

Afility Engineering Private Limited (AEPL) is focusing on providing services mainly in **Engineering Procurement Construction (EPC)** for Green as well as Brown field projects. Afility Engineering (AEPL) is a leading engineering organization where technology and innovating solutions are the key elements in solving technical problems, providing creative, practical solutions with State-of-Art technology to enhance the business capabilities in Engineering, Project, Training and Development.



Fig. 1: Engineering, Procurement and Construction (EPC) –Project Life Cycle

AEPL is engaged in multidiscipline engineering project work where specialized services are being provided to our prestigious customers. AEPL has an excellent team of professionals to carry out detail and design, engineering professionals in each discipline to provide state-of-art engineering solutions.

- Process Engineering
- Civil & Structural Engineering
- Piping Engineering
- Mechanical Engineering
- Electrical Engineering
- Instrumentation & Control Engineering
- Other Value added engineering services.

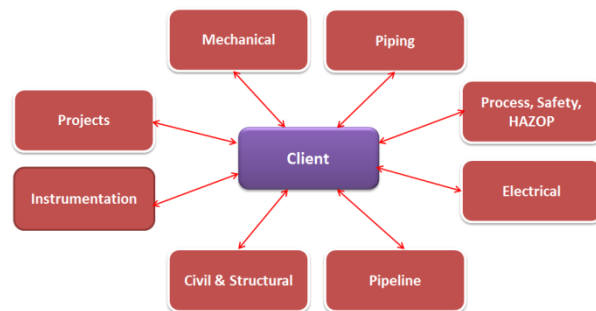


Fig. 2: Engineering Discipline Interface with EPC Project

As AEPL, We undertake to complete project implementation considering project life cycle.

- Conceptual Design (CD) Engineering,
- Front End Engineering Design (FEED) and
- Detailed and Design (DD) Engineering

The project implementation includes study of engineering requirements, verification of scope of work through site survey, detail and design development through preparation of plant layout & routing drawings, technical adequacy reporting, procurement, construction and finally assistance leading to commissioning of a facility.

We are not only limited in providing engineering services, also providing the solutions on request to facilitate development. With keeping motto – **Delivering Excellence to achieve Customer's need and thinking of day after tomorrow rather than ready for tomorrow.**

The project engineering services are mainly focused on the following activities:

Part- A: Engineering, Procurement and Construction (EPC)

1. Project Reports / Feasibility Study

- Review of FEED and Basic Design Document
- Co-ordination with PMC for Scope confirmation
- Detail and Design Engineering
- Obtaining approval & Issue of Construction Drawings
- Preparation of As-built documentation

2. Preparation of Front End Engineering Design (FEED)

The focus on FEED package preparation centres on creating a basic design document that is clear as well as concise and leaves little room for ambiguity during tendering/construction-bid evaluation process.

3. Project Management Consultants (PMC)

- Site Survey – Verification of Scope of Work
- Preparation FEED/Basic Design Package
- Co-ordination with Process Licensors
- Project Planning & Scheduling
- Project Cost Control, Management & Monitoring
- Tendering – Bid Proposal, Material Take Off (MTO)
- Engineering co-ordination with Licensors
- Vendor Drawing Review and Approval
- Construction Management
- Materials Management
- Commissioning & Close-out

4. Engineering Procurement and Construction Management

Each project to ensure application of mind and efforts goes into finding ways to shave-off execution time. The typical activities shall be as follows:

- Review of FEED and Basic Design Document – as acceptance of FEED Documents
- Co-ordination with PMC
- Site Survey – Verification of Scope of Work
- Co-ordination with Process Licensors
- Project Planning & Scheduling
- Project Cost Control, Management & Monitoring
- Engineering co-ordination with Licensors
- Procurement Engineering – MR, TBE and PO
- Vendor Drawing Review and Approval
- Construction Management
- Materials Management
- Commissioning & Close-out

Oil & Gas Facilities



Oil & Gas products and services cover all aspects of bringing product to market. It includes reservoir analysis to production and delivery.

Refineries



From initial concept through technology development, design, procurement assistance, construction management and decommissioning.

Petrochemical Complexes



We have participated in the conceptualization and implementation of ideas which are the foundation for world-class production facilities.

Part- B: Turnkey Solutions

Afility Engineering is specialised in providing turnkey solutions to the industrial project including multi-discipline engineering where our experience and technical expertise are evolved. We have valued experience in executing / commissioning projects.

- Design, Engineering and supply of Automation panels
- Assistance in Software Development
- Erection and Commissioning of field instruments, Calibration of field instruments
- Loop Checking and Pre-commissioning activities.
- Site Support and Co-ordination with Client/ Vendor / Contractor etc.
- Construction Support Engineering, Preparation of construction work packs
- On site and On job training to new fresh graduate engineers
- Providing assistance in Annual Maintenance Contract



Fig. 3: Turnkey Project - Solution

Part C: Specialized Instrumentation & Control Engineering

The activities under Instrument & Control Discipline primarily covered the scope of work for project Detail and Design engineering. From engineering company point of the business in Instrumentation is widely spread as follows:

Detail and Design Engineering -

- Preparation of Proposal Basis / Assumption, Bill of Material (i.e. MTO)
- Preparation of site survey check list and conduct site survey for Scope confirmation
- Preparation of Engineering Design Packages for Clients based on their project requirements such as – Entire Engineering, System- by- System, Part-by-Part etc.
- Preparation of Instrument Index and I/O List, Preparation of field instruments datasheets
- Preparation of Instrument Level Sketches – Level Instrument installation
- Performing Sizing calculation for field instruments (E.g. Orifice Plate, Control Valve etc.)
- Preparation of Material Requisitions for field instruments & Control System
- Preparation of Control System Engineering documentation including detailed System I/O List, Functional Block, System Loop Drawings, Cause and Effect Diagram, Graphics and System Configuration etc.
- Preparation of Cable Schedule, JB Wiring and Termination drawings
- Preparation of Instrument Layouts – Location Layouts, Cable Tray Routing layouts
- Preparation of Hook – Up drawings and Construction MTO
- Project Requirements (i.e. Adequacy check report, Modification Scope of Work, Package System Integration Work pack etc.
- Technical Bid Evaluation and Bid Tabulation
- Preparation and issuance of Final PR for Procurement
- Vendor Document Review – All field Instrument / Control System Components
- As-Built Documentation

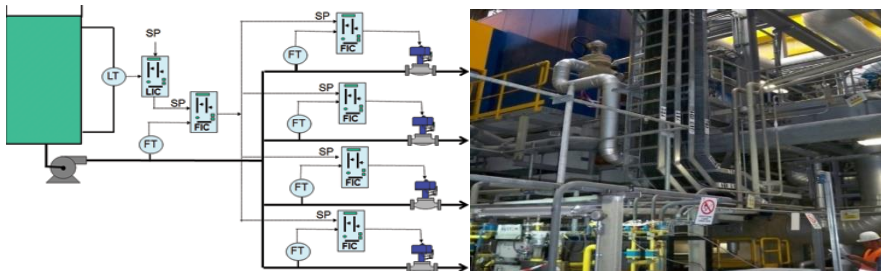


Fig. 4 Detail Engineering and Construction Work

Contact Details:

Office Address:
Afinity Engineering Pvt. Ltd.
Office No S-112, IInd Floor
Haware Fantasia Business Park,
Plot No-47, Sector 30A,
Vashi, Navi Mumbai-400703.

Contact Person: Mr. Mayur Badgujar,
Phone: +91 9769108043
E-mail: mayurb@afilityengineering.com
info@afilityengineering.com
Website: www.afilityengineering.com