



Tesla Battery Project

Location: Collie, Western Australia

Sector: Renewables and Net Zero

Service: Multidisciplinary Engineering Design & Construction Oversight

AIE was engaged by CEM Alliance to complete the design for the TESLA Australia BESS Operational and Maintenance Facility. Set to be one of Australia's largest BESS installations, the project required a robust design to support grid stability for the South-West Integrated System (SWIS). The solution needed to balance rapid delivery with strict compliance and operational reliability.

Our team delivered a comprehensive, multidisciplinary design that integrated electrical, instrumentation, civil, structural, and mechanical engineering. We successfully managed specialist subconsultants and navigated regulator approvals, while facilitating crucial safety in design, operability, and constructability workshops. Due to our practical approach, AIE was further retained to provide onsite oversight, supervision, and technical advice, working directly with the contractor to confirm construction methods and manage real-time site constraints.

The multifaceted design was completed seamlessly, enabling early construction and ensuring the facility meets all long-term operational requirements.

Highlights:

- Compliance assurance: Embedded safety, operability, and constructability directly into the design phase, streamlining regulator liaison and securing all necessary approvals.
- Operational success: The project was delivered ahead of schedule and on budget, with AIE's ongoing construction oversight ensuring excellent value for money and technical compliance.

Focus areas:

- Stakeholder management and education
- SWIS grid regulations, Safety in Design (SiD)
- Scope: Electrical, Instrumentation, Civil, Structural & Mechanical Design, Construction Supervision, Regulator Liaison