

Strategic Drivers

The mining industry is a voracious user of energy facing highly visible challenges:

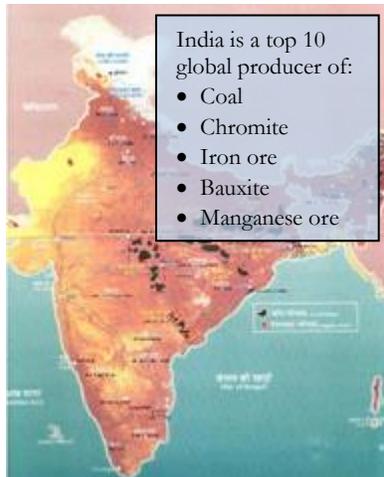
- ▲ Climate change and environmental concerns
- ▲ Infrastructure access including power at potential mining sites
- ▲ Shortage of human capital with the requisite technology skills and industry background
- ▲ Margin pressure due to commodities market conditions

These drivers are accelerating the trends toward advanced technology investments, better practices, new renewable energy production, and an increased awareness of the mining impact on the environment.

The resulting approaches promise to deliver:

- ▲ Demonstrable return on investment
- ▲ Improve energy consumption
- ▲ Integration of sustainable energy such as solar and wind
- ▲ Measurable environmental benefits
- ▲ Increased reliability through backup methods in the case of power interruptions

The rapidly evolving nature on many of the technology components requires a strategy that is based on a portfolio of investments delivered based on a well defined roadmap. This proven approach minimizes cost and risk while delivering incremental returns as implementations scale.



Indian Market Drivers

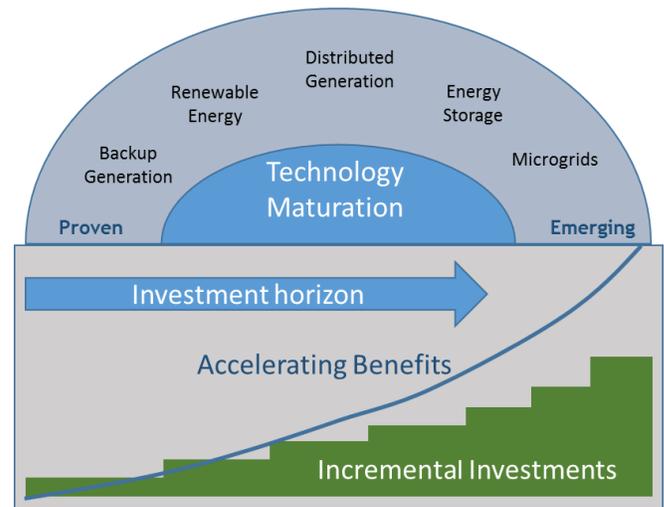
In India, there are a number of factors driving demand for energy solutions in mining.

- ▲ Ongoing growth of the Indian economy driving a tremendous growth in energy demand
- ▲ Market reforms toward privatization make cost optimization a priority
- ▲ Maturing mining companies look at supply chain costs including energy
- ▲ Investments in mining and related technologies with a demonstrable ROI are being funded

Benefit Opportunities

Benefit realization involves investing in more mature concepts and creating a stable foundation.

Subsequent investments then incorporate additional technologies as they reach maturity.



Key Approaches

Actionable Strategies applies disciplines across the value chain to drive program success.

- ▲ Strategic planning frameworks including metrics
- ▲ Mining requirements and program roadmapping
- ▲ Turkish market analysis including regulatory and environmental impact
- ▲ Financial portfolio construction and management
- ▲ Lean process and quality management
- ▲ Power engineering
- ▲ Information and communications technology architecture, design and development
- ▲ Generation and distribution best practices

Actionable Strategies Value

Actionable Strategies has proven methodologies and consultants who have successfully completed similar and relevant projects in the region.

- ▲ Mining and energy consultants experienced in India and emerging markets
- ▲ Experience with mature power technologies as well as emerging technologies such as Smart Grid
- ▲ Experts in planning and implementing a range of projects from pilots to multi-year programs
- ▲ Large program governance and execution
- ▲ Extensive background in Lean process and information and communication technologies