



THE MELBOURNE BRAIN CENTRE

The Melbourne Brain Centre is another 5 Star Green Star Education building on the University of Melbourne's campuses. Alongside other 'green' buildings around campus, it demonstrates the University's commitment to Sustainable design principles.

Greening Melbourne, one building at a time

As a leader in environmental performance in Australian higher education, the University of Melbourne aims to be carbon neutral by 2030 and develop our campuses for a sustainable future.

How we develop and use our buildings is critical in determining if we achieve this goal.

The design and operations of our facilities, and the space we use, directly affects our ability to minimise the amount of natural resources we consume, the greenhouse gases we emit, and our overall carbon footprint.

With this in mind, we have committed to minimum rating target of 5 Star Green Star for all new buildings, and 4 Star Green Star for all major building upgrades under the Green Building Council of Australia's standards.

Building for the future – The Melbourne Brain Centre

Located on Royal Parade, near the University of Melbourne's Gate 12, the seven-storey Melbourne Brain Centre building is home to approximately 480 researchers and staff.

Featuring a suite of 'green' innovations, the Melbourne Brain Centre remains at the vanguard of sustainable architecture.

The Facts – The Melbourne Brain Centre

- Architect: Lyons, Project Manager: DCWC, Services Engineer – S2F, Structural Engineer – Bonacci, Hydraulic – CJ Arms, Sustainability Consultant – Umow Lai
- Approximate floor space is 18,000 usable square metres
- Access to state-of-the-art medical research equipment
- Houses both wet and dry laboratories and PC2 and PC3 certified laboratories
- home to the Dax Centre;
- A 250-seat lecture theatre;
- bookstore and café, and;
- A collaborative workplace for about 480 staff

The building has higher carbon efficiency than conventional buildings, with a co-generation unit using natural gas to minimise the use of grid-based electricity for the building. This reduces emissions by 55 per cent, when compared with the average educational and research-based facility.

Some of the unique design features of the building include:

ENERGY

- The building is partially powered by a co-generation unit that uses natural gas to produce reduced-emission electricity and lower CO2 emissions for this facility by 55 per cent
- Over 95 per cent of the domestic hot water used by the building is heated using cogeneration waste heat
- Lighting controls with motion sensors that detect occupant presence to ensure lights are not left on unnecessarily
- Highly visible and accessible stairs within the central light and ventilation voids provide a convenient alternative to using the lifts

WATER

- A rainwater tank in basement that can hold up to 50,000 litres of water
- 1960 square metres of roof space that collects rainwater, which is recycled for use in irrigation and toilet flushing
- Low-flow taps and fixtures installed across building to reduce potable water use

INDOOR ENVIRONMENT

- The design minimises the build-up of internal heat to optimise occupant comfort while reducing energy use
- Natural ventilation system that reduces overall energy use
- Automated and manually openable windows provide mixed mode natural ventilation to the administration spaces.
- A double-glazed facade with sunshades to the North, East & West improves comfort by reducing heat and glare entering the building.
- The majority of occupants enjoy very good levels of daylight and external views from their rooms and offices

TRANSPORT

- Secure bicycle facilities in the basement (101 spaces) including changing rooms, showers, and lockers
- Excellent access is provided to public transport

View from foyer entrance



Auditorium



Typical lab layout



East elevation