

Planning for net zero energy buildings briefing



About this briefing

The City of Sydney has collaborated with industry and government to develop performance standards for net zero energy buildings. Join us as we present the performance standards, hearing perspectives from the Minister for Planning and Public Spaces the Hon. Rob Stokes, MP, Environment Commissioner Emma Herd and industry executives. This is your opportunity to show support for transitioning buildings to net zero and asking the project team any questions.

Getting to net zero

The performance standards are step change improvements in energy performance to transition to net zero energy buildings. These improvements can be through:

- energy efficiency
- on-site renewable energy
- off-site renewable energy recognised in the planning system.

This project covers new office, multi-unit residential, hotel and shopping centre developments, as well as major refurbishments of existing buildings and can be implemented through the planning system.

The performance standards and evidence base can be used by all councils across Greater Sydney.

Why plan for net zero energy buildings?

Energy use in buildings is a significant contributor to greenhouse gas emissions in Greater Sydney.

Industry and government action on these performance standards will help meet our shared goal of achieving net zero emissions by 2050. The performance standards also respond to the NSW Electricity Strategy, the Greater Sydney Region Plan 'low carbon city' objective, and developer net zero targets. The performance standards and evidence base can also be used by other councils across Greater Sydney to achieve their targets for net zero emissions and sustainability actions in their local strategic planning statements.

This is an opportunity to bring together energy efficiency, onsite renewables and offsite renewables to transition buildings to net zero energy across Greater Sydney.

Setting step changes in performance standards for energy efficiency and integrating renewables provides industries the time they need to adapt and innovate to achieve net zero.

Wider community and economic benefits

Net zero energy buildings will contribute to a positive and sustainable business recovery for Greater Sydney and improve building resilience. This is in addition to the environmental benefits of reduced emissions.

These step changes provide industry with the certainty to plan for development that achieves net zero energy.

The performance standards

The performance standards take on board feedback from developers, industry groups and government.

Proposed use	Performance standards - step one Development applications submitted between 1 January 2023 – 31 December 2025	Performance standards - step two Development applications submitted from 1 January 2026 onwards
Office (base building)	<ul style="list-style-type: none"> - maximum 45.0 kWh/yr/m² of Gross Floor Area (GFA), or - 5.5 star NABERS Energy Commitment Agreement (CA) + 25%, or - certified Green Star Buildings rating with a “credit achievement” in Credit 22: Energy Use, or - equivalent 	<ul style="list-style-type: none"> - maximum 45.0 kWh/yr/m² of GFA, or - 5.5 star NABERS Energy CA + 25%, or - certified Green Star Buildings rating with a “credit achievement” in Credit 22: Energy Use, or - equivalent <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to “net zero energy” or a maximum of 45.0 kWh/yr/m² of GFA
Hotel (whole building)	<ul style="list-style-type: none"> - maximum 245.0 kWh/yr/m² of GFA, or - 4 star NABERS Energy CA, or - certified Green Star Buildings rating achieving the “minimum expectation” in Credit 22: Energy Use, or - equivalent 	<ul style="list-style-type: none"> - maximum 240.0 kWh/yr/m² of GFA, or - 4 star NABERS Energy CA + 10%, or - certified Green Star Buildings rating with a “credit achievement” in Credit 22: Energy Use, or - equivalent <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to “net zero energy” or a maximum of 240.0 kWh/yr/m² of GFA
Retail (applies to Shopping Centre base building only)	<ul style="list-style-type: none"> - maximum 55.0 kWh/yr/m² of GFA, or - 4 star NABERS Energy CA, or - certified Green Star Buildings rating achieving the “minimum expectation” in Credit 22: Energy Use, or - equivalent 	<ul style="list-style-type: none"> - maximum 45.0 kWh/yr/m² of GFA, or - 5 star NABERS Energy CA, or - certified Green Star Buildings rating with “exceptional performance” in Credit 22: Energy Use, or - equivalent <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to “net zero energy” or a maximum of 45.0 kWh/yr/m² of GFA
Multi-unit residential (whole building) 6-10 storeys	<ul style="list-style-type: none"> - BASIX Energy 40 	<ul style="list-style-type: none"> - BASIX Energy 45 <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to “net zero energy” or a maximum of 85.0 kWh/yr/m² of GFA
Multi-unit residential (whole building) 11-20 storeys	<ul style="list-style-type: none"> - BASIX Energy 35 	<ul style="list-style-type: none"> - BASIX Energy 40 <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to “net zero energy” or a maximum of 90.0 kWh/yr/m² of GFA
Multi-unit residential (whole building) 21-30 storeys	<ul style="list-style-type: none"> - BASIX Energy 30 	<ul style="list-style-type: none"> - BASIX Energy 35 <p>AND</p> <ul style="list-style-type: none"> - renewable energy procurement equivalent to “net zero energy” or a maximum of 95.0 kWh/yr/m² of GFA
Mixed use	<ul style="list-style-type: none"> - the above performance standards apply for each proposed use 	<ul style="list-style-type: none"> - the above performance standards apply for each proposed use

In this project, energy includes gas, electricity and thermal energy, and excludes diesel used for emergency back-up generation. Other emissions, such as those from refrigerants and embodied energy, are not included.