

# FEASIBILITY STUDIES

## PENTA's Qualifications

PENTA is an established, globally active firm with specialized expertise in feasibility studies including financial valuations and capital cost estimates for heavy industrial projects. Since 1986, PENTA has successfully completed projects for numerous customers worldwide. PENTA's senior Consultants have provided feasibility studies for new plants as well as upgrades of existing plants both in the US and internationally.

Valuation Determination of Existing Upgraded and Greenfield facilities

- Strategic buyer - \$/annual ton
- Non – strategic – replacement cost
- Determination of EBITDA multiples
  - o Recent acquisition comparisons
- Discounted Cash Flow (DCF) analysis for Net Present Value (NPV) determination
  - o Capital expenditures
  - o Operating and maintenance cost
  - o Overhead cost
  - o Taxes



## Feasibility Studies

- Technical
  - o Raw material adequacy assessment and calculations
  - o Process evaluation of competing technologies
- Economic and Financial
  - o Operating and capital cost estimates
  - o Market trends and future growth potential analysis
  - o Weighted Average Cost of Capital (WACC) and Earning Before Interest, Taxes, Depreciation and Amortization (EBITDA) analysis
- Schedule
  - o Project time line development from project conception to commissioning
- Organizational
  - o Assess of support systems
  - o Recommend for functionality and efficiency improvements
- Site Evaluation
  - o Environmental impact studies
  - o Logistics and Operations
- Legal
  - o Environmental and regulatory compliance system development
  - o Operating permit review (Federal, state and local agencies)

