



Movement Matters is a series of inspirational thought leadership events exploring new ideas about places, people and economies. Drawing on experience from leaders from around the globe, these sessions provide a burst of fresh thinking. To attend any of our events register at: www.steergroup.com/events

Event summary

MM Movement Matters events

**NET ZERO BY 2030
FACT OR FICTION?**

SESSION 2: SUSTAINABLE GARDEN COMMUNITIES

Even prior to the pandemic, there was pent-up demand for new housing. Coming out of lockdown, that demand has not disappeared and with renewed appetite for housing with private outdoor space, urban extensions and new garden communities are expected to be an important part of future provision. This session explored the practicalities and policy implications of making new housing developments more sustainable to assist with meeting net-zero targets.

Speakers' presentations

Nicki Mableson, Director EIA at Lichfields

James Woodall, Head of Sustainability at Allies & Morrison

Before Covid-19 the demand for housing was increasing at an ever-growing rate, this demand has not reduced post lockdown and as people consider their lifestyle options, suburban housing is a key part of meeting that demand. Ensuring homes and their communities are sustainable is a critical part in meeting net zero. Nicki and James explore from both a policy and building design perspective how this can be achieved.

The first speaker **Nicki Mableson from Lichfields** addressed the policy drivers and enablers for housing and in particular Garden Communities to become Net Zero Carbon. Nicki outlined her research of the level of Net Zero Carbon ambition within the 49 garden communities currently being planned / constructed as well as the local authorities in which they sit, in

order to understand a baseline as to how to deliver sustainable garden communities. Nicki noted there are also parallels that can be drawn for other strategic housing development across the country.

Interestingly, 25% of Garden Communities in development have a Net Zero Vision over the next 10-30 years (using publicly available documentation). However, although a few of the Garden Communities host Local Authority planning policies that have reference to adaption for Climate Change, none have Net Zero Carbon references or targets. Nicki then explored the reasons for this and drew that Policy hasn't caught up with the need to address the Climate Emergency, coupled with the dichotomy between careful collaborative planning and dealing with a Climate Emergency.

“Transport provision - this is key when thinking about how to address the net zero agenda for sustainable communities as a whole.”

There are however some useful documents available to help plan sustainable Garden Communities including The Climate Crisis: A Guide for Local Authorities on Planning for Climate Change, October 2021 TCPA/RTPI which includes some useful policy examples and the Homes England Garden Communities Toolkit, but the latter doesn't specifically reference Net Zero Carbon.

Nicki concluded that we need clear standards and guidance to assist developers as Net Zero is currently one of the things in a 'shopping list' of attributes for developments but believes it needs to move up the priority ladder. Local plans need to catch up with the climate emergency but in the meantime, we need a stronger national policy statement, building on the National Policy Planning Framework's (July 21) commitment to the UN's 17 Global Goals for Sustainable Development to 2030.

Nicki further highlighted ***“We need to appreciate the limits of planning – everyone needs to play their part, from design to delivery, to ensure we achieve Net Zero Carbon by 2030 and beyond.”***

The second speaker, **James Woodall from Allies & Morrison**, brought his design approach to address the way in which developments could deliver Net Zero Carbon. James demonstrated the important distinction between Carbon Neutral and Net Zero Carbon and how regulated (heating, hot water, lighting, auxiliary energy) and unregulated energy (appliances in sockets) both play an important role in meeting Net Zero Carbon but are monitored and evaluated differently.

“Design can facilitate low carbon lifestyles – places can be influencers to enable low carbon choices.”

James detailed the huge impact of embodied carbon within the whole life cost of a building and noted the lack of measuring and reporting as well as missing policy expectation to reduce this. He presented the 'upfront carbon' scale that LETI has developed to ensure that all buildings are meeting higher standards for reducing embodied carbon, whilst also

enabling comparison between schemes to help push standards higher. This is voluntary at present, but James believes it needs regulation because of the large carbon impact from the construction of buildings compared to the ongoing operational requirements. It could become a foundation for Zero Carbon policy by being used to set thresholds.

James explored that as our understanding of Net Zero Carbon matures, we need to look at post occupancy evaluation to understand what has worked best and noted that Garden Communities offer a fascinating opportunity for insight.

He also noted that in order to evaluate the impact of different schemes we need to assess capital emissions, in-use emissions, transport emissions, supporting nature, human experience and ongoing value.

“A group of sustainable homes do not make a sustainable place. We have to consider a range of factors and it is a complex system that requires collaboration from a range of disciplines to create sustainable place making.”

Q&A

The session was then opened to questions by chair **Adrian Cole – Director at Steer**. These questions delved deeper into the topic and explored issues such as:

- lagging of plans and proposals despite Net Zero urgency
- facilitating the use of active and public transport in garden communities
- success stories of sustainable new developments for future reference

There has been much said about the potential off-site manufacturing and modern methods of construction (MMC) for reducing carbon within new developments, yet there is limited evidence in the public domain. To what extent do you feel MMC could support sustainable garden communities and help net zero?

I don't think MMCs are going to be the silver bullet, there are certain elements that make perfect sense to this scale of development when talking about volume. It can provide great economies of scale and reducing waste and efficiency. It helps guarantee air tightness and reduce on-site errors. Very high potential in residential market. But limited evidence of it being introduced at scale. We have been talking about MMC for some time, but what are the barriers preventing it being adopted at scale? It needs more understanding as currently only being used in smaller scale trials. It could also go against the delivery of social value with less opportunities for on-site workforce.

Your presentation alluded to many proposals and plans lagging behind trend, despite COP26 and the wider agenda to reduce carbon being widely acknowledged. What would you attribute the lag to and how much of a challenge will it be to 2030 ambition?

Local plans are always playing catch up with evolving priorities and Net Zero is the latest thing. What is missing is a really clear national steer. There is lots of work on a planning reform, but we need Net Zero to be considered in advance of that. The government need to determine the national framework whilst local plans catch up, whilst allowing that deeply collaborative process within the development of the Local Plans. I don't think it's a problem, it's just symptomatic of the way in which local plans are brought forward, it's just important to have clear targets.

What would be the ideal package of policies to avoid new Garden Communities from becoming sprawling developments with high car dependency?

Homes England guide provides some tests. It is the order within which you look at the information through the design coding process and how you allow flexibility going forward is important, in order to achieve Net Zero Carbon on this mass scale

There needs to be a dramatic shift to performance-based metrics – use them creatively in planning policy to ensure they don't become a restriction to design. Moving from qualitative to quantitative will give planning officers greater ability to assess design. But it needs education and competency building within local authorities – as people have not been trained in this approach to date.

Clarity on standards is important. The RTPi guide (The Climate Crisis: A Guide for Local Authorities on Planning for Climate Change, October 2021 TCPA/RTPi) has started to address these.

Sustainable garden communities would ideally discourage car use and move away from being commuter towns in a self-sufficient entity. In your opinion how can we implement future models of movement in new communities that will facilitate and encourage use of active and public transport?

Car dependency is culturally so prevalent – so won't move away from that overnight but with design we can create the conditions that help people move to around a place, react to a place and relate to it – green space is critical to encourage travel by non-car modes. If you create the routes and embed them from the beginning so that they are desirable routes that people will want to take by bike or foot, they will provide the mechanisms and foundations to focus on non-car travel. Different routes for different modes so that they can be as accessible and desirable. We do need to think about long term maintenance as well.

Some garden communities are located in more isolated location, so choice of route and mode is important. We also need to enable future proofing to allow for future systems to be provided as technology and design advances.

Are there any success stories in the UK/internationally whereby a vision of sustainable new development has translated into the implementation of a low impact development and that can be learned from?

There isn't one scheme that does everything. There are positive aspects in all schemes, with some things being done well, where others could be improved. BedZED (Wallington, London) was, a decade ago, the go-to example about sustainable living, however with that came a very specific design style and we get the impression that it is not what people want at

the moment. We can achieve contextual design in a sustainable context including sustainable travel alongside it, therefore we need to take key positive parts of each development and use them to go forward. As planners we deal with the front-end process, but we need to get better at measuring and assessing the success of built out projects and sharing exemplar projects.