

If a building becomes architecture, then it is art. Clearly, if a building is not functionally and technically in order, then it isn't architecture either – it's just a building.  
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**University of Western Sydney**  
**Parramatta Campus**

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**STEENSEN VARMING**

Att. Thomas Klobucar

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## **Indigenous Centre of Excellence**

### **Net Zero Statement**

**Sydney, 9<sup>th</sup> May 2024**  
Ref. No. 237139-co-M01-01

**Martin Craig**  
Principal

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Dear Thomas,

This Net Zero Statement has been prepared to address the relevant requirements under the NSW Sustainable Buildings State Environmental Planning Policies (SB SEPP) Section 3.4, and as defined under Section 35C of the Environmental Planning and Assessment Regulation 2021 (EP&A). This statement addresses the Secretary's Environmental Assessment Requirements (SEARs) issued for the project.

The following initiatives have included in the design; however, it remains the responsibility of the appointed design and construct contractor to ensure these initiatives are designed in detail and implemented during the construction phase.

#### **Fossil Fuel Free**

The development is designed to be all-electric for normal operations and will not be connected to a gas supply.

The building will be supplied with offsite generated 100% renewable energy under the University's power purchase agreement.

#### **Onsite Measures**

Onsite generation from rooftop photovoltaic panels will reduce the demand for offsite renewable energy.

#### **Passive Design**

Passive design is embedded into the development's envelope, form and planning:

- The buildings' orientation is considerate of the site's constraints, solar pathway, and overall functionality requirements.
- The design incorporates an innovative clay tile facade that transitions from solid to highly permeable to suit the external environment and the needs of the internal uses.
- Natural ventilation is proposed to provide mixed-mode conditioning to many spaces.
- Natural light will be provided through the facade and from skylights.

### Technical Design Features

The following technical design features have been integrated into the design in order to minimise energy consumption.

- Zoning of air conditioning will allow set-back or isolation of unoccupied spaces.
- The mechanical ventilation system will apply CO<sub>2</sub> monitoring in the majority of spaces to activate the fans upon exceedance of the CO<sub>2</sub> threshold. This approach works in conjunction with the natural ventilation strategy in providing a high level of indoor air quality and a smooth transition between natural and mechanical ventilation, leading to reduced energy consumption.
- The lighting fixtures are highly efficient LED (Light Emitting Diode) technology.
- The lighting system applies passive infrared (PIR) sensors for all spaces to ensure the artificial lighting system is only activated once the space is occupied, and to ensure that the system is deactivated shortly after de-occupation of the space.
- An Energy Monitoring System (EMS) will be applied to monitor the energy usage across the project. The energy and water usage data are available to staff and can be used to inform the occupancy patterns thereby assisting in their understanding of their consumption patterns, leading to an improved, more resource conscious user behaviour.

### Annual Energy and Emissions

Estimates of annual energy consumption are not available at this early stage. Energy and thermal modelling are being undertaken to guide the resolution of facade solar shading, natural lighting, and natural ventilation.

Scope 1+2 annual operating emissions will be zero. All Scope 2 emissions from electricity consumption will be 100% offset through the university's renewable power purchase agreement.

Kind Regards,



**Martin Craig**

Principal