MINES AND THEIR INSURERS

Embracing a new energy landscape

Mining companies and insurers have a common goal in ensuring that energy efficiency and alternative energies feature highly on their respective agendas – although not necessarily for the same reasons.

Mining companies, particularly in Africa, are finding that conventional sources of energy and power are not readily available or are becoming increasingly expensive, while insurers globally are concerned about the frequency and severity of natural catastrophes arising from climate change brought about by the combustion of fossil fuels.

The traditional relationship between mining companies and insurers was focused on the effective management and transfer of risk by mining companies to insurers such as Emerald Risk Transfer, which writes a substantial mining book on behalf of Santam, the only S&P-rated insurer in South Africa.

Santam's own commitment to sustainability was recently showcased by the Eden Project, which won the 2012 Climate Change Leadership Award in the financial services sector. The project, conducted in the Eden District Municipality in the Western Cape, studied the effects of climate change-related risks and the ability of insurance to adapt. In future, the adoption of energy efficiency and harnessing of alternative and renewable energies by mining companies should offer a greater incentive for insurers to participate on such mining risks.

Emerald Risk Transfer recognises that sustainability, which includes the use of alternative and renewable energies, is an increasingly important business imperative and in October 2011 established a Sustainability Committee to monitor, advise and make recommendations on any relevant issues that may have an impact on the company, its stakeholders and clients.

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Harmony Gold is planning a solar power plant at Mafikeng in North West with an initial size of 18 MW, which could eventually more than double in capacity to 40 MW by 2014. Harmony is also looking to possibly erect a biofuel plant at Virginia in the Free State, for which it will use growing crops like sugar beet. The Gold Fields methane capture project at its Beatrix mine in Welkom has been registered as a clean development mechanism project, allowing the company to earn carbon credits.

Coal producer Exxaro recently completed an agreement with Tata Power of India to establish a stand-alone energy supply company called CENNergy. This company will focus on the development of cleaner production and renewal energy projects. Tronox, in which Exxaro holds a substantial share, also plans to construct a 14 MW cogeneration power station at Namakwa Sands.

Samancor has been looking at investing R575 million in generating power from the waste gas emitted by closed furnaces at its ferrometals operations in Middelburg, potentially generating 45 MW of electricity to be fed back into the group's smelters to reduce its overall energy use. Also, a 30 MW waste heat recovery and electrical power generation project is well advanced at Samancor's Tubatse operation.

South African mining companies focused on alternative and renewable sources of energy also contribute to alleviating the pressure on the Eskom supply while achieving savings over and above the 10% agreed to as an industry standard.

Within SADC, African Barrick Gold (ABG) in Tanzania established a jatropha biofuel project since 2007. More than 200 000 Japtopha curcas plants have been planted over 121 ha. By the end of 2016, 5.5 million plants will cover more than 1 200 ha. In addition, 86% of total energy usage at ABG's operations is sourced largely from renewable hydroelectric power, the North Mara Grid connection project is a key example of this.

Africa also has substantial renewable energy potential and mining companies entering various countries should consider tapping into this and provide their own renewable power or enter into partnerships to do so as a social development imperative.

With vast perennial rivers, central Africa has a huge potential for hydroelectric energy, but only a fraction is harnessed. The total installed hydroelectric capacity on the continent is 21 000 MW, 90% of which is concentrated in eight countries (the Democratic Republic of the Congo, Egypt, Gabon, Ethiopia, Nigeria, Zambia, Madagascar and Mozambique).

The highest installed capacity is found in the DRC, although both the hydroelectric power generation and the electricity supply grid require substantial investment to achieve reliable and stable supply. Nonetheless, the potential for exploitable hydropower in Africa is vast, with indications that Inga III in the DRC could provide 40 000 MW of stable baseload power – virtually the capacity of the entire fleet of Eskom coal-fired power stations.

In addition, most African countries receive an average of 325 days of bright sunlight annually, giving solar power the potential to bring energy to virtually any location without the need for expensive large-scale grid level infrastructural developments.

From an insurance point of view, mining companies that embrace energy efficiency and the use of own alternative and renewable energies should benefit from beneficial ratings and competitive premiums, not only because their own source of renewable power brings reliability to their supply, but also because these companies achieve the common objective of sustainability. Finally, insurers that are also investors of funds in listed mining companies should focus on and select those miners that achieve sustainability through harnessing alternative energies. 3S

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