

## Infrastructure Upgrade - BHP Muswellbrook 2012-2013

The RX1 upgrade was a \$380 million dollar upgrade of the CHPP, infrastructure and Earth moving equipment.

MRM engineering designed and commissioned three 11kV/415V 1MVA substations, including earthing design, designed and commissioned the electrical systems for a new oil and diesel hydrocarbons facility, completed functional safety audits and provided electrical site supervisors and commission personnel for the infrastructure workshop and office upgrades.

MRM Engineering also provided electrical drafting and administration resources for the project, both on and offsite.

## MRM Engineering completed

- Conveyor upgrades variable speed drives
- Substations 1MVA to 2MVA Design, installation supervision and commission
- Substation earthing designs Hydrocarbons facility Design, supervise and commission
- Power system fault analysis, load flow arc flash, step and touch potentials
- New workshops, bathhouse and offices Design, supervise and commission
- Functional safety assessments
- Scheduling for shutdowns
- Commissioning of all electrical systems
- Safety Zero LTI for the entire project
- Engineering management