

Mines should not be power companies

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One of the themes at the recent 2017 Mining Indaba revolved around power supply to mines on the continent. With official power distribution grids only covering around 40% of Africa, a substantial number of mining operations are responsible for their own power generation.



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Even mines located within reach of their national power grids do not always enjoy access to reliable electricity. In some parts of Africa, aging infrastructure causes unexpected outages. In other parts of the continent, such as hydropower-reliant countries in drought-stricken sub-Saharan Africa, utilities have been forced to cut power to mines to ensure adequate electric supplies for residential customers. In Zambia, for example, the government cut power supplies to some of the larger mines in the region by between 20% and 40%.

Malawi, Zimbabwe, Mozambique and the Democratic Republic of the Congo are but a handful of additional countries where mines report inadequate supply from the grid to run their operations. In response, many mining companies are looking to become self-reliant when it comes to power generation. The problem here is that mining – not power generation – is their core competency.

Eliminate power challenges

By farming out electric generation to a fast-track power provider – a company with mobile power plants that can be transported, installed and operational anywhere in the world in 30-90

days – mining companies can eliminate a variety of challenges that take resources away from their core focus of extracting minerals.

Topping the list of avoided challenges: the need to invest large amounts of capital or secure long-term financing to build a permanent power plant. Fast-track power generation is treated as a monthly operating expense that includes a fixed cost for access to the generating capacity and a variable cost for the power consumed. There is no large-scale, long-term commitment, other than providing the land for the generating equipment and the fuel to run the power plant.

Hiring and managing personnel to run the power plant is another potential challenge that mining companies sidestep by outsourcing their power generation. At APR Energy, we provide full staffing to install, operate and maintain our plants – typically hiring and training up to 70% of our employees from the local community.

Scalability, a priority

Given the growing number of power providers in the generation sphere, it is important for a mine to look for certain important characteristics in a service provider. Scalability should be high on the client's list of priorities, since all mining operations have a need to be able to scale production up or down depending on where they are in the exploration/development/production cycle. A power provider with a modular approach to its generation capacity and a large fleet of equipment is therefore vital.

The power provider's ability to offer current technology should also be thoroughly investigated, since outdated generating equipment can be less efficient – not to mention less reliable – resulting in higher fuel consumption and generation costs. Newer equipment also offers reduced emissions, which is an increasingly important consideration for mining companies looking to improve their CSR story.

Lastly, the speed of deployment is paramount, and service providers with a successful track record of delivering reliable fast-track power generation are indeed harder to find.