



CAPABILITY STATEMENT

2026

ELECTRICAL
INSTRUMENTATION
CONTROLS
OPTIMISATION

We engineer it.
We package it.
We commission it.
We optimise it.

EICO is a small engineering consultancy working primarily in oil and gas. We specialise in control system obsolescence, project delivery, maintenance strategy, root cause analysis, process optimisation and management of change.

We work for operators and contractors across the full life of the asset, from design through to end of life. We write the scope, package the work, supervise its execution and prove the plant works before it is handed over to operations. Being small means you deal directly with the engineers doing the work.

Led by Chris Lembo, an electrical and instrumentation engineer with a background in upstream oil and gas, hazardous area design and fire and gas systems.

Based

Sunshine Coast, Queensland

Coverage

Australia-wide

Certification

RPEQ review and approval by a registered professional engineer where required

Industries we **serve.**

01

Oil & Gas

Control system obsolescence and upgrades, hazardous area design and inspection, brownfield modifications and shutdown support, maintenance strategy and process optimisation. Wellsite and facility E/I design and installation work packs.

02

Adjacent sectors

The same E/I work applies to water, wastewater and industrial process plant, including control system replacement, hazardous area design and maintenance documentation.

What we do.

Electrical

- LV power system design and studies
- Switchgear, MCC and distribution design
- Cable sizing, schedules and load lists
- Earthing and lightning protection
- Hazardous area classification, design and dossier builds

Instrumentation

- Field instrument selection and sizing
- Loop diagrams, P&ID instrument mark-ups and hook-ups
- Calibration and verification regimes
- Critical function test procedures

Controls

- Control philosophy, cause and effect, alarm and trip schedules
- PLC, DCS and SCADA architecture
- Functional specifications for the control system vendor
- Alarm management and rationalisation
- Historian and reporting configuration

Optimisation

- Post-commissioning performance verification
- Plant performance assessment from historian and trip data
- Loop tuning and control performance review

Where we specialise.

The engagements that draw on all four disciplines at once.

Obsolescence

Assess the existing installation, review the control philosophy, identify the gaps and offer a solution that fits the scope of work. Then the construction schedule, inspection and test plan (ITP) and commissioning procedure, through to handover.

Project Delivery

E/I work packs, FAT/SAT planning and witnessing, supervision of the E/I contractor, commissioning execution, pre-startup safety review (PSSR) and handover to operations.

Maintenance Strategy

Criticality-driven maintenance strategy for new and existing plant, covering what to maintain, how often and why. See Beyond commissioning, page 4.

Root Cause Analysis

Structured investigation of plant and equipment failures, with corrective actions fed back into the maintenance strategy.

Process Optimisation

Control performance, throughput and historian data reviewed together to identify where the asset is under-performing and what to change.

Management of Change

Technical content for the operator's MOC process, including risk assessment preparation, HAZOP participation, cross-discipline impact assessment and close-out of as-builts and operating procedures.

Beyond commissioning.

After handover the site needs documentation it can maintain the asset against for the rest of its life. We write it.

Maintenance Schedules

Maintenance schedules and intervals built around asset criticality, operating environment and the failure modes that apply. Documented and ready to load into the CMMS.

Work Instructions

Step-by-step procedures for operating, calibrating and maintaining the instruments and devices on the package. Written by an engineer who has commissioned the equipment.

Critical Sparing Analysis

Spare parts strategy informed by criticality, failure modes, supplier lead times and the consequence of non-stocked parts. Sized to the site's operational risk profile.

Critical Function Testing

Test procedures and re-validation regimes for instruments, controls and protective functions (fire and gas, ESD) across the asset's life. Records that show the system still performs as designed.

Recent work.

WESTSIDE CORPORATION • MOURA CENTRAL
COMPRESSOR STATION, QLD

KX-301 • 302 • 303 • complete 2025/26

Three identical compressor control system replacements: 3 × Waukesha P9394GSI engines driving 6-throw Superior WH66 compressors, with obsolete Altronic RC2000 panels replaced by new Allen-Bradley PLC and HMI panels as the engines were upgraded from Series 4 (ESM 1) to Series 5 (ESM 2). EICO reviewed and reissued the control philosophy, cause and effect and alarm and trip schedule, witnessed FAT, developed the ITP, supervised the E/I contractor through construction, wrote and executed the commissioning procedure, completed the PSSR and handed each package over to operations. Also managed on-skid servicing of control valves and PSVs and the Type B gas appliance submission and certification. No safety incidents or lost-time injuries.

WESTSIDE CORPORATION • DAWSON RIVER COMPRESSOR
STATION, QLD

KX-121 • in progress 2026

Waukesha 7042GSI (ESM 1) replaced with a 7044 (ESM 2). Obsolete Allen-Bradley PLC and Schneider industrial computer HMI replaced with new Allen-Bradley PLC and PanelView Plus. All E/I engineering: control philosophy, cause and effect, alarm and trip schedule, critical function test updates and ITP, plus construction oversight and commissioning. Managing on-skid servicing of control valves and PSVs, and the Type B gas appliance submission and certification.

Have a project?

Obsolescence, maintenance strategy or commissioning support. Give us a call and we'll get it scoped.

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