



AIRFIELD LIGHTING UPGRADE

Project value | \$2.53M
Commencement | Jan 2019
Commissioning | May 2020
Project Lead | Airport Alliance
Electrical Contractor | CPC
Installation | PHIA team

An airfield ground lighting upgrade at Port Hedland International Airport (PHIA) meets the MOS139 standard and moves the lighting infrastructure from low intensity runway lighting (LIRL) to a medium intensity runway lighting (MIRL) category.

Project benefits include improved runway visibility for the range of landing aircraft, from Cessnas, F100, A320, Antonov and the Royal Flying Doctor Service fleet at the Pilbara's only International Airport. This is one of a range of development projects at PHIA and meets any Class D airspace obligation into the future.

Scope

The 16 month project included the removal of the LIRL and installation and testing the of the new MIRL system. The works ran concurrently with the construction of the new Taxiway Golf and the asphalt overlay and grooving of Runway 14-32.

LED light fittings are supplied by 224 series isolating transformers, enclosed in pits. The new technology delivers environmental, efficiency, cost and maintenance reduction benefits. The install included:

- 116 Taxiway centre line lights
- 8000m of primary trench
- 8000m of secondary trenching
- 24,000m of Primary cable
- 17,000m of Secondary cable



building the capacity of our local teams



41,000
metres of cable

PHIA



New apron lighting

The installation of new Apron floodlighting includes; two AFL distribution boards supplied from a modern airport lighting equipment room, sixteen LED floodlights, five 30m poles with LED floodlights and three poles being refitted with new LED floodlights.

Airport Lighting Equipment Room ALER

The new ALER incorporates state-of-the-art programmable logic controllers and touch screen interface and remote control monitoring and diagnostics of all PHIA airport lighting facilities, and:

- A new AFIS Tower interface
- Pilot activated lighting control
- 5 Constant current regulators with 3-stage intensity control
- Control of the Apron floodlighting
- Lighting equipment protection for critical operational facilities.

Sustainability

Benefits of the new state-of-the-art system:

- New runway lights in a pit and duct system, permitting maintenance without runway access
- Sustainable LED & power-saving components
- Reduced maintenance costs
- The energy saving nature of LED lighting is approximately 40% more efficient compared to traditional systems
- Significant power usage and emission reduction.

PHIA's project brought together leading airport lighting technical and project managers to design and install electrical, electronic and mechanical systems. The collaboration between our own Airport operations officers and local electrical contractors and labour hire has built the capacity and skill level of teams in the region to install and maintain world-class equipment.

The airfield lighting project meets current and future air traffic demands and provides industry best practice and the safest possible aviation lighting environment at PHIA.

