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| **Function:** | **Commissioning Engineer - Power Conversion, Protection and Control** |
| **Reference Number:** | PT-SJ-PT 23-0113 |
| **Location:** | Cook Road Business Park, Mitcham, VIC 3132 – This job requires a presence on-site and project travel. |
| **Regular / Temporary:** | Regular |

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| **Why work for PowerTec?** | ***Join us in shaping the electricity network transformation to 100% distributed renewables!***PowerTec produces microgrid and power supply resilience products & systems. We enable our industrial, commercial and network service provider customers to power their site more resiliently, sustainably & autonomously. Our coherent end-to-end solutions combine power supply resilience with energy markets access. We are a technology innovator: The PowerCache® (“Grid in a Box” grid augmenting/mirroring/ stabilising battery energy storage system) and PaDECS® (Parallel Distributed Energy Resources Control System) offer effective solutions to the challenges of the renewables-powered electricity network.***Work on end-to-end solutions with deep IP and deep integration!***The team develops, designs, produces and commissions hardware and software and delivers products, customised systems and turn-key projects. Project delivery ranges from supporting studies and approvals, modelling, manufacturing, testing and delivery to on-site commissioning and operation support.Since 2014, PowerTec has delivered some of the most relevant distribution network-size (50kVA – 5MVA) Australian Microgrid and Energy Storage reference projects.***Share your passion with a fast-growing purpose-driven team!***We are a young fast-growing team working with our customers to lead technological developments in the fast-growing field of renewables-based distributed energy systems. We apply a flexible and collaborative approach to working with and learning from our customers, supply partners and each other and offer intensive personal growth and learning opportunities. |
| **The opportunity:** | A new opportunity exists for a **Commissioning Engineer - Power Conversion, Protection and Control** to join the team. |



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| **The employee has:** | * A university degree in Electrical Engineering, Power Systems Engineering or related engineering science, or long-standing practical experience in power system field services
* Relevant professional engineering, commissioning or field service experience in:
	+ LV Electrical Power Distribution Systems (both primary and secondary systems)
	+ 3-phase C&I-scale drives, inverters or generators
	+ Protection, multi-function protection relays incl. configuration and programming
	+ Fieldbus control of power devices (ideally including Modbus and CANbus)
	+ Interfacing to supervisory control, monitoring and communications systems
	+ Electrical cabinet auxiliary and environmental monitoring and control system
	+ Electrical cabinet or switchboard safety systems
	+ PLC programming
* Ideally, you already have had exposure to:
	+ Embedded systems software in high or scripting languages on Linux IPCs or similar
	+ DC systems (C&I-scale or utility-scale battery or solar systems)
	+ Power generation system dynamics (voltage control, droop, inertia, fault currents etc.)
	+ Working in a similar role within the Energy/Electrical Utility, renewables or power generation sector
* A pragmatic, delivery-oriented approach with a strong ability to problem-solve project issues independently
* Ability to write complex and concise technical documentation
* Strong inter-personal skills and an ability to work to challenging deadlines with a small team and international supply partners in innovative projects
* Confidence in dealing with customer technical staff
* Outstanding professional conduct and verbal & written communication skills
* An Australian residency, or suitable valid visa to work in Australia for at least 1 year
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| **By the end of this year, the employee will have:** | * Developed a firm understanding of PowerTec’s end-to-end solutions, from the field devices level to the application software level, through intensive peer-to-peer coaching by the team and learning on the job
* Successfully and timely
* Analysed, designed, configured, programmed, tested, adapted and optimised the function, dynamic controls and protections via programs, settings and parameters of multi-function protection relays, advanced 3-phase inverters, battery management units, cabinet environmental devices, and the system-level power management application.
* Configured, tested and commissioned the fieldbus communication between field devices and the overlaid power control system, and aligned the variables/registers/ frames between the devices and systems
* Programmed cabinet environmental control and protection systems using a modern scripting language
* Factory-tested the systems’ electrical, control and communication installation
* Factory-tested the systems’ complex power management functionality, eliminated errors and optimised dynamic control functions
* Carried out the field device, power asset and whole system functional, communication, safety and failure scenario factory testing
* Carried out protection injection testing with a test-specific device
* Carried out on-site device and integrated power system commissioning and functional optimisation on sites across the Australian east coast states
* Analysed faults on systems from PowerTec’s installed base.

for:* + A tri-generator grid integration
	+ A community BESS
	+ Multiple Battery Energy Storage Systems for Electrical Vehicle charging station buffering (100kVA-500kVA),
	+ Grid stabilisation, energy storage and distributed control systems for one or several off-grid industrial Microgrids (3MVA – 10MVA)
* Undertaken and documented site-specific protection design for submission to network operators and customers
* Designed and followed an Inspection and Test Plan (ITP) and delivered structured factory test and site acceptance test reports for the deployed systems
* Travelled to 5-10 sites for maintenance, installation supervision and commissioning (normally 1-5 days per system, up to 2 week in exceptional cases)
* Provided feedback to continuously improve the system design standard for PowerTec’s PowerCache® and PaDECS® products
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**To apply for this opportunity, please send your meaningful cover letter, CV, references, education certificates, transcripts and desired remuneration to** **careers@power-tec.com.au****, quoting reference PT-SJ-PT 23-0113.**

