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Keynote – Can mineral processing operations make significant energy savings by adopting new technologies and challenging conventional flow sheets? - recent developments.

ABSTRACT

There has been a lot of activity in recent years in attempting to become more energy efficient in ore processing. Despite this, most near past and new circuit's flow sheets and the major technologies employed in them have changed very little from that seen in several decades.

The drivers to change are real and increasingly compelling; not just the costs of electrical power but also the availability of electrical power and indeed the impact on the environment in generating that power are topics right in the forefront of the world's decision makers. The economics of ore processing of ever lower grade and more mineralogically/metallurgically complex ores further compounds the constraints of energy for comminution to increasingly finer grinds.

This presentation will discuss the current status and perhaps the best and most favoured routes to changing this slowly changing status quo.

The electrical energy supply cost and availability in recent years in South Africa illustrates the dilemmas seen for mining companies. In the last 10-20 years in South Africa the negative changes in the supply situation and cost of supply have been profound. The resultant impacts are not conducive to thriving and sustainable energy intensive industries like mining and processing.