

Chorley Council

Sustainable Building Policy

A Policy to cover all new and existing developments to ensure they meet the Council's net zero by 2030 goals

1. Introduction

- 1.1. In November 2019, the Council set the ambitious goal of becoming Net Zero by 2030. This goal is 20 years ahead of the government's own Net Zero by 2050 goal.
- 1.2. To achieve net zero, the Council are committed to ensuring the decarbonisation of its own buildings amongst other programmes of work. The Council strives to ensure the energy efficiency of all buildings built within the borough through the Local Plan, enforcement of building regulations and supporting local businesses and developers.
- 1.3. The Council holds a portfolio of its own assets and continues to construct more to allow for the continued progression of the community and revenue. The Council strives to lead by example following building standards above and beyond those of building regulations. Chorley Council's sustainability policy sets out the standards which the Council follows during new development constructions and refurbishment of existing stock. This ensures the climate resilience of our own buildings and sets an example for other businesses and developers within the borough.
- 1.4. The Council follow several statutory requirements for constructions including Minimum Energy Efficiency Standards for rented properties, the Heat and Buildings Strategy which requires a significant reduction in energy usage for all buildings and the Future Homes Standard. Whilst this policy goes beyond several criteria covered within national policy, there is a national shift to more sustainable and energy efficient homes.
- 1.5. The Council has also signed up to the UK100, which in signing the Council committed to working towards being net zero as a Council by 2030, which will in turn require a significant decarbonisation of our buildings.

2. Aims and Objectives

- 2.1. The purpose of this policy is to ensure the sustainability of our buildings. This policy will ensure that the buildings do not increase the carbon footprint of the Council or of the borough significantly and ensure the future resilience of our infrastructure.
- 2.2. This policy allows for all reasonable endeavors to be considered with climate mitigation and climate resilience at the heart of all decisions during scope, planning and execution. The Council fully accepts that each point within the policy may not be met for each development, however it allows all reasonable actions to be exhausted before works commence.
- 2.3. This policy solidifies work that the Council is already doing during the construction and renovation of our assets.
- 2.4. This work ensures that the Council is working towards its goal of being Net Zero by 2030 and retaining the decarbonisation achievement beyond that date.
- 2.5. This policy is for Council owned and constructed assets only.
- 2.6. The policy has been divided into New Developments and Refurbishments of Existing Developments, due to the differences and feasibility between a new build construction and refurbishment.

- 2.7. Following UK Government Standard as a standard, a cost effective measure would be considered any measure less than £425 per tonne of carbon saved overall. This is a guide for a comparison of carbon cost savings. This is not a set threshold and some larger works will likely go above this threshold however will still be required to ensure the safety and continued use of the development

3. Exception Report

- 3.1. This policy sets out several points to be considered during planning. However, the Council is aware that not all points within the policy can be undertaken due to building type, feasibility, or cost etc. If this is the case and all reasonable endeavors have been considered an exception report should be completed which covers the reasoning and any proposed alternatives to be considered for approval by the Senior Management Team.
- 3.2. Following approval from the Senior Management Team the Exception Report should be filed and work continued following the approved amendments and any reasonable alternatives approved by Senior Management.

4. New Developments

a. BREEAM and EPC

- 4.1. All building schemes will have a BREEAM rating minimum of “Very Good”.
- 4.2. Energy Performance Certificates and Display Energy Certificates will be required. For schemes which are not following BREEAM standards, for extenuating circumstances, they will require an EPC Rating of A.
- 4.3. A Fabric first approach for windows and insulation should be the first consideration when planning for works.

b. Space Heating

- 4.4. Heating systems must be zoned where appropriate, additional consideration will need to be given to multistory/vaulted spaces.
- 4.5. Space heating must not exceed a set point of 20 degrees Celsius, unless there is a specific project requirement to increase this number. The heating of the building must comply with the hours of buildings use, to prevent heating of a vacant building overnight.
- 4.6. In work areas, cooling systems should be considered with increasing summer temperatures. Air conditioning units should be factored against energy consumption and energy efficiency.

c. Boilers

- 4.7. All boilers must be fully electric, with no gas usage within the building, boilers must be rated as A+.
- 4.8. If a gas boiler is approved through an exception report, the boiler must be hydrogen ready.

d. Lighting

- 4.9. All lighting must be LED, with motion control sensors wherever possible such as walkways and entrance halls.
- 4.10. Consideration must be taken regarding the lumen of lights used in each space. Walkways, corridors, and toilets do not require a lumen as high as those within office space.

e. Renewable Energy Generation

- 4.11. Renewable energy generation should also be designed into the building scheme with different energy generation options considered depending on the nature of the scheme.
- 4.12. Solar panels will be incorporated into all new build projects. Where these are installed, safe access must be included as part of the installation to ensure future access for maintenance.

4.13. Other renewable power and heat sources must also be explored. These could include;

- Solar thermal
- Heat exchanges
- Biomass
- Ground and air source heat pumps
- Heat exchange units

4.14. When a scheme includes multiple buildings a district heating scheme with all buildings should be explored and included within the feasibility report.

f. Building Management System (BMS)

4.15. Buildings must be zoned between different rooms and areas, with heating being managed and monitored per zone with smart thermostats to prevent exceedances of space heating values and discomfort of users.

4.16. A relevant BMS system must be installed and resourced after installation. The system should be a Trend System or Trend System compatible to ensure continuity between buildings.

g. Thermal Bridging Reduction

4.17. Thermal bridging between materials should be minimised to the greatest extent possible. Particular attention will need to be made at window joints and roof to wall joints.

4.18. There should be no gaps of insulation within the building and the building should be fully draught proofed throughout to minimize heat air exchange.

h. Energy efficiency through landscaping

4.19. A landscaping design should be produced for the development.

4.20. The landscaping of the site must factor in the use of trees for shading, preventing overheating within the building. Plant species used must be environment specific, ie draught or waterlogged species, to ensure success. When planting the positioning of any solar panels must also be considered to ensure solar gain is not lost.

4.21. Building orientation will also require consideration to ensure a minimization of overheating, such as avoiding south facing atriums.

i. Water Efficiency

4.22. Developments will need to have a water automated meter reading installed on all meters.

4.23. For taps, in WC suites flow rates must be less than 4 litres/minute and in kitchens flow rates must be 5 litres/minute. These could be delivered through aerated easy push percussion taps.

- 4.24. Within commercial building showers, aerated shower heads must be installed with flow rates of 6 litres/minute or below.
- 4.25. Rain water must be collected from the site in either water butts or grey water tanks and filtered, depending on the size of the site.
- 4.26. Where feasible, collected rainwater (grey water) should be filtered and reused within the building for use in grey water systems such as for toilets and dishwashers.

j. Transport

- 4.27. Electric Vehicle Chargepoints must cover 10% of parking spaces within any carparks developed alongside the build.
- 4.28. All car parks must have secure bike storage installed alongside the car park, with enough capacity for 15% of staff within the building at full capacity.

k. Waste and Locality During Building and Resourcing

- 4.29. When choosing resources and materials the carbon footprint of these items will need to be considered and weighed between waste and locality. Resources and materials should be sourced as locally as possible to lower travel footprints.
- 4.30. When sourcing resources and materials, the waste which will remain must be considered and minimized where possible, this should include any packaging off cuts and purposeful over-ordering.
- 4.31. The waste and locality of materials should be calculated as a carbon footprint figure as a means of comparison prior to purchase.

l. Resourcing

- 4.32. An adoption resource plan will need to be devised prior to completion of development and approved by Senior Leadership.
- 4.33. A resourcing plan must include monitoring and maintenance of electrical equipment including renewable sources, energy usage and the building management system.
- 4.34. This will also be required for leased buildings, which can be written in conjunction with the tenant to ensure the upkeep of the development.

m. Climate Change Team Consultation

- 4.35. A member of the Climate Change Team will need to be consulted on the project from the commencement of the project.
- 4.36. There will be particular focus during the design and final plans of the project.

5. Refurbishment of Existing Developments

- 5.1. Refurbishment is a key area to ensure the progression of the Council and upkeep of its stock. Refurbishment is often completed due to requirement; however, care and consideration should be taken with regard to improvement of the carbon footprint of the development whilst works are planned.
- 5.2. Work is underway within the Council to develop a decarbonizing retrofitting plan which will focus on the highest carbon emitters first, this plan will costs the works following the constructions points within this policy.
- 5.3. This policy only applies to the refurbishment of developments which are completed as a whole building refurbishment and a project budget of over £200,000

a. EPC

- 5.4. Energy Performance Certificates and Display Energy Certificates will be required. Following refurbishment, the building will require an EPC Rating of B, where feasible.
- 5.5. A Fabric first approach for windows and insulation should be the first consideration when planning for improvement works.

b. Space Heating

- 5.6. Heating systems must be zoned where appropriate, additional consideration will need to be given to multistory/vaulted spaces.
- 5.7. Space heating must not exceed a set point of 20 degrees Celsius, unless there is a specific project requirement to increase this number. The heating of the building must comply with the hours of buildings use, to prevent heating of a vacant building overnight.

c. Boilers

- 5.8. Any boilers being replaced must be fully electric, with no gas usage within the building, boilers must be rated as A+.
- 5.9. If a gas boiler is approved through an exception report, the boiler must be hydrogen ready.
- 5.10. There is an expectation that boiler replacement in projects below the threshold cost of this policy will still be replaced with electric A+ boilers.

d. Lighting

- 5.11. All lighting must be LED, with motion control sensors wherever possible such as walkways and entrance halls.

- 5.12. Consideration must be taken regarding the lumen of lights used in each space. Walkways, corridors and toilets do not require a lumen as high as those within office space.
- 5.13. There is an expectation that LED lighting will be installed in all buildings during light replacement in projects below the threshold of this policy.

e. Renewable Energy Generation

- 5.14. Renewable energy generation should also be evaluated during the design of the scheme with different energy generation options considered depending on the nature of the scheme.
- 5.15. The strength integrity of the roof must be evaluated for solar installation. If the building is deemed to hold sufficient strength integrity, solar panels should be installed.
- 5.16. Other renewable power and heat sources must also be explored. These could include;
 - Solar thermal
 - Heat exchanges
 - Biomass
 - Ground and air source heat pumps
- 5.17. When a scheme includes multiple buildings a district heating scheme with all buildings should be explored and included within the feasibility report.

f. Thermal Bridging Reduction

- 5.18. Thermal bridging between materials should be minimised to the greatest extent possible. Particular attention will need to be made at window joints and roof to wall joints.
- 5.19. There should be no gaps of insulation within the building

g. Building Management System (BMS)

- 5.20. Buildings must be zoned between different rooms and areas, with heating being managed and monitored per zone with smart thermostats to prevent exceedances of space heating values and discomfort of users.
- 5.21. A relevant BMS system must be installed and resourced after installation. The system should be a Trend System or Trend System compatible to ensure continuity between buildings.

h. Transport

- 5.22. Installation of Electric Vehicle Chargepoints in existing car parks should be investigated for feasibility with a goal to cover 10% of the car park. Any new car parks constructed must include 10% coverage of Electric Vehicle Chargepoints.
- 5.23. All existing car parks must be investigated for installation of secure bike storage, with a goal for enough capacity for 15% of staff within the building at full capacity.

i. Waste and Locality During Building and Resourcing

- 5.24. When choosing resources and materials the carbon footprint of these items will need to be considered and weighed between waste and locality. Resources and materials should be sourced as locally as possible to lower travel footprints.
- 5.25. When sourcing resources and materials the waste which will remain must be considered and minimized where possible, this should include any packaging off cuts and purposeful over-ordering.
- 5.26. The waste and locality of materials should be calculated as a carbon footprint figure as a means of comparison prior to purchase.

j. Resourcing

- 5.27. An adoption resource plan will need to be devised prior to completion of refurbishment and approved by Senior Leadership.
- 5.28. A resourcing plan must include monitoring and maintenance of electrical equipment including renewable sources, energy usage and the building management system.
- 5.29. This will also be required for leased buildings, which can be written in conjunction with the tenant to ensure the upkeep of the development.

k. Climate Change Team Consultation

- 5.30. A member of the Climate Change Team will need to be consulted and involved with the project from the commencement of the project.
- 5.31. There will be particular focus during the design and final plans of the project.