

Attachment A10

ESD Strategies

18 September 2025

APT Broadway 2 | 43-49 Mountain Street, Ultimo **Planning Proposal - Summary of ESD Strategies**

Flux has been commissioned by APT Residential to provide the key Environmentally Sustainable Design (ESD) strategies for the proposed development 43-49 Mountain Street, Ultimo, to accompany the planning proposal submission.

The strategies outlined below will ensure that the proposed development:

- Delivers an all-electric building with renewable energy generation.
- Provides healthy, comfortable living environments with natural ventilation and daylight access.
- Reduces urban heat impacts through centralised rooftop heat rejection.
- Preserves and adaptively reuses heritage fabric, extending its lifecycle while integrating new uses.
- Minimises resource demand through rainwater harvesting.
- Exceeds SB SEPP 2022 BASIX requirements.
- Achieve 5 star Green Star Buildings.

1. Proposal overview

The Planning Proposal seeks approval for a new mixed-used residential development comprising active ground-level uses and build-to-rent apartments above, along with a rooftop communal open space. The proposal also includes the adaptive reuse of a heritage-listed substation at the corner of Mountain Street and Smail Street.

2. Planning framework

The ESD strategies were prepared as part of the Planning Proposal in line with the City of Sydney's ESD requirements for future development to be able to meet:

Environmentally Sustainable Development Strategy

Identify strategies, measures and benchmarks for environmental performance for future development on the site:

Relevant controls:

- Clause 3.6 Sydney DCP 2012
- SEPP (Sustainable Buildings) and Apartment Design Guide
- Any NABERS, Green Star Buildings or other tools used to measure environmental performance.

3. Limitations

This letter does not address the Housing SEPP of the Apartment Design Guide (ADG). This will be addressed by the Architect.

4. Existing conditions

The subject site is located at 43-49 Mountain Street within the Pyrmont / Ultimo Urban Conservation Area. The existing site consists of a service carpark and a heritage-listed substation situated at the corner of the site. The site itself occupies a corner location, bounded by two vehicular roads.

Adjacent properties to the south and west are developed with buildings of four to eight storeys, built mostly to the boundary with minimal setbacks. Surrounding buildings are generally of a similar scale, providing the subject site with opportunities for solar access.

The heritage-listed building is Federation Free Style building featuring ventilator openings, a multi-paned window within the gabled wall, and a pitched roof with exposed rafters.

5. Key ESD strategies

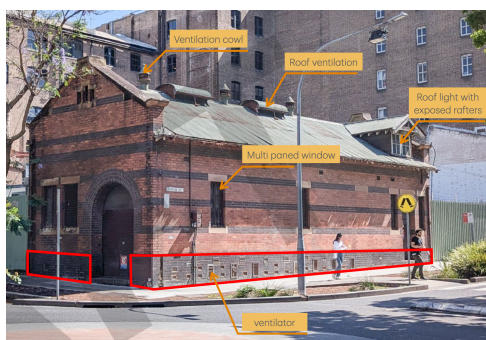
The commitments herein represent the primary sustainability strategies that are fundamental to the planning stage.

5.1. Future-ready low-carbon operation

- **All-electric building**
The development will adopt an all-electric design, eliminating on-site fossil fuels through high-efficiency electric heat pumps for hot water, and induction cooktops and electric ovens in all apartments. This approach directly aligns with NSW's electricity decarbonisation trajectory and enables the project to contribute to net-zero targets.
- **EV-charging readiness**
Capacity for electric vehicle charging will be incorporated into the basement design to allow progressive rollout.
- **Onsite renewable energy**
Rooftop solar PV will be integrated on the new building to reduce grid demand and operational carbon emissions. To preserve heritage integrity, no PV panels will be installed on the adaptively reused substation building.
- **HFC-free refrigerants**
The design will avoid using HFC synthetic greenhouse gases in air conditioning compressors and heat pumps to protect against premature redundancy of plant and equipment due to the regulated phase-down of HFCs, which provides no allocation for use in buildings after 2036.

5.2. Passive resilience

- **Passive design - new construction**
Passive design in the new building will be addressed in the DA stage, with a focus on maximising solar access, natural ventilation, and the composition of the external fabric to achieve an appropriate window-to-wall ratio and depth to provide solar shading.
- **Passive design - heritage-listed substation**



The heritage-listed substation will be adaptively reused in a manner that preserves and adapts its passive design qualities for daylighting and natural ventilation to suit retail uses. Existing ridge ventilation components will be retained to function as stack ventilation, supporting passive airflow and minimising mechanical ventilation. The clerestory and multi-paned windows will also be preserved to maximise solar access without altering the building fabric.

- **Reducing urban heat issues**
The development will implement a centralised heat rejection system located on the rooftop to minimise heat discharge to the surrounding environment.

5.3. Circularity

- Adaptive reuse
The heritage-listed substation will be repurposed as a retail space, retaining the original structure and building fabric to extends the building's material life cycle, reducing the need for new construction materials and associated environmental impacts.

5.4. Performance benchmarks

- BASIX
The project will exceed the Sustainable Buildings SEPP 2022 BASIX minimum targets of Energy (≥ 60) and Water (≥ 40) for residential development.
- Green star
The development will target a minimum of 5-star Green Star Buildings rating. The design approach seeks to leverage the inherent qualities of the development to maximise credit achievement, while minimising reliance on measures that fall outside the project's core sustainability commitments.