

# CASE STUDY

## TUTUPAN OPCC OVERBURDEN STACKING FACILITY

### PROJECT PROFILE

The OPCC project is an overburden handling system designed to receive overburden from PT Adaro's haul truck fleet at the rim of the pit, then size, convey, and stack overburden at a rate of 12,000 TPH.

Equipment control functions are performed with Allen Bradley Programmable Logic Controllers (PLC) with an 'intelligent' pull cord system used in conjunction with conveyor instrumentation along the length of the conveyor.

Conveyor drive motor starting and acceleration control for the Surge Feed Conveyor is provided by integral PLC controllers located in the respective SRC contactor cabinets.

### PRODUCTS HANDLED

- PT Adaro mining operations overburden material

### CAPACITY

- Designed to operate at a rate of 12,000 TPH

### PRODUCTS USED

- Allen Bradley PLCs with FLSmith's ECS SCADA system
- PROFIBUS & Modbus networking within MCCs
- Rockwell ControlNet remote rack networking
- Simocode Pro V intelligent Relays
- Siemens VSDs controlled using PROFIBUS
- SEL high voltage protection relays
- Bramco conveyor control system and management system



### SCOPE OF WORKS

Electrical and Controls Systems commission of the facility.

### OUR INVOLVEMENT

SGC Australia's involvement included:

- Commissioning of process control cubicles
- HV & LV reticulation and connection to existing services
- HV SEL protection relay installation and commissioning
- Series of conveyors, crushing circuits and sizing circuits
- PLC to PLC communication set up and commissioning
- Smart relay, motor starters and VSD programming and commissioning
- GPS module programming and integration
- Electrical and software commissioning management services
- Quality assurance inclusive of all testing, CVC and verifications
- Interfaces to existing plant and equipment