

Mining empowerment

Paul Moore spoke with Andy Walker, Head of Business Development for Mining and Cement at global temporary power specialist Aggreko; about mining as an industry focus for the company

Q: Of the work Aggreko conducts with mines and mining related operations, can you give some idea of the proportion of work that goes to providing temporary power for advanced exploration or early in-development projects, and what proportion goes to existing mine applications, such as refrigeration/ventilation power; back up/emergency power; machine moves etc?

A: Aggreko's solutions support a number of applications. The amount of work that goes to providing power during the different stages of a mine, from pre-feasibility to full operation and beyond, very much depends on the particular needs of the client. These needs will be shaped by a set of variables which may be related to environment, location, political movements and regulation.

What is unique about Aggreko is that we specialise in what we do – power rental and temperature control – and have gained a wealth of experience from having partnered with the sectors we have supported over the past 50 years, including of course, mining. Aside from the legacy of experience, we work all over the world, including expansion throughout Canada. Our people are exposed to the many different scenarios and challenges miners face, and are on hand to offer quick and flexible solutions.

One challenge miners often face is sourcing power for remote sites where grid support is unavailable. With smaller mines looking to maximise profits and minimise costs, the option of installing their own power line is more often than not too expensive. Power was required for one such mine in Ghana, the Damang gold mine, owned by Abosso Goldfields. Aggreko's capability to deliver power solutions in remote areas was well known to the customer. Within three weeks of signing the contract, the necessary equipment was mobilised, transported, installed and commissioned on site.

Q: You mentioned expansion in Canada's mining market, can you provide some detail on your presence in Canada plus any recent mining specific activity there?

A: Aggreko has delivered temporary power generation services and solutions to mining

customers in British Columbia, Alberta, Saskatchewan, the Northwest Territories, Yukon, Manitoba, Ontario and Quebec. As an example, we were contacted in June 2011 by Grand Cache Coal in western Alberta with a temporary power need. The mine was undergoing an expansion which included a new underground coal mine, the No. 12 South B2 operation. The customer faced a couple of significant challenges that were prohibiting their production timeline: limited availability to power from the grid and the newly built transmission lines had not yet been energised. In order to meet set quotas the mine elected to utilise temporary power to limit downtime and drive forward operations.

Aggreko mobilised 5 MW of generator power to



run the customer's electric mining equipment, drills, conveyor, offices and shops. The temporary power enabled the mine to quickly go into production allowing the company to meet previously-made customer commitments. Further, any interruptions in power meant large production revenue losses for the customer so Aggreko technicians were deployed 12 hours per day for six months to monitor and maintain a reliable power source. Once the transmission lines were energised, the mine transitioned to utility grid power for remaining production efforts.

Q: For the principal mining power solution applications mentioned above, can you provide examples from the past year to 18 months?

A: As indicated, our involvement in the different stages of a mine depends very much on the particular need, but our delivery of optimal service is never compromised. When the Bisha Mining Share Company (BMSC) was looking to start drilling on an isolated site in Eritrea, located 300 km from the sea, a fast and reliable power solution was urgently needed. The only barrier blocking the work on a site that had been analysed and tested for over 10 years was proving to investors that the miners had a stable power supply. Through its reputation of world class delivery of solutions regardless of the issues, Aggreko was called upon to design and implement a power package solution for 20 MW. The power package became the mine's only source of operational power, with Aggreko technicians manning the site 24 hours a day. The project was extended and is still running.

Q: Back-up power for Escondida was one of your largest projects to-date. Can you provide any other examples of similar projects where you have been brought in as a strategic secondary power source?

A: Mines that use grid support are often at the mercy of the reliability of the third party source. Weather, political movements, natural disasters and other factors can and do often affect the flow of energy. In more recent times, the significant boom in certain economies has meant that grid systems are often over capacitated and prone to load-shedding. Mines running expensive projects cannot afford not to have a back-up solution. Even those with their own principal power supply need to put in place a contingency emergency plan. Aggreko is often called in to provide a back-up power package, as was the case with the Sigouri gold mine in Guinea. Operated by AngloGold Ashanti, the mine's onsite generators broke down. Aggreko was quick to respond and sent the needed 2.5 MW power package by air, just three days from receiving the customer's initial distress call.

Q: With ever more uncertainty with grid power due to many countries being pushed to the limit in terms of capacity and frequent rolling blackouts etc, does this represent a boost to potential mining applications for Aggreko?

A: In fact we are finding that more and more, miners are having to explore in remote locations where there is little if any infrastructure in place. This trend is driving more exploration mining companies to consider rental power as an initial energy solution, at least until they are up and running and can look into the option of setting up their own power stations. There is certainly truth in the observation that many markets are



Aggreko Canada has been seeing increased demand for temporary power solutions, such as this 5 MW solution for Grand Cache Coal

experiencing a misbalance of energy demand versus supply, due to growth in economies. In these situations, Aggreko is often called in by local utility suppliers to support in supplementary power, while the infrastructure is put into place to address any shortages.

Q: Whereas Aggreko may have previously been brought in as a reactive move to power problems/shortages, are you now being factored into an operation more at the planning/development stages by EPC/EPCM companies and the like?

A: Within the industry, Aggreko is considered to be the leading expert in the field of rental power and temperature control solutions, and its reputation for above standard health and safety practices is second to none. With over 4,500 people operating in 165 locations, including the development of its presence in Canada, Aggreko is perfectly positioned to offer in-depth support at every stage of a mine's lifecycle, including early phase planning stages. Our people have been called upon for expert consulting for many years now, and are well aware of the various requirements EPC/EPCM companies have. Having said that, we still find ourselves solving new, never seen before mining applications which can sometimes be challenging. This is where Aggreko believes that it adds real client value. Taking best practice a step further, Aggreko implemented the Orange Excellence programme over two years ago, where training in QHSE and optimised management models ensure that the promise of highest safety and service standards are incorporated in each and every project.

Q: To what extent do you work closely with the companies that provide the mine-wide power transmission network/infrastructure, such as Siemens, ABB and others?

A: While we do not work directly with Siemens, ABB and others, we do regularly connect to their systems on mine sites so that they can run their equipment effectively. Our experts are well versed with the technologies of other providers.

Q: Are areas such as solar power, gas powered engines, fuel cells etc a potential threat to Aggreko? As a company are you involved in research towards future power solutions?

A: Aggreko continually evaluates the viability of potential power generation solutions, and introduces the latest technological innovations where appropriate – to meet environmental considerations and where there is a sound business case for our customers, such as in our natural gas generators. Where other new technologies meet our clients' needs, we will be in a position to support them, too. We have an exceptional record meeting and often exceeding environmental regulations around the world, and in developing existing technology to operate in the most environmentally friendly ways possible. *IM*