

Creating a Planning Pathway to Net Zero Buildings

1 November 2018 is the second forum of a series of forums to help local and state government and industry better understand current practice, as well as planning issues and opportunities within the NSW planning framework to support the transition to net zero development. The forums target new non-residential (office, hotels and mixed-use) and multi-unit residential developments.

Forum brief

Purpose

The forum partners would like to explore, with ESD and Planning consultants and local and state government planners, the planning challenges of how to achieve low-carbon, high efficiency buildings and precincts to contribute to the NSW target of net zero emissions by 2050 and reduce climate change impacts.

In Greater Sydney, the largest contributor to greenhouse gas emissions is energy use in buildings, hence the forums' focus on buildings and precincts.

The way Greater Sydney's urban structure and built form develops and redevelops over time can support NSW's transition towards net zero emissions.

Net zero

There are many definitions, constraints and expectations for the term 'net zero'. For the purpose of this forum, we will be using a European Union definition to guide discussions.

*EU, Energy Performance of Buildings Directive
Nearly zero-energy buildings (NZEBS) have very high energy performance.*

The low amount of energy that these buildings require comes mostly from renewable sources.

We understand there are inherent issues with the definition, such as 'very high energy performance' not being defined, and lack of clarity around on-site vs off-site renewables. Please remember the definition is to provide guidance for discussions on the day, and not define net zero for forum partners or your organisation.

NSW planning framework

The NSW planning framework provides the broad context and boundaries for this series of forums.

We would like forum invitees to consider all aspects of the NSW planning framework when thinking of the current perceived and real issues, barriers and challenges encountered for new developments to transition towards net zero. The planning framework consists of the Environmental Planning & Assessment Act 1979; state environmental planning policies (SEPPs) (e.g. BASIX SEPP, Infrastructure SEPP); Region and District Plans; local environmental plans; development control plans; other planning tools (e.g. NABERS, Green Star).

Greater Sydney's most recent and comprehensive planning document, the [Greater Sydney Region Plan – A Metropolis of Three Cities](#), identifies improved building efficiency as one of the most important pathways towards net zero emissions in Greater Sydney. The five District Plans are a guide for implementing the Region Plan. All District Plans contain the Planning Priority Reducing carbon emissions and managing energy, water and waste efficiently. This series of forums will discuss how to support the objectives and strategies identified in the Region and District Plans to achieve a low-carbon, efficient city.

Forum questions

Over page.

Forum questions

Prior to the forum, consider your role or potential role in planning for, designing and/or building net zero developments. Engagement might be in developing or reviewing a planning proposal, negotiating or assessing a development application, designing a building to meet a condition, or providing ESD or planning advice on the development.

You'll be asked to use a 'land use planning lens' on the day of the forum. The questions will interrogate the opportunities and barriers identified during Forum 1 to further develop the findings.

Forum 2 will explore the below questions:

- Q1: What are the current challenges to developing net zero buildings and precincts? (e.g. legislation, using current tools, capital cost, skills and expertise)
- » Thinking about the NSW planning system
 - » Thinking about the development industry
- Q2: Issues with planning tools (e.g. BASIX, NABERS, Green Star) and the National Construction Code were identified at Forum 1. What improvements can be made to existing planning tools to support net zero development and why?
- Q3: Carbon offsets or offsite energy generation will be an important part of achieving net zero high rise development. Can the NSW planning system be used to support offsets or facilitate transfers of energy production or renewables entitlements between buildings, and if so, how would this work? Are changes needed outside of the planning system to support this? Would there be compliance challenges?
- Q4: Can planning-based incentives be better targeted to support net zero development? Are there other incentives we could use apart from floor space ratio? What would be the strengths and drawbacks of using these incentives for the planning system, Local Government Area and development industry?
- Q5: What support or resources are required to assist a) planners and b) developers to better integrate sustainability into planning policy? Who is best placed to provide that support - council, districts or state? [Consider: cost benefit analysis of developments, better understanding of the dynamics between consumers, developers and the marketplace, application of National Construction Code, better understanding of rating tools, negotiation skills.]
- Q6: The buy-in of the property industry is vital to achieving net zero development. How do we ensure that a planning pathway is taken up by the whole industry?
- Q7: Forum 1 identified the need for the planning system to support and recognise developers that are leading in driving improved sustainability performance of new developments and encourage 'followers' through mandatory requirements. For example: If we lift the mandatory requirements for all to be net zero how do we continue to support 'leaders'?
- Q8: Forum 1 identified the need for a scaled approach to transition to net zero development to enable energy targets to be built into land pricing. A shorter timeframe was suggested for urban renewal and longer for greenfield development. What are suitable timeframes and targets to transition to net zero development and why?
- Q9: Are there existing industry or government frameworks that should be considered when developing the planning pathway (e.g. approaches from other cities, GBCA Carbon Positive Roadmap, ASBEC Built to Perform)? Identify how they could be used and why?

Other

This is the start of the conversation. We welcome any and all ideas on the day.

Feedback on the day will be anonymous, and the findings of the forum will be reported but no organisation or individual will be identified.