

Bioregional's response to North West Bicester - Outline Application 1 (no: 14/01384/OUT)

1. Introduction

Thank you for consulting Bioregional on this application. Bioregional are an environmental charity who work with partners around the world to champion a better and more sustainable way to live. We have been involved in NW Bicester development plans since 2010, advising both Cherwell DC and A2Dominion on eco-credentials and sustainability.

This report outlines Bioregional's key observations on NW Bicester - Outline Application 1 (14/01384/OUT). We have reviewed the application documents against the overall Eco Town aspirations, the PPS1 Supplement on Eco Towns and the Bicester One Shared Vision.

Bioregional have been fully committed to the Eco Town process throughout its development and will continue to work with all partners to help it deliver its full potential.

In summary, we support this application and, subject to appropriate reserved matters and S106 conditions discussed below, we hope to see this scheme go forward.

2. Overall eco-credentials and general comments

Application 1 is consistent with the Exemplar first phase of NW Bicester in that it offers outstanding standards of environmental performance in the following areas:

- Built to true zero carbon standard, above the current government definition of zero carbon
- Built to Code for Sustainable Homes standard 5
- Building true zero carbon and code 5 *at scale*, Application 1 is the largest development in the UK built to these high standards
- Good levels of energy efficiency in the fabric of the buildings and in their design
- Maximising photovoltaic solar panel arrays on every suitable roof, generating some 75% of the site's electricity needs
- A District Heat network is planned throughout the development
- Commitment to very high design standards for water efficiency
- Potential for good walking and cycling infrastructure, subject to detailed design
- Potential for net biodiversity gain
- A commitment that all non-residential buildings will be BREEAM Excellent standard

As a semi-rural extension to an existing town, NW Bicester is designed to be medium density. Compared with higher density urban developments, it provides greater potential for local food growing, high-quality wildlife habitats and accessible, large scale open spaces for play and leisure. In addition, the lower density allows for greater integration of roof-based technologies in meaningful quantities, such as photovoltaic panels and rainwater harvesting. The semi-rural location does, however, mean that sustainable transport is more challenging and biodiversity targets are higher due to a higher ecology baseline and larger development footprint.

Bioregional feel this application sets an excellent example of how to achieve sustainable living in a rapidly growing Garden Town and it promises to deliver most of the original Eco Town aspirations.

3. Zero Carbon

The Eco-town PPS ET7 “Zero carbon in eco-towns” gives a definition that “over a year the net carbon dioxide emissions from all energy use within buildings on the development as a whole are zero or below.”

The submitted application energy strategy, in combination with the subsequent energy strategy addendum, delivers this definition of zero carbon.

The strategy meets the required definition by reducing demand through energy efficiency measures. It then meets the remaining demand through on site renewable and low carbon technologies. All electricity demand is met through the combination of the extensive provision of photovoltaic panels on residential and non-residential roof space and electricity generated from a Biomass CHP plant.

All space heating and hot water demands are met through a district heating system supplied from a combination of gas CHP and biomass CHP plants.

The true zero carbon energy strategy sets itself apart from other “carbon neutral” housing schemes within the UK because it deals with all of the developments carbon emissions. This includes both regulated and unregulated emissions. It deals with all of these emissions through on-site solutions.

Biomass CHP

Bioregional support the submitted energy strategy and its proposals for meeting true zero carbon. Biomass CHP is just one part of the mix in the energy strategy but we want to highlight the need for biomass CHP providers to demonstrate that their plant can operate reliably and at scale in a residential context (as opposed to operating in a research and development context). With this in mind, it is important that the energy strategy is reviewed as phases come forward for detailed planning approval, and alternative options for meeting true zero carbon left open. These should include:

- The potential to deliver further demand savings, perhaps using LED lighting, or as other more efficient electrical products and systems became mainstream
- The potential to increase the PV provision if necessary

Phasing

The NW Bicester Exemplar has demonstrated it can meet true zero carbon after delivery of 200 homes, whereas this application proposes meeting it after 500 homes. This is a lower standard than the Exemplar and could mean that NW Bicester operates with significant carbon emissions for some years and some uncertainty before meeting its zero carbon standard. We suggest that the phasing and sizing of plant could be adjusted to deliver true zero carbon in line with similar timings of housing levels as the Exemplar.

4. Biodiversity

We are pleased to see the incorporation of a Biodiversity Strategy (compliance with ET 16 Biodiversity – Eco towns PPS “*A strategy for conserving and enhancing local biodiversity should be produced to accompany planning applications for eco-towns*”) and the use of the Defra Metric (Appendix 6J of Environmental Statement)

We agree in principle with the downgrading of the Arable Land to Low Distinctiveness and Poor condition within the Defra Metric. This change means that Net Gain can be achieved without habitat compensation. However, as indicated in the application, species compensation is still required for farmland bird species.

Offset scheme

At this stage there are no details of the offset/compensation scheme for farmland birds. The integrity of the net biodiversity gain target is dependent on delivering an effective offset scheme, so we have listed some issues that will require care when setting up the scheme:

- Management of the fund/scheme and ensuring any management company has the correct experience and resources to manage a scheme of this scale
- Proximity of the enhanced land uses to NW Bicester
- Levels of payments compared to other comparable schemes
- Safeguarding the enhanced land after the life-time of the scheme (25 years) to ensure long-term biodiversity gains

5. Transport

Walkability

Bioregional carried out a modal transport assessment for NW Bicester which is referred to in the application. However, we would present the conclusions of this assessment differently. A significant

number of homes (approx. 30%) will be beyond the 800m/10min walk to a local centre (*Eco Town PPS ET 11 Transport - homes should be within ten minutes' walk of (a) frequent public transport and (b) neighbourhood services*).

There is a suggestion of two small neighbourhood shops, remote from the local centres, set amidst the main housing areas, which would bring those remoter homes within 800m of the most basic local provisions, but question how likely those shops are to be delivered.

We therefore have concerns over the walkability of the outlying neighbourhoods in this application.

Modal shift targets

The modal shift ambitions within the transport assessment do not currently meet the PPS requirements. The PPS looks for a 50% modal shift, potential to rise to 60% over time, and significantly more ambitious targets as NW Bicester is close to a higher order settlement (ET11.3(b)).

We would welcome further work on how a modal shift of 60% could be achieved at NW Bicester; this could be through the identification of scenarios and precedents studies.

Off site connectivity

The transport assessment lists the external connections between application 1 and the existing town. It breaks these down into primary and secondary connections. Although there is an acknowledgement that these connections will be delivered/upgraded through S106 agreements, we would welcome more detail on the timescale for the enhancements and which ones will be taken forward (PPS; ET 11 Transport - *The town should be designed so that access to it and through it gives priority to options such as walking, cycling, public transport and other sustainable options, thereby reducing residents' reliance on private cars*”).

Support for Transport Approach

Despite the above queries, Bioregional support this scheme for a number of reasons:

- It is recognised that the town of Bicester currently has high car use (69%) given its location close to the strategic motorway network and therefore achieving 50% already represents a substantial shift in travel towards non-car modes.
- Extensive work is already underway on the promotion of Electric Vehicles within the Exemplar Phase. We understand that this will continue onto this adjacent application. Initiatives include:
 - Proposed incorporation of superfast car chargers across Bicester with the first installation to be next to the energy centre on the Exemplar phase
 - Electric Car leasing services where residents can try a number of electric vehicles before they buy
- We understand that the off-site cycle improvements are listed within the S106 contribution and we are glad to see A2Dominion already looking into these.

- We are pleased to hear that the Exemplar bus service is under development and is considering the use of Electric Buses. This service will be extended to serve communities within this Application 1.

6. Employment

We welcome the inclusion of green businesses and promoting sustainability in Appendix 1 of the economic strategy. This is very positive and offers great opportunities to bring a unique set of skills, identity and business opportunities to Bicester.

We are unsure of the ownership and who will deliver the action plan in the economic strategy.

We understand that work has begun to promote NW Bicester to potential businesses and retail developers. A site wide approach is rightly being taken, rather than a piecemeal approach.

We recommend a periodic review of the action plan submitted as a check that the aspirations are being pursued and delivered.

7. Detailed Design and Design Code

Many of the aspirations for Application 1 will not become fully demonstrated until detailed designs and design codes are produced. Reserved matters will need to ensure delivery of the following:

- Character and identity of the development, landmark buildings
- High quality allotments and play areas
- Exemplary range of cycle and pedestrian routes
- Detailed lighting strategy that provides amenity for walkers and cyclists and also respects strategic dark corridors

8. Summary

Bioregional support this application and give great credit to the high environmental standards. We recommend that the following matters be addressed through reserved matters or S106:

1. Allowing for additional measures for further electrical demand reductions and potentially increased PV provision in case of deliverability issues in the energy strategy
2. A phasing plan that delivers zero carbon after a smaller number of homes around each energy centre, similar to the Exemplar precedent
3. A robustly planned offset scheme for farmland bird habitat
4. Options for more ambitious modal shift targets
5. Commitments around delivery of offsite walking and cycling connections
6. Ownership assigned to actions in the economic strategy to deliver green business services and to encourage incoming green minded businesses