Principal initial projections from the Kakula 2016 PEA

The report assesses the potential development of the Kakula Deposit as a 4 Mtpa mining and processing complex. The life-of-mine production scenario schedules 82.6 million tonnes to be mined at an average grade of 5.76% copper, producing 7.5 million tonnes of high-grade copper concentrate, containing approximately 9.1 billion pounds of copper.

Figure 2. Start-up of 4 Mtpa Kakula Phase 1 Mine development scenario.

![Phase 1 Kakula Development Scenario](image)

*Figure by OreWin 2016.*

The economic analysis uses a long-term price assumption of US$3.00/lb of copper and returns an after-tax NPV at an 8% discount rate of US$3.7 billion. It has an after-tax IRR of 38.0% and a payback period of 2.3 years.

The estimated initial capital cost, including contingency, is US$1.0 billion. The capital expenditure for off-site power, which is included in the initial capital cost, includes a US$147 million advance payment to the DRC state-owned electricity company, SNEL, to upgrade two hydropower plants (Koni and Mwadingusha) to provide the Kamoa-Kakula Project with access to clean electricity for its planned operations. The upgrading work is being led by Stucky Ltd., of Switzerland, and the advance payment will be recovered through a reduction in the power tariff.

**Solar power and high-capacity, grid-scale battery storage of electricity under study**

The project team also is evaluating the installation of up to 100 megawatts of solar power and large-scale vanadium redox batteries for high-capacity storage of both solar and hydro-electric power.

“It is our intention to implement new technologies in efficient, eco-friendly power generation and power storage and establish the Kamoa-Kakula Project as one of the ‘greenest’ mines in the world,” said Mr. Friedland.