



Phase 1

Process Engineering

- Preliminary P&IDs, equipment specs, pipe sizes
- PFD, mass+energy balance
- Control architecture, single line
- Preliminary layouts
- Proposal/Estimate for Phase 2
- +/- 50% constructed cost estimate

Phase 2

Detailed Engineering

- Final P&IDs, equipment and instrument specs
- Preliminary operating procedure
- Installation drawings
- Scope of Work for contractors
- Proposal/Estimate for Phase 3
- +/- 10% constructed cost estimate

Phase 3

Project Implementation

- Fabrication and assembly
- Installation (CEI or customer)
- Construction management
- Commissioning, startup, training
- Operation
- Decommissioning

**Each phase can be customized to the unique needs of the client