

Barnet Local Plan EIP – Note on Mitigating Climate Change

Reason for producing this note

On Day 5 (Wednesday 5th October) at the hearing session's, consideration of Matter 5 - Climate Change, Environmental Considerations and Green Belt, Inspector Philpott requested provision of a Note covering the following:

Barnet to produce a note on policy ECC01 to encompass the following and, including any resultant proposed modifications:

- 1. Review updates to the Building Regulations and links to GLA Energy Guidance. Changes to policy and supporting text.**
- 2. Remove references to the Building Regs and signpost to London Plan where relevant.**
- 3. Wording to reflect para 20(d) NPPF (mitigation and adaptation) in ECC01 and wider review (for example, linkages to Policy CDH02).**
- 4. Explain the uplift between the 2013 and 2021 Building Regs.**
- 5. Reflecting Part O of Building Regs for (g), justification for approach in terms of overheating.**
- 6. Consistency required between Table 16 and ECC01.**
- 7. BSS01(c) wording to be reflected in ECC01(a).**
- 8. Explain the meaning of “highest environmental standards for development” and “exemplary levels of sustainability throughout Barnet in order to mitigate and adapt to the effects of a changing climate” in ECC01(b).**
- 9. Review ECC01(b) interactions with SPDs, including approaches taken by adopted local plans in other London Boroughs.**
- 10. Use Footnote 153 London Plan for definition of carbon.**
- 11. Refer to para 9.2.2 of the London Plan for explanation of the Energy Hierarchy and ensure consistency of wording with Policy SI2(b) of the London Plan.**
- 12. Consistency with London Plan terminology on decentralised energy.**
- 13. Clarify the role of London Plan Policy SI3 in respect of the energy infrastructure context and energy strategies in ECC01(d)(i), together with references to Energy Statements, Energy Assessments.**
- 14. Wording of ECC01(d) needs to be reviewed, particularly in terms of maximising ability to minimise carbon.**
- 15. Provide justification for the 6% beyond Building Regs in Policy ECC01d (ii).**
- 16. ECC01(e) justification for feasibility studies and breaking down the contributions to a study, contributions to decentralised energy itself.**
- 17. ECC01(f) tightening up “where feasible” to distinguish between different considerations such as viability, design, etc.**
- 18. Review ECC01(h) in light of s.66 Listed Buildings Act and NPPF. Ensure consistency with the tests for heritage assets. Revise SoCG with Historic England. Review MM238.**
- 19. Embodied carbon, distinguish with retrofitting/refurbishment.**
- 20. Barnet carbon offsetting and carbon price, explain how it would work. Explain how other authorities approach this in terms of SPDs.**
- 21. Ensure interaction between para 10.7.3 and CDH07 (and any other policies).**

Background

Changes to the Building Regulations have come into effect since the Local Plan policies were drafted.

Building Regulations Part L 2021 – Conservation of Fuel and Power

The Mayor has considered the updated Part L Building Regulations and determined that an on-site carbon reduction of at least 35 per cent beyond Part L 2021 of building regulations should be achieved. This is set out in the [Part L 2021 and Energy Assessment Guidance 2022- cover note](#). [EB_GI_43]

To assist the plan user the majority of references to the Building Regulations should be replaced with cross references made to London Plan Policy and Guidance

Building Regulations Part O 2021 - Overheating

Part O of the Building Regulations 2021 relate to managing the risk of overheating in new residential buildings. The text in the Plan therefore needs to be updated to reflect the new requirements.

Building Regulations Part S 2021 - Infrastructure for the charging of electric vehicles

Part S of the Building Regulations were released in 2021 and came into effect on 15 June 2022. London Plan Policy T6.1C states “All residential car parking spaces must provide infrastructure for electric or Ultra-Low Emission vehicles. At least 20 per cent of spaces should have active charging facilities, with passive provision for all remaining spaces.”

This and the other electric vehicle parking requirements of the London Plan have now been superseded by the Building Regulations Part S.

The Proposed Modifications set out in the Considerations section of this Note are recommended to improve consistency of Policy ECC02 and its supporting text and tables with the London Plan, NPPF and Building Regulations and clarity throughout the supporting text.

Following submission of the Barnet Local Plan in November 2021 the Council in June 2022 produced a table of proposed modifications (EXAM 4). This document was produced after consideration of the Reg 19 soundness representations received, together with subsequent discussions with parties on the drafting of Statements of Common Ground. EXAM 4 includes proposed modifications to policies and supporting text pertaining to high quality design.

During the examination hearing session where Matter 5 was discussed, proposed modifications were considered, together with aspects of wording of policy and supporting text in the submission Plan. In light of that discussion, the Inspector has requested further clarification, explanation and justification of the matters detailed in this note; the Council now proposes a series of additional further modifications as set out below.

The following format has been used in this Note to denote further proposed modifications to the submission version of plan as revised by the proposed modifications listed in EXAM 4.

~~Strikethrough text~~ to indicate text proposed for removal.

Underlined text to indicate additional text.

Considerations

1. Review updates to the Building Regulations and links to GLA Energy Guidance. Changes to policy and supporting text.
2. Remove references to the Building Regs and signpost to London Plan where relevant.
3. Wording to reflect para 20(d) NPPF (mitigation and adaptation) in ECC01 and wider review (for example, linkages to Policy CDH02).

Proposed Modifications Building Regs Part L and the London Plan

To reflect the changes in the Building Regulations Part L and London Plan policy and guidance the Council has proposed a number of modifications to the following parts of the Plan:

- Para 6.13.3
- Para 10.5.3
- Policy ECC01

Para 6.13.3 BREEAM New Construction and BREEAM (Refurbishment) represent the suite of environmental assessment schemes that are nationally managed by the Building Research Establishment (BRE)²⁵. Policy ECC01 expects all development to be energy-efficient and seek to minimise any wasted heat or power. Major development is expected to be in accordance with the Mayor's Energy Hierarchy to reduce carbon dioxide emissions and related London Plan Policy and Guidance (~~in accordance with Part L of the Building Regulations~~). All major development will be required to demonstrate, through an Energy Statement, compliance with the Mayor's zero carbon targets.

Para 10.5.3 Major developments should comply with the Mayor's Energy Hierarchy, as described in paragraph 9.2.2 of the London Plan, and have reductions in accordance with London Plan Policy SI 2 Minimising Greenhouse Gases. ~~However, this figure is subject to change through the Building Regulations.~~ Developers should utilise the energy hierarchy and renewable technologies such as heat pumps and solar panels to assist them in meeting these targets and maximising opportunities for onsite electricity and heat production.

Policy ECC01 d(i) All major development will be required to demonstrate, through a detailed energy strategy how the zero-carbon target will be met within the framework of the energy hierarchy and be in an Energy Statement ~~accordance with Part L of the Building Regulations and London Plan polices SI2 and SI3 and Guidance., including compliance with the Mayor's net zero carbon targets.~~

Proposed Modifications Building Regs Part S

The following parts of the Local Plan should therefore now be updated to reflect the requirements of Part S.

- Para 11.11.7
- Para 11.12.10
- Policy TRC03
- Table 16 (See point 6)

11.11.7 To help keep Barnet moving whilst minimising carbon emissions the Council will encourage greater numbers of electric vehicles. New development is required to provide car parks with electric vehicle charging points in accordance with Part S of the Building Regulations including a proportion of the car parking spaces in the development with charging points for electric vehicles in accordance with London Plan Policy T6, with at least 20 per cent of spaces for new residential development having active charging facilities, and passive provision for all remaining spaces, i.e. the infrastructure should be in place to ensure they can be made into active spaces in the future. All car club parking spaces. ~~should be supplied with an active charging point for electric vehicles.~~ Charging facilities are now also available from some on street car parking spaces and car parks. For more detail on electric car charging points see <https://tfl.gov.uk/modes/driving/electric-vehicles-and-rapid-charging> or Electric vehicles in Barnet | Barnet Council.

11.12.10 Electric vehicle charging points need to be delivered in accordance with Part S of the Building Regulations. Parking for bicycles and electric vehicle charging points will generally be provided in accordance with the London Plan⁶⁹, and meet the London Cycling Design Standards for all new development...

TRC03 (f) Electric Vehicle charging points to be delivered in accordance with Part S of the Building Regulations ~~London Plan Standards~~ as appropriate for the use.

Proposed Modifications - NPPF

To ensure compliance with NPPF Paragraph 20(d) the Council proposes modifications to Policies and supporting text to ensure mitigation and adaption are referenced.

- Policy CDH02(a)
- Para 2.6.3
- Policy TRC03

CDH02 (a)

All new development is required to mitigate and where necessary adapt to the impacts of climate change, adopting sustainable technology and design principles in accordance with Policy ECC01.

Paragraph 2.6.3

The London Plan outlines the Mayor's aspirations to become zero carbon by 2050 by increasing energy efficiency and maximising the use of low carbon energy sources in all stages of the development process, from design and construction to operation. An

integrated approach to development should see all sectors coming together to achieve good growth alongside a healthy and attractive, low carbon environment, that can improve air quality, mitigate and adapt to the impacts of climate change, enhance green infrastructure and encourage active travel.

Paragraph 6.13.5 Proposed amendment

Climate change will intensify localised climatic conditions, which can be mitigated and adapted to through good design....

4. Explain the uplift between the 2013 and 2021 Building Regs.

Part L of the Building Regulations were updated in 2021 and came into effect on 15 June 2022. Part L 2021 requires an improvement in the energy efficiency of buildings of approximately 30% compared to the 2013 Part L Regulations. London Plan Policy SI2 Minimising Greenhouse Gas Emissions required major developments delivered a minimum on-site reduction of at least 35 per cent beyond the 2013 Part L Building Regulations. Footnote 152 page 342 of the London Plan also states that the policy threshold will be reviewed should the Building Regulation be updated.

5. Reflecting Part O of Building Regs for (g), justification for approach in terms of overheating.

Proposed Modifications to Para 10.7.4 and ECC01(g)

Para 10.7.4

Part O of the Building Regulations and Policy SI4 of the London Plan address this issue. Developers should include a heat risk assessment with their application demonstrating compliance with Part O, major developments should include and provides a cooling hierarchy for the development as part of their required Energy Strategy.

ECC01(g)

Expect development to demonstrate how it will manage heat risk in accordance with Part O of the Building Regulations and London Plan Policy SI4.

6. Consistency required between Table 16 and ECC01.

Proposed Modifications to Table 16

	Development Scale
<p>Proposed development should provide an <u>Energy Strategy, which includes an Energy Assessment</u> which demonstrates compliance with the London Plan <u>Energy Hierarchy, cooling hierarchy</u> the London Plan carbon dioxide requirements and where relevant decentralised <u>and/or renewable</u> energy. The Energy Assessment should be completed in accordance with the <u>most up to date</u> GLA Energy Assessment Guidance 2020. Energy Planning Guidance London City Hall</p>	<p>Major, Large scale</p>

Development proposals should make the fullest contribution to minimising carbon dioxide emissions <u>using in accordance with the London Plan Energy Hierarchy</u> . Developments are expected to achieve carbon reductions 6% beyond Part L from energy efficiency measures to reduce energy demand as far as possible.	Minor
Proposed development to ensure that <u>the number of electric vehicle charging points provided is in accordance with Part S of the Building Regulations 2021</u> . at least 1 car parking space in 5 (i.e. 20%) is provided with a suitable electrical charging point; with passive provision for the remaining spaces.	Minor, Major, Large scale
Decentralised Energy (DE) Heat Network	Major, Large Scale
Heat risk assessment <u>demonstrating compliance with Part O of the Building Regulations 2021</u> .	Major, Large scale, Minor – where single aspect units are proposed. <u>New residential buildings.</u>

7. BSS01(c) wording to be reflected in ECC01(a).

Proposed Modification ECC01(a)

- a) Concentrate growth in accordance with the identified in strategic policies GSS01 to GSS13 in the Opportunity Areas of Brent Cross Cricklewood, Colindale and New Southgate, together with Barnet’s Growth Areas and District Town Centres Growth Areas and existing town centres in order to better ~~manage~~ mitigate and adapt to the impacts of development growth on the climate.

8. **Explain the meaning of “highest environmental standards for development” and “exemplary levels of sustainability throughout Barnet in order to mitigate and adapt to the effects of a changing climate” in ECC01(b).**
9. **Review ECC01(b) interactions with SPDs, including approaches taken by adopted local plans in other London Boroughs.**

The definition of what might constitute high environmental standards and exemplary level of sustainability are continually shifting Government and London Policy changes and reacts to scientific data on the changing climate and its impacts. Technology, building materials and design are also changing and innovating. Therefore referencing particular guidance documents and design expectations that could quickly go out of date would not be helpful to applicants. In moving forward with SPDs the Council has assessed approaches in other London boroughs and will ensure that its website dedicated to sustainability as well as planning documents such as the Sustainable Design and Development Guidance SPD will provide information on best practice.

Proposed Modifications

New para 10.5.3A

To achieve the highest environmental standards and exemplary levels of sustainability, development is expected to meet and where possible go beyond the minimum standards set out in policy and the latest guidance at the time of application including the Sustainable Design and Development Guidance SPD and the Council's Sustainability web page [Sustainability in Barnet | Barnet Council](#).

ECC01(b)

- b) Promote the highest environmental standards for development to deliver exemplary levels of sustainability throughout Barnet in order to mitigate and adapt to the effects of a changing climate and through with, having particular regard to the guidance provided in the Council's Sustainable Design and Development Guidance SPDSPDs together with and the Green Infrastructure SPD will continue working to deliver exemplary levels of sustainability throughout Barnet in order to mitigate and adapt to the effects of a changing climate.

10. Use Footnote 153 London Plan for definition of carbon.

The Council proposes the following modification to ensure London Plan definition of carbon is reflected in Plan.

Paragraph 10.2.2 as a footnote to the reducing carbon emissions bullet point.

Add Footnote XX In accordance with the London Plan, the term 'Carbon' is used as a shorthand for all greenhouse gases. London's carbon accounting is measured in carbon dioxide equivalent, which includes the conversion of other greenhouse gases into their equivalent carbon dioxide emissions.

11. Refer to para 9.2.2 of the London Plan for explanation of the Energy Hierarchy and ensure consistency of wording with Policy SI2(b) of the London Plan.

The Council proposes to make a modification to para 10.5.3 as follows :

Major developments should comply with the Mayor's Energy Hierarchy, as described in paragraph 9.2.2 of the London Plan, and have reductions in accordance with London Plan Policy SI 2 Minimising Greenhouse Gases. ~~However, this figure is subject to change through the Building Regulations.~~ Developers should utilise the energy hierarchy prioritising the maximisation of energy efficiency through design and building fabric ~~and~~. Then renewable technologies such as heat pumps and solar panels used to further ~~to~~ assist them in meeting these targets and maximising opportunities for onsite electricity and heat production.

12. Consistency with London Plan terminology on decentralised energy.

The Council proposes to add the following definition to the Glossary

Decentralised Energy

Decentralised Energy refers to low- and zero-carbon power and/or heat generated and delivered within London. This includes microgeneration, such as photovoltaics on individual buildings, through to large-scale heat networks.

13. Clarify the role of London Plan Policy SI3 in respect of the energy infrastructure context and energy strategies in ECC01(d)(i), together with references to Energy Statements, Energy Assessments.

The Council proposes to make the following modification to para 10.4.1 to clarify the role of Policy SI3 -

Developers should provide more sustainable and efficient methods of supplying heat and power than traditional energy supply systems and consider the best low to zero carbon options for the provision of decentralised energy for their developments. The design, construction and operation of new buildings should be informed by the Mayor's Energy Hierarchy with opportunities for onsite energy and heat production maximised.

The majority of the Borough of Barnet is within a Heat Network Priority Area. Heat networks can deliver heat and/or cooling across a development or wider area. Traditionally the Heat Networks have used the Combined Heat and Power (CHP) utilising a gas engine, however the carbon savings on CHPs are now declining. Any new heat network should be designed to be low or zero carbon. A heat network should be designed in a manner that ensures that designs are adaptable and readily able to take account of future changes for example it could be connected to a wider district heating network if that were to come forward. Where a heat network is not being provided as part of the major development it should still be designed to allow for connections in the future. Developers should ensure that any proposed Heat Networks operate effectively and efficiently while taking into account air quality and the net zero carbon target, and are complying with the requirements of London Plan Policies SI2 and SI3. Developers should also provide information to the Council on how the system is to be managed, especially if it is not part of a larger network. Residents must be able to easily contact the appropriate persons to raise concerns, and have maintenance and repairs undertaken within appropriate timeframes.

The Council also proposes to delete MM243 and replace as follows

ECC01 e) Require an energy masterplan in accordance with London Plan Policy SI3 Where Decentralised Energy (DE) is feasible or planned, for major development or large scale development, including the most effective low or zero carbon energy supply options such as the provision or connection to a heat network will either provide:-

- ~~• suitable connection~~
- ~~• the ability to connect in future~~
- ~~• a feasibility study; or~~
- ~~• a financial contribution to a proposed feasibility study.~~

Consequent Changes – Additional Proposed Modifications

The Council also proposes to make the following modifications

Para 6.13.3

All major development will be required to demonstrate, through an Energy Strategy Statement, compliance with the Mayor's zero carbon targets.

Para 10.5.4

Major developments should submit energy strategies with planning applications to demonstrate how these targets will be met. Guidance on how to prepare energy strategies is available on the Mayor of London's website. Energy Strategies should include the energy assessments and carbon emission reports as detailed in the Mayor of London's Energy Planning Guidance. Minor developments should also submit a strategy that is proportional to the development. Further detail is available in the Council's suite of design guidance SPDs.

Policy ECC01 (d)i All major development will be required to demonstrate, through an Energy ~~Statement~~ Strategy in accordance....

14. Wording of ECC01(d) needs to be reviewed, particularly in terms of maximising ability to minimise carbon.

15. Provide justification for the 6% beyond Building Regs in Policy ECC01d (ii).

Barnet currently places conditions onto residential minor development to request at least a 6% improvement beyond Part L as the Mayor of London's 35% beyond Part L does not apply to minor developments and 6% was judged not to be too onerous or create a viability issue. Achievement of the 6% beyond Part L was considered by the Local Plan Viability Assessment [Core_Gen_01] (page 106) with an addition to base construction costs. The Viability Assessment [Core_Gen_01] has incorporated allowances for zero carbon regardless to the size of development into the appraisals, which goes beyond the requirements set out in policy for minor development in Barnet. Other boroughs require minor development to meet the 35% beyond Part L for instance LB Hackney require *"All new residential development should meet a zero carbon emissions target emission rate in line with the London Plan energy hierarchy and Sustainability and the Built Environment SPD"*. Neither will the Council be charging a carbon offset on minor development in Barnet unlike other Boroughs e.g. LB Islington where £1500 per house and £1000 per flat is charged regardless of the size of the development. Therefore while the 6% beyond Part L is nominal it is an acknowledgement that minor development will also be required to demonstrate commitment to carbon emission reduction and energy efficiency.

Proposed modification to ECC01 d (ii)

ii) ~~For minor developments efforts should be made to~~ make the fullest contribution to minimising carbon emissions and should meet a carbon reduction target of at least 6% beyond the latest Building Regulations and demonstrate how the Mayor's Energy Hierarchy has been used to achieve this.

16. ECC01(e) justification for feasibility studies and breaking down the contributions to a study, contributions to decentralised energy itself.

The Council refers to Proposed Modifications to ECC01(e) at Point 13.

17. ECC01(f) tightening up "where feasible" to distinguish between different considerations such as viability, design, etc.

Proposed Modifications to ECC01(f)

All schemes are encouraged to incorporate renewable energy initiatives into development proposals, including householder and minor proposals where feasible taking into account the viability and design.

18. Review ECC01(h) in light of s.66 Listed Buildings Act and NPPF. Ensure consistency with the tests for heritage assets. Revise SoCG with Historic England. Review MM238.

The Council refers to MM244 which was the consequential change (arising from MM238) to ECC01H. This reflects the SoCG with Historic England. Following the publication of the Note on Policy CDH08 – Barnet’s Heritage the Council will be seeking a revision to the SoCG with Historic England. This revision will provide a further opportunity for Historic England to revisit MM238 and MM244.

19. Embodied carbon, distinguish with retrofitting/refurbishment.

Embodied Carbon refers to the emissions associated with all the activities of procuring, mining, harvesting raw materials, transforming these materials into construction products, transporting them to site and incorporating them into a building, and subsequently maintaining, replacing and removing and disposing at the end of their life.

Operational carbon is the energy and emissions required from all sources used to keep the building warm, cool, ventilated, lit and powered.

Retrofitting or refurbishment of a building lowers the amount of operational carbon needed in the future by making the building more efficient, but most importantly it manages the embodied carbon by not releasing the carbon during demolition and disposal and creates less emissions overall than through the rebuild process.

The Council proposes to incorporate embodied carbon into policy ECC01 to better reflect the supporting text and London Plan Policy and Guidance

Modify Policy ECC01 to include new policy point

(k) Support the retrofit of buildings where there is a benefit to the environment through the retention of embodied carbon. Where demolition is preferred the developers should undertake a Whole Life-cycle Carbon Assessment in accordance with London Plan Guidance.

20. Barnet carbon offsetting and carbon price, explain how it would work. Explain how other authorities approach this in terms of SPDs.

Proposed modifications (MM237 and MM245) introduce the possibility that Barnet could adopt a Borough specific Carbon Offset Price, which London Plan Policy SI 2 D makes allowance for, although in the absence of a Borough offset price the London Plan sets the offset at £95/ tonne of carbon. The original £60/tonne carbon offset charge was introduced via a Mayoral SPG. Boroughs across London are currently exploring the possibility of setting their own charges to encourage developers to deliver closer to the zero carbon in the development rather than relying on offsets. Barnet will explore the options to introducing a Borough specific offset charge once studies have been completed and if a Borough offset charge is considered appropriate. One of the options being investigated by London Boroughs is the introduction of an increased charge through a SPD. However this is still in the early stages and is likely to be dependent on the progress of the Levelling Up and Regeneration Bill.

21. Ensure interaction between para 10.7.3 and CDH07 (and any other policies).

Para 10.7.3 provides a statement on the importance of trees to the Borough in managing the Heat Island Effect. It is recommended that this paragraph is amended to include reference to other policies in the Plan and London Plan that reference the importance of trees for the urban environment and biodiversity.

10.7.3 Barnet values the services trees offer the Borough not only for the amenity and habitat value they provide but also for their ability to assist the Borough in managing the heat island effect and improving air quality. These ~~this services are~~ is set out in the Barnet Tree Policy document together with Local Plan Policies CDH07, ECC04 and ECC06 and supporting text; and the London Plan including Policies G5 Urban Greening and G7 Trees and Woodlands. Barnet has the ambitious target of planting 900 trees per annum. Any loss of trees or greenspace for private development will therefore need to be adequately compensated.

Conclusion

The amendments set out in the Considerations section of this Note are recommended to ensure consistency with the London Plan and NPPF and also to provide clarity throughout the supporting text and links to tables and Policies in respect of the:

- Building Regulations Part L 2021 – Conservation of Fuel and Power
- Building Regulations Part O 2021 - Overheating
- Building Regulations Part S 2021 - Infrastructure for the charging of electric vehicles
- NPPF Paragraph 20(d)
- *Decentralised Energy and Energy Statements/Strategies*
- Energy Infrastructure, feasibility studies and contributions

The Council invites the Inspectors to consider and recommend that the Council makes the additional further modifications set out in this paper recognising that those considered to be Main Modifications will need to be formally consulted upon following the examination hearing sessions.

ⁱ The Energy Hierarchy is set out in London Plan Policy 5.2 Minimising Carbon Dioxide Emissions.