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## **Energy complexities in complex orebodies**

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## ABSTRACT

The provision and management of energy in both fuel and electricity forms is an increasingly important consideration for mines. Pressures from communities, governments and markets are increasing towards more transparent and improved energy management. Combined with the energy-water nexus, where water and energy are closely related in the operation of a mine, this emerging business climate in the mining industry means a more thorough and responsible approach is required to the acquisition and use of energy, as well as the release of carbon to the atmosphere. Many of the complexities in potential new ore bodies are borne in remote locations, high altitudes, arid climates and deep deposits. Each of these challenges affect the successful provision of energy, and when combined can leave an operation seemingly unviable from an energy perspective when approached with a traditional energy feasibility lens. This presentation will discuss some of the energy alternatives currently available and emerging in the mining industry, both in the supply and use of energy, that can provide a very different energy footprint that has the options and flexibility to potentially address such mining energy challenges.