

Coal Gasification Slag Comprehensive Utilization Project

Turning industrial solid waste into high-value resources

Total Investment RMB 681.89 million Capex	Annual Processing Capacity 1 million tons Coal gasification slag	Average Annual Revenue RMB 1,260 million Projected
Average Annual Net Profit RMB 323.74 million Projected	After-tax IRR 51.19% Projected	Payback Period 3.05 years Excluding construction

Project Overview

Located in Baotou, Inner Mongolia, this project is developed by Inner Mongolia Lvbaoxin Environmental Technology Co., Ltd. It aims to process 1 million tons of coal gasification slag annually, a significant industrial solid waste. The core technology is a dual-line parallel process combining acid leaching and glass-ceramic production, achieving a comprehensive resource utilization rate of $\geq 90\%$. The acid leaching line produces liquid and solid polyaluminum chloride and white carbon black, while the glass-ceramic line produces glass-ceramic building materials. The project is positioned as a large-scale resource utilization benchmark, realizing a circular economy model of complete utilization. It addresses the environmental challenges of traditional landfilling and resource waste, aligning with national green low-carbon policies. The project is currently at the initial review pitch stage, seeking financing to proceed with construction and operation.

Technology & Competitive Edge

- Dual-line parallel process: acid leaching and glass-ceramic lines, achieving comprehensive utilization rate $\geq 90\%$.
- Energy consumption $> 20\%$ lower than traditional processes, reducing operating costs.
- Product quality reaches domestic advanced level, with high technical barriers.
- Produces high-value products: liquid and solid polyaluminum chloride, white carbon black, glass-ceramic.
- Mature and efficient process with significant cost advantage and technical moat.

Market & Business Model

- Target market demand strong: regional gap of liquid polyaluminum chloride 480,000 tons/year.

- White carbon black annual growth 6-8%; glass-ceramic replaces imported high-grade stone.
- Revenue from product sales and solid waste treatment policy subsidies, dual guarantees.
- Cost control: cheap raw material and policy dividends yield production costs below industry average.
- Market strategy: focus on 200km core circle, long-term supply agreements with large enterprises.

Scope of Works & Project Status

- Construction includes plant building, equipment procurement, and initial working capital.
- Project location: Baotou, Inner Mongolia; construction entity established.
- Planned financing RMB 480.592 million (70.48% of total investment).
- Funds mainly for construction investment and working capital.
- Current status: initial review pitch, seeking financing for construction.

Key Financials

Total Investment	RMB 681.89 million
Average Annual Revenue	RMB 1,260 million
Average Annual Net Profit	RMB 323.74 million
After-tax IRR	51.19%
Payback Period (excl. construction)	3.05 years
Break-even Point	23.30%
Planned Financing	RMB 480.592 million (70.48% of total investment)

Investment Highlights

- High return: after-tax IRR 51.19%, payback period 3.05 years.
- Large-scale processing: 1 million tons per year, comprehensive utilization rate $\geq 90\%$.
- Strong policy support: aligns with national circular economy and dual carbon strategy.
- Diversified high-value products with strong market demand and regional advantages.

Key Risks

- Product price fluctuation is the most sensitive factor; a 20% drop still keeps IRR in feasible range.
- Construction investment and operating cost fluctuations have little impact on returns.
- Policy risk is low due to alignment with national green low-carbon strategy.

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