

7.6 Net Zero Statement

Achieving Net Zero emissions in healthcare facilities is critical to meeting the NSW government's ambitious targets of reducing greenhouse gas emissions by 70% by 2035 and achieving net zero by 2050. According to the Sustainable Buildings SEPP (SB SEPP) and Section 35C of the Environmental Planning and Assessment Act Regulation, large developments such as hospitals must submit a Net Zero Statement demonstrating how the building will either be fossil fuel-free upon occupation or transition to fossil fuel-free operation by 1 January 2035.

7.6.1 Limitations Due to Current Project Stage

At this early stage of the project, a full detailed energy assessment is not feasible. A comprehensive energy assessment requires detailed information on mechanical design, equipment specifications, building systems, and operational schedules. Without these critical data points, any full simulation or precise estimation would be premature and potentially misleading.

Therefore, this report presents a preliminary Net Zero pre-assessment based on typical energy consumption profiles for similar healthcare buildings, informed by industry benchmarks and best practice assumptions.

7.6.2 Net Zero Approach

Net Zero initiatives adopted for this development aim to minimise operational energy emissions through the elimination of fossil fuel use, enhancement of energy efficiency, and integration of renewable energy generation and storage systems. The key design strategies proposed for this development include:

- High-performance building envelope with enhanced insulation, shading, airtightness, and glazing.
- Electrification of heating, cooling, and hot water systems, prioritising heat pumps and electric technologies.
- Optimised HVAC and lighting systems with smart controls and sensors.
- Integration of onsite renewable energy generation such as rooftop photovoltaics (PV).
- Provision for future transition infrastructure to enable fossil fuel systems to be fully replaced by electric alternatives by 2035.

7.6.3 Preliminary Energy Consumption Breakdown

Based on reference data for hospital buildings, the estimated energy consumption breakdown (expressed as a percentage of total energy use) is shown in Figure 11 below.

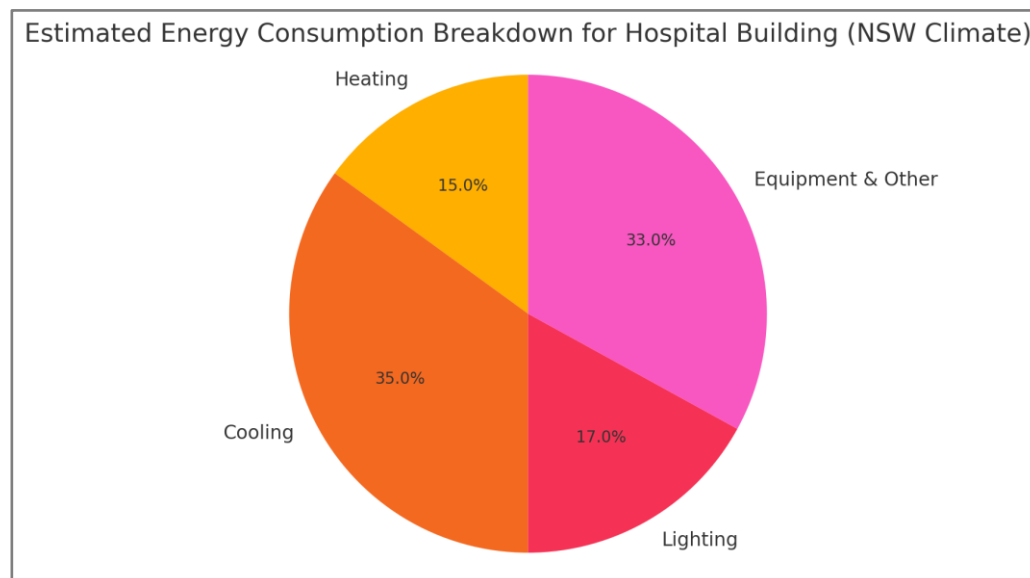


Figure 13. Estimated Energy Breakdown for Hospital Building.

7.6.4 Emission Considerations and Compliance

While precise emissions estimates require detailed energy modelling, this preliminary assessment confirms that the project will be designed to meet the fossil fuel-free or transition requirements mandated by NSW regulations. Infrastructure and space allowances for electrification will be integrated into the design to ensure compliance with the Net Zero Statement requirements.

The completed NABERS Embodied Emissions Materials Form is included as Appendix D of this report for reference and submission with the development application.

7.7 NABERS Embodied Emissions

Embodied emissions refer to the greenhouse gas emissions generated throughout the lifecycle of building materials—from extraction, manufacturing, transportation, construction, through to end-of-life disposal. These emissions represent a significant portion of a building's total environmental impact and must be addressed alongside operational emissions to achieve true sustainability.

In compliance with Section 35BA of the Environmental Planning and Assessment Act Regulation, the project is required to provide a NABERS Embodied Emissions Materials Form.

This form discloses the number of embodied emissions attributable to the development and supports transparency and accountability in reducing the building's carbon footprint.

7.7.1 Methodology and Data

The embodied emissions assessment is based on detailed quantification of materials used across the building's structure, envelope, internal walls, services, and external works. Quantities are reported primarily in metric units (such as cubic metres, kilograms, and square metres), supported by cost data where applicable, and exclude labour and equipment.

Due to the early project stage, some quantities have been estimated based on previous projects and best available data. The form captures at least 80% of the total material costs for the main contractor scope, consistent with NSW Government guidelines.

7.7.2 Integration with Project Sustainability

This embodied emissions disclosure complements the operational Net Zero commitments of the project by addressing the lifecycle emissions associated with building materials. The project team is committed to reducing embodied carbon through material selection, use of recycled content, and exploring low-carbon alternatives wherever feasible.