.

6. Be Lean

The proposed dwelling incorporates passive and active design measures to reduce demand for space heating, hot water and lighting.

Enhanced fabric performance

The building envelope is specified to achieve robust thermal performance, with insulated walls, floors and roof construction together with high-performance double glazing.

Airtightness and thermal bridging

A design air permeability of 3 m³/h·m² at 50Pa is targeted. Junctions will be detailed to reduce thermal bridging and to support the SAP performance shown in this statement.

Efficient lighting and controls

All fixed lighting will be low energy LED fittings. Heating will be zone controlled to ensure energy is used efficiently and occupant comfort can be maintained.

Overheating response

The design follows the cooling hierarchy principles by prioritising passive measures, appropriate glazing performance, ventilation and good fabric standards before any active cooling is considered.

7. Be Clean

The site is not located within an area currently served by an existing district heat network and no local heat network connection is understood to be available for this small-scale development.

In this context, the most efficient and proportionate approach is a highly efficient individual air source heat pump serving the dwelling. This meets the remaining regulated energy demand without on-site combustion and aligns with the wider shift toward low carbon heat.

8. Be Green

A renewable technology appraisal supports the use of roof mounted solar photovoltaic panels as the most suitable onsite renewable measure for the proposed annex dwelling.

The proposed 4 kWp PV array will generate renewable electricity onsite and will offset part of the dwelling's regulated electricity demand, including demand associated with the air source heat pump and fixed lighting.

This integrated all-electric strategy of efficient fabric, heat pump heating and onsite solar generation enables the proposed dwelling to perform well beyond the notional Part L baseline and supports compliance with the relevant planning policy principles.

9. Conclusion

This revised Energy Statement demonstrates that the proposed annex dwelling at 80 Wightman Road has been designed in accordance with current energy efficiency and sustainability principles, and that the report has been corrected to remove unrelated project references and formatting inconsistencies.

The proposed development adopts a fabric-first approach, efficient all-electric heating by air source heat pump, and a roof mounted solar PV array. The SAP outputs included in Appendix A indicate compliance beyond the notional Part L baseline, with a DER of -0.18 kgCO₂/m²/yr compared with a TER of 12.54 kgCO₂/m²/yr.

Overall, the development represents a proportionate and policy-responsive energy strategy for a small residential annex, prioritising demand reduction, efficient systems and onsite renewable generation.

Appendix A

SAP Data and Compliance Outputs

The following appendix reproduces the SAP summary, full SAP worksheet and Predicted Energy Assessment for the proposed annex dwelling at 80 Wightman Road. These pages are retained from the original assessment outputs and form part of this revised submission package.