

Tumed Right Banner, Baotou, Inner Mongolia

2 Million Tons/Year Coal Gangue Solid Waste Resource Utilization Project

Financial Evaluation Report

I. Financial Evaluation Basis and Basic Assumptions

The financial evaluation of this project is prepared based on the "Methods and Parameters for Economic Evaluation of Construction Projects" (Third Edition) and the current national fiscal and tax system.

1. Calculation Period and Production Load: The project calculation period is set at 5 years, including 1 year of construction period and 4 years of operation period. The production load arrangement is: Year 2 (first year of operation) reaches 60% of designed capacity, Year 3 reaches 80%, and Year 4 and Year 5 reach 100% full production.

2. Benchmark Rate of Return: The pre-tax benchmark rate of return for project investment is set at 10%, and the after-tax benchmark rate of return is 7.5%. The capital benchmark rate of return is set at 10%.

3. Tax and Surcharge Rates: The product VAT rate is 13%. Urban maintenance and construction tax is calculated at 7% of payable VAT, education surcharge at 3%, and local education surcharge at 2%. The corporate income tax rate is 25%.

4. Statutory Surplus Reserve: Extracted at 10% of after-tax net profit.

II. Investment Estimation and Financing

1. Total Investment Estimation

The total project investment is RMB 1,280.8966 million, with the following composition:

- **Construction Investment:** RMB 1,241.64 million. Including engineering costs RMB 1,063.4148 million (construction engineering RMB 271.4148 million, equipment procurement RMB 691 million, installation engineering RMB 101 million); other construction costs RMB 89.0852 million (including land use rights RMB 20.6796 million, patents and proprietary technology RMB 48.9056 million); basic reserve funds RMB 89.14 million.
- **Construction Period Interest:** RMB 19.2566 million.
- **Initial Working Capital:** RMB 20 million (estimated using the itemized detailed estimation method).

2. Financing Plan

The total project investment is RMB 1,280.8966 million, with funding sources divided into own funds and bank loans:

- **Enterprise Own Funds (Capital):** RMB 425.0486 million, accounting for 33.18% of total investment.
- **Bank Loans:** RMB 855.848 million, accounting for 66.82% of total investment. The loan term is 5 years with an annual interest rate of 4.5%, repaid by equal principal and interest during the operation period.

III. Operating Revenue and Cost Expense Estimation

1. Operating Revenue and Tax Estimation

In the full production year (from Year 4), the project can achieve operating revenue of RMB 1,244.30 million (excluding tax).

Product Revenue Composition:

Product	Revenue (RMB 10,000)
Clean Coal	10,800
Ferric Oxide and Titanium Dioxide	3,400
Gangue	1,600
Kaolin	22,230
Mineral Soil Conditioner	25,200
Flint Clay	20,400
Mullite	40,800

In the full production year, payable VAT is RMB 128.3559 million, and business tax and surcharges are RMB 15.4027 million.

2. Total Cost Expense Estimation

The total cost expense in the full production year is RMB 430.625 million, including:

- **Operating Costs:** RMB 308.6861 million (purchased raw and auxiliary materials RMB 96.5 million, purchased fuel and power RMB 160.77 million, wages and benefits RMB 23.8 million, repair costs RMB 2.8877 million, other expenses RMB 24.7284 million).
- **Depreciation and Amortization:** Annual depreciation RMB 96.2554 million (buildings 20 years, equipment 10 years, others 5 years, residual value rate all 5%); annual intangible and deferred asset amortization RMB 5.5799 million.

- **Interest Expense:** Financial expense in the full production year (Year 4) is RMB 20.1036 million.

Fixed costs in the full production year are RMB 160.912 million, and variable costs are RMB 269.713 million.

IV. Financial Benefits and Profitability Analysis

1. Profit and Profit Distribution

The project has strong profitability after operation. In the full production year (Year 4), total profit reaches RMB 798.2723 million. After paying corporate income tax of RMB 199.5681 million, net profit reaches RMB 598.7042 million. The average annual net profit remains at a high level during the operation period.

2. Profitability Indicators

- **Return on Investment (ROI):** Earnings before interest and tax (EBIT) in the full production year is RMB 818.376 million, with ROI reaching 63.89%.
- **Return on Equity (ROE):** The ratio of net profit to capital in the full production year reaches 140.86%.
- **Financial Internal Rate of Return (FIRR):** 43.35% after income tax, far higher than the industry benchmark rate of 7.5%; 55.93% before income tax.
- **Financial Net Present Value (FNPV):** After-tax net present value (ic=7.5%) is RMB 1,331.3391 million.
- **Investment Payback Period (Pt):** 3.17 years after income tax (including 1-year construction period), indicating that project investment can be recovered quickly.

V. Debt Solvency and Risk Resistance Analysis

1. Debt Solvency Analysis

Project bank loans are repaid by equal principal and interest. During the operation period:

- **Interest Coverage Ratio (ICR):** ICR for each year during the operation period is far greater than 1, with an average of 27.77, indicating that EBIT is sufficient to cover interest expenses.
- **Debt Service Coverage Ratio (DSCR):** DSCR for each year during the operation period is greater than 1, with an average of 2.60, indicating that funds available for debt repayment are abundant, with extremely strong ability to repay debt principal and interest on schedule.
- **Asset-Liability Ratio:** Gradually decreases from 67.88% at the beginning of the operation period to 3.54% at the end, with increasingly sound financial structure.

2. Break-even and Sensitivity Analysis

- **Break-even Analysis:** Calculated based on full production year data, the project break-even point (BEP) is 16.78%. That is, the project can break even as long as it reaches 16.78% of designed production capacity, indicating extremely strong risk resistance.

- **Sensitivity Analysis:** Sensitivity analysis of factors such as construction investment, operating costs, and product prices shows that project benefits are most sensitive to product price changes (sensitivity coefficient approximately 1.40), followed by construction investment and operating costs. Even under adverse conditions of product price decline or cost increase, the project's internal rate of return can remain above the benchmark rate, with strong risk resistance.

VI. Financial Evaluation Conclusion

Based on the above analysis, the total investment scale of this project is moderate, and the financing plan is reasonable. After the project is put into operation, products have high added value and extremely strong profitability (after-tax FIRR reaches 43.35%, investment payback period is only 3.17 years). Meanwhile, it has excellent debt solvency (average DSCR reaches 2.60) and extremely strong risk resistance (break-even point as low as 16.78%).

From a financial perspective, this project has significant economic benefits, is completely financially feasible, and is a high-quality bank credit asset.

Consulting Unit: China Industrial Solid Waste Management Co., Ltd.
Huazhu Lvjian (Beijing) Technology Co., Ltd.

July 2026