Case Study: 59kW Solar Power System at 2 Murray Rose Avenue, Sydney Olympic Park

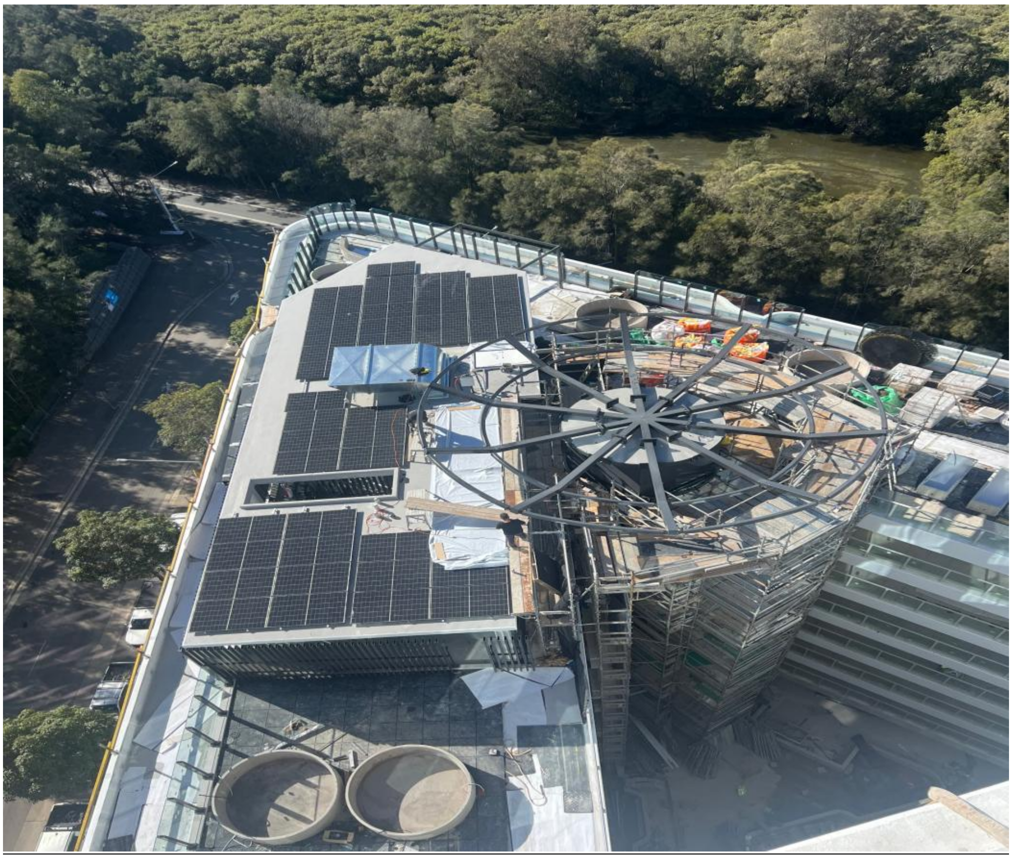
Project Overview:

New Ability Energy partnered with Ampcore Electrical, a specialist in electrical services provider to design and deliver a bespoke solar energy system for a luxury apartment development at Sydney Olympic Park.

The development is on track to become the first 6 Star Green Star rated residential high-rise project in Australia, setting a new benchmark for sustainable urban living.

The project was driven by three key objectives:

- Minimise long-term electricity cost
- Enhance the sustainability profile of the building
- Ensure resilience against future energy market changes



Installation Challenges Overcome:

Delivering this system required tailored solutions to a series of site-specific challenges:

- **Limited rooftop space:** The roof was crowded with drains and AC units. Panels were strategically placed and stringed to maximise output within the available space.
- **Regulatory compliance:** Building codes required half-metre clearances. The layout was carefully mapped to meet compliance while keeping walkways clear.
- **Waterproofing risks:**
  - On Level 9, anchoring racking to the concrete roof risked leaks. Chemical anchor bolts with sealing were applied to maintain both structural integrity and waterproofing.
  - On Level 15, limited roof space made conventional mounting impractical. Ampcore's designers created a **custom steel canopy**, with the solar panels themselves forming the roof.

System Specifications

- **System Size: 59.4 kW rooftop solar**
- **135 TW Solar 440 W dual-glass solar panels** with 25-year product and 30-year performance warranties
- **Sungrow SG30CX** and **SG20RT** inverters offering advanced monitoring, IV scanning, and seamless grid integration
- **Custom-engineered mounting system** designed for durability, safety, and efficiency

Results & Benefits:

- **Annual generation:** 89,264 kWh
- **Estimated annual savings:** $8,728
- **Lifetime savings:** $212,213
- **Environmental impact:** ~73 tonnes of CO_2 avoided per year, equivalent to planting 14,000+ trees over the system's lifetime