



Rental Power

> Case History

Bulghah Gold Mine, Saudi Arabia



Our energy working for you.™

Where:

Bulghah Gold Mine, Saudi Arabia

What:

A prime Rental Power system producing 7 MW of electrical power 24 hours a day, 7 days a week, 365 days a year

Purpose:

To provide continuous electrical power to a mining operation located hundreds of miles from the country's electrical grid

Primary choice factors:

Local distributor's ability to supply long-term Rental Power units, provide regular maintenance in a harsh environment and design a system that assures the highest level of power availability

Saudi Arabian gold mine strikes pay dirt with Rental Power system from Cummins Power Generation Inc.

HUQRAH-AS SAFRA, SAUDI ARABIA — Saudi Arabia is a land rich in gold, precious metals and petroleum. But most of the gold deposits are located in remote areas far from the country's electric grid. This makes the mining and processing of the ore at these sites dependent on on-site power generation. Located 550 km (342 miles) northwest of Riyadh, the Bulghah gold mine generates all of its electric power using Rental Power units from Cummins Power Generation.

Operating 24 hours a day and 365 days a year, the Bulghah gold mine relies on self-generated electricity to power a vast array of pumps, conveyor systems and crushers as well as lighting and all miscellaneous electric equipment at the site. Bulghah is an open-pit mine and uses the "heap leach" method of gold extraction. An elaborate electric-powered conveyor system transports the crushed gold ore to a plastic-lined pit to create a large pile of crushed ore. A solution of chemicals dissolves the gold in the ore and is further refined to produce pure gold. Using this method, the mine produces approximately 82,000 ounces of gold annually.



The Rental Power units supply power to run a massive conveyor system and all other electrical equipment used at the mine.



Seven 1000 kW Rental Power units were installed to meet power needs.

Complete prime power system

Supplying electricity for this massive operation is a power system composed of seven 1250 kW containerized PowerCommand® Rental Power units from Cummins Power Generation. Each unit is prime-rated at 1000 kW for a total system capacity of 7 MW. Depending on the electrical load, only five or six of the units operate at any given time. This allows at least one unit to be offline for maintenance, or in a standby mode, thus guaranteeing a higher level of reliability for a power system that must run continuously.

“The owner of the mine did not want to undertake the day-to-day operation of the power system, so they contracted with our distributor in Saudi Arabia to install, commission and operate the system,” says Don Watson, rental director for Cummins Power Generation in Europe, the Middle East and Africa. “The station has been operating for over three years already without a single loss of power or interruption of the mining or processing.”

Local Cummins Power Generation distributor maintains and operates system

Under the operating agreement, General Contracting Company, the Cummins Power Generation distributor in Saudi Arabia, operates the system and performs all the necessary maintenance. Local environmental

conditions can be harsh. Blowing dust can clog air filters, and high summertime temperatures reaching 55 degrees Celsius (131 degrees Fahrenheit) require careful attention to unit maintenance. Oil and filter changes are made after every 250 hours of operation.

Power system fits plans and pleases customer

The operators of the Bulghah gold mine are pleased with the reliable operation of their 7 MW prime power system from Cummins Power Generation.

“The station has been operating for over three years already without a single loss of power or interruption of the mining or processing.”

It is one of the ways that Cummins Power Generation is helping companies worldwide to operate efficiently and economically in areas outside the reach of today’s electric grid. The power system is installed as a long-term equipment rental for a period of 10 years that includes an operating and maintenance agreement with the Cummins Power Generation distributor in Saudi Arabia.

For more information about Rental Power or other energy solutions, contact your local Cummins Power Generation distributor or visit www.cumminspower.com/rental.

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