

## London Borough of Wandsworth: Sustainability Checklist

Wandsworth Council is committed to sustainable design and construction principles as well as mitigation of the impacts of Climate Change by reducing carbon dioxide emissions associated with new developments within the Borough.

The following checklist has been developed which describes the key principles of sustainable design and construction. Applicants should submit a **Sustainability Statement** which describes how these key principles of sustainable design and construction have been applied to their development.

The Council expects all architects and contractors to follow the guidance set out in this document when undertaking new developments in Wandsworth.

**The Energy Assessment part of this document is aimed specifically at Major Developments (of 10 or more (gross) residential units or non-residential development over 1000m<sup>2</sup>), however in view of the efforts to reduce associated carbon dioxide of all new developments, the Council strongly encourages the application of this checklist to all development proposals submitted to Wandsworth Council in order to demonstrate compliance with relevant Local Plan policies.**

**The Environmental Rating part of this document is aimed specifically at non-residential developments and domestic refurbishments.**

It is the aim of the borough to work with developers to achieve high standards of sustainable design and construction. The Sustainability Checklist has been compiled to help developers consider the potential environmental effects of their proposal and thus encourage mitigation of adverse environmental effects. It is important that principles of sustainable design and construction are considered from the outset of a development project, in order that they help shape the proposal.

This Checklist does not replace the requirement to comply with any relevant provisions of the Building Regulations. It is recommended that developers consider the Checklist's requirements at an early stage in order to incorporate provision for sustainability as easily as possible into their designs. This will ensure maximum viability for sustainability solutions, and avoid the need for costly, late-stage design alterations.

BREEAM assessments and certifications will only be accepted if they have been carried out by a licensed BREEAM Accredited Assessor. It is important to ensure that the energy assessment is completed by a suitably qualified assessor under an accredited scheme that has been approved by The Department for Levelling Up, Housing and Communities. The "[Green Book Live](#)" by BRE Global Ltd provides a wide range of products and services as well as a directory and database for licensed and accredited Energy and BREEAM assessors, including all BREEAM schemes.

Once planning permission is granted, the Council will also require a design stage assessment prior to construction and a post construction review to be undertaken by an accredited assessor. A BREEAM, Homes Quality Mark and/or Passivhaus certificate confirming that the completed development has met the required ratings must finally be provided prior to occupation of the building.

<b>Minimum Information requirements for:</b> All new non-residential development providing 100m <sup>2</sup> or more floor area, or Domestic refurbishments		
	<b>Environmental Rating</b>	<b>Renewable energy and carbon emission reductions</b>
<b>Planning Application Stage</b>	BREEAM* Outstanding Pre Assessment	Initial design SBEM**calculation, technical details of proposed system(s), saving calculation following approved method summarised in an Energy Statement, as required by GLA Guidance Energy Planning.
<b>Pre-commencement</b>	BREEAM Outstanding design assessment and calculation (As Designed certificate within 3 months of commencement)	Final design SBEM calculation, technical details of proposed system(s), saving calculation following approved method summarised in an Energy Statement.
<b>Post - completion</b>	BREEAM Outstanding Post-construction assessment calculation and report (As Built certificate within 3 months of completion)	As-built SBEM calculation and technical details of system(s) installed, CO <sub>2</sub> saving calculation following approved method.
<b>Prior to occupation</b>		

\*BREEAM is the Building Research Establishment Environmental Assessment Method.  
 \*\*SBEM is the Simplified Building Energy Method for Part L2 (non-domestic) compliance with the Building Regulations (2021) which concerns non-domestic buildings.

It is vital that developers initiate contact with a BREEAM Assessor or BREEAM AP as soon as possible, some credits can be lost due to lack of appropriate action at the Preparation and Brief stage and this will not be accepted as a reason Outstanding was unobtainable. If taking over from another developer it is the recipient's responsibility to ensure required credits are achievable before transfer.

If the developer/applicant does not comply with the required BREEAM ratings, or where a development is unable to comply with the requirements set out in planning policy due to technical and financial feasibility, an independent external consultant will be instructed by the Council for an impartial view on the BREEAM assessment. The independent assessor is payable by the applicant prior to the assessment being carried out. The onus will be on developers to pay for any cost of independent assessment and provide robust evidence for not meeting the target.

The Checklist provides web links to sources of further information on the items specified. This Checklist should be completed and submitted in the form of a **Sustainability Statement** alongside the planning application.

Policy	Checklist Item	Demonstrating Compliance (Residential and non residential)
		1. Minimum policy compliance (Residential and non residential)
LP10	<p><b>Energy Assessment</b> - Design the scheme for minimum energy use and CO<sub>2</sub> emissions.</p> <p>For further information refer to:</p> <p>Greater London Authority guidance on:</p> <ul style="list-style-type: none"> <li>• <u>Part L 2021 and the Energy Assessment Guidance 2022 – cover note</u></li> </ul>	<p>All developments should be compliant with the and its targets for minimising carbon dioxide emissions. Specifically, Policy LP10 requires that all new major developments achieve net-zero carbon, minor residential should achieve a 35% reduction on site and all major non-residential developments achieve a 35% on site reduction in CO<sub>2</sub> below the maximum allowable CO<sub>2</sub> emissions (Target Emissions Rate (TER)) set out in the Building Regulations Part L 2021.</p> <p>In order to substantiate this, energy assessments should be submitted including descriptions and data related to the following:</p> <ul style="list-style-type: none"> <li>• calculation of the energy demand and carbon dioxide emissions covered by the Building Regulations (regulated emissions) at each stage of the energy hierarchy;</li> <li>• proposals to reduce carbon dioxide emissions through the energy efficient design of the site, buildings and services;</li> <li>• proposals to further reduce carbon dioxide emissions through the use of decentralised energy where feasible utilising the mayor's heat hierarchy, such as district heating and cooling; and,</li> <li>• proposals to further reduce carbon dioxide emissions through the use of on-site renewable energy technologies.</li> </ul> <p>Zero carbon homes will require calculation of residual carbon and mitigation of those emissions either via an off site reduction project or through payment into a carbon offset fund.</p> <p>All developments should be compliant with policy SI4 of the London Plan: Overheating and Cooling. Specifically all major developments are required to reduce potential overheating and reliance on air conditioning systems by following the cooling hierarchy.</p> <p>As set out in LP10.C;</p> <p>'1.All new major development should achieve zero carbon standards, as set out in the London Plan, with a minimum on-site reduction of 35%. 2.All non-major new residential development provided in new buildings should achieve a minimum on-site reduction of 35% 3.Residential development should achieve at least a 10% reduction and non-residential development should achieve at least a 15% reduction through the use of energy efficiency measures.</p>
LP10	Carbon dioxide emissions reduction	

	<p>4. In exceptional circumstances, where it is clearly demonstrated that the on-site percentage threshold targets listed in Parts C.1 and C.2 above cannot be fully achieved, any shortfall must be addressed by making a financial contribution to the Council's Carbon Offset Fund.</p> <p>5. Development, including the re-use or extension of existing buildings, should achieve the maximum feasible reductions in carbon emissions and support in achieving the strategic carbon reductions target set out in this Plan, while protecting the heritage and character of the buildings'</p>	<p>VBC ask that all developments seeking to reduce CO<sub>2</sub> emissions follow the Mayor of London's 'Energy Hierarchy', which first focuses on reduction in energy demand through energy efficiency measures, then on 'clean' energy supply through heat networks or community heating where appropriate, and finally considers applicability of renewable energy supply to the site.</p>	<p>This is to ensure that developments are designed for energy efficiency as far as possible before renewable energy is considered. The London Plan (2021) requires major developments to be zero carbon with a minimum 35% reduction on building regulations achieved on site and 10% (residential) or 15% (non-residential) achieved through energy efficiency. The above % targets are to be calculated using the approved Regulations methodology so consider only 'regulated' energy (for space and hot water heating, electricity for lighting and all other fixed items), however un-regulated energy (for example covering the use of energy for cooking and all appliances) also need reporting and it should be demonstrated that an any opportunity for the developer to reduce unregulated energy has been investigated and actioned if found feasible.</p>	<p>For residential developments, site specific SAP calculations should be used to estimate regulated energy consumption and CO<sub>2</sub> emissions. Non-regulated emissions should be estimated using accepted methodologies such as BREDEM-12 (available from the BRE). These calculations should be included with the planning application.</p>	<p>For non-residential developments, SBEM should be used to estimate regulated energy consumption and CO<sub>2</sub> emissions, which should be included with the planning application. Non-regulated emissions should be estimated using CIBSE Guide F benchmarks (available from CIBSE and also from the commercial benchmarks contained in the LEP's Low Carbon Designer tool), or the most recent CIBSE benchmark data where available.</p>
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	<p>The CO2 emissions associated with the total energy consumed by a development should then be reduced following the Mayor's hierarchy.</p> <p>Energy savings from efficiency measures and clean supply should be calculated to produce an 'energy efficient' baseline for the site. The % savings made through the installation of renewable energy on site should then be calculated from this 'efficient' baseline, and this figure should be provided in the checklist.</p> <p>There may be exceptional circumstances where it is not technically feasible for a development to achieve a 35% reduction in carbon emissions over Building Regulations (2021). In such cases, the applicant will have to demonstrate in the Energy Statement why the carbon dioxide emissions reduction target cannot be met on-site. Any justifiable shortfall in on-site reductions will need to be met through a cash-in-lieu contribution to the Council's Carbon Offset Fund, agreed through a Section 106 planning obligation. The Council's adopted price of carbon is £95 per tonne x 30 years, equalling £2,850 per tonne of carbon. This pricing may be subject to amendment in the future to ensure the Council's 'stepped approach to realising zero carbon.</p>
LP10	<p><b>1A. Minimum policy requirements (non residential and domestic refurbishments)</b></p> <p><b>Environmental Rating</b> - Achieve the BREEAM ratings set out in the Local Plan</p> <p>For further information refer to:</p> <p><a href="http://www.breeam.com">www.breeam.com</a></p>

	<p>The BRE Environmental Assessment Method (BREEAM) is the leading and most widely used environmental assessment method for buildings. It has become the de facto measure used to describe a non-residential building's environmental performance. Follow the link below for additional information: <a href="http://www.breeam.com/">www.breeam.com/</a></p> <p>Official 10 Official Checklist Section Further support / information.</p> <p>To gain a rating under BREEAM, various credits must be achieved in a range of credit areas, from energy performance to pollution and building management. The first step of assessment involves preparation of a preliminary assessment by an accredited and licensed BREEAM assessor, who will be able to advise on a suitable strategy to meet the desired BREEAM rating. This report should be submitted as part of the planning application. After planning permission is granted, the accredited BREEAM assessor will conduct a full Design stage assessment, which is reviewed by the BRE.</p>	<p>Following construction, a Post-Construction assessment is conducted, after which the BRE certification body will issue a certificate confirming the BREEAM level has been attained. An optional post-occupancy certification stage is available, which will review management practices and operation of the building in comparison to the predicted rating. A variety of BREEAM assessments are available for assessment of new build, refurbishments, extensions, and fit-outs of non-domestic buildings. Planning applications will be required to demonstrate achievement of the standard relevant at the time of application. These rating systems provide an authoritative rating for converted or renovated homes, and covers houses, flats and apartments. Dwellings which are created as a result of extensions, refurbishments or conversions are subject to BREEAM Domestic Refurbishment accreditation. It is only available for conversions or extensions where a significant level of change is proposed; please contact a licensed assessor to check whether or not your proposed development falls into this category.</p>	<p>Design stage (Interim) certificates and summary score sheets may be required by condition.</p> <p>On completion of the construction works, the developer will be required to commission a Post Construction Review and provide a copy of the final BREEAM certificate achieved to Wandsworth Planning Authority. This will confirm that the criteria specified at the design stage have been implemented during construction and that the BREEAM rating is still valid.</p>
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	<p>The BRE Environmental Assessment Method (BREEAM) is the leading and most widely used environmental assessment method for buildings. It has become the de facto measure used to describe a non-residential building's environmental performance. Follow the link below for additional information: <a href="http://www.breeam.com/">www.breeam.com/</a></p> <p>Official 10 Official Checklist Section Further support / information.</p> <p>To gain a rating under BREEAM, various credits must be achieved in a range of credit areas, from energy performance to pollution and building management. The first step of assessment involves preparation of a preliminary assessment by an accredited and licensed BREEAM assessor, who will be able to advise on a suitable strategy to meet the desired BREEAM rating. This report should be submitted as part of the planning application. After planning permission is granted, the accredited BREEAM assessor will conduct a full Design stage assessment, which is reviewed by the BRE.</p>	<p>Following construction, a Post-Construction assessment is conducted, after which the BRE certification body will issue a certificate confirming the BREEAM level has been attained. A post-occupancy certification stage is available, which will review management practices and operation of the building in comparison to the predicted rating. A variety of BREEAM assessments are available for assessment of new build, refurbishments, extensions and fit-outs of non-domestic buildings. Planning applications will be required to demonstrate achievement of the standard relevant at the time of application. These rating systems provide an authoritative rating for converted or renovated homes, and covers houses, flats and apartments.</p>	<p>Dwellings which are created as a result of extensions, refurbishments or conversions are subject to BREEAM Domestic Refurbishment accreditation. It is only available for conversions or extensions where a significant level of change is proposed; please contact a licensed assessor to check whether or not your proposed development falls into this category.</p>
LP12	<p><b>1B Minimum policy compliance ( Residential)</b></p> <p><b>Water consumption</b> - Use water conservation devices and recycling techniques</p> <p>For further information refer to:</p> <p><u>Sanitation, hot water safety and water efficiency: Approved Document G – G2 Water Efficiency &amp; Appendix A</u></p>	<p>All residential developments are required to achieve a water use no greater than 110L/person/day (105L/person/day internal). This should be calculated by either the fittings approach or the water efficiency calculation approach outlined in Approved Document G.</p>	

		<b>Section 2: Energy use and pollution</b>
LP10	<b>Need for cooling</b>	<p>The London Plan (2021) and supporting documents set out a cooling hierarchy which should be followed as below:</p> <ol style="list-style-type: none"> <li>1) minimise internal heat generation through energy efficient design</li> <li>2) reduce the amount of heat entering a building through orientation, shading, albedo, fenestration, insulation and the provision of green roofs and walls</li> <li>3) manage the heat within the building through exposed internal thermal mass and high ceilings</li> <li>4) provide passive ventilation</li> <li>5) provide mechanical ventilation</li> <li>6) provide active cooling systems.</li> </ol> <p>See London Plan (2021) Policy SI4 for more details</p>
LP10	<b>Heat Generation</b>	<p>The London Plan (2021) and supporting documents set out a heating hierarchy which should be followed as below:</p> <ol style="list-style-type: none"> <li>a) connect to local existing or planned heat networks</li> <li>b) use available local secondary heat sources (in conjunction with heat pump, if required, and a lower temperature heating system)</li> <li>c) generate clean heat and/or power from zero-emission sources</li> <li>d) use fuel cells (if using natural gas in areas where legal air quality limits are exceeded all development proposals must provide evidence to show that any emissions related to energy generation will be equivalent or lower than those of an ultra-low NOx gas boiler)</li> <li>e) use low emission combined heat and power (CHP) (in areas where legal air quality limits are exceeded all development proposals must provide evidence to show that any emissions related to energy generation will be equivalent or lower than those of an ultra-low NOx gas boiler) f) use ultra-low NOx gas boilers</li> </ol> <p>See London Plan (2021) Policy SI3 Energy infrastructure for more details.</p>
LP14	<b>Pollution, Air and Noise</b>	<p>Measures to reduce pollution during the construction process can often be simple to implement but have significant wider benefit.</p> <p>Such measures include: reducing waste during demolition and construction, thereby reducing landfill costs; ensuring air pollution monitoring is carried out; disturbing topsoil as little as possible, to maintain soil quality; protect trees and vegetation; protect waterside zones; and, use pollution prevention techniques.</p>

		The Considerate Constructors initiative, started in 1997, is a voluntary Code of Considerate Practice, which is adopted by participating construction companies, and everyone involved on the construction site. The scheme promotes competent management, efficiency, awareness of local environmental issues and above all neighbourliness during the construction process. <a href="http://www.considerateconstructorsscheme.org.uk/">www.considerateconstructorsscheme.org.uk/</a>	
		Please also refer to Wandsworth Air Quality Action Plan <a href="http://wandsworth-air-quality-guidance-and-flowchart-july-2020.pdf">wandsworth-air-quality-guidance-and-flowchart-july-2020.pdf</a>	
LP14	<b>Site Contamination</b> – Investigate potential contamination of site.	This issue is applicable to all developments.  Developers should contact the Council's Environmental Services for advice on whether the proposed site may be located on land affected by contamination.	
	For further information refer to:  <a href="https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs">https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs</a>	If the development is proposed on such a site, pre-application discussions should be undertaken with the local planning authority and Council's Environmental Services regarding its investigation and assessment.	
	<a href="https://www.gov.uk/government/organisations/environment-agency">https://www.gov.uk/government/organisations/environment-agency</a>  <a href="http://www.ciria.org/">http://www.ciria.org/</a>	Pre-application discussions with the Environment Agency may also be necessary if controlled water may be affected	
<b>3: Transport</b>			
LP49, LP50, LP51, LP52	Provision for the safe, efficient and sustainable movement of people and goods  Provision of charging points for electric cars  Provision of high quality, safe, secure and easy to access cycle parking	Refer to the updated London Plan for requirements. Transport For London have comprehensive travel advice for travel within Greater London, available from: <a href="http://www.tfl.gov.uk/">http://www.tfl.gov.uk/</a>  Refer to the updated London Plan for requirements. Developments are to ensure that they meet the level of cycle parking provision for their type set out in the London Plan (2021) Table 10.2	
LP55	Minimising the threat to biodiversity from new buildings, lighting, hard surfacing and people  For further information refer to:	<b>4. Biodiversity</b>  Ensure there is no net loss of ecological features or habitats and aim to achieve a net gain of biodiversity features and habitats where possible. Aim to link existing and new biodiversity features and habitats into the wider green infrastructure network, and ensure that their adaptability to climate change is taken into account. Major development requires a net gain in biodiversity as per Local Plan policy LP55 Biodiversity	

	<a href="https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications">https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications</a> <a href="http://www.gigl.org.uk/">http://www.gigl.org.uk/</a> <a href="http://www.ciria.org/">http://www.ciria.org/</a>	For information, refer to the London Plan (2021) and supporting documents on green walls and roofs, and the <a href="#">new Local Biodiversity Action Plan</a> .
LP13	<b>Recycling</b> - Provide internal/ external recycling facilities	All development of buildings should provide internal and external recycling facilities. <ul style="list-style-type: none"> <li>• Have these been shown on the plans?</li> <li>• Are the internal recycling facilities irremovable (i.e. fixed inside a cupboard)?</li> <li>• Are bin stores compliant with Part H6 of Building Regulations?</li> </ul>
LP12	<b>Flood Risk Management</b> - Prevent water pollution and overburdening of drainage systems.	A Flood Risk Assessment will be required for all developments, including extensions and conversions, in areas at risk from flooding (this also includes other sources of flooding, not just river flooding), and for sites greater than 1 hectare in low risk areas (zone 1). <p>Please refer to LP12 Water and Flooding. This should use the Mayor's Regional Flood Risk Appraisal, Strategic Flood Risk Assessment and Surface Water Management Plan in line with London Plan S112. The Environment Agency flood map (<a href="http://www.environment-agency.gov.uk/homeandleisure/37837.aspx">http://www.environment-agency.gov.uk/homeandleisure/37837.aspx</a>) will allow you to work out the risk of flooding for the development, proximity to likely sources of flooding and includes guidance for what to do in high flood zone.</p> <p>The Council has also adopted a <a href="#">Strategic Flood Risk Assessment</a>, which identifies areas in the borough at risk from flooding from the River Thames, its tributaries and other sources</p> <p><a href="http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/">http://planningguidance.communities.gov.uk/blog/guidance/flood-risk-and-coastal-change/</a></p> <p><a href="https://www.gov.uk/government/organisations/environment-agency">https://www.gov.uk/government/organisations/environment-agency</a></p> <p><a href="http://www.susdrain.org/">http://www.susdrain.org/</a></p>
LP12	Sustainable drainage and measures to mitigate surface water flooding risk	<b>6. Improving resource efficiency</b>

<p>LP10, LP13</p> <p>Re-use and recycling of construction materials Reduce adverse impact of construction process on quality of site and its surroundings.</p> <p>For further information refer to:</p> <p><a href="http://www.smartwaste.co.uk/">http://www.smartwaste.co.uk/</a></p> <p><a href="https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/supplementary-planning-guidance/control-dust-and">https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/supplementary-planning-guidance/control-dust-and</a></p>	<p><b>Waste Management:</b> During construction and demolition phases, waste is to be reduced and sorted on site, and subsequently reused where possible. A waste management plan should be included with the planning application, which demonstrates how the waste hierarchy will be applied during the construction process. <a href="#">WRAP.org</a> includes guidance on site waste management plans. In most cases minimum standards for SWMPs will be provided by BREEAM assessors.</p>
<p>LP10, LP12</p> <p>Water Conservation</p>	<p>Water use should be calculated in line with Part G Building Regulations. Note that depending on which version is used, the BREEAM assessment may use a different methodology to calculate l/p/d value. Waterwise has a range of resources available to help reduce this value.</p>
<p>LP1, LP17</p> <p>Ensure flexible and adaptable use of long term structures.</p>	<p>Policy LP 1 The Design Led Approach sets that one of the criteria that will be considered when considering proposals is:</p> <p><i>'1. Use a design-led approach to optimise the potential of sites so that the layout and arrangement of buildings ensure a high level of physical integration with their surroundings and consideration of broader placemaking.'</i></p> <p>Policy LP 17.C Social and Community Infrastructure sets out that proposals for new or extensions to existing social and community infrastructure will be supported where:</p> <p><i>'4. are contained in buildings which are of a high quality and inclusive design, are flexible, adaptable, capable of multi-use and makes provision for potential future expansion where possible.'</i></p> <p>The appropriate level of accessibility to the public will depend on the nature of the scheme and its catchment. The types of larger facilities in multi-use buildings that will be visited regularly and by a greater number of people should be located in the borough's centres or areas of good public transport accessibility. Smaller facilities serving a more local catchment should be accessible by walking or cycling.</p>

	<p>The design of all developments through its use, form and layout should accord with good urban design principles as set out in <a href="#">The National Model Design Code</a>.</p> <p>Residential developments comprising 10 (gross) units or more should demonstrate that they have been assessed against the <a href="#">Building for a Healthy Life (BHL)</a> standard questions.</p> <p>The <a href="#">nationally described space standard</a> sets out internal space requirements to improve the quality of housing. Accessibility requirements are included within Building Regulations</p> <p><a href="http://www.planningportal.gov.uk/buildingregulations/approveddocuments/partm/admvol1">www.planningportal.gov.uk/buildingregulations/approveddocuments/partm/admvol1</a> for residential in Part M Volume 1: dwellings.</p>	<p>Note the optional Building Regulation M4(2) and M4(3) cannot be applied to conversions and change of use proposals. Building Regulations Part M Volume 2 covers buildings other than dwellings</p> <p>All developments should be designed to provide a safe and inclusive environment which maximises personal safety and minimises opportunities for crime and antisocial behaviour including terrorist activities.</p> <p>Developments should meet Part Q of Building Regulations.</p>	<p><a href="http://www.securedbydesign.com">http://www.securedbydesign.com</a></p> <p>Only for development affecting heritage assets or traditional buildings</p>
LP10, LP3	<p>Historic England Statements of Heritage Significance:</p> <p><a href="#">Statements of Heritage Significance: Analysing Significance in Heritage Assets (historicengland.org.uk)</a></p> <p>Historic England Retrofit and Energy Efficiency in Historic Buildings:</p> <p><a href="#">Retrofit and Energy Efficiency in Historic Buildings   Historic England</a></p>	<p>In relation to historic buildings and conservation areas, the Heritage Statement (which has to be submitted for any proposal affecting a non-designated or designated heritage asset, or its setting, in line with the Council's Local Validation Checklist) should set out the significance of the heritage asset and contain an analysis of appropriate climate change mitigation and adaptation measures, such as energy saving measures, based on current environmental performance, in order to support proposals.</p> <p>In the case of listed buildings this impact must be assessed both internally and externally, together with what options have been considered, and weighed carefully against the impact on the historic building, its character and setting. Where conflict between climate change objectives and the conservation of heritage assets is unavoidable, the public benefit of mitigating the effects of climate change will be weighed against any harm to the significance of the heritage asset, in accordance with national, London Plan and the Council's planning policies. Further guidance can also be found in <a href="#">Historic England's publication on Energy Efficiency</a></p>	

	<p>Building Regulations, Approved Documents and Historic Buildings: <a href="#">Building Regulations   Historic England</a></p> <p>BREEAM Technical Manual for Refurbishment of Domestic Buildings: <a href="#">BREEAM Domestic Refurbishment Manual 2014</a> - <a href="#">cover dynamic (bregroup.com)</a></p>	<p><u>and Historic Buildings – Application of Part L of the Building Regulations to historically and traditionally constructed buildings.</u></p> <p>For applicable developments these should:</p> <ul style="list-style-type: none"><li>● Summarise how the heritage value of the building(s) has been assessed and heritage assets are affected.</li><li>● Cross reference the Heritage Statement.</li><li>● Provide details of the whole building approach.</li><li>● Explain how the development will adhere to Responsible Retrofit measures.</li></ul>
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## **Standard questions to consider for minor residential applications**

- Have SAP outputs demonstrating 35% carbon reduction over Part L requirements been provided?
- Have Be Lean SAP outputs demonstrating 10% carbon reduction over Part L requirements been provided?
- Has an energy report demonstrating how these targets have been achieved in line with the energy hierarchy been provided?
- Has detail been provided to show that carbon emissions savings have been maximised at every stage of the energy hierarchy?
- Has the required offset payment been calculated based on 30 years predicted emissions and £95/tonne (or any updated price which replaces this)
- Does the energy report demonstrate that overheating risk has been minimised following the cooling hierarchy.?
- For residential developments does it achieve a water efficiency target of 105l/person/day, as per policy DM34?

Guidance for completing the Checklist is available in the section below (Further support / information).

This section on further information sets out support and guidance for each area of the Checklist.

The Environment Agency has also provided guidance for each stage of development. This should be reviewed and if necessary, EA advice and Pre-App assistance sought. Useful EA site specific data may be found on maps at <https://environment.data.gov.uk/>

# Energy Statement Guidelines for Developers

## When is an Energy Statement needed?

The Council expects all schemes including 1 or more residential units, and commercial or other developments of 100m<sup>2</sup> or more to design for minimum energy use and reduce predicted site CO<sup>2</sup> emissions, which should be addressed in an Energy Statement.

An Energy Statement should therefore be provided for all new developments that meet the relevant thresholds, and should be submitted to the Local Planning Authority with the full planning application.

## What should an Energy Statement include?

The statement should provide an assessment of the predicted energy demand and carbon dioxide emissions for the site and how these have been reduced in accordance with the energy hierarchy by:

1. Using less energy,
2. Supplying energy efficiently,
3. Using renewable energy, with using less energy having the highest priority.

The following information should be included:

- 1. Baseline energy consumption, which should include both regulated and non regulated<sup>1</sup> energy use.**
  - Regulated energy consumption should be calculated using the Government's Standard Assessment Procedure (SAP) for residential developments, or the Simplified Building Energy Model (SBEM) for non-residential development.
  - Non-regulated energy consumption should be calculated using the BREDEM-12 tool for residential developments. For non-residential developments, nonregulated energy should be estimated using CIBSE Guide F benchmarks or an updated version of this guidance if available.
- 2. Baseline carbon dioxide (CO<sup>2</sup>) emissions, calculated using standard SAP 10 conversion factors.**
  - This should be total development emissions, including both regulated and nonregulated emissions.
  - The baseline should include emissions from gas and electrical energy consumption
  - Emissions associated with water and space heating should be calculated from a gas baseline, unless an electrical baseline can be justified
  - SAP 10 conversion factors should be used in line with GLA guidance – Energy Planning
- 3. Reductions in energy consumption and carbon dioxide emissions resulting from energy efficiency measures.** These measures should be considered before renewable energy installations in order to reduce the expected energy consumption of the development and consequently make it as energy efficient as possible.
  - Provide details of the energy efficiency measures that will be incorporated into the development.

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<sup>1</sup> Regulated energy consumption includes those forms of energy use covered in Building Regulations. This includes all fixed consumption inherent in the building, e.g. fixed lighting, space heating, water heating. Non-regulated energy consumptions are those energy uses not covered by Building Regulations. This includes energy consumed by 'plug-in' appliances (e.g. lamps, TVs) and cooking.

- Where available, specific details, such as building material U values, ratings of electrical appliances, etc should be included.

#### 4. Reductions in energy consumption and carbon dioxide emissions resulting from supplying energy efficiently.

This should be done in line with the heating hierarchy below which favours district heating, then secondary sources or heat pumps, then CHP.

- a) connect to local existing or planned heat networks
  - b) use zero-emission or local secondary heat sources (in conjunction with heat pump, if required)
  - c) use low-emission combined heat and power (only where there is a case for it to enable the delivery of an area-wide heat network, meet the development's electricity demand and provide demand response to the local electricity network)
  - d) use ultra-low nitrogen oxides (NOx) gas boilers
5. Estimation of CO<sub>2</sub> reduction through use of renewable energy technologies<sup>2</sup>. This should at least meet the minimum % reduction from the efficient energy baseline required by Wandsworth Borough Council.

- The required % emissions reduction should be calculated as a reduction from the efficient baseline emissions level calculated in step 4 (or calculated from the baseline in step 3, if step 4 is not applicable).
- For each technology deemed to be suitable for the site, a CO<sub>2</sub> reduction estimate should be presented. This should include as a minimum: Proposed system size; estimated energy generation; estimated CO<sub>2</sub> savings; site-specific design requirements; maintenance requirements; estimated lifecycle.
- Where a technology has been ruled out, clear justification outlining the technical reasons for this should be provided
  - The location of any renewable or low carbon energy technologies should be shown in design plans: e.g. proposed location of solar panels on roof; location of plant room for communal heating system etc.
  - Example formats for simple tables containing the necessary energy and CO<sub>2</sub> offset data are given below. These may be used to summarise the information contained in your Energy Statement.

#### 6. Estimation of the total remaining carbon emissions over 30 years which have not been eliminated on site. Expected offset payments to the council's offset fund in line with policy LP 10 as a result at current price set by the borough (£95/tonne \*). Provision should be made to update this based on as built calculations.

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<sup>2</sup> These are technologies that provide energy derived from a source that is continually replenished, such as wind, wave, solar, hydroelectric and energy from plant material, but not fossil fuels or nuclear energy. Although not strictly renewable, geothermal energy and energy from heat gradients is also included.

\*This figure is subject to further updates by the Council.

7. A concluding section should be provided outlining the contribution of each set of measures, technology or combination of technologies towards meeting the relevant target and providing recommendations as to which would be more suitable for the site.

Where it has not been possible to reach the target, a clear explanation should be provided.

### Presentation/Style

An Energy Statement should present technical data while remaining easy to read and to understand. Clearly laid out tables should be used to present data for ease of reading and comparison. Site plans should be used where possible, e.g. to indicate suitable roof areas for installing solar technologies or the location of a plant room. References should be used to explain where data has been obtained from.

Example Tables 1. Summary of baseline energy demand.

	Carbon Dioxide Emissions for non-residential buildings (Tonnes CO <sub>2</sub> per annum)		Regulated non-residential carbon dioxide savings	
	Regulated	Unregulated	(Tonnes CO <sub>2</sub> per annum)	(%)
Baseline: Part L 2021 of the Building Regulations Compliant Development	23.5		n/a	n/a
After energy demand reduction (be lean)	20.1		3.4	15%
After heat network connection (be clean)	20.1		0.0	0%
After renewable energy (be green)	-0.2		20.3	86%
Total remaining carbon to be offset			23.7	101%
			0.0	0%
	Carbon Dioxide Emissions for non-residential buildings		Regulated non-residential carbon dioxide savings	
	Regulated	Unregulated	(Tonnes CO <sub>2</sub> per annum)	(%)
Baseline: Part L 2021 of the Building Regulations Compliant Development	100.0		n/a	n/a
After energy demand reduction (be lean)	80.0		20.0	20%
After heat network connection (be clean)	80.0		0.0	0%
After renewable energy (be green)	20.0		60.0	60%
Total remaining carbon to be offset			80.0	80%
			20.0	20%