**Climate and Ecological Emergency Declaration**

**Housing**

The Council should make the following Climate and Ecological Emergency Declaration in support of it’s pledge to become one of the greenest cities in the world by 2030.

We are already eating into the only remaining decade to do this, having wasted the previous 3 decades when action should have been taken, so immediate and urgent action, barrier removal and imagination is required.

A local authority’s existing housing stock will consist of a mix of owner occupier, private rented and

social housing. The authority has different levels of influence over the energy efficiency and CO2

output of each sector with relatively few powers over the owner occupied buildings.

Local authorities own around 7% of housing in England for which they have responsibility for the

energy efficiency and carbon emissions.

Local authorities also have significant influence over the design and specification of new build

housing through the planning process and the implementation of local plans.

The council should know the energy efficiency profile of all its existing housing stock and be able to

identify potential easy low cost wins in terms of insulation and energy efficiency. This will vary

widely according to factors such as age & type of construction, whether urban or rural, levels of

insulation and type of heating.

**Demands for New Build:**

All new build housing should be designed to be zero net CO2e in its use with exceptional

levels of insulation (ideally to Passivhaus or AECB standards) and to minimise the CO2 impact of its build. Highly insulated buildings will require heat recovery ventilation systems to be effective.

No new build houses should be provided with a gas connection. Instead space and water

heating should use air or ground source heat pumps connected to a renewable electricity

supply.\*

New building design should optimise the opportunities (through orientation and control of shading) for on-site generation with photovoltaics solar panels.

New buildings should have provision for the incorporation of energy storage (thermal or

electrical) in order to optimise the use of on-site generated energy (either from solar thermal, photovoltaic or micro wind (in rural areas only)). This provision should be in the form of space for energy storage systems and appropriate cabling & metering to allow electricity to be exported to the grid. Where developments are of adequate size the energy storage solutions should also include a community battery and private wire network to ensure full utilisation of the energy storage solution.

New buildings should allow the connection of electric vehicles to ensure they can be charged at times of low demand on the national grid and to feed back into the grid at times of high demand. This reduces the overall grid capacity required, increases the viability and feasibility of renewable generation by smoothing intermittency and also provides a useful income to the householder due to the differential pricing between peak & off peak electricity.

New buildings should be designed with due regard for potential advantages from passive

solar gain from glazed areas orientated towards the south.

No new buildings should require energy inputs to provide cooling in summer. This should be achieved by appropriate passive ventilation arrangements and through the use of appropriate shading techniques which could be in the form of deciduous tree planting as this will not shade in the winter when passive solar gain is required.

Where possible new build solutions should include adequate growing space in the form of gardens or shared allotments.

**Demands for Existing Housing Stock:**

Licensing requirements can be introduced for the rented sector that demand minimum levels of insulation and energy efficiency.

Retrofit all council-owned social housing, schools and other council properties to Energy Performance Certificate C or higher. This should include fitting eco-heating/heat recovery ventilation and developing heat networks where appropriate.

All possible assistance should be offered to owner occupiers and landlords to improve energy efficiency and insulation standards. It is recognised that councils are unlikely to have budgets that allow for this so they should be encouraged to provide advice and guidance and to lobby upwards to acquire additional funding from central government.

**Survey of Existing Housing Stock:**

The local authority should accept the responsibility to understand the energy efficiency of the housing stock in the borough.

The local authority should undertake a survey of all housing in the borough, public and private sectors, to enable it to set energy efficiency targets to work towards.

This survey should identify groups of houses by age and energy efficiency, for example a whole street of Victorian houses is likely to have the same floor, wall and roof construction/insulation, as is a road of houses built in 1990, for example.

The council can calculate an average current EPC for each group of houses and also set an improvement target for that group of houses, thereby calculating the current carbon footprint of the housing stock in the borough and the likely improvement in EPC and reduction in carbon emissions that could be made.

Houses with solid external walls, masonry cavity walls and timber framed cavity walls will require different approaches to increasing insulation. Houses with different heating & hot water systems will require different solutions to making those systems more efficient and possibly introducing a renewable energy aspect onto the existing system. Increasing energy efficiency of doors and windows by replacement, secondary glazing or reflective films, and insulating house roofs, is relatively straightforward.

These cost of these improvements could be met by the following methods:-

Encouragement of householders to improve their properties with incentives to do so such as interest free loans, reduced council tax, other reduced cost council services.

Grants from the Local Authority offering free or heavily discounted insulation schemes.

Grants from Central Government offering free or heavily discounted insulation schemes.

Whilst the cost of making these energy efficiency improvement may be problematical and will require a sea change in the attitude towards the possibilities for carbon emission reduction, this should not prevent the start of the process which is to carry out the housing stock

survey and identify the overall target.

People are suffering, people are dying, we must act now, our children demand it.

Making this Climate and Ecological Emergency Declaration will help it to happen.

The Council cannot declare a Climate Emergency and then not make immediate and robust declarations of intent.