

10 Valentine Avenue, Parramatta

Net Zero Statement

Project No.	P01114
Revision	01
Issued	12 th December 2025
Client	Future Place Projects



E-LAB Consulting
Where Engineering and Science Inspire Design.





SERVICE ENGINEER LOGO

RE: Net Zero Statement – 10 Valentine Avenue, Parramatta

This Net Zero Statement has been prepared to address the relevant requirements under the NSW Sustainable Buildings State Environmental Planning Policies (SB SEPP) Section 3.3, and as defined under Section 35C of the Environmental Planning and Assessment Regulation 2021 (EP&A). It is intended to address the SEPP requirement of achieving net zero operational greenhouse gas emissions by 2035.

In support of the above requirement, the building is being designed to minimise the emission of greenhouse gases and dependency on fossil fuel use by utilising all electric systems.

Further details of the estimated greenhouse gas emissions and building design are included in the following sections.

E-LAB CONSULTING	SERVICE ENGINEER
Engineering Lab NSW Pty Ltd  Alex Kobler Director Sustainability 12.12.2025	*SERVICE ENGINEER SIGN-OFF*

Table of Contents

1	Introduction.....	1
1.1	Purpose.....	1
1.2	Project Overview.....	1
1.3	The Site.....	2
1.4	Scope.....	3
2	Energy Use.....	4
3	Energy Efficiency.....	4
3.1	Passive Systems.....	4
3.2	Active Systems.....	4
3.3	Renewable Energy Generation	4
4	Energy Consumption and Emissions Estimation	6
4.1	Energy Source	6
4.2	Greenhouse Gas Emissions Estimation.....	6
4.2.1	Scope 1 Emissions	6
4.2.2	Scope 2 Emissions	7
4.2.3	Scope 3 Emissions	7
5	Limitations	9

Revision	Date	Comments	Engineer	Reviewer
01	12.12.2025	SSDA Issue	HA	AK

We recognise the Traditional Custodians of the land on which the proposed development will be constructed. We respect their enduring cultural and spiritual connections to the land and waters, and celebrate their knowledge, kinship, and values. We acknowledge that these connections to the land and waters have existed for millennia and will continue into the future. We respect the Elders who have gone before, together with those of today for their guidance on our shared journey. We recognise that we are, and always will be, on Aboriginal land.

1 Introduction

1.1 Purpose

This Net Zero Statement has been prepared to support the State Significant Development Application (SSDA) for the proposed development of shop top housing (BTS) tower and the adaptive re-use of an existing commercial building to deliver a co-living housing. The project is located at 10 Valentine Avenue, Parramatta (the site).

This Net Zero Statement has been prepared to address the relevant requirements under the NSW Sustainable Buildings State Environmental Planning Policies (SB SEPP) Section 3.3, and as defined under Section 35C of the Environmental Planning and Assessment Regulation 2021 (EP&A).

The following plan aims to achieve the below objectives:

- Detail how the development has sufficient infrastructure in place to support an all-electric future
- Provide evidence of service equipment and spatial allocation that has enabled the electrification of the building
- Describe renewable energy generation infrastructure provided as part of the development;
- Describe energy reduction initiatives;
- Estimate energy consumption of the development; and
- Estimate GHG emissions for energy use of the development

1.2 Project Overview

The application seeks development consent for the redevelopment of the site for a mixed-use development comprising residential accommodation (shop top housing and co-living housing) and retail uses.

Specifically, this application seeks approval for the following:

- Demolition of the existing multi-deck car park.
- Demolition of existing internal fit-out within the commercial building.
- Site preparation works including:
 - Removal of trees as outlined in the Arborist Report.
 - Excavation on the southern portion of the site to a maximum depth of six basement levels.
- Construction of a 72-storey shop-top housing building, which will accommodate:
 - Six levels of basement with 144 car parking spaces, bicycle parking, services, waste storage.
 - Lobby, retail premises and loading dock at ground level.
 - 479 residential apartments on Levels 1-70.
 - Communal open space and resident amenities on level 5 and level 71.
 - Rooftop plant on level 72.
 - Vehicular access provided via Valentine Avenue.
 - Dedication of 3% of dwellings as affordable housing.
- Change of use of from commercial premises to co-living housing and ancillary retail.
- Alterations and additions to the existing commercial premises to accommodate co-living housing including:
 - Upgrade to existing internal lift access.
 - Alterations to the basement with amenity, laundry, jam space, manager's office and 17 co-living housing spaces.
 - Ground level retail premises and communal internal facilities including a gym, yoga room and wellness lounge.

- Upper levels: Co-living housing providing 608 beds across 440 units in private rooms, and 2-, 3- and 4-room configurations, communal internal facilities on each level and communal open spaces on level 7 and level 14.
- Alterations to the building façade.
- Hard and soft landscaping and public domain works along Valentine Avenue and Parkes Street.
- Building identification signage on the shop-top housing building and co-living housing building.
- Stratum subdivision into two lots.
- Extension and augmentation of physical infrastructure and utilities as required.

Refer to Architectural Plans prepared by Buchan collaborating with Furtado Sullivan and Curzon + Partners appended to the Environmental Impact Statement.

A concurrent RA is proposed under the SSDA. The RA seeks to amend the Parramatta Local Environmental Plan 2023 to amend the zoning, height, permissibility and FSR controls for the site.

Refer to the EIS for a full description of the proposed amendments under the RA.

1.3 The Site

The site at 10 Valentine Avenue, Parramatta, is located within the City of Parramatta Local Government Area (LGA), approximately 19km northwest of Sydney CBD and 16km northeast of Liverpool CBD. The site covers 3,937m² and is legally described as Lot 2 in DP 1119257.

The southern part of the site is currently occupied by six-level above ground carpark with 286 spaces. The northern portion of the site is occupied by 13-storey commercial office building with basement levels. Vehicular access into the site is available via the combined entry in the existing commercial building at 10 Valentine Avenue. An additional egress point from the above ground carpark is located to the south of the entry and provides exit only access onto Valentine Avenue.

The site is positioned within the Parramatta CBD, which is approximately 19km north west of the Sydney CBD and 16km north east of the Liverpool CBD. The site is located just southeast of Parramatta Railway Station, approximately 440 metres from the planned Parramatta Metro Station. It is also approximately 2 kilometres southeast of the future Westmead Metro Station on the eastern side of Hawkesbury Road.

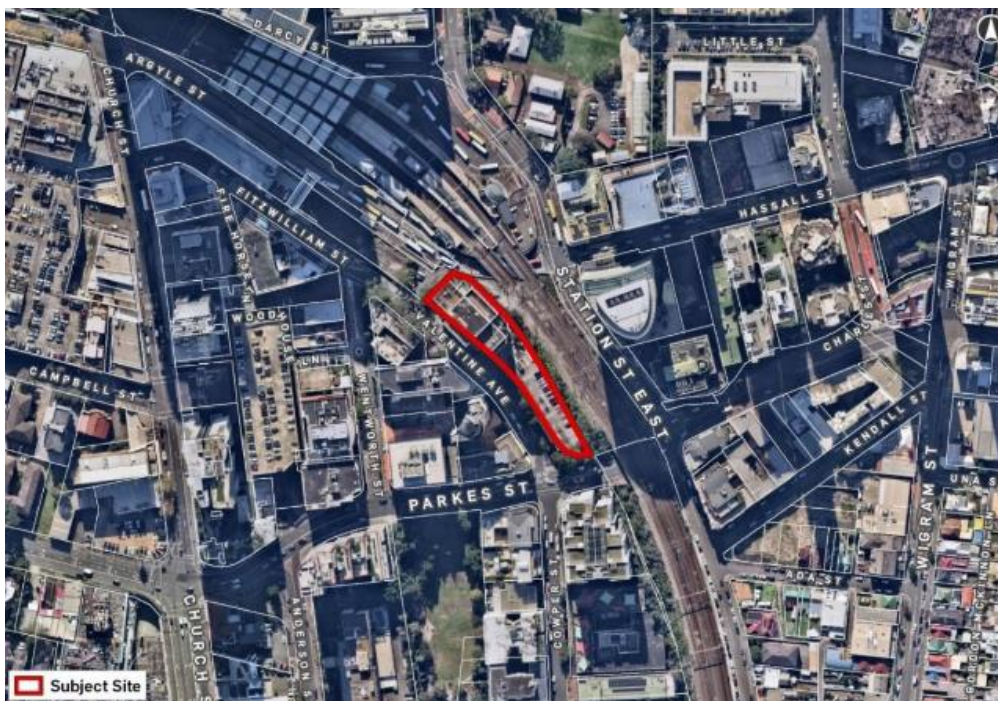


Figure 1: Site Location (source: Google Maps)

1.4 Scope

This Net Zero Statement has been created to align with the Sustainable Buildings SEPP requirements, which focuses on Scope 1, 2 and 3 emissions. The statement must demonstrate that 100% of the development's energy can be sourced from renewables and all other operational GHG-e from the building can be offset in the future, to facilitate the complete transition to carbon neutral operations by 2035.

2 Energy Use

To achieve minimal on-site fossil fuel consumption during the operational stage of the project, all building services will be electrically powered, including all major plant equipment which has been adopted to prioritize efficiency and enable the transition to a fossil-fuel free future without the need for further electrification works through the procurement of renewable energy and as the grid decarbonizes.

3 Energy Efficiency

The development will be employing several passive design features to lessen the electrical load from central systems and therefore reduce dependence and stress on the energy grid.

3.1 Passive Systems

The development will be utilising the following features to minimise heating and cooling loads:

- High-performance thermal envelope including insulation and glazed units which will contribute to the reduction of the undesirable heat gain and loss of the building.
- Proper sealing of the envelope through construction best-practices and verification will also be considered to ensure airtightness of the façade and undesirable bulk-air flow is minimized.

3.2 Active Systems

Throughout the development high efficiency building systems will be installed to reduce demand from the electrical grid. These systems include:

- High-efficiency central plant designed to optimize energy use across all building services, including heating, ventilation, and air conditioning (HVAC), as well as domestic hot water systems.
- Centralized heat rejection via rooftop plant.
- Smart building management and control enabling real-time optimization of energy use, reduced operational costs, and alignment with Net Zero and sustainability targets.
- Solar photovoltaic (PV) panels installed on-site to generate renewable electricity.
- LED lighting throughout, including in common areas with efficiency controls to meet the requirements of NCC 2022 Section J. Controls may include motion sensors, time clocks and zoned switching
- Energy meters and monitoring systems will be provided to comply with NCC 2022 Section J Part J8 requirements. The automated control of applicable centralised systems will reduce unnecessary energy consumption and allow energy demands to be better managed across the development.

3.3 Renewable Energy Generation

The roof area provides ample opportunity for the installation of solar photovoltaic system(s). An appropriately sized system will allow the development to generate renewable electricity to offset demand and minimise stress on the grid.

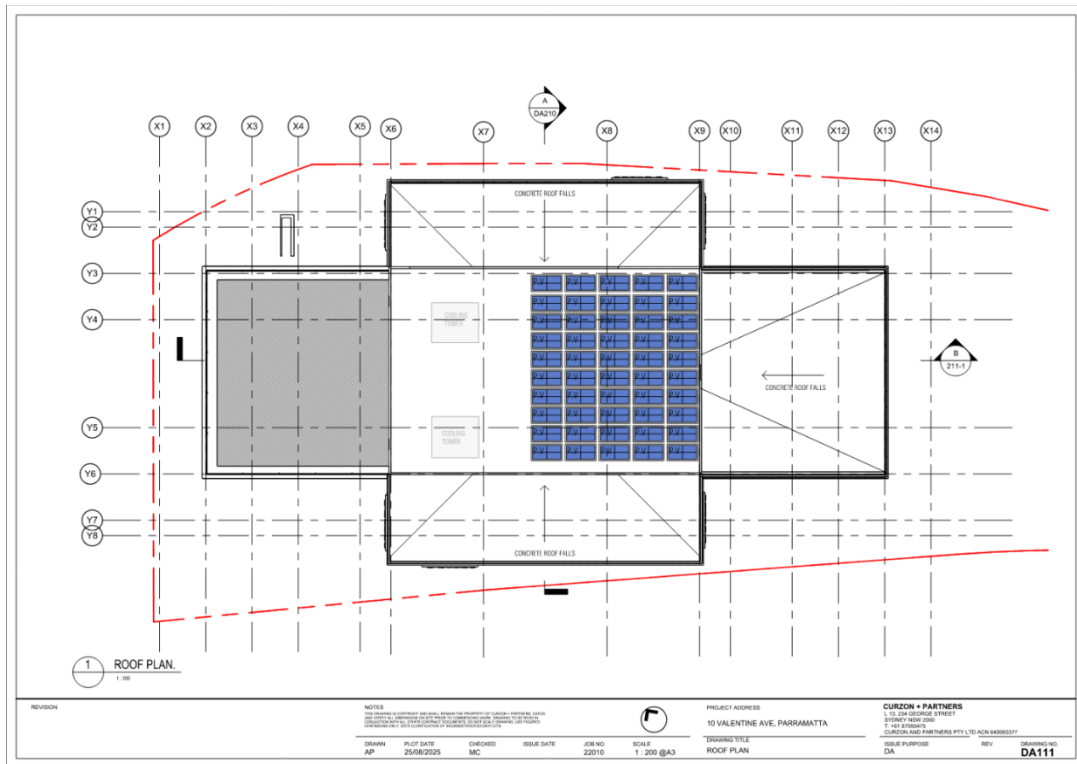


Figure 2 – Roof plan, DA111 (Source: Curzon + Partners)

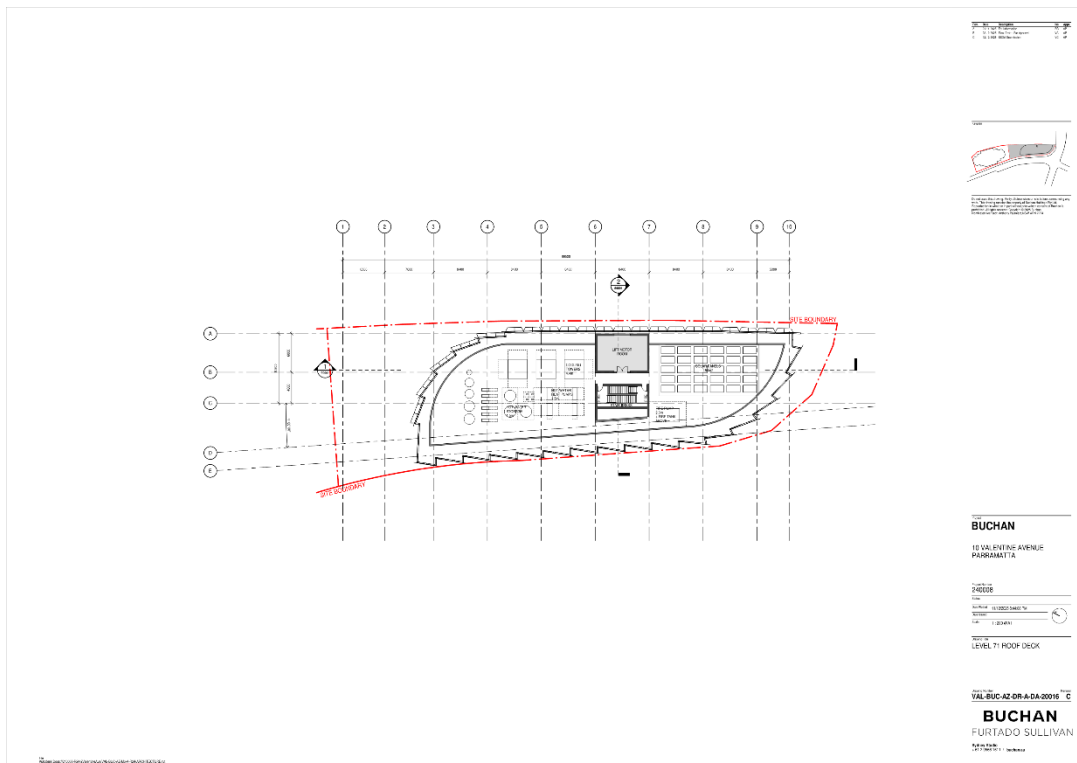


Figure 3 – Roof plan, VAL-BUC-AZ-DR-A-DA-20016 (Source: Buchan)

4 Energy Consumption and Emissions Estimation

4.1 Energy Source

Energy consumption and associated emissions have been estimated using a combination of the BASIX energy calculation output and representative NABERS reverse calculation based on current design detail. This can be considered as a realistic estimate of the predicted energy consumption to be used for the development given the current design stage.

Diesel has been predicted assuming minimal backup electricity power requirements for testing only (1% of total). Refrigerants have been estimated assuming a 2% loss factor each year*. The working refrigerant for heat rejection has been considered as R410A however this is subject to further design development and equipment selections.

4.2 Greenhouse Gas Emissions Estimation

The following section summarises the total GHG Emissions for the development based on the predicted energy consumption.

Table 1 Total Annual Estimated Greenhouse Gas Emissions breakdown

Scope	Emission source	GHG Emission (t CO ₂ -e)	GHG Emissions %
1	Gas consumption	0	0.0%
	Diesel	11.87	0.4%
	Refrigerants	11.5	0.4%
2	Electricity Consumption (Shop-top housing)	1675.9	51%
	Electricity Consumption (Co-living housing)	1392.2	42%
3	Value chain*	185.9	6%
1,2 & 3	TOTAL	3175.9	100%

**Scope 3 emissions are often complex to quantify and have large diversity, for the purpose of this NZ statement they have been estimated for purchased electricity only following the guidance provided in the 2024 National Greenhouse Accounts (NGA) Factors workbook provided by the DCEW.*

4.2.1 Scope 1 Emissions

Scope 1 emissions are defined as those which are released directly to the atmosphere on-site and are in direct control of the end user. The development's estimated scope 1 emissions are summarised in the tables below.

No natural gas will be used within the development, ensuring the building operates as a fully electrified asset. Diesel has been assumed for back-up generator use only (1% of total)

Table 2 - Annual Estimated Gas consumption and GHG Emissions

Emission source	Gas Consumption (kL)	GHG emission factor (kg CO ₂ -e /GJ)	Emissions (t CO ₂ -e)
Diesel Consumption	4.379	70.2	11.87

The table below provides an overview of the total refrigerants related to the building's services and the associated annual emissions.

Table 3 - Annual Refrigerant GHG Emissions

Emission source	GWP (kg CO ₂ -e /kg)*	Emissions (t CO ₂ -e)**
R-410A (HFC Blend)	1,924	11.5

*GWP for R-410A sourced from the Department of Climate Change, Energy, the Environment and Water, 2024

**Assuming a 2.0% leakage factor

4.2.2 Scope 2 Emissions

Scope 2 emissions are defined as those which are emitted beyond the boundary of the user and are therefore referred to as indirect emissions i.e. emissions released for energy generation through coal fired power plants supplied to the end user via the electrical grid. The development's estimated scope 2 emissions are summarised in the table below.

Table 4 - Annual Estimated Electricity consumption and GHG Emissions

Emission Source	Electricity Consumption (kWh.pa)	GHG Emission factor (kg CO ₂ -e /GJ)*	Emissions (t CO ₂ -e)
Electricity Consumption (Co-Living)	2,109,393.00	0.66	1392.2
Electricity Consumption (BTS)	2,539,310.00		1675.9

4.2.3 Scope 3 Emissions

Scope 3 emissions are all indirect emissions within the supply chain of operating the site that are not fully under the developer's control. This includes *upstream* activities such as energy in goods and services consumed and employee travel and *downstream* activities such as waste, investments and actions that occur from the building. For the purpose of estimating scope 3 emissions, a factor of **0.04kgCO₂e/kWh** has been used based on National Greenhouse Accounting Factors 2024.

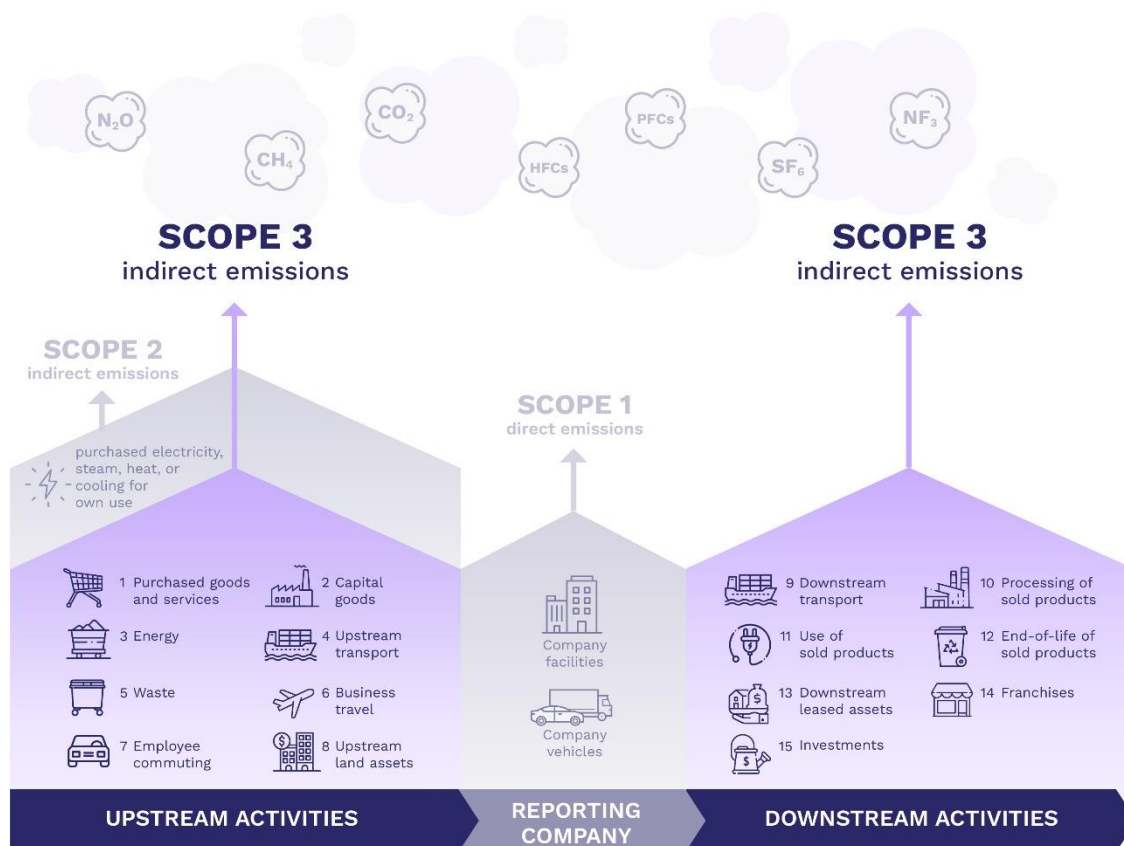


Figure 4. Scope 3 emissions (Source: thinkstep anz)

This area of carbon emissions is the hardest to track as it requires a full assessment of the supply chain. It is typical to not assess the entire process, but only the elements that make up 95% of the total. The remaining elements that make up the resulting 5% are not a focus as they are a small part of the total.

Typically, Scope 3 emissions are made up of the following:

Upstream Scope 3	Downstream Scope 3
Category 1: Purchased goods and services	Category 9: Downstream transportation and distribution
Category 2: Capital goods	Category 10: Processing of sold products
Category 3: Fuel- and energy-related activities (not included in scope 1 or scope 2)	Category 11: Use of sold products
Category 4: Upstream transportation and distribution	Category 12: End-of-life treatment of sold products
Category 5: Waste generated in operations	Category 13: Downstream leased assets
Category 6: Business travel	Category 14: Franchises
Category 7: Employee commuting	Category 15: Investments
Category 8: Upstream land assets	

5 Limitations

This statement is intended solely to offer an approximate assessment of this development's performance concerning greenhouse gas emissions. To this end, certain assumptions have been made regarding the development's energy consumption, which may not perfectly reflect the building's actual consumption during operation. Numerous factors linked to the building's tenancy and typology, such as the loads from process equipment, occupancy rates, and operational schedules, will influence the building's energy consumption and the emissions associated with it. Consequently, any information concerning this development's specific energy usage and greenhouse gas emissions is unlikely to precisely represent the building's real-world performance.

Instead, this statement serves as a guideline for understanding the magnitude of associated emissions and the necessary interventions required for the building to operate towards a state of net zero operational carbon emissions.

