

NEXTracker Puts Smart Tracking Systems to Work on One of Australia's Largest Solar Power Plants





Bungala Solar 1 and 2

Location:

Port Augusta, South Australia

EPC:

Elecnor

Subcontractor:

Drasol

Owner:

Enel Green Power & Dutch Infrastructure Fund

PV Modules: **832,680**

NX Horizon Tracker

Rows:

9,324

Project Overview

Framed by the rugged peaks of the Flinders Ranges, the Bungala Solar 1 and 2 power plants have transformed 800 hectares of former South Australian grazing lands into a major renewable energy hub. Bungala's yearly output will surpass 570 gigawatt-hours of energy, generating enough electricity annually to meet the consumption needs of over 82,000 Australian households while offsetting more than 520,000 tons of carbon emissions.

As the country's largest operational solar power plant when it came online, Bungala has spurred long-term benefits through the construction of a new rail terminal and the creation of 350 local jobs in the Port Augusta area. It will also be one of the most technologically advanced PV projects on the continent, featuring comprehensive data connectivity and NEXTracker's software control system, TrueCapture™. Helping to meet Australia's growing demand for affordable renewable energy, Bungala Solar also uses existing transmission infrastructure from shuttered coal plants, highlighting the region as a paradigm of clean energy's economic and environmental contributions to communities around the world.

Benefits:



520,000 tons of CO₂ emissions avoided per year



570 GWh of power generated per year

NEXTracker Bungala 1 & 2 Case Study

Overcoming Harsh Terrain with On-The-Ground Expertise

Bungala's site conditions presented a challenging mix of sand, gravel and red clay. NEXTracker partnered with engineering consultant SMEC to design the site by conducting comprehensive geotechnical studies and delineating four different soil texture and erodibility zones with corresponding tailor-made pier configurations—all to ensure long-term reliability. When pile refusals and other soil challenges occurred, NEXTracker employed unique drilling approaches and rigorous pile load testing to validate reduced design requirements. The on-site quality control teams operated alongside the construction crews, incorporating a test-and-learn feedback loop for best installation practices.

Rapid Deployment Helps Accelerate Project Completion

NEXTracker places critical importance on the ability of its global logistics team to ensure rapid deployment of our solutions, which translates to fast installation, quick time to commissioning, and ultimately a swift flip of the switch. Stretching across an area as large as Melbourne City Center, the scale of Bungala required sophisticated supply chain and logistics coordination. When a cyclone threatened to disrupt the delivery schedule, NEXTracker redirected shipments to

the Port of Melbourne and subsequently delivered them over a thousand kilometers by road and rail to ensure on-time delivery. Further spurring investment in the Port Augusta area, an intermodal terminal was built on an unused existing rail line adjacent to the site to help transport components, minimizing traffic congestion on major roads and providing a safer, more environmentally friendly logistics solution.

Benefits

Under the terms of the long-term power purchase agreement, Enel Green Power and the Dutch Infrastructure Fund will export electricity from Bungala Solar to Origin Energy. The first utility-scale project financed without subsidies in Australia, Bungala Solar generated approximately \$315 million in investment across one of the largest equity and debt finance agreements in the country, signaling growing confidence in PV project economics and long-term bankability.

The solar power plant plays a significant role in South Australia's progress toward producing 100% of its electricity needs from clean energy by 2025. The output from Bungala Solar helped the state overcome decades of importing power to become a net electricity exporter for the first time in 2018. The solar power plant also represents a major milestone toward the Australian federal government's Renewable Energy Target benchmark of generating 23.5% of its energy from renewable sources by 2020.

