

CASE STUDY

NEWMONT AKYEM

NOMAD TRACKER INSTALLATION

One of the world's largest gold producers, Newmont Goldcorp, based in Colorado, USA installed Cambridge Energy Partners' (CEP) Nomad redeployable solar tracking system at their Akyem mine in Ghana.





CURRENT SITUATION AND CHALLENGES

The Akyem gold mine produces over 400k oz. annually and power is supplied by the local grid. Energy is one of the mine's largest expenses and a major concern — power prices are high and the associated GHG emissions are significant.

Over the past 5 years Newmont Goldcorp had looked at various renewable energy projects to address its high energy costs, but no proposed solution could meet the minimum economic hurdles, primarily due to the mismatch between the 10-year life of mine and the 25-year life of the renewable energy system.



SOLUTION

Newmont Goldcorp selected CEP's next-generation Nomad solar tracker to reduce the mine's daytime energy demand.

The Nomad's redeployable platform maximizes the equipment's 25-year operating life and reduces the effective unit-cost of solar energy because it can be efficiently relocated to another Newmont Goldcorp mine after Akyem closes. The system's mobility also reduced risk to internal stakeholders/ project champions since the equipment could be relocated if performance expectations were not met.

The 120 kWp single-axis tracking solar array was pre-fabricated in CEP's factory in Spain and delivered to site where it was quickly and easily installed by Newmont and a local contractor.



RESULTS AND BENEFITS

- **Lower-cost energy** — solar energy at 6 c/kWh, or a 56% discount to grid power at 13.6 c/kWh
- **Low risk** — redeployability ensures solar equipment is fully utilized, regardless of mine life
- **Low-cost installation** — pre-fabricated technology enabled installation in half the time of a traditional solar system, even using unskilled labour, no ground preparations or geotechnical studies were required
- **Real-time energy monitoring** — continuous data collection and analytics greatly improves Newmont Goldcorp's decision-making and negotiating power for future solar projects in the region
- **Stakeholder support** — successfully demonstrated that solar can be used to improve operations

"Newmont Goldcorp is committed to technical and environmental leadership. The new Nomad solar energy technology was installed by Newmont Goldcorp staff and a local contractor to demonstrate that solar energy can effectively cut fuel/ energy costs and reduce carbon emissions"

Elaine Doward-King EVP
Sustainability and External
Relations

CAMBRIDGE ENERGY PARTNERS

Cambridge Energy Partners' Nomad technology is the world's first redeployable single-axis solar tracker. It is delivered to site prefabricated enabling fast and easy installation.

This movable system can be fully utilised over its 25-year design life, lowering life cycle costs and enabling new generation business models.

NOMAD



Single-axis tracking for higher energy yields



Scalable from 15 kW to large plants



Up to 3x faster installation than traditional systems



Cost-effective to relocate the system

- Reduces risk of 'stranded' equipment
- Enables short-term deployments



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