



# Johannes Rickermann

DEGREE IN ELECTRICAL  
ENGINEERING

## Technical Director – Power Engineering



### Location

Perth, WA, Australia

### Experience

28 years

### Qualifications/Accreditations

- Degree in Electrical Engineering, 1992
- Graduate Diploma in Economics, 1997
- MBA Technology Management, 2010

### Key technical skills

- Control and SCADA system design, implementation and commissioning;
- Electrical engineering of power systems
- Microgrid power system design and commissioning
- Project Management of large utility projects

### Memberships

- Engineers Australia (MIEAust)

### Relevant experience summary

Joh offers substantial experience in feasibility analysis, concept design, grid integration, construction supervision and commissioning of power stations. He has performed several control system design, integration, installation, and commissioning projects. He successfully managed large power station projects from inception to completion and held management positions in electrical utilities. Joh leads the Australian Automation Service Line and is a Technical Director in GHD's WA Power Engineering team.

### *Project experience – Automation, SCADA and Protection*

**Role:** Service Line Leader

**Location:** Perth, WA, Australia

Leads the Australian, European and Middle Eastern Automation Service Line. Provides advice and point of reference for the Automation Service Line members and clients.

**Role:** SCADA and Protection Lead

**Location:** Perth, WA, Australia

Led the SCADA and Protection team and provide advice to clients and internal stakeholders on SCADA, protection, metering and control system related matter.

### *Yandin Wind Farm*

**Role:** Principal Control System Engineer

**Client:** Alinta Energy

**Location:** Perth, WA, Australia

Reviewed and supervised as Owner's Engineer control system, SCADA system and grid connection including R2 testing for Badgingarra Windfarm.

### *Development of Emergency Plan for IT/OT System*

**Role:** Principal Control System Engineer

**Client:** Horizon Power

**Location:** Perth, WA, Australia

Developed the Emergency Plan for operational and information systems (IT / OT) for Horizon Power, including the effects of pandemic diseases like Covid-19.

### *New England Solar Farm substation detailed design*

**Role:** Principal Control System Engineer

**Client:** Greenlight Contractors

**Location:** Brisbane, Qld., Australia

Design lead for the detailed control and communication system design of the Solar Farm substation, including grid interface for 400 MW New England Solar Farm.

### ***Murchison Radio Observatory Power Station***

**Role:** Control and Commissioning Lead

**Client:** Horizon Power

**Location:** Perth, WA, Australia

Control System Design and Commissioning and Integration Manager of the Murchison Solar Diesel Power Station, a 2.5 MW diesel power station with 1.6 MW of solar PV and a 2.5 MWh battery.

### ***BHP Olympic Dam***

**Role:** Principal Electrical Engineer

**Client:** BHP

**Location:** Adelaide, SA, Australia

Engineering Assessment for high voltage assets utilising FMECA.

Reviewed HV electrical supply infrastructure (11 kV – 275 kV) and performed an Engineering Assessment utilising the FMECA concept to assess impact on safety, plant production and assets. The project developed a qualitative method to assess remaining life depending on asset condition and likelihood of failure and provided inspection procedures for all HV electrical plant components.

**Role:** Principal Electrical Engineer

**Client:** Roy Hill

**Location:** Perth, WA, Australia

Rail Communication Solar Battery system design

Reviewed and upgraded Solar battery system redesign including new battery banks and air conditioning.

**Role:** Principal Electrical Engineer

**Client:** Indian Ocean Territories Power Services

**Location:** Christmas Island, NT, Australia

Assessment and solar site investigation.

Performed onsite power network asset condition assessment and performed feasibility study of potential solar power station sites considering commercial and technical criteria.

### ***Kununurra Power System Investigation***

**Role:** Principal Electrical Engineer

**Client:** Horizon Power

**Location:** Perth, WA, 6000

Performed power system investigation and compliance review for Kununurra Power Station, a 20 MW diesel backup power station.

### ***Onslow Power System Project***

**Role:** Principal Control System Engineer

**Client:** Horizon Power

**Location:** Perth, WA, Australia

Performed control system design review and coordination for the Onslow Power system and DER Project, 8 MW gas engine power station, 1 MWh Battery Energy Storage System and 1 MW solar farm and associated transmission and distribution system.

### ***Hidden Valley Gold Mine Power System Investigation***

**Role:** Principal Electrical Engineer

**Client:** Harmony Gold

**Location:** PNG

Performed power system investigation for 20 MW diesel power station and network connection at Hidden Valley, PNG.

### ***Secondary systems review Manton – Katherine 132 kV network***

**Role:** Senior Control and Protection Engineer

**Client:** Confidential

**Location:** Darwin, NT, Australia

Reviewed and recommended upgrade path and schedule for secondary systems (control and protection) of three 132 kV substations.

### ***Humpty Doo substation concept design***

**Role:** Senior Control and Protection Engineer

**Client:** Confidential

**Location:** Darwin, NT, Australia

Developed concept design and implementation strategy for a new substation based on IEC 61850 station and process bus technology.

**Role:** Manager Generation Development

**Location:** Darwin, NT, Australia

Led the Power Generation Technical and Business Development Team.

Developed Generation Investment Strategy, Business Plan and Generation Control System Strategy. Selected major technology components for power system development.

Developed and implemented economic generator dispatch modelling.

**Role:** Manager

**Location:** Darwin, NT, Australia

Asset, Project and Commercial Management

Managed asset portfolio of 13 power stations consisting of: combined cycle and open cycle gas turbines, gas and diesel reciprocating engines, solar diesel systems, water treatment plants and associated equipment. Developed detailed asset management plans and associated maintenance regimes. Project Director of Major infrastructure Projects.

### ***Weddell Power Station***

**Role:** Senior Project Manager

**Client:** Confidential

**Location:** Darwin, NT, Australia

Managed site selection, environmental approvals, network access, installation, commissioning and hand-over including operator training of \$ 90 million green field power station including 2\*LM6000 gas turbine packages, HV substation (66 kV) and gas conditioning system. Performed detailed technical reviews ensuring compliance to code and specification.

### ***ABDP gas pipeline control system upgrade***

**Role:** Senior Control System Engineer

**Client:** Confidential

**Location:** Darwin, NT, Australia

Managed the successful upgrade of the SCADA and communication system of the Amadeus Basin to Darwin (1525 km) pipeline system.

### ***Hudson Creek Transmission Energy Management System Replacement***

**Role:** Senior Control System Engineer

**Client:** Confidential

**Location:** Darwin, NT, Australia

Managed the successful replacement of the Power Network Electrical Transmission SCADA system, including benchmarking and selection of the vendor solution for RTU and SCADA system.

### ***Channel Island Power Station Life Extension***

**Role:** Project Director

**Client:** Confidential

**Location:** Darwin, NT, Australia

Oversaw project definition and execution of the midlife refurbishment of a base load gas fired power station with 5 frame 6B GE gas turbines, two heat recovery steam generator units and a Mitsui steam turbine. Refurbishments were undertaken while power station was in operation.

### ***Safety System for production machine***

**Role:** Senior Electrical Engineer

**Client:** Confidential

**Location:** Darwin, NT, Australia

Designed safety system for mechanical production machines to achieve compliance and prevent injury to operating personnel.

### ***Weddell Power Station set three electrical network***

**Role:** Senior Project Manager

**Client:** Confidential

**Location:** Darwin, NT, Australia

Managed scope, installation and commissioning of HV connection (transformer, circuit breaker and protection on 11/66 kV). Performed detailed technical review to ensure installation is to specification.

### ***Channel Island Power Station Control System Upgrade***

**Role:** Senior Control System Engineer

**Client:** Confidential

**Location:** Darwin, NT, Australia

Managed and commissioned the control system upgrade of the Yokogawa Centum V control system for the base load CCGT gas turbine power station.

**Role:** Head of Product Department

**Location:** Darwin, NT, Australia

Developed a new standardized power station control system (Microgrid controller). Developed production methodology including QA system for hybrid (wind / solar) power systems.

**Role:** Commissioning Manager and Senior Control Systems Engineer

**Location:** Kinston, Tas., Australia

Designed the power system control system for wind-diesel and demand management power system in Mawson, Antarctica. Performed computer simulation, installed and commissioned system on site. Achieved up to 80% wind penetration with an average renewable energy penetration of approximately 60%.

### ***Denham Wind Diesel Power System***

**Role:** Electrical and Control System Engineer

**Client:** Confidential

**Location:** Perth, WA, Australia

Designed the power system control system for the Denham wind-diesel power system. Performed computer simulation, installed and commissioned the new control system.

### ***Albany Wind Farm Project***

**Role:** Electrical Project Engineer

**Client:** Confidential

**Location:** Perth, WA, Australia

Project Engineer, including grid access negotiations and agreement.

### ***Yarn production research facility***

**Role:** Process Control System Engineer

**Client:** Confidential

**Location:** Ludwigshafen, Germany

Designed and commissioned carpet yarn manufacturing research and development facility for BASF in Ludwigshafen.

### ***Automated machine production system***

**Role:** Senior Control System Engineer

**Client:** Confidential

**Location:** Remscheid, Germany

Designed and commissioned an automated control system to configure and test yarn production machines. Production savings amounted to \$ 500,000 per year.

### ***Yarn Production Plant***

**Role:** Process Control System Engineer

**Client:** Confidential

**Location:** Fidusa, Taiwan

Designed control and SCADA system and commissioned nylon manufacturing plant near Taipei, Taiwan.

## Career history

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2016 - present	GHD, Technical Director
2004 - 2015	Power and Water Corporation, Senior Control and Protection Engineer
2000 - 2003	Power Corp, Electrical and Control System Engineer
1993 - 2000	Barmag AG, Senior Control System Engineer

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