

Post Exhibition - Planning Proposal - Performance Standards for Net Zero Energy Buildings - Local Environmental Plans and Development Control Plan Amendments

File No: X081213

Summary

This report recommends Council endorse the finalisation of a planning proposal and draft Development Control Plan (DCP) to implement performance standards for net zero energy buildings.

The planning proposal and draft DCP introduce higher energy efficiency standards for office buildings, shopping centres and hotels from 1 January 2023, and then a requirement to demonstrate net zero emissions from energy use from 1 January 2026.

Energy used in the operation of buildings is the largest contributor to greenhouse gas emissions in Greater Sydney. These new planning controls will contribute to the City of Sydney achieving the goal of net zero emissions in the local area by 2035. They also contribute to the NSW Government's Net Zero Plan Stage 1 - 2020-2030 which focuses on implementing proven emission reduction technologies.

The proposal was developed with a strong evidence base and after extensive consultation across government and industry. The program of consultation began in 2018 and extended through to 2020, with feedback informing the proposed planning controls to ensure they are both effective and feasible. Consultation across government was included to ensure the evidence and industry consultation can be drawn on by the NSW Government and other councils in the Greater Sydney region to adopt similar planning controls.

Cost-benefit analysis demonstrates the performance standards will provide a positive internal rate of return and deliver significant wider benefits for the economy in avoided investment in power generation and transmission infrastructure. Mandated procurement of renewable energy from 1 January 2026 will promote further investment in the renewable sector, contribute to "greening the grid" and deliver net zero emissions buildings.

The planning proposal and draft DCP were endorsed for public exhibition in May 2021, and exhibited between 18 November and 17 December 2021. There were 11 submissions, including support for the project, suggestions for expanding the scope of the project, requests for more clarity over certain aspects of the proposed planning controls, and suggesting changes that would improve the performance of existing office buildings without inadvertently removing affordable, lower grade office space.

In response, the planning proposal and draft DCP have been amended to provide more clarity in the structure and operation of the controls, and to introduce alternative pathways to allow existing buildings to demonstrate net zero emissions.

Recommendation

It is resolved that:

- (A) Council note matters raised in response to the public exhibition of Planning Proposal and draft Development Control Plan - Performance Standards for Net Zero Energy Buildings as detailed in this report and shown in Attachment A to the subject report;
- (B) Council approve Planning Proposal - Performance Standards for Net Zero Energy Buildings, with amendments in response to submissions, as shown at Attachment B to the subject report, to be sent to the Department of Planning and Environment to be made as a local environmental plan;
- (C) Council approve the draft Development Control Plan - Performance Standards for Net Zero Energy Buildings, with amendments in response to submissions, as shown at Attachment C to the subject report to be commenced upon the making of the local environmental plan; and
- (D) authority be delegated to the Chief Executive Officer to make any minor amendments to Planning Proposal and draft DCP - Performance Standards for Net Zero Energy Buildings to correct any minor errors, omissions or inconsistencies prior to finalisation.

Attachments

- Attachment A.** Summary of and Responses to Matters Raised in Submissions
- Attachment B.** Planning Proposal - Performance Standards for Net Zero Energy Buildings
- Attachment C.** Draft Development Control Plan - Performance Standards for Net Zero Energy Buildings
- Attachment D.** Resolutions of Council and Central Sydney Planning Committee
- Attachment E.** Gateway Determination

Background

1. The City of Sydney has a target of net zero emissions in the Council area by 2035. To achieve this, the Environmental Action 2016-2021: Strategy and Action Plan included an action to "develop a pathway for the City's current planning controls to be strengthened over time to deliver net zero building standards", and the City's Local Strategic Planning Statement includes an action to "reduce greenhouse gas emissions by implementing the performance standard pathways framework to achieve net zero energy buildings". The updated Environmental Strategy 2021-2025 includes an action to implement net zero performance standards in the City's local planning controls.
2. The planning proposal (at Attachment B) and draft Development Control Plan (draft DCP) (at Attachment C) implements these strategic priorities through the City's planning controls. The proposed planning controls require office buildings, shopping centres and hotels to meet certain minimum energy efficiency performance standards from 1 January 2023, and to procure off-site renewable energy to cover energy use from 1 January 2026.
3. The performance standards were developed with a robust independent evidence base, summarised in the Project Report at Attachment 2 to the planning proposal, including energy modelling, construction costing and cost benefit analysis. The controls deliver a positive internal rate of return for development, with the additional expenditure on energy efficiency measures and on-site renewable generation more than offset by the savings in energy consumption.
4. The performance standards were developed with extensive stakeholder engagement prior to formal exhibition. The City held two forums with industry and government in 2018 to identify the issues and opportunities in pursuing net zero through planning, which informed the scope and focus of the project.
5. The proposed approaches to planning controls and cost benefit analysis were tested with industry and government stakeholders, including major developers, the Greater Sydney Commission and Government Architect NSW, in a series of meetings, workshops and forums through 2020 and 2021. Amendments were made to ensure the performance standards were feasible and able to be implemented by stakeholders.
6. The result of this early engagement is a letter of support for the performance standards from six major developers and landowners. These are shown at Attachment 4 to the planning proposal. In response to submissions received from the Property Council of Australia and Investa, the City has worked with these two stakeholders to further refine the controls.

The exhibited controls

7. The planning controls placed on public exhibition apply to the development of office buildings, shopping centres and hotels over a certain size. This includes new office and hotel buildings, alterations and additions to existing offices and hotels, and new builds and additions to shopping centres. The performance standards for offices and shopping centres apply to 'base building' energy use which does not include energy use by tenants. The performance standard for hotels is for the whole building.

8. The planning proposal will amend Sydney Local Environmental Plan 2012 and the Green Square Town Centre Local Environmental Plans to require the consent authority to be satisfied that development will achieve the performance standards to improve energy efficiency from 2023, and achieve net zero emissions from energy use by 2026. The amendments to Sydney Development Control Plan 2012 and the Green Square Town Centre DCP set out those performance standards.
9. To transition buildings to net zero and allow industry time to adapt and innovate, the standards will be implemented in two stages. The stage one controls will apply to development applications lodged from 1 January 2023, and the stage two controls from 1 January 2026. This staged approach reflects industry feedback received during development of the planning controls, which emphasised the need for certainty and forward planning when implementing new performance standards.
10. The performance standards for stage one can be achieved through energy efficiency in building design and/or on-site renewable energy. Achievement can be demonstrated via a NABERS Energy rating, a specific energy use criteria level in Green Star, or a metric of energy use per square metre per year.
11. The performance standards for stage two achieve net zero by offsetting the emissions from any remaining energy use through the purchase of renewable power. Some of the energy efficiency targets also increase from 1 January 2026.
12. To meet the stage two requirements, proponents can choose one of three options to procure off-site renewables. They can purchase and retire large-scale generation certificates, enter into a GreenPower contract, or enter into a new or augment an existing, power purchase agreement.
13. The planning proposal and draft DCP do not include performance standards for residential development. The technical reports and consultation considered residential development, identifying significant room for improvement from the current standards. However, the NSW planning framework does not allow local controls to require a higher standard than State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004. The evidence base has been provided to the NSW Government and helped inform the proposed update to BASIX standards announced in April 2022.

The Department issued a Gateway Determination requiring minor amendments

14. In May 2021, Council and the Central Sydney Planning Committee (CSPC) approved the planning proposal for submission to the Department of Planning and Environment with a request for Gateway Determination, and following Gateway approval, for public exhibition alongside the draft DCP. The May 2021 Resolutions of Council and CSPC are shown at Attachment D.
15. A Gateway Determination was issued by the Department of Planning and Environment on 1 October 2021 with approval to proceed to public exhibition subject to certain conditions requiring minor amendments and clarifications, concurrent exhibition of the planning proposal and draft DCP, and consultation with two public authorities.

16. The cover letter to the Gateway Determination acknowledged concerns raised by industry advocates, and advised Council to work collaboratively with industry to address any feedback or concerns raised during exhibition. Submissions from the Property Council of Australia and Investa raised some specific concerns regarding application of the controls to existing office buildings. Following exhibition, the City has worked collaboratively with the PCA and Investa to address the concerns and have proposed amendments that deliver on the intent of the project while avoiding unintended consequences. These are detailed below.

Public exhibition

17. In accordance with the Gateway Determination the planning proposal and draft DCP were exhibited between 18 November and 17 December 2021. Eleven submissions were received. A summary of the submission themes and the City's response to them is provided at Attachment A. Key issues are addressed below.

Introducing a new pathway for existing developments to reach net zero

18. Submissions from the Property Council of Australia (PCA) and Investa raised concerns about the ability for existing office buildings to meet the same stage one energy efficiency standards as those being required of new development. Due to the diversity of existing office buildings across different building ages and asset classes, the submissions said that requiring the same high efficiency standard would encourage demolition of older, non-heritage office buildings that couldn't meet the standards. It could also drive large scale upgrades of lower grade office buildings, bringing them from lower B and C grade to A grade and higher. In both cases this may result in the loss of affordable office space in the City and contribute to additional carbon emissions and environmental impact from development where unnecessary demolition occurs. They also stated the high performance standards could act to discourage efficiency upgrades, leaving older and lower grade office buildings operating less efficiently.
19. Further consultation with PCA and Investa in 2022 highlighted that many existing buildings have limited opportunities for energy efficiency through design and so active ways of reducing carbon emissions, such as removing natural gas supply and replacing gas appliances with electrical equivalents (electrification) and encouraging renewable energy procurement are needed to drive improvements in building performance.
20. To address this, the controls have been amended to introduce alternative pathways for existing buildings to demonstrate reduced carbon emissions.
21. These pathways replace the single performance standard target with two options to demonstrate improved efficiency combined with an active carbon reduction strategy. The pathway for existing buildings with poor energy efficiency requires showing a 2 Star improvement in NABERS Energy from the existing rating, as well as electrification of gas appliances. For buildings currently demonstrating adequate energy efficiency performance both electrification and procurement of 100 per cent renewable energy is required, along with a more moderate efficiency increase up to NABERS Energy 5 Star.
22. These pathways recognise that existing office buildings have differing capacities to meet energy efficiency standards, and that electrification and procurement of renewable energy are verifiable ways to demonstrate reduction of carbon emissions.

23. An explanation of the consultation that led to the alternative pathways is added to the planning proposal, as well as some structural and content changes to the proposed LEP and DCP controls. The definition for "refurbishment" is deleted from the controls, as it is no longer required with the updated trigger based on alterations involving over 50 per cent of the net lettable area.
24. No submissions were received raising concerns over the ability of hotels to meet the performance standards through refurbishments, so those are proposed to stay at the same level as new builds.

The trigger for applying the controls to refurbishments has been reworked

25. The proposed trigger for an existing building to be subject to the planning controls was if the refurbishment affected over 50 per cent of the building volume, including all works over a three year period. Submissions highlighted that building volume is not a commonly understood metric for measuring the extent of works in a development application.
26. To address this concern, the control has been amended to apply where an alteration involves over 50 per cent of existing Net Lettable Area (NLA), which is a more commonly used and understood industry term. For hotels, the control has been amended to 50 per cent of existing gross floor area, as NLA does not apply to hotels.
27. The requirement to include all works over a three-year period has been removed. Consultation with industry indicated this control can be easily avoided by deferring works. The control can also have the unintended consequence of imposing building efficiency upgrades on development applications for minor refurbishments that occur within a three year period of other, unrelated works in the same building.

The draft planning controls have been amended for clarity

28. Submissions included feedback about the use of term "net zero energy" for the stage two controls and the procurement of renewable energy. They suggested the term "net zero carbon" more accurately describes the requirement, given that the control allows procurement of energy from off-site source. The submissions are correct in that the controls do not intend to refer to a net zero amount of energy used in building operations. However, "net zero carbon" would be inaccurate as that term only focuses on carbon emissions related to energy use. To resolve this, the planning controls have been amended to refer to "net zero emissions from energy use" which more accurately describes the intent of the controls.
29. To further aid in understanding, the requirement for net zero emissions from energy use has been expanded to a provision in the DCP. Previously this relied on a definition for "net zero energy development" and a definition for "renewable energy". This provision provides more information about how meeting the requirement needs to be demonstrated. The definition for "net zero emissions from energy use" has been retained in the LEP clause for situations where the DCP may not apply. The definition of "renewable energy" is removed to avoid potential misunderstandings, instead a standard dictionary definition will apply.
30. Submissions requested more clarity over the role of on-site renewable energy generation to meet the performance standards, particularly for office buildings. This is because larger office buildings have limited capacity to generate on-site renewable energy. The planning proposal has been edited to make it clear that on-site generation of renewable energy can contribute to the performance targets, but that it is not essential.

31. The strategic alignment sections of the planning proposal have been updated to reflect the latest City and NSW Government policies, including introducing references to Sustainable Sydney 2030-50, the Environmental Strategy 2021-2025, and new State Environmental Planning Policies.

The scope of the controls has not been amended in response to all submissions

32. Some submissions suggested extending the scope of the planning controls to account for embodied carbon, greenhouse gas emissions from sources such as refrigerants, and to include resilience benchmarks, or to bring the second stage controls forward to apply from 1 January 2023.
33. The scope and timing of the project was directed by the actions in the City's Environmental Action 2016-2021: Strategy and Action Plan and Local Strategic Planning Statement and informed through early engagement with industry and government, the cost benefit analysis and evidence base. Detailed responses to specific suggestions and submission themes are included at Attachment A.
34. Four submissions requested the controls apply a ban on new natural gas connections. This was not included in the scope of the project, with the evidence base assuming a mix of electrical and natural gas services when calculating the internal rate of return on energy efficiency measures.
35. The stage two controls disincentivise the use of gas by factoring in natural gas in the total amount of energy that needs to be offset by procurement of off-site renewables. To comply with these planning controls development that includes natural gas needs to offset the forecast energy consumption with additional procurement of renewable power. The amended controls for the refurbishment of existing office buildings include an option to replace gas services with electrical equivalent in achieving the performance standards.
36. Other submissions addressed certain aspects of the proposal, the evidence base and implementation details, including:
 - (a) Considering the cost of capital upgrades falling to building owners while the benefit of reduced energy use falls to occupants.
 - (b) Larger property owners may be able to negotiate more affordable renewable energy supply than smaller property owners.
 - (c) Aligning the performance standards with the draft State Environmental Planning Policy (Design and Place).
 - (d) Consideration of alternative energy efficiency ratings schemes and the interaction between local planning controls for efficiency standards and the National Construction Code.
37. These submission themes are addressed in the summary of submissions provided at Attachment A.

Key Implications

Strategic Alignment - Planning

38. The Greater Sydney Commission's Greater Sydney Region Plan and Eastern City District Plan are used to shape strategic planning and infrastructure in metropolitan Sydney and align planning from the broadest regional area down to the local area. The City's Local Strategic Planning Statement sets the land use planning strategy for the city which is required to align with the Region and District Plans. The City's planning controls are then required to give effect to the strategic plans.
39. The Region Plan, District Plan and Local Strategic Planning Statement adopt planning priorities of similar themes, being infrastructure, liveability, productivity, sustainability and governance. How this proposal gives effect to these priorities is discussed in detail in the planning proposal and summarised below:
 - (a) Infrastructure - The procurement of off-site renewables in stage two of the performance standards will support investment in the NSW Government's renewable energy zones. This gives effect to infrastructure objectives, particularly:
 - (i) District Plan priority E1 - Planning for a city supported by infrastructure; and
 - (ii) Planning statement priority I2 - Align development and growth with supporting infrastructure.
 - (b) Productivity - The results identified that net zero energy buildings will contribute to a positive and sustainable business recovery for Greater Sydney, creating demand for new skills and jobs in energy efficiency and renewables. This gives effect to productivity objectives, particularly:
 - (i) District Plan priority E13 - Supporting growth of targeted industry sectors.
 - (c) Sustainability - The implementation of the performance standards will reduce greenhouse gas emissions through improving energy efficiency, use of on-site renewables and the procurement of off-site renewables to transition buildings to net zero energy. It will also improve the resilience of buildings, improving the comfort for occupants now and in the future when we expect further impacts from climate change. This gives effect to sustainability objectives, particularly:
 - (i) District Plan priority E19 - Reducing carbon emissions and managing energy, water and waste efficiently
 - (ii) District Plan priority E20 - Adapting to the impacts of urban and natural hazards and climate change
 - (iii) Planning statement priority S2 - Creating better buildings and places to reduce emissions and waste and use water efficiently and
 - (iv) Planning statement priority S3 - Increasing resilience of people and infrastructure against natural and urban hazards.

Strategic Alignment - Sustainable Sydney 2030-2050 Continuing the Vision

40. Sustainable Sydney 2030-2050 Continuing the Vision renews the communities' vision for the sustainable development of the city to 2050. It includes 10 strategic directions to guide the future of the city, as well as 10 targets against which to measure progress. The proposed planning controls are aligned with the following strategic directions and objectives:
- (a) Direction 1 - Responsible governance and stewardship - the project makes a positive contribution to the governance of metropolitan Sydney as the evidence base and results are applicable to development across Greater Sydney and will be shared with the NSW Government and Greater Sydney councils.
 - (b) Direction 2 - A leading environmental performer- the planning proposal and draft DCP deliver staged energy performance standards for future development which will reduce greenhouse gas emissions. It will also ensure that buildings are resilient now and, in the future, when we expect further impacts from climate change. The development of the performance standards also demonstrates leadership in environmental performance.
 - (c) Direction 4 - Design excellence and sustainable development - the planning proposal and draft DCP will support more ecologically sustainable development by transitioning key development types to net zero energy. The City is also leading by example, sharing the results and evidence base with the NSW Government and other Greater Sydney councils to help to deliver sustainable places. The performance standards will also provide for economic growth and innovation, fostering a culture of continual improvement and going beyond 'business as usual'.

Environmental and economic benefits

41. The planning proposal and draft DCP will facilitate resilient, net zero energy buildings. The key benefits are:
- (a) reduced greenhouse gas emissions equating to 21 per cent of the City of Sydney's 2030 target
 - (b) reduced running costs for developers, owners and occupants of buildings and improved comfort for occupants now and in the future when we expect further impacts from climate change
 - (c) savings in avoided health, energy network and emissions costs
 - (d) contribution to a positive and sustainable business recovery for Greater Sydney
 - (e) demand for new skills and jobs in energy efficiency and
 - (f) support for investment and jobs in the NSW Government's renewable energy zones.
42. A broader cost benefit analysis was completed that considered the costs and benefits to direct participants such as developers and owners of buildings, and indirect benefits of public savings in health, energy network and emissions.

43. From development that occurs in Greater Sydney, the broader analysis identified that the performance standards will save investors, business and occupants \$1.341 billion between their implementation in 2023 and 2050. This is the result of energy bill savings minus the cost to implement the performance standards.
44. The broader analysis also identified savings to the public of \$1.811 billion between 2023 and 2050. This is through savings to NSW energy consumers of \$842 million from avoided power generation from traditional sources such as coal and \$618 million from avoided additional network infrastructure for traditional power generation. The community in Sydney, the Hunter Valley, and NSW taxpayers will also save \$35 million from avoided health costs resulting from better air quality. Lastly, the public in general will save \$316 million attributed to avoided emission costs. For further information see the project report at Attachment 3 to the planning proposal.

Relevant Legislation

45. Environmental Planning and Assessment Act 1979.
46. Environmental Planning and Assessment Regulation 2000.

Critical Dates / Time Frames

47. The Gateway Determination issued by the Department of Planning and Environment (shown at Attachment E) stipulates that the planning proposal is to be finalised within 12 months of the determination date, which is October 2022.

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