

# Building Sustainable Homes and Businesses

# Sustainability Position Statement and Guidance

Supporting Policy DM4 of the West Berkshire Local Plan Review 2023-2041

July 2025

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### Section 1 – Introduction

This document is a position statement setting out the requirements of new developments to deliver in accordance with:

- the National Planning Policy Framework (NPPF, 2024),
- the West Berkshire Local Plan Review 2023-2041, in particular Policy DM4, and
- the Council's Environment Strategy and Delivery Plan.

In July 2019, West Berkshire Council unanimously declared a climate emergency. As part of this commitment to act, we continue to work towards our target of achieving net zero carbon for Council activities by 2030 and to support, encourage and facilitate net zero across the district of West Berkshire. We recognise that the task is significant and to achieve our ambitions everyone must work together.

Following the declaration and building on the work already underway, an Environment Strategy was written and published in July 2020. To support the objectives of the Environment Strategy, we produced a detailed Environment Strategy Delivery plan which states the actions, responsibilities and timescales required to achieve the intentions within the Environment Strategy.

Since 2020, a great deal has changed, this has included the pandemic, the cost-ofliving crisis, a change in the Council's administration and a change in national government.

The Council also declared an ecological emergency on 5th October 2023; this means we have recognised the urgency to protect nature and will take collective action to protect, conserve and enhance biodiversity locally.

In 2025, the Council undertook a review of the Environment Strategy and Delivery Plan, known as the Environment Strategy 2025 Refresh, which was approved by the Council's Executive in May 2025.

West Berkshire Council remains committed to assisting the district to reduce its emissions, however there are elements which are outside of our direct control and scope of influence. Planning Policy is one of the areas which the Council <u>can</u> have significant scope to influence. Building on Policy CS15 - Sustainable Construction and Energy Efficiency of the Core Strategy Development Plan Document (adopted in July 2012), the Local Plan Review sought to demonstrate continuous improvement, not only for the environment but for residents and businesses in terms of energy efficiency and reduced operational energy costs. The Council undertook detailed research and sought expert advice to develop a Building Sustainable Homes and Businesses policy (DM4) as part of the Local Plan Review to support the district on its journey to net zero in line with national targets and local ambitions. The new Local Plan was adopted by the Council on 10<sup>th</sup> June 2025.

### **Section 2: Planning Application Applicability**

This position statement sets out how the Council will ensure compliance with adopted planning policy, the national planning policy framework and national commitments relating to climate change. As such, it will be given weight as a material consideration in reaching planning decisions.

Energy Statements should be submitted at the planning application stage, not submitted post-planning in response to a condition.

### Requirements for different types of planning application

When submitting a planning application, the applicant must clearly identify whether the proposal relates to an outline, full or hybrid application.

Type of application	Requirement
Outline planning applications	Seeks to establish whether the scale and nature of a proposed development is acceptable in planning terms before a detailed 'reserved matters' application is put forward.
Full (and reserved matters) planning applications	Includes the detailed proposals of how a site can be developed, which permission is based on.
Hybrid planning applications	Seeks outline planning permission for one part of the site and full planning permission for another part of the same site.

When a full planning application is submitted, the Energy Statement must include full detailed proposals demonstrating how the development complies with Policy DM4.

Where an outline planning application is submitted, the Energy Statement must demonstrate the development is capable of complying with Policy DM4, but it may recognise that the detailed design of the proposal may change at reserved matters stage. This must be more that a 'statement of intent', the Energy Statement must clearly demonstrate that the full requirements of Policy DM4 have been factored into the design and parameters of development. Where outline permission is granted, it will normally be subject to a condition requiring the submission of full detailed Energy Statement alongside the reserved matters.

### **Section 3: Addressing the Policy**

# *Guidance Note for Applicants - Policy DM4 – Building Sustainable Homes and Businesses*

This guidance provides applicants with practical direction on how to demonstrate compliance with **Policy DM4 – Building Sustainable Homes and Businesses** of the West Berkshire Local Plan Review. It sets out the information that must be submitted with planning applications and the format in which it should be presented.

**Energy Statements must be submitted at the planning application stage**, not post-determination in response to a planning condition. Failure to provide a compliant Energy Statement may result in a refusal of permission.

The guidance is structured to support clear, consistent, and robust Energy Statements, helping to ensure alignment with local and national climate policy, including the requirements of the **National Planning Policy Framework (NPPF)** and the UK's statutory net zero commitments.

### How to read the guidance

- The italic blue refers to Policy DM4 wording.
- Standard black text provides **guidance for applicants**, outlining how to present relevant evidence and demonstrate compliance.
- Guidance is divided into **Residential** and **Non-Residential** sections to reflect different policy requirements.

Applicants are encouraged to seek appropriate **professional technical advice** to ensure the information submitted is accurate, robust, and proportionate to the scale and complexity of the development. Submissions must demonstrate that proposals follow the **energy hierarchy** (see Appendix A) and meet the relevant minimum standards to the **greatest extent feasible and viable**.

# Section 4: RESIDENTIAL - Presentation of information relating to each policy requirement

### Policy DM4 – Building Sustainable Homes and Businesses

New development of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, including hotels (C1 use class), residential institutions (C2 use class) or Secure Residential Institutions (C2A use class) should achieve net zero operational carbon emissions (regulated and unregulated energy) by implementing the energy hierarchy.

Proposals should demonstrate application of the energy hierarchy through submission of an Energy Statement or a detailed energy section within the Sustainability Statement in accordance with Policy SP5 and which identifies how the following minimum standards of construction are achieved to the greatest extent feasible and viable.

### 1. Residential Development - minimum construction standard

A. New development of one or more new dwellings (C3 or C4 use class) will meet the following minimum standards of construction:

 Achieve the carbon Target Emission Rate set by the Future Homes Standard once this is confirmed by central government; in the meantime, achieve 63% reduction in carbon emissions is achieved by on-site measures\*, as compared to the baseline emission rate set by Building Regulations Part L 2021 (SAP 10.2). These regulated carbon emission targets are to be achieved before the addition of on-site renewable electricity generation (which should subsequently be considered in section 3 of this policy); and

\* The 63% reduction should be met prior to any on-site renewable electricity generation, e.g. solar PV.

### Guidance on how to respond

Each policy requirement must be addressed individually within the Energy Statement.

Applicants should provide a clear, narrative explanation supported by appropriate data and modelling outputs. To ensure consistency, the following table format is recommended when summarising the proposed energy performance:

### Energy Summary Table - 'Be Lean' and 'Be Clean' (Regulated emissions only)

Stage	Energy Use (kWh per annum)	Total CO2 emissions (Tonnes CO <sub>2</sub> per annum)	Percentage Reduction Of Total CO <sub>2</sub> emissions (Tonnes CO <sub>2</sub> per annum)
Baseline Part L 2021 of the Building Regulations Compliant Development			
Be Lean: Fabric First and Servicing Improvement - savings from demand reduction (FEE metric)			
Be Clean: Supply energy Efficient			[Note: As detailed in the policy this should be 63%]

Please ensure this table is supported with appropriate narrative and technical evidence to explain:

- The assumptions and inputs used in the modelling;
- The design approach taken to reduce energy demand and emissions;
- The strategy for future integration of renewables e.g. District Heat Network (DHN) and renewables (see section 3 of Policy DM4).

Important points of note:

- The 63% reduction should be met prior to any on-site renewable electricity generation, e.g. solar PV.
- Ground Source Heat Pumps (GSHP) and Air Source Heat Pumps (ASHP) should be considered as 'Be Clean' technologies.

### Supporting Evidence (as applicable)

- SAP calculations / BRUKL outputs
- Summary of software used (e.g. Design SAP / PHPP / IESVE)
- Input assumptions and specifications (e.g. U-values, system efficiencies)
- Evidence of consistency with other documents (e.g. Design & Access Statement, M&E strategy)
- Reference to recognised standards and methodologies (e.g. CIBSE TM54, LETI, Passivhaus)

A. New development of one or more new dwellings (C3 or C4 use class) will meet the following minimum standards of construction:

- Equal to or less than the following targets, using the Building Regulations Part L SAP Fabric Energy Efficiency (FEE) metric:
- End terrace: 32.9 kWh/m2/year FEE
- Mid terrace: 25.1 kWh/m2/year FEE
- Room in roof (semi detached): 32.5 kWh/m2/year FEE
- Detached: 43.6 kWh/m2/year FEE
- Bungalow: 51.0 kWh/m2/year FEE
- Low-rise apartment: 21.0 kWh/m2/year FEE
- Mid to high-rise apartment: 13.5 kWh/m2/year FEE

Where the proposed home type does not precisely reflect any of the above, the applicable target from the list above will be that of the most similar home type to that proposed, with a note to justify why this is thought to be the most similar. In apartment buildings, it will be acceptable to meet this target via a weighted average of all residential floor space in the building (recognising that there may be variation between floors in the building).

For outline applications and where the home type is not known, it will be required to commit to delivering the relevant target(s) through reserved matters. This will be secured by a condition.'

#### Guidance on how to respond

Each policy requirement must be addressed **individually** within the Energy Statement. This includes clear evidence that the FEE target for each home type has been met.

Applicants should submit copies of all applicable Full SAP Calculation Printouts for each residential type. Key information to include is highlighted in red below as well as any supporting narrative on how the specific policy requirement has been met.

### **Full SAP Calculation Printout**

Property Reference				Issued on Date	22/10/2024	
Assessment Reference	FHS 1		Prop Type Ref		T	
Property	Masonry, 3 Bed, K, WC, B, ES,	Masonry, 3 Bed, K, WC, B, ES, Country Brick				
SAP Rating		97 A	DER	0.04	TER	12.01
Environmental		100 A	% DER < TER			99.67
CO <sub>2</sub> Emissions (t/year)		-0.04	DFEE	33.44	TFEE	37.26
Compliance Check		See BREL	% DFEE < TFEE			10.24
% DPER < TPER		81.15	DPER	11.83	TPER	62.76

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### Supporting Evidence

- Full **SAP Calculation Printouts** for each proposed dwelling type (not summary outputs)
- Clearly labelled FEE values (highlighted in red or bold in submitted PDFs)
- Identification of which dwelling types correspond to each FEE target
- Clear explanation and justification where:
  - The typology does not exactly match the categories above
  - A weighted average is applied across an apartment building
- Brief narrative confirming which software was used and referencing the SAP 10.2 methodology

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## B. Residential refurbishment developments of 10+ units will meet BREEAM Domestic Refurbishment 2014 (or future equivalent) Excellent as a minimum.

### Guidance on how to respond

Each policy requirement should be addressed individually within the Energy Statement. Detailed below is a guide on how the type of information/evidence needed to address the above policy requirements.

### Supporting Evidence

- BREEAM Domestic Refurbishment Pre-Assessment carried out by a <u>qualified</u> <u>BREEAM assessor</u>, showing a pathway to 'Excellent'
- Site layout and floor plans clearly showing:
  - o Total number of residential units
  - Gross internal floor area (GIFA) per unit and in total (in m<sup>2</sup>)
- Outline strategy to ensure the Energy Statement aligns with key targeted BREEAM credits (e.g. Energy, Health & Wellbeing, Materials). This includes a statement or evidence that the wider design team have been consulted and inputted into targeted credits.

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### 3. Renewable Energy

A. Subsequent to the achievement of the minimum construction standards under parts 1 and 2, new development of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, hotels (C1 use class), residential institutions (C2 use class) or Secure Residential Institutions (C2A use class) should include onsite renewable, zero and low carbon energy technologies to achieve net zero carbon operational energy (regulated and unregulated) on site.

### Guidance on how to respond

Once energy demand has been reduced through energy efficiency and improved systems ('Be Lean' and 'Be Clean'), this part of the policy requires applicants to

demonstrate how net zero carbon is achieved using on-site renewable, zero and low carbon technologies ('Be Green').

Each policy requirement should be addressed individually in the Energy Statement. The response must include a summary table showing the cumulative carbon savings achieved through each stage of the energy hierarchy, this time including both regulated and unregulated energy.

Applicants must also review available technologies and justify their chosen approach, demonstrating it achieves 100% offset of residual carbon emissions from operational energy.

## Energy Summary Table – 'Be Lean', 'Be Clean' and 'Be Green' (Regulated and Unregulated emissions)

Stage	Regulated Energy Use (kWh per annum)	Unregulated Energy Use (kWh per annum)	Total CO2 emissions Regulated and Unregulated (Tonnes CO <sub>2</sub> per annum)	Percentage Reduction Of Total CO2 emissions Regulated and Unregulated (Tonnes CO <sub>2</sub> per annum)
Baseline Part L 2021 of the Building Regulations Compliant Development				
Be Lean: Fabric First and Servicing Improvement - savings from demand reduction (FEE metric)				
NEW BASELINE Be Clean: Supply energy Efficient				
Be Green: Use onsite renewable, zero and low carbon energy technologies				[Note: As detailed in the policy this should be 100%]

Due to the way SAP calculates carbon savings from PV generation (based on carbon factors rather than direct energy balance), there may be instances where PV generation matches or exceeds total energy use, but the model does not reflect a 100% carbon reduction.

To address this and to allow officers to undertake a cross check, please complete the table below. Where total PV generation is equal to or greater than the combined annual regulated and unregulated energy demand, this will be considered net zero operational energy and deemed policy compliant.

### Onsite renewables cross check table

Total annual energy use (regulated and unregulated – KwH	
Total annual PV energy generation - (KwH)	

### **Unregulated Energy Use – Residential Developments**

Applicants are required to estimate unregulated energy use and include this in the Energy Statement. For residential developments, unregulated energy use can be calculated using one of the following recognised methodologies:

- SAP Appendix L
- BREDEM (Building Research Establishment Domestic Energy Model)
- PHPP (Passive House Planning Package) or an alternative methodology that provides a more accurate prediction of unregulated energy use.

Where a methodology not listed above is used, the Council will assess its suitability on a case-by-case basis.

Note: This guidance applies specifically to residential schemes. Separate guidance is provided for non-residential developments.

### **Supporting Evidence**

- Review of all applicable on-site renewable, zero and low carbon technologies considered, with rationale for inclusion or exclusion (for example in an appraisal format)
- Quantified carbon savings from selected technologies, shown in kWh and tonnes  $\mbox{CO}_2$
- Software outputs and results:
  - BRUKL reports (residential)
  - SAP based calculations (for residential)
- Clear statement of:
  - Source software and version used
  - $\circ~$  Carbon factors / emissions factors applied (consistent with SAP 10.2 or latest)
  - Standards or benchmarks followed (e.g. CIBSE, LETI, RIBA)
- Completed onsite renewables cross check table (as detailed above)

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*B.* The Council will support proposals for renewable energy provided that the technology is:

*i.* Suitable for the location;

*ii. Not on the most versatile agricultural land (grades 1, 2 and 3a); iii. Is accompanied by a landscape / visual impact assessment; and* 

*iv.* Would not cause harm to residential amenity by virtue of noise, vibration, overshadowing, flicker or other harmful emissions.

### Guidance on how to respond

Applicants proposing on-site renewable energy technologies must demonstrate that the selected solution(s) are appropriate for the proposed location and have been assessed against potential constraints or impacts.

Each of the four criteria above should be addressed individually in the Energy Statement, with reference to supporting evidence.

### Supporting Evidence

- Site location plan and description of proposed technology
- Technology type, size and expected energy yield
- Grid connection information, if relevant
- Land classification confirmation (to demonstrate that land is not Grades 1– 3a). Classification can be found here: <u>https://publications.naturalengland.org.uk/category/5954148537204736</u>
- Landscape and visual impact assessment (LVIA), where required by the Council's Local List of Documents\*
- Noise assessment or other relevant impact assessments (e.g. for flicker/shadowing in wind/solar installations) where required by the Council's Local List of Documents\*
- Reference to relevant Local Plan policies (e.g. landscape, amenity, biodiversity)

\*The Council's Local List of Documents sets out the documents required to be submitted with planning applications, depending on the application type and relevant policy requirements. It can be found here: <u>https://www.westberks.gov.uk/planning-application-process#make-planning-application</u>

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### 4. Carbon Offsetting

Where a development proposal of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, including hotels (C1 use class), residential institutions (C2 use class) and or secure residential institutions (C2A use class) cannot demonstrate that it is net zero carbon in relation operational energy (regulated and unregulated), it will be required to address any residual carbon emissions by:

a cash in lieu contribution

### Guidance on how to respond

Each policy requirement should be addressed individually within the Energy Statement. Detailed below is a guide on how the type of information/evidence needed to address the above policy requirements.

Where it is not technically or financially feasible to achieve full net zero operational carbon emissions onsite (regulated and unregulated), the applicant must calculate and contribute an offset payment to address residual emissions.

The total offsetting requirement must be calculated over a 30-year period, using nationally recognised carbon values, and based on residual emissions expressed in tonnes  $CO_2$  per annum.

All offset contributions will be secured through a legal agreement (Planning Obligation.

### Supporting Evidence

- Completed Net Zero Carbon (Operational Energy) Offsetting Calculator
- Evidence of:
  - Total residual carbon emissions after Be Lean, Be Clean and Be Green stages
  - Explanation of why full onsite net zero cannot be achieved

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### **Overview of supporting Energy Statement evidence**

### 'Be Lean' and 'Be Clean' (regulated emissions)

- SAP calculations / BRUKL outputs
- Summary of software used (e.g. Design SAP / PHPP / IESVE)
- Input assumptions and specifications (e.g. U-values, system efficiencies)
- Evidence of consistency with other documents (e.g. Design & Access Statement, M&E strategy)
- Reference to recognised standards and methodologies (e.g. CIBSE TM54, LETI, Passivhaus)

### FEE

- Full SAP Calculation Printouts for each proposed dwelling type (not summary outputs)
- Clearly labelled FEE values (highlighted in red or bold in submitted PDFs)
- Identification of which dwelling types correspond to each FEE target
- Clear explanation and justification where:
  - The typology does not exactly match the categories above
  - A weighted average is applied across an apartment building
- Brief narrative confirming which software was used and referencing the SAP 10.2 methodology

### BREEAM

- BREEAM Domestic Refurbishment Pre-Assessment carried out by a <u>qualified</u> <u>BREEAM assessor</u>, showing a pathway to 'Excellent'
- Site layout and floor plans clearly showing:
  - Total number of residential units
  - Gross internal floor area (GIFA) per unit and in total (in m<sup>2</sup>)
- Outline strategy to ensure the Energy Statement aligns with key targeted BREEAM credits (e.g. Energy, Health & Wellbeing, Materials). This includes a statement or evidence that the wider design team have been consulted and inputted into targeted credits.

## 'Be Green' On-site renewables relating to development (regulated and unregulated <u>emissions</u>)

- Review of all applicable on-site renewable, zero and low carbon technologies considered, with rationale for inclusion or exclusion (for example in an appraisal format)
- Quantified carbon savings from selected technologies, shown in kWh and tonnes CO<sub>2</sub>
- Software outputs and results:
  - BRUKL reports (residential)
  - SAP based calculations (for residential)
- Clear statement of:
  - $\circ$   $\,$  Source software and version used
  - $\circ~$  Carbon factors / emissions factors applied (consistent with SAP 10.2 or latest)
  - Standards or benchmarks followed (e.g. CIBSE, LETI, RIBA)
- Completed onsite renewables cross check table (as detailed above)

### Standalone renewables

- Site location plan and description of proposed technology
- Technology type, size and expected energy yield
- Grid connection information, if relevant
- Land classification confirmation (to demonstrate that land is not Grades 1– 3a). Classification can be found here: <u>https://publications.naturalengland.org.uk/category/5954148537204736</u>
- Landscape and visual impact assessment (LVIA), where required by the Council's List of Documents (https://www.westberks.gov.uk/planning-application-process#make-planning-application)
- Noise assessment or other relevant impact assessments (e.g. for flicker/shadowing in wind/solar installations) where required by the Council's List of Documents (<u>https://www.westberks.gov.uk/planning-applicationprocess#make-planning-application</u>)
- Reference to relevant Local Plan policies (e.g. landscape, amenity, biodiversity)

### **Carbon Offsetting**

- Completed Net Zero Carbon (Operational Energy) Offsetting Calculator
- Evidence of:
  - Total residual carbon emissions after Be Lean, Be Clean and Be Green stages
  - Explanation of why full onsite net zero cannot be achieved

# Section 5: NON-RESIDENTIAL: Presentation of information relating to each policy requirement

### Policy DM4 – Building Sustainable Homes and Businesses

Building Sustainable Homes and Businesses New development of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, including hotels (C1 use class), residential institutions (C2 use class) or Secure Residential Institutions (C2A use class) should achieve net zero operational carbon emissions (regulated and unregulated energy) by implementing the energy hierarchy.

Proposals should demonstrate application of the energy hierarchy through submission of an Energy Statement or a detailed energy section within the Sustainability Statement in accordance with Policy SP5and which identifies how the following minimum standards of construction are achieved to the greatest extent feasible and viable.

## 2. New Non-Residential Development, hotels, residential institutions, secure residential institutions - minimum construction standard

New development of 100sqm or more of new non-residential floorspace, hotels (C1 use class), residential institutions (C2 use class) or secure residential institutions (C2A use class) will meet the following minimum standards of construction:

• Appropriate to the building type, calculate a typical building baseline using a nationally recognised standard and demonstrate a percentage reduction in energy (regulated and unregulated) carbon emissions. These operational carbon emission targets are to be achieved before the addition of on-site renewable electricity generation (which should subsequently be considered in section 3 of this policy); and

#### Guidance on how to respond

Each requirement should be clearly addressed in the Energy Statement. The following table should be used as a template to present carbon performance data, supported by narrative and evidence:

# Energy Summary Table – 'Be Lean' and 'Be Clean' (Regulated and Unregulated emissions)

Stage	Regulated Energy Use (kWh per annum)	Unregulated Energy Use (kWh per annum)	Total CO2 emissions Regulated and Unregulated (Tonnes CO <sub>2</sub> per annum)	Percentage Reduction Of Total CO <sub>2</sub> emissions Regulated and Unregulated (Tonnes CO <sub>2</sub> per annum)
Baseline Part L 2021 of the Building Regulations Compliant Development				
Be Lean: Fabric First and Servicing Improvement - savings from demand reduction				
Be Clean: Supply energy Efficient				

Please ensure this table is supported with appropriate narrative and technical evidence to explain:

- The assumptions and inputs used in the modelling;
- The design approach taken to reduce energy demand and emissions;
- The strategy for future integration of renewables e.g. District Heat Network (DHN) and renewables (see section 3 of Policy DM4).

Important points of note:

- Ground Source Heat Pumps (GSHP) and Air Source Heat Pumps (ASHP) should be considered as 'Be Clean' technologies.

### Supporting Evidence (as applicable)

- SBEM calculations / BRUKL outputs
- Summary of software used (e.g. IESVE)
- Input assumptions and specifications (e.g. U-values, system efficiencies)
- Evidence of consistency with other documents (e.g. Design & Access Statement, M&E strategy)
- Reference to recognised standards and methodologies

### • BREEAM Excellent (BREEAM New Construction V6 or future equivalent)..

#### Guidance on how to respond

Each policy requirement should be addressed individually within the Energy Statement. Detailed below is a guide on how the type of information/evidence needed to address the above policy requirements.

### Supporting Evidence

- BREEAM New Construction (UK) Pre-Assessment carried out by a <u>qualified</u> <u>BREEAM assessor</u>, showing a pathway to 'Excellent'
- Site layout and floor plans clearly showing:
  - o Total number of non-residential units
  - Gross internal floor area (GIFA) per unit and in total (in m<sup>2</sup>)
- Outline strategy to ensure the Energy Statement aligns with key BREEAM credits (e.g. Energy, Health & Wellbeing, Materials). This includes a statement or evidence that the wider design team have been consulted and inputted into targeted credits.

### 3. Renewable Energy

A. Subsequent to the achievement of the minimum construction standards under parts 1 and 2, new development of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, hotels (C1 use class), residential institutions (C2 use class) or Secure Residential Institutions (C2A use class) should include onsite renewable, zero and low carbon energy technologies to achieve net zero carbon operational energy (regulated and unregulated) on site.

#### Guidance on how to respond

Each policy requirement should be addressed individually within the Energy Statement. Detailed below is a guide on how the type of information/evidence needed to address the above policy requirements. Applicants must provide a clear and justified renewable energy strategy, identifying how residual energy demand is met through on-site solutions. This should follow completion of Be Lean and Be Clean stages.

Use the table below to report energy and emissions performance including the Be Green stage.

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# Energy Summary Table - 'Be Lean', 'Be Clean' and 'Be Green' (Regulated and Unregulated emissions)

Stage	Regulated Energy Use (kWh per annum)	Unregulated Energy Use (kWh per annum)	Total CO2 emissions Regulated and Unregulated (Tonnes CO <sub>2</sub> per annum)	Percentage Reduction Of Total CO2 emissions Regulated and Unregulated (Tonnes CO <sub>2</sub> per annum)
Baseline Part L 2021 of the				
Building				
Compliant				
Development				
Be Lean: Fabric First				
and Servicing				
Improvement-				
savings from				
reduction				
NEW				
BASELINE				
Supply				
energy				
Efficient				
De Green: Use onsite				
renewable,				
zero and low				
carbon				[As detailed in the
technologies				100%]

### Unregulated Energy Use – Non-Residential Developments

Applicants are required to estimate unregulated energy use and include this within the Energy Statement. For non-residential developments, unregulated energy use can be calculated using one of the following nationally recognised methodologies:

- CIBSE TM54 the only named, nationally accepted method for energy forecasting and now a requirement under Part L of the Building Regulations for non-residential developments over 1,000m<sup>2</sup> of useful floor area;
- Passive House Planning Package (PHPP); or

• NABERS UK (National Australian Built Environment Rating System – UK adaptation).

If a developer proposes to use an alternative methodology not listed above, the Council will assess its robustness and suitability on a case-by-case basis.

### **Supporting Evidence**

- BRUKL post-renewable outputs Review of all applicable on-site renewable, zero and low carbon technologies considered, with rationale for inclusion or exclusion (for example in an appraisal format) and system sizing
- Source software and emissions assumptions
- Methodologies and compliance approach

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*B.* The Council will support proposals for renewable energy provided that the technology is:

*i.* Suitable for the location;

ii. Not on the most versatile agricultural land (grades 1, 2 and 3a);

iii. Is accompanied by a landscape / visual impact assessment; and

iv. Would not cause harm to residential amenity by virtue of noise, vibration,

overshadowing, flicker or other harmful emissions.

### Guidance on how to respond

Applicants proposing on-site renewable energy technologies must demonstrate that the selected solution(s) are appropriate for the proposed location and have been assessed against potential constraints or impacts.

Each of the four criteria above should be addressed individually in the Energy Statement, with reference to supporting evidence.

### Supporting Evidence

- Site location plan and description of proposed technology
- Technology type, size and expected energy yield
- Grid connection information, if relevant
- Land classification confirmation (to demonstrate that land is not Grades 1– 3a). Classification can be found here: <u>https://publications.naturalengland.org.uk/category/5954148537204736</u>
- Landscape and visual impact assessment (LVIA), where required by the Council's List of Documents (https://www.westberks.gov.uk/planning-application-process#make-planning-application)
- Noise assessment or other relevant impact assessments (e.g. for flicker/shadowing in wind/solar installations) where required by the Council's

List of Documents (https://www.westberks.gov.uk/planning-application-process#make-planning-application)

• Reference to relevant Local Plan policies (e.g. landscape, amenity, biodiversity)

### 4. Carbon Offsetting

Where a development proposal of one or more new dwellings (C3 or C4 use class) and/or 100sqm or more of new non-residential floorspace, including hotels (C1 use class), residential institutions (C2 use class) and or secure residential institutions (C2A use class) cannot demonstrate that it is net zero carbon in relation operational energy (regulated and unregulated), it will be required to address any residual carbon emissions by:

### a cash in lieu contribution

### Guidance on how to respond

Each policy requirement should be addressed individually within the Energy Statement. Detailed below is a guide on how the type of information/evidence needed to address the above policy requirements.

Where it is not technically or financially feasible to achieve full net zero operational carbon emissions onsite (regulated and unregulated), the applicant must calculate and contribute an offset payment to address residual emissions. The total offsetting requirement must be calculated over a 30-year period, using nationally recognised carbon values, and based on residual emissions expressed in tonnes  $CO_2$  per annum.

All offset contributions will be secured through a legal agreement (Planning Obligation).

### Supporting Evidence

- Completed Net Zero Carbon (Operational Energy) Offsetting Calculator
- Evidence of:
  - Total residual carbon emissions after Be Lean, Be Clean and Be Green stages
  - Explanation of why full onsite net zero cannot be achieved

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### **Overview of supporting Energy Statement evidence**

### Be Lean and Be Clean (Regulated and Unregulated emissions)

- SBEM calculations / BRUKL outputs
- Summary of software used (e.g. IESVE)

- Input assumptions and specifications (e.g. U-values, system efficiencies)
- Evidence of consistency with other documents (e.g. Design & Access Statement, M&E strategy)
- Reference to recognised standards and methodologies

### BREEAM

- **BREEAM New Construction (UK) Pre-Assessment** carried out by a <u>qualified BREEAM assessor</u>, showing a pathway to 'Excellent'
- Site layout and **floor plans** clearly showing:
  - Total number of non-residential units
  - Gross internal floor area (GIFA) per unit and in total (in m<sup>2</sup>)
- Outline strategy to ensure the Energy Statement aligns with key BREEAM credits (e.g. Energy, Health & Wellbeing, Materials). This includes a statement or evidence that the wider design team have been consulted and inputted into targeted credits.

# 'Be Green': On-site renewables relating to development (regulated and unregulated energy)

- BRUKL post-renewable outputs
- Review of all applicable on-site renewable, zero and low carbon technologies considered, with rationale for inclusion or exclusion (for example in an appraisal format) and system sizing
- Source software and emissions assumptions
- Methodologies and compliance approach

### Standalone renewables

- Site location plan and description of proposed technology
- Technology type, size and expected energy yield
- Grid connection information, if relevant
- Land classification confirmation (to demonstrate that land is not Grades 1– 3a). Classification can be found here: https://publications.naturalengland.org.uk/category/5954148537204736
- Landscape and visual impact assessment (LVIA), where required by the Council's List of Documents (https://www.westberks.gov.uk/planning-application-process#make-planning-application)
- Noise assessment or other relevant impact assessments (e.g. for flicker/shadowing in wind/solar installations) where required by the Council's List of Documents (https://www.westberks.gov.uk/planning-applicationprocess#make-planning-application)
- Reference to relevant Local Plan policies (e.g. landscape, amenity, biodiversity)

### Carbon Offsetting

- Completed Net Zero Carbon (Operational Energy) Offsetting Calculator
- Evidence of:
  - Total residual carbon emissions after Be Lean, Be Clean and Be Green stages
  - Explanation of why full onsite net zero cannot be achieved

### Appendix A: How to address the Energy Hierarchy

Achieving net zero operational carbon emissions requires a structured, sequential approach to reducing energy use and carbon emissions. The **energy hierarchy** provides this framework by prioritising demand reduction before supplying energy as efficiently and cleanly as possible.

By reducing energy demand first, developments lower the operational burden on energy systems and reduce the amount of infrastructure (e.g. heating, cooling, generation equipment) required. This not only cuts embodied carbon (not being assessed under this policy) and capital costs but also results in lower operational energy bills for occupants.

Applicants must follow the **energy hierarchy** when demonstrating how net zero carbon operational energy (regulated and unregulated) will be achieved. This hierarchy must be clearly documented in the **Energy Statement**.

### 1. Be Lean – Reduce Energy Demand

Improve the building fabric and minimise energy use through passive design, orientation, insulation, airtightness, and energy-efficient systems.

### 2. Be Clean – Supply Energy Efficiently

Use highly efficient mechanical and electrical systems (e.g. heat pumps). Consider shared heat networks or local energy centres where feasible.

#### 3. **Be Green – Supply Renewable and Low-Carbon Energy** Install on-site renewable or low-carbon energy technologies (e.g. solar PV,

Install on-site renewable or low-carbon energy technologies (e.g. solar PV, and solar thermal) to meet residual demand.

If, after applying the energy hierarchy in full, a development cannot technically achieve net zero operational carbon emissions, the remaining emissions must be offset.

In such cases, the Council's Net Zero Carbon (Operational Energy) Offsetting Calculator should be used to determine a cash-in-lieu contribution. This contribution will be secured via a Planning Obligation and calculated based on:

- 30 years of residual emissions
- A nationally recognised carbon price (e.g. UK Treasury carbon values)



### Step-by-Step guidance on applying the Energy Hierarchy

### 1. Be Lean – Reduce Energy Demand

This step focuses on minimising energy demand through passive and energy-efficient design strategies, before any systems or technologies are considered. Measures include:

- High levels of insulation to reduce heat loss
- Excellent airtightness to prevent heat escaping
- Minimising thermal bridging
- Orientation and form factor optimisation to maximise natural light and solar gain
- Use of shading, natural ventilation, and thermal mass to reduce overheating and cooling demand
- Highly efficient building services (e.g. low energy lighting, ventilation systems with heat recovery)
- Efficient space heating and hot water systems (prior to renewable solutions)
- Smart controls and energy monitoring

### Evidence to provide:

- Building fabric specification (U-values, thermal bridging values, airtightness targets)
- SAP or SBEM outputs showing energy demand reduction
- Narrative in the Energy Statement explaining key design decisions
- Early-stage design strategies to mitigate overheating (where applicable)

### 2. Be Clean – Supply Energy Efficiently

This step ensures any remaining energy demand is met using the most efficient systems available. Applicants should:

- Specify high-efficiency heat pumps, boilers or cooling systems
- Where appropriate, explore communal or district heat networks
- Consider load sharing or energy balancing solutions between units or buildings
- Reduce distribution losses through efficient zoning and controls
- Use smart systems for demand-side response and optimisation

#### Evidence to provide:

- Equipment specifications and efficiency ratings
- System schematics and zoning strategies
- Justification for selected systems (e.g. air source vs ground source heat pump)
- SAP/SBEM modelling showing improved performance from efficient systems

#### 3. Be Green – Use Renewable and Low Carbon Energy

Once energy demand is minimised and efficient systems are in place, the development must incorporate on-site renewable energy generation. This is required to meet the **net zero operational energy target**, covering both regulated (e.g. heating, lighting) and unregulated (e.g. appliances, cooking) energy use.

#### Evidence to provide:

- Renewable energy feasibility study
- Roof plans and elevations showing solar array layouts
- Output calculations (e.g. kWh/year)
- BRUKL / SAP evidence of post-renewables performance
- Justification for technology type and sizing

Applicants must demonstrate that the residual energy demand is met through these renewable systems, achieving 100% reduction in  $CO_2$  emissions from regulated and unregulated operational energy.

#### Summary Table: Energy Hierarchy in practice

Step	Action	Key Considerations
1. Be Lean	Reduce demand	Passive design, thermal performance, airtightness, efficient lighting & appliances
2. Be Clean	Supply efficiently	High-efficiency systems, heat networks, heat pumps CHP (where appropriate)
3. Be Green	Use renewable energy	Solar PV, solar thermal, battery storage
4. Offset (if required)	Offset residual emissions	Apply Council's calculator and commit to contribution via legal agreement

# Appendix B: Useful links to further Information and Guidance

UKGBC - The UK Green Building Council

The London Energy Transformation Initiative (LETI)

Great London Authority Energy Assessment Guidance

BREEAM certification from BRE

GreenBook Live : Home

Conservation of fuel and power: Approved Document L - GOV.UK