

A low-angle photograph of a worker in a yellow lift basket performing maintenance on a tall electrical tower. The tower is covered in complex wiring and insulators. The sky is a clear, bright blue. In the top right corner, there is a blue inverted triangle containing the letters 'PHE' in red.

**PHE**

# Project Portfolio

Industrial Electrical Contractors  
[www.phe.net.au](http://www.phe.net.au)

# Major Projects

The following is a comprehensive list of major electrical contracts and their value carried out by PHE Pty. Ltd. from 2014 to the present time. In addition to these projects, minor installation works have been carried out in the Tumut, Wagga Wagga, Oberon, Brisbane, and Gympie areas and are too numerous to mention:

## Yearly Contracts

### **Lion Brewery – Milton QLD**

- Preventative Maintenance
- Installation Projects



### **The Laminex Group – Gympie**

- Preventative Maintenance
- Installation Projects



### **Visy Industries Tumut Pulp & Paper Mill**

- Electrical and Instrumentation maintenance management & control.
- Installation Projects



### **Snowy Hydro Power Stations Upgrade**

- Electrical and Instrumentation maintenance management & control.
- Installation Projects



### **Cadia Valley Operations Orange Newcrest Mining Limited**

- Electrical and Instrumentation maintenance management & control.
- Installation Projects
- Underground installation and maintenance



### **Oz Minerals - Carrapateena**

- E&I Installation Projects





### **Agnew Power Station Project- 9th Generator**

*Electrical installation of a 1x gas engine*

*Located in remote WA 24km from the town of Leinster*

- Installation of cable supports
- Installation of MV cable termination and testing
- HV & LV substation control wiring
- Low voltage, control and communication cabling
- Removal of redundant cables and cable trays.
- Installation of earthing
- Installation & termination of Hazardous area equipment
- Stage 1 and Stage 2 pre-commissioning

*Contract Value            \$ 300K*



### **Stage 1 & 2 Green Dry Mill Upgrade**

*Location Tuan (via Maryborough) QLD*

- Design, supply and installation of LV and control cabling
- Build and Install Main LV Switchboard extensions and upgrades
- Supply and install new Distribution boards
- Supply and install cable path and support (cable ladders, trays, etc.)
- Supply and installation of all LV and control/Instrumentation cabling
- Supplied and installed marshalling panels
- Removal of existing redundant cabling
- Supply and installation of general light and power
- Stage1 and stage 2 pre-commissioning
- Stage 3 commissioning support.

*Contract Value            \$ 450K*

*Duration                    4 months*



## **Carrapateena Underground Infrastructure Project**

*Pernatty, South Australia*

*E&I installation of underground and surface infrastructure including commissioning of a new green field mine site.*

- E&I installation of a 3000T/hr ThyssenKrupp KB 54-67 Gyrator Crusher
- E&I installation of 3000mts of associated underground materials handling Conveyors
- Installation of 7000mts of 11kV underground HV reticulation system
- E&I installation of 3 x surface ventilation systems consisting of 2 x 1.75MW fans in each system.
- Design, supply and installation of LV and control cabling
- Install Main LV & HV Switchboards
- Supply and install new Distribution boards
- Supply and install cable path and support (cable ladders, trays, etc.)
- Supply and installation of all LV and control/Instrumentation cabling
- Supplied and installed remote I/O enclosures
- Supply and installation of general light and power
- Stage1 and stage 2 pre-commissioning
- Stage 3 commissioning support.

<i>Contract Value</i>	<i>\$ 17M</i>
<i>Duration</i>	<i>11 months</i>



## **Murray 2 Controls Upgrade Installation**

*Technology upgrade to the Snowy Hydro electrical control systems*

- Project establishment
- Site Acceptance testing of new (to be installed) equipment
- Supply and install new cable ways
- Supply and install fibre network cabling
- Install new Unit Auxiliary Transformer
- Install Unit Switchboard
- Install Control & Protection suites
- Installation of new excitation systems
- Installation & terminate cables into new and modified cubicles
- Calibration and installation of new Instrumentation
- Modification of existing instrumentation to be adapted into new control system
- Installation of current and voltage Transformers
- Test and prove all work and provide complete quality documentation
- Provide 'as build' documentation

<i>Contract Value</i>	<i>\$ 3.9M</i>
<i>Duration</i>	<i>Ongoing</i>

**Agnew Power Station Project**

*Electrical installation of a 10 Engines 16MW Gas and Diesel fired power station*

*Located in remote WA 24km from the town of Leinster*

- Connection of the 8 gas fired C2000N5C 11kV generators and 2 x diesel 11kV generators C2250D5 1.8MW
- Remote radiators
- HV /LV switch rooms
- Cable trays and ladders
- MV, LV, DC, Control, Instrumentation, Communication cabling & terminations
- Earthing / Auxiliary transformers
- Air compressors
- Lube oil/waste pumps
- Hazardous area
- General lighting & power
- Earthing & Lightning protection systems
- UPS power supplies
- QA and stage 1 & 2 commissioning
- Additional 4 x 1250KVA diesel generators, Kiosk & 11KV RMU
- Stage 1 and Stage 2 commissioning

<i>Contract Value</i>	<i>\$ 2.7M+</i>
<i>Duration</i>	<i>4 months</i>





## **Power Station- Standby Power station**

*Electrical installation of 3 x Black Start Generators, RMU and NER  
Location 280km west of Brisbane QLD*

- Installation of Generator HV cabling and termination
- LV and Control Wiring
- Earthing
- Installation of 11KV ABB RMU, NER and VT Enclosure
- Installation on 11KV Feeder
- ABB HV Protection Relay Programming & Testing
- Stage 1 and Stage 2 commissioning
- Stage 3 commissioning assistance

*Contract value \$ 340K  
Duration 2 months*



## **Wilga Park Power station Expansion**

- Cable ladder, support & earthing
- Generator enclosure light and power
- PLC control panel Modifications
- Installation of HV and LV cables
- Installation of control panels, cabling and terminations to radiator fans
- Hazardous area
- Shutdown works
- Stage 1 and Stage 2 commissioning
- Stage 3 commissioning assistance

*Contract Value \$ 350K  
Duration 1.5 months*



## **Murray 2 Unit Control Panels Upgrade**

*Cubicle upgrades to the Snowy Hydro electrical control systems*

- Procurement of all new control Panels, cubicles and electrical components
- Cubicle and panel layout and manufacture to clients standards
- PLC Installation & wiring
- Internal electrical component wiring
- Internal communication wiring
- Pre-power up checks
- Factory acceptance testing
- Quality assurance documentation and control

*Contract Value*            \$ 1.11M  
*Duration*                    4 months



Inspire your space

**Laminex Industries**

*Site energy efficiency-LED lighting Upgrade*

*Contract Value \$165K*



**Gympie Building Company**

*Location Wide Bay Defense Training Area- Camp Kerr sheds*

- General light and power installation
- Underground conduit installation

*Contract value \$>35k*



*Location QGC*

- HV Jointing, 11KV,33KV

*Contract Value- Ongoing*





### CON 1 T3 HYDROFLOAT PROJECT

*E&I Subcontract for the supply and installation of HV & LV services for FCS.  
Via Orange NSW.*

- Installation of Cross Flow Classifiers, Concentrate Screen & HydroFloat separators, Cyclone Cluster, Davit Crane and associated hoppers, pumps, pipework in the new T3 HydroFloat building.
- Supply and installation of instrumentation.
- Installation of cable support systems.
- Low Voltage cabling.
- Installation and termination of general light and power.
- Installation and termination of fibre optic cabling systems.
- MCC modifications, installations, and terminations.
- Stage 1 and 2 commissioning.
- Stage 3 commissioning support.

*Contract Value           \$ 2.2M*



### Gruyere Gold Mine Power Station - Western Australia

*Electrical Installation of 11-Engine 40MW power station  
Located in remote WA 160km east of Laverton*

- Installation of cable support
- Installation of LV MCC and PLC cabinet into Main Switchroom
- Installation of UPS and 48VDC system
- Low voltage and control cabling
- HV cable installation & termination
- HV tie-in into HV Switchroom supplying the gas compressor station
- Installation, termination, and inspection of Hazardous area equipment
- Stage 1 and stage 2 commissioning
- Assistance with stage 3 commissioning

*Contract Value           \$ 3.2M*



### **Murray 1 Power Station Units 1&2 Technology Upgrade**

*Technology upgrade to the Snowy Hydro electrical control systems*

- Generators U01 & U02 upgrade.
- Group 1/2 330KV Transformers upgrade.
- Removal of redundant equipment.
- Installation of new protection & control cubicles.
- Installation of cable support infrastructure.
- LV cabling installations and termination.
- Testing, calibration, and installation of instruments.
- Installation and cabling of generator excitation system.
- Installation of light & power
- Commissioning

<i>Contract Value</i>	<i>\$ 1.59M</i>
<i>Duration</i>	<i>5 months</i>



### **Murray 1 Power Station Units 3&4 Technology Upgrade**

*Technology upgrade to the Snowy Hydro electrical control systems*

- Generators U03 & U04 upgrade.
- Group 3/4 330KV Transformers upgrade.
- Removal of redundant equipment.
- Installation of new protection & control cubicles.
- Installation of cable support infrastructure.
- LV cabling installations and termination.
- Testing, calibration, and installation of instruments.
- Installation and cabling of generator excitation system.
- Installation of light & power
- Commissioning

<i>Contract Value</i>	<i>\$ 1.6M</i>
<i>Duration</i>	<i>5 months</i>

## **SEDGMAN**

### **Lake Vermont Coal Preparation Plant V3**

*E&I Contract for the supply and installation of HV & LV services for Theiss Services (Lake Vermont Resources) via Dysart Qld.*

- Installation, termination, and commissioning of the 11kV Underground reticulation system.
- 11kV / 415 RMU and transformer installations and terminations.
- Installation of cable support systems.
- Low Voltage cabling.
- Installation and termination of general light and power
- Installation and termination of fibre optic cabling systems.
- MCC installations and terminations.
- Commissioning Assistance.

*Contract Value            \$ 1.8M*

## **SEDGMAN**

### **Tarong Tailings Dewatering Project**

*E&I Contract for the supply and installation of HV & LV services for Stanwell Corporation Limited. via Kingaroy Qld.*

- Installation, termination, and commissioning of the 11kV Underground reticulation system.
- 11kV / 415 RMU and transformer installations and terminations.
- Installation of cable support systems.
- Low Voltage cabling.
- Installation and termination of general light and power
- Installation and termination of fibre optic cabling systems.
- MCC installations and terminations.
- Commissioning Assistance.

*Contract Value            \$ 700K*



### **Enhanced Recovery of Aroma (ERA) Project**

*E&I Contract for the supply and installation of LV services for Nestle Gympie Qld.*

- Installation of Cable Ladder and Basket in a multi-level building.
- Installation, termination, and QA testing of 415Vac Submains and sub-circuits.
- Vendor MCC's and equipment installation.
- Testing and Commissioning.

*Contract Value*      \$ 160K



## **Grosvenor – Stage 2**

*Electrical Installation of 5-Engine 16.5MW power station*

- Installation of cable support
- Installation of LV MCC and PLC cabinet into Main Switchroom
- Installation of UPS and 48VDC system
- Low voltage and control cabling
- HV cable installation & termination
- HV tie-in into HV Switchroom supplying the gas compressor station
- Installation, termination, and inspection of Hazardous area equipment
- Stage 1 and stage 2 commissioning
- Assistance with stage 3 commissioning

*Contract Value*      \$ 870K



## **Daly River NT – Solar Farm**

*Electrical Installation of 1MW power station*

- 1MWp ground mounted solar farm connected to the Power and Water Company (PWC) network in Daly River, Northern Territory
- Supply, installation, testing and commissioning of a ground-mounted grid connected photovoltaic system
- LV power cable installation
- Installation of all electrical panels and equipment: LV Switchboard, Marshalling boards, Inverters, and local isolators
- To terminate, test and commission cables at the LV switchboard, PCC, Marshalling boards and inverters
- Install, terminate string cables of communication Fibre and Cat6 cables, test, and commissioning.
- Earthing and lightning protection
- QA documentation, construction and commissioning documentation, and input requirements for Handover MDR and Operation and Maintenance Manual.

*Contract Value*      \$ 300K



### **Jord International - Newcrest Mining – Blayney Sealink Project**

*Supply and Installation of Electrical & Instrumentation*

- Installation of cable support systems
- Small power and lighting installation
- Low Voltage cabling
- Instrumentation supply and installation
- Commissioning support

*Contract Value*            \$ 1.1M



### **Lion (XXXX Brewery Milton) – Keg Line Safety Upgrade**

*Supply and Installation of Electrical & Instrumentation*

- Installation of safety gate switches and light curtains
- Modifications to existing MCC and PLC cabinets
- Supply and installation of remote I/O panels
- Supply and installation of local control stations
- Low Voltage cable installation and termination
- Commissioning support

*Contract Value*            \$ 300K



### **Bussola – Earth Grid Installation Kemp's Creek (NSW)**

*Supply and Installation of Electrical Earth Grid*

- Installation of bare earth cable
- Erico CAD weld joints
- Quality Assurance testing
- Commissioning

*Contract Value*            \$ 250K

### **Clarke Energy – Diamantina Blackstart Generator**

*HV and LV Installation of Blackstart Generator Diamantina Power Station Mt. Isa*

- HV Cable installation and termination
- HV Tie-in to existing substation
- LV power and control cable installation and terminations
- Commissioning

*Contract Value            \$ 200K*



### **Gympie Regional Council – Showgrounds Power Upgrades**

*Supply and Installation of Electrical Switchboards*

- Supply and Installation of one (1) S/S 2000A Main switchboard
- LV Cable terminations to existing 1000kVA transformer
- Supply and Installation of new underground submains
- Supply and Installation of 10 x S/S Consumer panels to Side Show Alley

*Contract Value            \$ 150K*

### **Clarke Energy – Kemps Creek (NSW)**

*Electrical Installation of 2-Engine power station*

- HV Cable installation and termination
- HV Tie-in to RMU
- LV power and control cable installation and terminations
- Commissioning

*Contract Value            \$ 300K*

### **Clarke Energy – Oakey Creek (Qld)**

*Electrical Installation of 5-Engine power station*

- HV Cable installation and termination
- Installation of MCC and station control room termination of auxiliary power
- HV Tie-in to Overhead power lines
- LV power and control cable installation and terminations
- Commissioning

*Contract Value*            \$ 1M

### **Australian Civil & Structure – Grosvenor power generation Earth Grid**

*Supply and Installation of Electrical Earth Grid for 7 x 3.3MW Gas Generators*

- Installation of bare earth cable
- Erico CAD weld joints
- Quality Assurance testing
- Commissioning

*Contract Value*            \$ 180K

### **Grosvenor – Stage 1**

*Electrical Installation of 7-Engine 23MW power station*

- Installation of cable support
- Installation of LV MCC and PLC cabinet into Main Switchroom
- Installation of UPS and 48VDC system
- Low voltage and control cabling
- HV cable installation & termination
- HV tie-in into HV Switchroom supplying the gas compressor station
- Installation, termination, and inspection of Hazardous area equipment
- Stage 1 and stage 2 commissioning
- Assistance with stage 3 commissioning

*Contract Value*            \$ 1.2M



## **Disconnection of Reedy Creek 2 Power Station**

*Decommissioning of 10-Engine 33MW power station*

- Disconnected of HV, LV and control termination
- Reclaimed all usable HV, LV and control cables
- Reclaim all cable support structure
- Prepare Generator enclosure, Switchroom, HV switchgear for transportation

*Contract Value*            \$ 220K

**2015**

## **Newcrest Mining - Cadia East Underground Panel Cave 2 East Crusher**

*Supply and Installation of underground Electrical services for the East Crusher*

- Installation of cable support systems
- 33kv High Voltage switch gear
- 33kv / 11kv High Voltage reticulation cabling and terminations
- Low Voltage cabling
- Installation and termination of general light and power
- Installation of fibre optic system
- MCC installations and terminations
- 33kv / 11kv / 415 transformer installations and terminations
- AutoCAD Design and drawings mark up

*Contract Value*            \$ 13.4M

## **SEDGMAN**

### **Baralaba Coal Expansion Project**

*E&I Contract for the supply and installation of HV & LV services for Cockatoo Coal Train Loadout facility.*

- Installation, termination, and commissioning of the 22kV Underground reticulation system.
- 22kV / 415 RMU and transformer installations and terminations.
- Installation of cable support systems.
- Low Voltage cabling.
- Hazardous Area (Gas & Dust) instrument supply and installation.
- Installation and termination of general light and power
- Installation and termination of fibre optic cabling systems.
- MCC installations and terminations.
- Commissioning Assistance.

*Contract Value            \$ 4M*



### **Newcrest Mining - Cadia Low Grade Concentrator Fluorine Removal**

*Supply and Installation of Surface Electrical services for the Fluorine Removal Project*

- Installation of cable support systems
- 3.3kv High Voltage switch gear
- 3.3kv High Voltage reticulation cabling and terminations
- High and Low Voltage cabling
- Installation and termination of general light and power
- MCC installations and terminations
- Stage 1 and Stage 2 Commissioning

*Contract Value            \$ 1.0M*

## **Bussola**

### **Bussola – Oaky Creek power generation Earth Grid**

*Supply and Installation of Electrical Earth Grid for 5 x 3.3MW Gas Generators*

- Installation of bare earth cable
- Erico CAD weld joints
- Quality Assurance testing
- Commissioning

*Contract Value            \$ 110K*

### **Disconnection of Eurombah Power Station**

*Decommissioning of 9-Engine 30MW power station*

- Disconnected of HV, LV and control termination
- Reclaimed all usable HV, LV and control cables
- Reclaim all cable support structure
- Prepare Generator enclosure, Switchroom, HV switchgear for transportation

*Contract Value*            \$ 105K

### **Disconnection of Reedy Creek Power Station**

*Decommissioning of 10-Engine 33MW power station*

- Disconnected of HV, LV and control termination
- Reclaimed all usable HV, LV and control cables
- Reclaim all cable support structure
- Prepare Generator enclosure, Switchroom, HV switchgear for transportation

*Contract Value*            \$ 105K

**2014**



### **York Civil (Subcontract) Origin Energy Spring Gully Water Transfer Station Project**

*Supply and Installation of Electrical services for the WTP Feed dam Upgrade*

- Installation of 315kVA 11KV kiosk transformer.
- Earth grid.
- Underground conduit/cable installation for HV, LV and Fibre Optics.
- Installation of transfer pumps and local control isolators.
- Manufacture and installation of marshalling and light & power panels.
- Installation of Motor Control switchboard.
- HV auditing and certifications.
- General Dam Light & Power Installation.

*Contract Value*            \$ 600K



## **Sedgman – Centennial Coal Springvale CPP Upgrade**

*Electrical and Instrumentation installation of the Springvale coal preparation plant to increase throughput to 450 t/h.*

- De-commissioning of redundant equipment.
- Modifications to the existing MCC with the installation of new motor starting equipment.
- Installation of new PLC cabinet.
- Installation of Nema 2 cable ladder and the modification of existing cable support system.
- Installation of instrumentation.
- SWA control and power cable installation.
- Electrical installation of new Thickener tank.
- General Light & Power Installation.

*Contract Value*            \$ 700K



**THIESS SEDGMAN**

## **Halley & Mellowes (Subcontract) Thiess Sedgman JV Boggabri Coal – Train Loadout Bin**

*Electrical and Instrumentation installation of the Boggabri Coal (300t surge bin) Train Loadout Bin.*

- Nema 20B cable support system.
- LV cable installation and terminations.
- Manufacture and installation of marshalling panels.
- Trackside train weigh scale system installation.
- PLC cabinet and Data cabinet installation and termination.
- Indurad radar detection system installation.
- General Light & Power Installation.

*Contract Value*            \$ 500K



### **T1 (Tumut 1) Transformer and Line Protection Upgrades**

*Technology upgrade to the Snowy Hydro electrical control systems*

- LV cable installation and terminations.
- Installation and termination of control panels.
- Control System commissioning.

*Contract Value*            \$ 350K



### **T2 (Tumut 2) Transformer and Line Protection Upgrades**

*Technology upgrade to the Snowy Hydro electrical control systems*

- LV cable installation and terminations.
- Installation and termination of control panels.
- Control System commissioning.

*Contract Value*            \$ 630K



### **UTSS (Upper Tumut Switching Station)**

*Auto Synchroniser Upgrade*

- LV cable installation and terminations.
- Installation and termination of control panels.
- Control System commissioning.

*Contract Value*            \$ 70K



### **T2 (Tumut 2) Power Station**

*Governor Upgrades*

- LV cable installation and terminations.
- Installation and termination of control panels.
- Commissioning.

*Contract Value*            \$ 170K



## **Bussola – Eurombah Creek power generation Earth Grid**

*Supply and Installation of Electrical Earth Grid for 9 x 3.3MW Gas Generators*

- Installation of bare earth cable
- Erico CAD weld joints
- Quality Assurance testing
- Commissioning

*Contract Value*            \$ 170K



## **EDL – Moranbah North Expansion**

*Electrical Installation of 6-Engine 20MW power station*

- Installation of cable support through an existing power station
- Installation of LV MCC and tie-in to an existing MCC
- Low voltage and control cabling
- HV cable installation & termination
- HV tie-in to existing HV Switchroom
- Installation, termination, and inspection of Hazardous area equipment
- Stage 1 and stage 2 commissioning
- Assistance with stage 3 commissioning

*Contract Value*            \$ 950K



## **Origin - Eurombah Creek Power Generation**

*Electrical Installation of 9-Engine 30MW power station*

- Installation of cable support
- Installation of LV MCC and PLC cabinet into Main Switchroom
- Installation of UPS and 48VDC system
- Low voltage and control cabling
- HV cable installation & termination
- HV tie-in into HV Switchroom supplying the gas compressor station
- Installation, termination, and inspection of Hazardous area equipment
- Stage 1 and stage 2 commissioning
- Assistance with stage 3 commissioning

*Contract Value*            \$ 2M

### **Origin – Reedy Creek 2 Power Station Earth Grid**

*Supply and Installation of Electrical Earth Grid for 10 x 3.3MW Gas Generators*

- Installation of bare earth cable
- Erico CAD weld joints
- Quality Assurance testing
- Commissioning

*Contract Value            \$ 200K*

### **Origin – Reedy Creek 2 Power Station**

*Electrical Installation of 10-Engine 33MW power station*

- Installation of cable support
- Installation of LV MCC and PLC cabinet into Main Switchroom
- Installation of UPS and 48VDC system
- Low voltage and control cabling
- HV cable installation & termination
- HV tie-in into HV Switchroom supplying the gas compressor station
- Installation, termination, and inspection of Hazardous area equipment
- Stage 1 and stage 2 commissioning
- Assistance with stage 3 commissioning

*Contract Value            \$ 1.95M*