

BHP Billiton Iron Ore, Newman, Western Australia



Boarding ramps and the SCL solar light with adjustable solar panel.

Project Summary

End User:

BHP Billiton Iron Ore,
Mt Whaleback Mine, WA

Product:

96 x SCL-TS Area lights

Benefits:

Boarding ramp lighting without power.
No running costs and lower maintenance costs.
Adjustable solar panels allow for optimum charging even when the ramps are moved.
Sustainable and environmentally friendly.

Operating Profile:

Dusk till dawn.

BHP Billiton Iron Ore is one of the world's premier suppliers of iron ore, employing 13,000 people across Western Australia. Mining operations are supported by the town of Newman while Port Hedland houses the company's port and rail facilities.

The massive Mt Whaleback mine, established in 1968, is the biggest single-pit open-cut iron ore mine in the world being more than five kilometres long and nearly 1.5 kilometres wide.

Mt Whaleback and Eastern Ridge, BHP's other mine in the region, are supported by a fleet of 60 Caterpillar 793 trucks, each of them capable of carrying 220 tonnes of ore. As part of a program to improve efficiency, BHP are installing 24 boarding ramps from which crew changes are made.

Because the boarding ramps

were required to be movable, connection to a power source was difficult, which suggested that solar lighting might be the best solution. The ramps would not always be placed in the same orientation to the sun however, so a standard solar light would not be suitable.

The solution was a modified version of Orion Solar's SCL area light, supplied with a solar panel which could be adjusted in two directions for optimum orientation to the sun, plus a luminaire which can be angled to place the light exactly where it is required.

The SCL series light is a fully-integrated solar LED area light normally used in pedestrian and commercial applications. With a built in Energy Management System, the SCL provides consistent, reliable and easy to install lighting which automatically configures to local solar conditions.