

Bishops Stortford Climate Group

Bishop's Stortford
Climate Group



Dear Councillors

We are writing to object to Countryside's Proposals for Bishop's Stortford South, 3/18/2253/OUT, on the grounds that it is not net zero carbon and does not comply with EHDC's District Plan nor the town's Neighbourhood Plan in relation to climate and sustainability related issues.

Bishops Stortford Climate Group exists to raise awareness of climate change on a local and national level and to help local people, businesses and government to take positive action to reduce the dangers of climate change, working with other community groups where appropriate. The international consensus is that we have 12 years now until we will have gone beyond the point of being able to limit global warming to 1½°. At higher levels of warming the impacts will be significantly worse: 2° warming would bring near 100% loss of coral reefs; double the loss of species, including double the loss of fish for sustainable fishing; a substantial reduction in crop yields in the tropics; and of course even greater increase in frequency of extreme heat events. The 12 years' timeline is very short and means we need to quickly stop our reliance on fossil fuels for energy and heating. New developments need to be zero carbon – if they are not, they will in no time at all need to be retrofitted to change their energy consumption with all the upheaval that will entail.

So, our objection to the proposal is that it adds to our town's carbon footprint, when we should be working to reduce it. Clearly any development of this scale and on a greenfield site will increase the town's carbon footprint by removing green space which acts as a carbon sink and many, many, other people and groups from the town have objected to this proposed loss of green space in the Green Belt. But developments of this scale can also and should be designed to be net zero energy and carbon and that is not what Countryside have proposed. Net zero carbon is being achieved now and is not just an expensive pipedream – for example a 96 home development at Newport is being built to standards which will give householders zero energy bills <https://www.zedfactory.com/the-zero-bills-home> ; Norwich city council is building to Passiv Haus standards http://www.passivhaustrust.org.uk/news/detail/?nid=503#.W_QCj_Z2v5o ; and many areas are installing heat networks supplying affordable, renewable heat instead of building in reliance on gas.

We also note that the proposal does not even comply with the District and Town Councils' more limited aspirations. The District Council's climate change policies as set out in the District Plan encourage the achievement of standards above and beyond the requirements of Building Regulations; promote renewable and low carbon energy where the impacts can be satisfactorily mitigated; and encourage proposals that embrace the use of renewable, zero and low-carbon technology. In the Neighbourhood Plan, the Town Council has expressed its commitment that there should be only the very best, attractive and sustainable development.

Countryside's proposals make very limited firm commitments and show no evidence of a strategic approach to the design of the site from a climate change mitigation perspective. Our modelling shows the site as a whole could be net zero carbon and this strategic approach would recover the

cost of the additional investment, with payback in 6 to 10 years. We have set out our views in detail in the attached Appendix.

So, we consider Countryside's application should be rejected on the grounds that it is not net zero carbon and does not comply with EHDC's District Plan nor the town's Neighbourhood Plan in relation to climate and sustainability related issues.

We very much hope that you will give careful thought to our concerns and be prepared to approve an application for this site only if it is for a net zero energy or carbon development. The examples above show that net zero energy and carbon can be achieved in a variety of different ways. The additional capital costs of installing high levels of insulation, using renewable energy through solar PV and distributed heat pay back through reduced running costs.

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Appendix 1

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Bishop's Stortford Climate Group (BSCG) on Countryside's planning application for Stortford South, 3/18/2253/OUT

**comments
Bishop's**

Buildings design - Carbon emissions

BSCG: Countryside's proposal does not meet the District's commitments on climate change to go above and beyond the requirements of the Building Regulations and shows no ambition to address climate change impacts from its development. The site can and should be designed to be net zero energy and carbon.

District Plan:

CC2 I: All new developments should demonstrate how carbon dioxide emissions will be minimised across the development site, taking account of all levels of the energy hierarchy. Achieving standards above and beyond the requirements of Building Regulations is encouraged.

CC2 II: Carbon reduction should be met on-site unless it can be demonstrated that this is not feasible or viable. In such cases effective offsetting measures to reduce on-site carbon emissions will be accepted as allowable solutions.

Neighbourhood plan:

4.1.3.5 In order to mitigate the impacts of new development on climate change, development proposals should demonstrate how they will ensure that new dwellings and business premises include energy-saving and carbon dioxide reducing measures that at least match, and ideally exceed, proposed regulations.

On sites that have a favourable south-east to south-west aspect such as the land South of Bishop's Stortford, proposed in the emerging District Plan, developers will be encouraged to incorporate the use of solar energy generation. On all sites the use of solar energy or other sources of renewable energy will be supported, where it does not conflict with other development plan policies.

Countryside's BSS proposal:

Countryside does not propose to minimise carbon dioxide emissions across the site – and suggests an unambitious approach, much less ambitious than the normal requirement in London of 35% less than the Building Regulations and not meeting the less ambitious guidance from the UK Green Building Council and others including the Town and Country Planning Association, that planning authorities should be looking for developers to achieve at least 19% reduced carbon emissions compared to the 2013 Building Regulations. This approach is less than has been approved for the Station Goods Yard site (which is committed to designs to deliver 23% less carbon emissions than would be achieved through delivering to the Buildings Regulations).

Countryside's commitment is to comply with Building Regulations in respect to energy efficiency use, through its Fabric First approach (131). It notes it will consider other measures of standard practice

during the detailed design, including promoting passive solar gain, the use of high efficiency condensing boilers to heat homes (132). Although it confirms that Solar PV, Solar Thermal and WWHR would be suitable for installation, it rules out completely using these or any other low carbon renewable energy systems for the dwellings, without proper assessment of the site for a heat network (144). In relation to non-residential buildings Countryside acknowledge there is potential for the use of low carbon technologies, but only commit to investigate this during the detailed design phase. (145)

There is no evidence that Countryside has undertaken any strategic thinking for the site in order to meet the Council's encouragement to minimise carbon emissions.

It is already possible to build new developments that are net zero carbon and energy, following a range of different approaches to balancing energy efficiency with use of renewable energy.

It is unacceptable that Countryside are not committing to build in Solar PV to new homes, given the need for urgent action to take action to reduce carbon emissions to keep global warming to a minimum. There is no argument in favour of dwelling owners being able to add panels on after purchase, as it is cheaper and better to include it in the design and get economies of scale in the procurement and installation of the panels.

Countryside have done no strategic thinking as to energy sharing or householders/businesses becoming producers as well as consumers with buildings that might need hot water generating as a by-product free cooling. Countryside wrongly associates heat networks with gas combined heat and power (CHP) and heat pumps with individual solutions and falsely claims that heat pumps provide "only low grade heat". (142)

In fact:

- although historically heat networks have typically been powered by CHP, the Government (BEIS) reports that around 50% of new heat networks are now planning to use alternatives to CHP such as heat pumps where they are arguably more suited.
- large central heat pumps are perfectly capable of providing the heat needed for space heating and hot water for existing buildings – though their efficiency is improved by lower temperature operation which is easy to design into new developments. Heat pumps developed by the UK company Star Refrigeration feeding the Drammen district heating scheme provide heat at 90C https://en.wikipedia.org/wiki/Drammen_Heat_Pump . This is much higher than would be needed by the new buildings in Bishops Stortford South.
- with the range of buildings planned for the site, demand for hot water in the dwellings if generated by a central heat pump could provide summer time cooling (with no additional energy/carbon penalty) for the non-domestic buildings - if needed.

To the extent that there would be additional capital costs for setting up a heat network, this would be offset by annual energy cost savings. There is precedent for developers selling heat networks to Energy Services Companies to recoup their capital investment and the ESCOs then manage the facilities and charge residents and businesses for the power usage.

To the extent that there would be slightly higher capital costs for building housing and schools to higher specification, this would also be offset by annual energy cost savings. There is no evidence to suggest a worse market for housing built to higher standards.

It is difficult for us to model a more strategic approach to energy use across the site, because of the lack of detail in the application. However, having modelled the site as a whole, including the 2 schools, retail, “employment land”, care home and 750 homes, we calculate that zero net carbon on the site is possible with an all electric system:

- 9MW of PV would be needed in total.
- Where Passiv Haus standard was applied (to homes only) 8MW would be needed
- A 2.5MWth central heat pump and district heating system would be required
- Where Passiv Haus standard was applied (to homes only) 2.3MWth would be needed

The overall annual financial savings would be in the order of £1.5m as against the conventional gas condensing boiler individual heating systems and fabric standards to current building regulations, with payback on the marginal capital costs in 6 to ten years.

Buildings design – water use

BSCG: Countryside are not firm on a commitment to comply with the District Plan and could do more to maximise water efficiency on the site.

District Plan:

WAT4 Efficient Use of Water Resources Development must minimise the use of mains water by:

- (a) Incorporating water saving measures and equipment;
- (b) Incorporating the recycling of grey water and utilising natural filtration measures where possible;
- (c) Designing residential development so that mains water consumption will meet a target of 110 litres or less per head per day.

The water consumption specification for increasing Code for Sustainable Homes levels are:

Level 0 - Part G of the Building Regulations

Levels 1-2 - less than 120 litres/person/day

Levels 3-4 - less than 105 litres/person/day

Levels 5-6 - less than 80 litres/person/day

The Code is not a requirement but continues to show what is possible in new developments.

London Plan standard is that residential schemes should be designed to meet a water consumption rate of 105 litres or less per person per day.

Countryside’s BSS proposal:

Countryside have said their new development will aim to reduce water consumption during occupation of the new homes and target a water consumption rate of 110l/p/d. The range of water efficiency measures they include involves no innovation, such as use of grey water systems. (65)

Buildings design – materials

BSCG: Countryside make no absolute commitments to good practice use of materials, so do not comply with the District Plan. The presumption has to be that they are proposing “typical” construction using bricks and blocks, which have high embedded carbon compared to other materials such as wood.

District Plan:

CC2 III: The energy embodied in construction materials should be reduced through re-use and recycling, where possible, of existing materials and the use of sustainable materials and local sourcing.

The London Plan requires prioritisation of materials that:

- have a low embodied energy, including those that can be reused intact or recycled; ♦ at least three of the key elements of the building envelope (external walls, windows roof, upper floor slabs, internal walls, floor finishes / coverings) are to achieve a rating of A+ to D in the BRE's The Green Guide of specification;
- can be sustainably sourced (at least 50% of timber and timber products should be sourced from accredited Forest Stewardship Council (FSC) or Programme for the Endorsement of forestry Certification (PEFC) source);
- are durable to cater for their level of use and exposure; and
- will not release toxins into the internal and external environment, including those that deplete stratospheric ozone.

Countryside's BSS proposal:

Countryside state only that they will aim to use a range of sustainable materials and design features and will consider:

- Specification of certain materials utilising BREs Green Guide to specification;
- Use of sustainable timber from FSC (or equivalent) sources; and
- Use of Accredited Construction Details to minimise thermal bridging.(114)

Countryside cite that they will consider use of sustainable materials, such as insulation from mineral wool, rock wool or cork board, and commit not to use insulation materials containing substances known to contribute to stratospheric ozone depletion or with the potential to contribute to global warming. (176) But mineral wool and rock wool are energy intensive products so include much higher embedded carbon, than cellulose fibre insulation (eg from recycled newsprint).

Sustainable travel & impact on air quality

BSCG: Countryside provide for sustainable travel within their site, but by definition the development of the site on the edge of the town will add to existing traffic and hence potentially congestion on all the roads it links in to; and on rail services. The proposal includes provision for linking cycling routes in the site to existing and potential routes off the site but its commitment to off-site investment is limited to signage and does not provide for substantial contribution to making a reality of the aspiration that the towpath should be a cycle route.

District Plan (transport)

18.1.6 New development can aid the improvement of the transport offer in the district by making the best use of existing infrastructure (including passenger transport), providing new components where necessary, and also by contributing to the improvement of passenger transport provision, walking and cycling. In enabling access to new development, the provision of safe sustainable travel alternatives can make these sustainable modes more attractive to users than the car.

TRA1: Development proposals should be located in places which enable sustainable journeys to be made to key services and facilities to help aid carbon emission reduction and ensure that a range of sustainable transport options are available to occupants or users, which may involve the improvement of pedestrian links, cycle paths, passenger transport network (including bus and/or rail facilities) and community transport initiatives.

District plan (air quality)

I. The effect of development upon air quality is a material consideration..

III. All developments should include measures to minimise air quality impact at the design stage and should incorporate best practice in the design, construction and operation of all developments.

IV. Where development (on its own or cumulatively) will have a negative impact on local air quality during either construction or operation, mitigation measures will be sought that will remove overriding impacts, such as an air quality neutral or negative development. Evidence of mitigation measures will be required up front.

VI. Developments must not lead to a breach or worsening of a breach of UK or EU limit values.

Neighbourhood Plan:

3.4.1.1 High levels of car ownership and an underdeveloped sustainable travel network have contributed to a reliance on car transport in the area and resulting congestion at peak periods. In addition to concerns over traffic volumes, community feedback has also highlighted key concerns about pedestrian and cyclist safety, parking and public transport provision. Whilst this plan contains policies to improve sustainable travel, the overall aspiration is to improve movement by all transport modes including walking, cycling, public transport and car.

3.4.2 Objectives

- Support solutions to congestion
- Create and promote sustainable travel networks
- Provide adequate car parking
- Manage traffic speeds and promote road safety
- Improve town centre access, connectivity, amenity and vitality

Countryside's BSS proposal:

Countryside's transport assessment states that housing on the site will be less than 2½ km from a range of services but draws attention to Institute of Highways and Transportation guidance that acceptable walking distances are substantially less than that (91).

The proposal has limited mitigations for additional congestion on the town's ring road and the road into town, calculating that the impact of the development will be limited and in any case providing a plan to secure residents' use of bus services, cycling and walking.

Provision for electric cars is limited – Countryside's commitment is only to install a number of 7kw charging sockets on a number of properties across the development and active EV charging points in the local centre and employment area. (102)

Countryside's Masterplan appears to provide for linking up its cycle ways to existing cycle paths to the town and the Stort, but mistakenly refers to there being an existing cycle path, parallel to the site on its eastern boundary, following the River Stort (84). This is an aspiration for the town which requires funding in addition to a commitment to link the site to the river route.

Ecology and Nature Conservation

BSCG: Countryside have proposed mitigations for their development, which they expect to bring wildlife benefits, but appear not to have looked at how wildlife could transition to the new landscape.

District Plan:

NE1, IV. Proposals should avoid impacts on sites of nature conservation value and wherever possible, alternative options which reduce or eliminate such impacts should be pursued. Where adverse impacts are unavoidable, measures to mitigate the impact will be sought, commensurate to the importance of the site in terms of its status in the hierarchy and the contribution it makes to the wider ecological networks.

NE2, I. All proposals should achieve a net gain in biodiversity where it is feasible and proportionate to do so.

NE3, I. Development should always seek to enhance biodiversity and to create opportunities for wildlife.

NE3, VII. Development adjoining rivers or streams will be required to preserve or enhance the water environment in accordance with Policy WAT3 (Water Quality and the Water Environment).

NE3, VIII. Integrated bird and bat boxes will be expected in all development bordering public green space and beneficial habitat.

Neighbourhood plan:

Ensure that any development is in keeping with surrounding areas, presents a graduated edge to the surrounding Green Belt areas and does not have a negative impact on the local features of the natural landscape and neighbouring green spaces (3.10.2)

Countryside's BSS proposal:

Countryside state that their development will result in the loss of thirty nine individual trees, thirteen groups, part of a woodland copse and part of one boundary hedge, yet state that overall it will result in considerable wildlife benefits and not impact adversely on the Thorley Flood Pound SSSI (Environmental Statement Volume I Non-Technical Summary Page 8)

Key mitigations proposed are enhancement of the brook, together with its use for attenuation to control the rate and quality of run-off, mitigating potential impact on the flood plain. Enhancements are expected to benefit wildlife, with retained and new green corridors and significant landscape planting with mainly native species (a "rich and edible" landscape) and avoiding lighting on sensitive receptors (benefiting bats and other wildlife). It is not specified the extent to which walls and fences will be permeable for wildlife and whether bird/bat boxes are to be provided in the plans. It is also not clear what thought has been given to the value of the green corridors for people and wildlife during the construction phase and there appear to be no commitments in this regard. Countryside do not commit to working with a wildlife group through the development process to ensure that opportunities are fully taken – unlike in other best practice developments such as Kingsbrook www.rspb.org.uk/our-work/conservation/projects/kingsbrook-housing