

## CAPABILITY STATEMENT

### Background

Orana Engineering is an engineering consultancy that is large enough to respond to a client's needs while being small enough to develop and maintain close business relationships with its clients. The staff of Orana Engineering have extensive experience in projects, operations and maintenance activities in heavy industry including Coal & Metalliferous mining and processing. Orana Engineering's excellent reputation is built on the commitment and dedication of all of its employees working toward understanding and addressing the client's needs.

### Capabilities

Orana Engineering has mechanical, electrical and control system engineering resources skilled to project manage larger projects on behalf of the client as well as being capable of providing detailed design engineering services for smaller scale projects. Orana Engineering capabilities and services include:

- Project Management;
- Mechanical, Electrical & Control System Engineering;
- Mechanical, Electrical & Control System Detailed Design;
- AutoCAD 2D Drafting & Autodesk Inventor 3D Modeling;
- Site Support and Maintenance for Control Systems;
- Client drawing office management and maintenance;
- Engineering Investigations, Inspections, Assessments and Audits;
- Client Engineering Representative;
- Site installation management and commissioning.

### Projects

The following references have been supplied as a brief background of past and current work performed by Orana Engineering.

Client	Projects
Anglo Coal (Moranbah North)	<ul style="list-style-type: none"> <li>➤ CHPP Electrical Drawing Audit</li> <li>➤ CHPP Trainloadout Automation PLC configuration</li> </ul>
BHP Billiton (Cannington)	<ul style="list-style-type: none"> <li>➤ Overhead Gantry Crane Rail Realignment Project Management</li> <li>➤ QB80 Fan HV Switchroom design</li> <li>➤ H<sub>2</sub>SO<sub>4</sub> Tank Repairs and Control System Upgrade</li> <li>➤ Grinding Substation Air-Conditioning Upgrade</li> <li>➤ High Voltage Audit</li> <li>➤ RO Plant Controls Upgrade</li> <li>➤ Substation Fire Suppression Systems Project</li> <li>➤ Site Safety Shower System Reticulation &amp; Upgrade Project</li> <li>➤ Yurbi Stormwater System Upgrade Project Management</li> </ul>
BHP Billiton (Port Facility)	<ul style="list-style-type: none"> <li>➤ Storage Shed Extension Project Management</li> <li>➤ Stormwater System Upgrade Project Management</li> <li>➤ Recycled Water System – Elect &amp; Mechanical Design, Scope &amp; Commission</li> <li>➤ Water Treatment Plant – Electrical Design, Scope &amp; Commission</li> <li>➤ Water Polishing Plant – Electrical Design, Scope &amp; Commission</li> <li>➤ General PLC &amp; SCADA Configuration, Maintenance &amp; Site Support</li> <li>➤ Site Drawing Management</li> </ul>
BHPB Mitsubishi Alliance (BMA)	<ul style="list-style-type: none"> <li>➤ Blackwater Mine Industrial Area Services Audit</li> <li>➤ Gregory Crinum Drawing Management Audit</li> <li>➤ Saraji Reagents Upgrade System Audit and Commissioning Assistance</li> </ul>
EM Solutions	<ul style="list-style-type: none"> <li>➤ Radio Wave Propagation Simulation for Indonesian Link</li> </ul>
Ergon Energy	<ul style="list-style-type: none"> <li>➤ Pole Condition Data Program - Software Application Development</li> <li>➤ Defect Reduction Program - Software Application Development</li> </ul>

Client	Projects
Incitec Pivot	<ul style="list-style-type: none"> <li>➤ Anhydrous Ammonia Loadout Facility Functional Specification</li> <li>➤ Train Loadout PLC-DCS Data Transfer</li> <li>➤ Bagging Plant - PLC &amp; SCADA Configuration, Maintenance &amp; Site Support</li> <li>➤ Port Facility - PLC &amp; SCADA Configuration, Maintenance &amp; Site Support</li> <li>➤ Port Facility – Rebuild Citect Servers</li> </ul>
MBD Energy (James Cook)	<ul style="list-style-type: none"> <li>➤ Tank Farm Area Civil Detailed Design</li> <li>➤ Site PLC &amp; SCADA Network Conceptual Design</li> </ul>
Origin Energy (Mt Stuart)	<ul style="list-style-type: none"> <li>➤ Fire Pump System Flow Testing and Analysis</li> <li>➤ ICES Water Treatment Plant – Electrical Design &amp; SCADA Configuration</li> </ul>
O'Donnell Griffin (QLD)	<ul style="list-style-type: none"> <li>➤ Townsville Airport Power System SCADA &amp; Communications Network</li> <li>➤ Lake Lindsay Coal Water Management PLC Control Systems</li> </ul>
Peabody Energy (North Goonyella)	<ul style="list-style-type: none"> <li>➤ Investigation &amp; testing of Earth Leakage systems for Variable Speed Drives</li> <li>➤ Crushing Plant Conveyor Skirting Modifications</li> <li>➤ CHPP Distributor Modification Concept Design</li> </ul>
Rio Tinto (Hail Creek)	<ul style="list-style-type: none"> <li>➤ Drawing Registration Project – Mobile Fleet Electrical Drawings</li> <li>➤ Redraw hardcopy drawings into AutoCAD format</li> </ul>
Wesfarmers (Curragh Coal)	<ul style="list-style-type: none"> <li>➤ New Coal Prep Plant – Client's Electrical Representative</li> <li>➤ Investigation &amp; testing of Earth Leakage systems for Variable Speed Drives</li> <li>➤ MIBC Flow Measurement Investigation</li> </ul>
Xstrata Coal (NCA)	<ul style="list-style-type: none"> <li>➤ Collinsville Drawing Registration Project</li> <li>➤ Newlands Northern Underground - Compressed Air Network Desktop Audit</li> </ul>
Xstrata Coal (Oak Creek Coal)	<ul style="list-style-type: none"> <li>➤ Yokogawa CS3000 DCS Upgrade</li> <li>➤ 17M Conveyor Gantry Upgrade</li> <li>➤ MIBC &amp; Diesel Facility Upgrade Project Management and Design</li> <li>➤ Electrical and Mechanical Drawing Registration and Management</li> <li>➤ CHPP Fines Upgrade – Electrical &amp; Control Project Management</li> <li>➤ Recirc Water Upgrade Concept and Detailed Design</li> <li>➤ Product Sampler Upgrade - Electrical &amp; Control Design and Commissioning</li> <li>➤ Site Security System – Conceptual Design &amp; Installation Project Mgmt</li> <li>➤ Tailings Disposal System Modeling and Detailed Design</li> </ul>
Xstrata Coal (Oak No.1 Mine)	<ul style="list-style-type: none"> <li>➤ Underground conveyor installation drawings</li> <li>➤ LOM Water supply study</li> <li>➤ LOM Compressed Air supply study</li> </ul>
Xstrata Coal (Oak North Mine)	<ul style="list-style-type: none"> <li>➤ Underground Workshop Design</li> <li>➤ Drawing Registration Audit Assessment</li> <li>➤ Prepare Conveyor Installation Work Procedures &amp; Commissioning Docs</li> </ul>
Xstrata Copper (CRL)	<ul style="list-style-type: none"> <li>➤ High Voltage Audit and protection setting review</li> <li>➤ Shaft Furnace Gas Conversion – Control System Configuration</li> <li>➤ Redraw hardcopy drawings into AutoCAD format</li> </ul>
Xstrata Copper (Port Facility)	<ul style="list-style-type: none"> <li>➤ New RMU and transformer compound design</li> <li>➤ Mechanical &amp; Electrical Project Engineering Services</li> <li>➤ 11kV Incomer and Transformer Upgrade Project</li> <li>➤ Gantry Loader Electrical Upgrade Investigation and Preliminary Design</li> <li>➤ Recycled Water Project Detailed Design and Scoping</li> <li>➤ Wharf Crane Mother Spreader Beam Modeling and Detailed Design</li> </ul>
Vale (Carborough Downs)	<ul style="list-style-type: none"> <li>➤ Mine Dewatering Network Concept Design &amp; Budget Estimate</li> <li>➤ Dewatering equipment specification development</li> <li>➤ Client representative for conveyor upgrade project</li> <li>➤ Project management of conveyor installations</li> <li>➤ Underground conveyor installation drawings</li> <li>➤ Drawing Registration and ongoing site drawing management</li> </ul>