



Create the World of Tomorrow...
Today

AIN Engineering Services (Pvt) Ltd.
Engineering and Project Management Services







OUR VISION

To be the global leader of engineering and procurement consultancy services for the natural gas processing industry; providing high quality services at competitive prices by following smart and innovative practices and following ethical standards





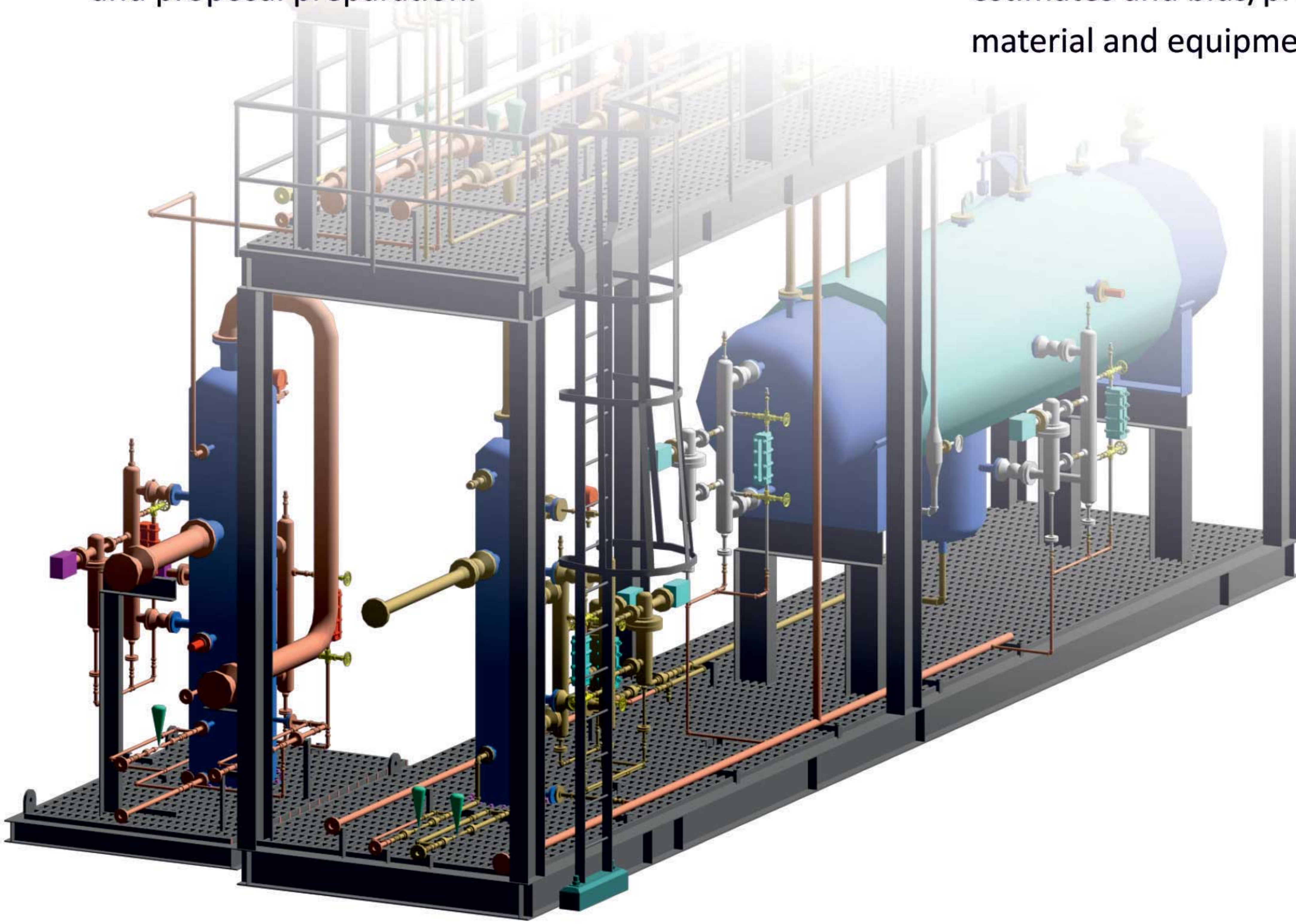
AIN ENGINEERING SERVICES



Provides range of professional and smart engineering and procurement services for the oil & gas production as well as contracting companies.

Setup in 2006, we have tailored our services according to the demands of the modern day oil & gas production as well as contracting industry - providing traditional design engineering services as well as specialized services such as procurement support, cost estimation and proposal preparation.

In addition to getting professional design engineering services, our clients get the advantage of optimizing their organizational setup by using our services for cyclical load activities like engineering reviews, preparation of pre-qualification documents, cost estimates and bids/proposals, as well as procurement of material and equipment.





AIN provides these services for the following oil & gas production facilities;

- Early Production Facilities
- Oil & Gas separation
- H₂S and CO₂ removal
- Gas dehydration
- Hydrocarbon dew point control (HCDP)
- LPG recovery
- Condensate stabilization
- Gas metering
- Utility system (sour water treatment, flare, hot oil, instrument air, produced water treatment, power generation, distribution and product storage, etc.)



ENGINEERING SERVICES

Engineering of gas processing and production plants is the core business of AIN. It supports its clients by providing the following engineering services:

- Conceptual Design
- Front End Engineering Design (FEED)
- Basic Engineering
- Detailed Engineering
- Drafting
- As-built Documentation
- Expediting and review of design documents prepared by third parties

We have proven our multi-disciplinary expertise in a variety of gas processing and production projects, from inception to successful commissioning and start of production.

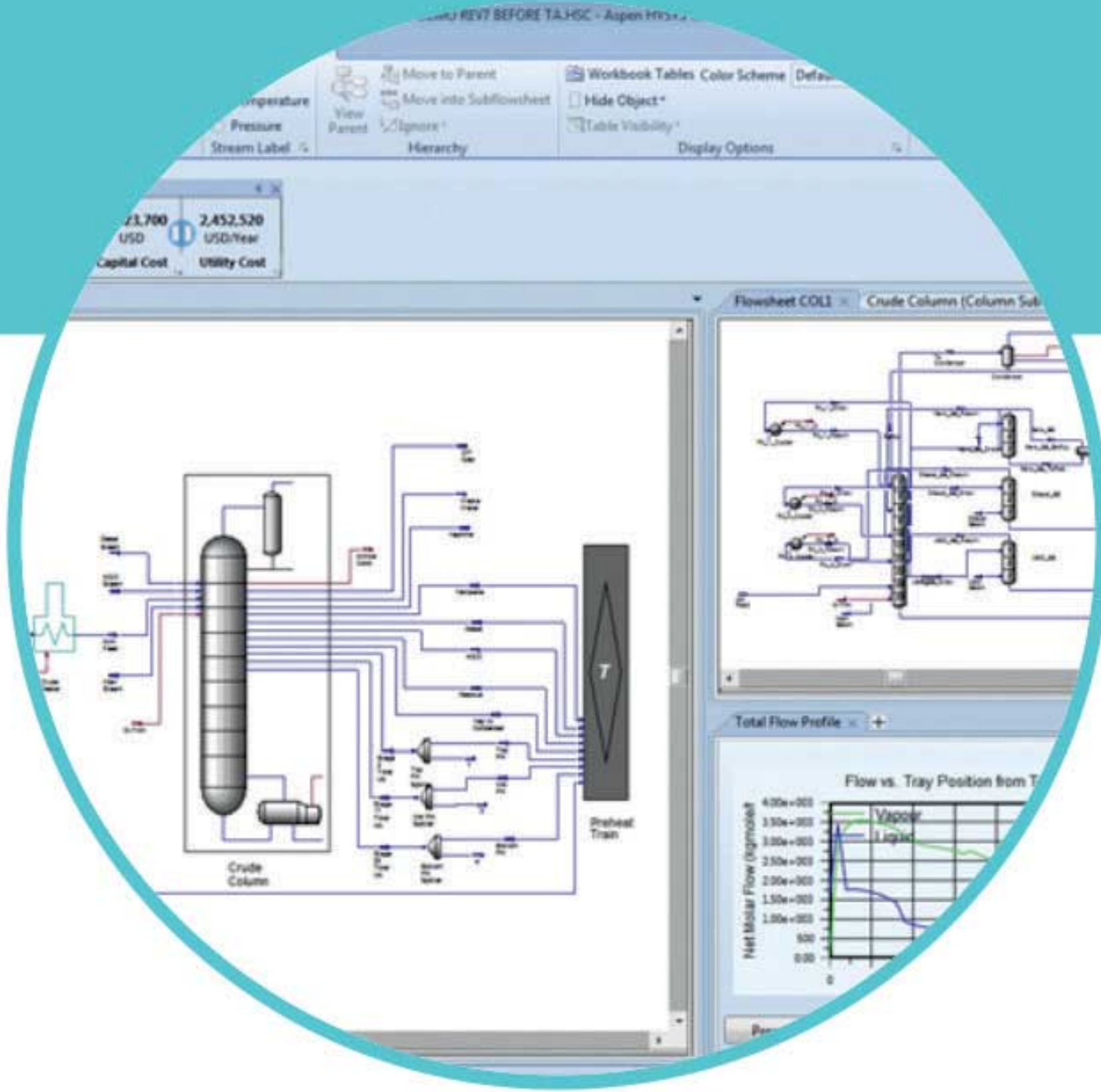
AIN stresses a lot on acquiring, and consequently providing its clients, with workable solutions that help in ensuring that the client's project is successfully commissioned.

In addition to skills, intelligence and experience, we take pride in the way our team provides its services in a truly client-oriented fashion - always available to find solutions and take requisite actions.



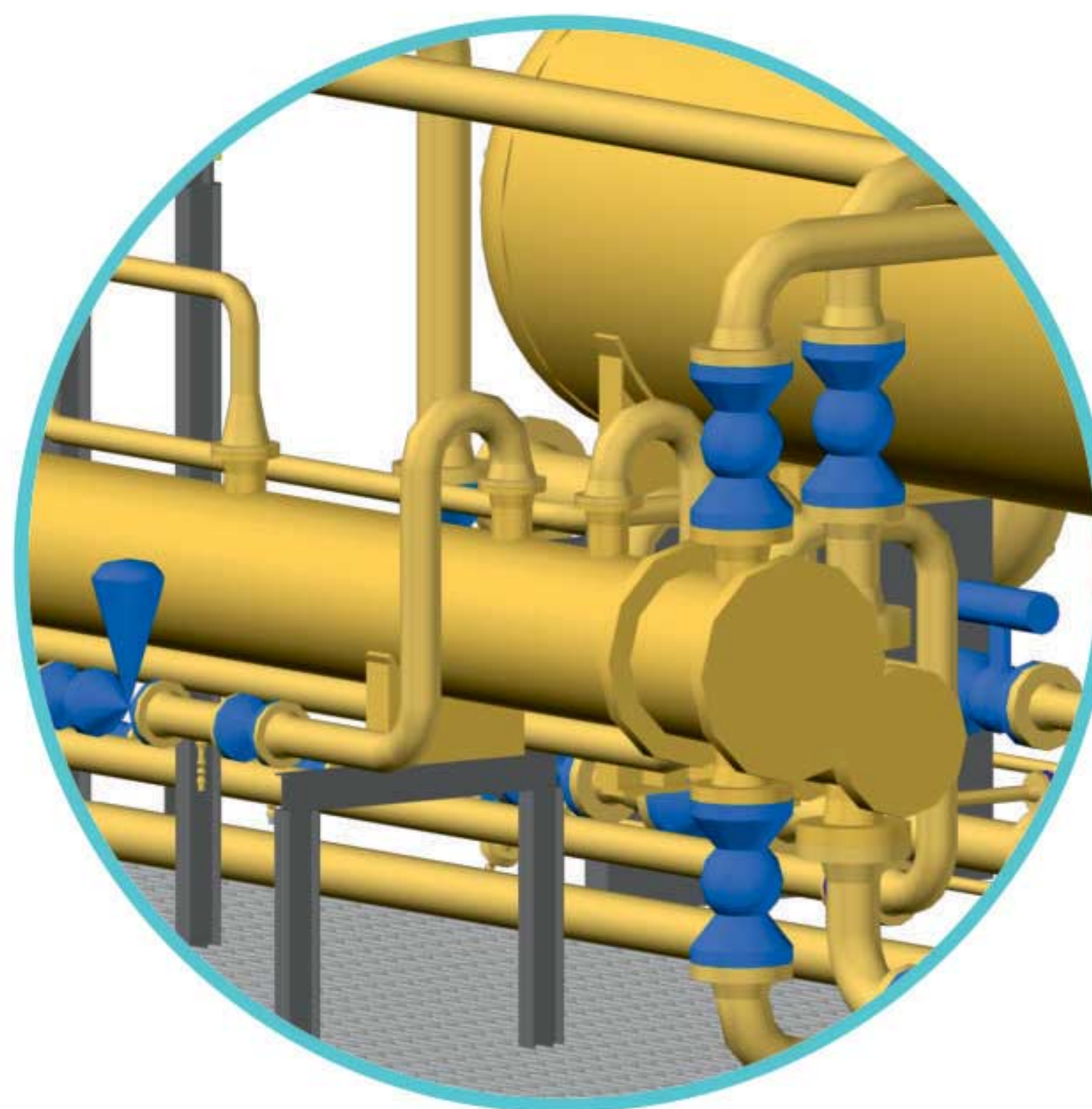


ENGINEERING SERVICES



BASIC ENGINEERING AND PROCESS DESIGN

- Process Design Basis
- Process Simulations
- Equipment Sizing
- Line Sizing
- Control Valves / Relief Valves sizing
- Process Flow Diagrams (PFDs)
- Piping and Instrumentation Diagrams (P&IDs)
- Equipment Datasheets
- Instruments Datasheets
- Flare related studies
- Control and Shutdown Narrative



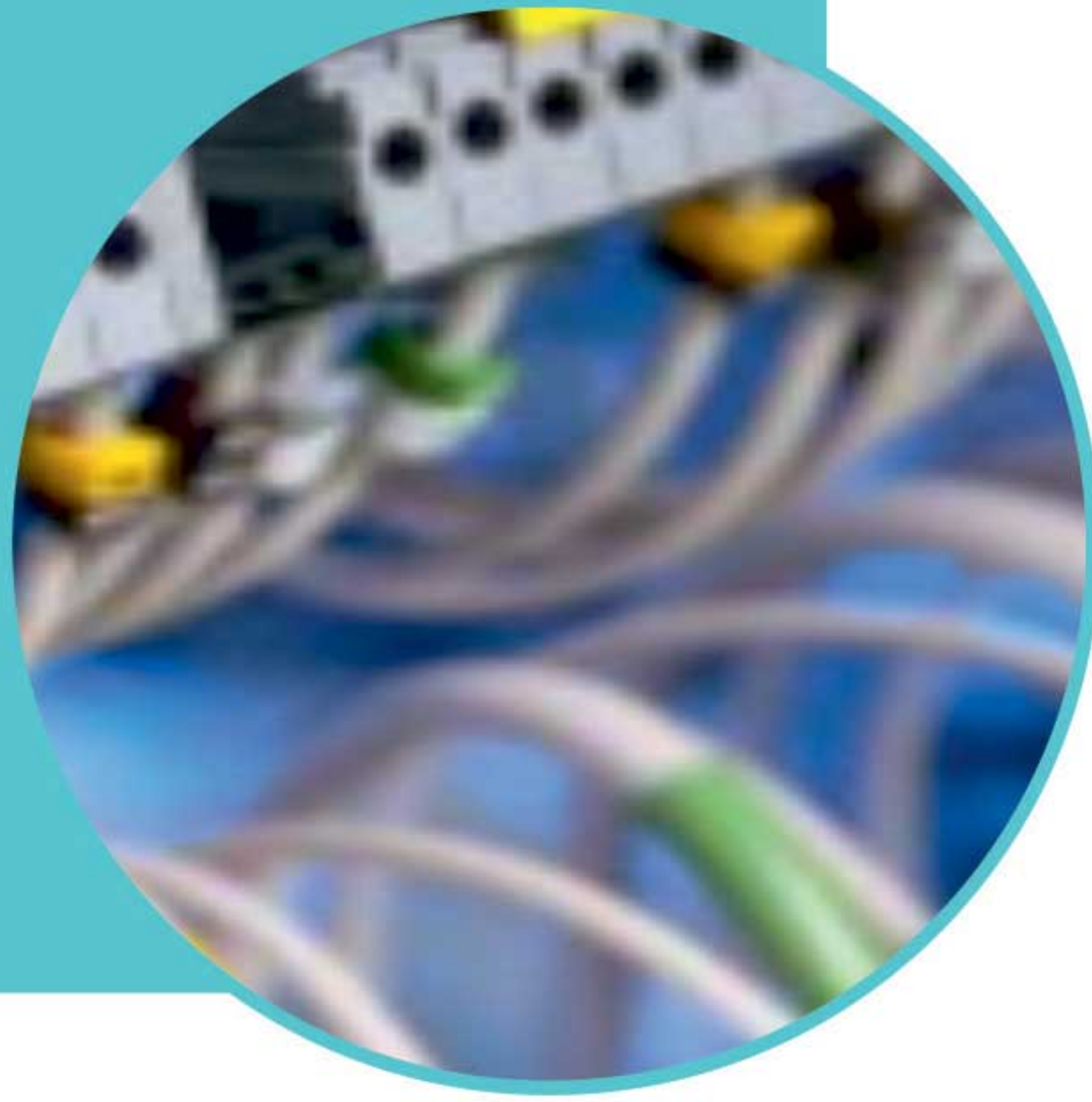
PIPING

- Plant 3D Model
- Piping Specifications
- Plot Plans
- Piping Layouts
- Manual Valves / Special Items Datasheets
- Stress Analysis
- BOQs
- Isometrics



CIVIL DESIGN

- Grading Plans
- Foundation Design
- Buildings Design
- Skid Structures
- Pipe Racks and other Structural Design



ELECTRICAL

- Short Circuit Current Calculation
- Power Generators / UPS Size Calculation
- Hazardous Area Classification Layouts
- Cable Sizing / Routing Plans
- Earthing Calculations / Layouts
- Lighting Calculations / Layouts
- Substation Layouts
- Transformer Bay
- Single Line Diagrams



INSTRUMENTATION

- Instrument Datasheets
- Cause & Effect Diagrams
- Loop Diagrams
- Termination Drawings
- Control and Shutdown System Functional Design Specifications
- Fire & Gas Detectors Layouts
- Alarms & Set Points Schedule
- Cable Sizing / Routing Plans



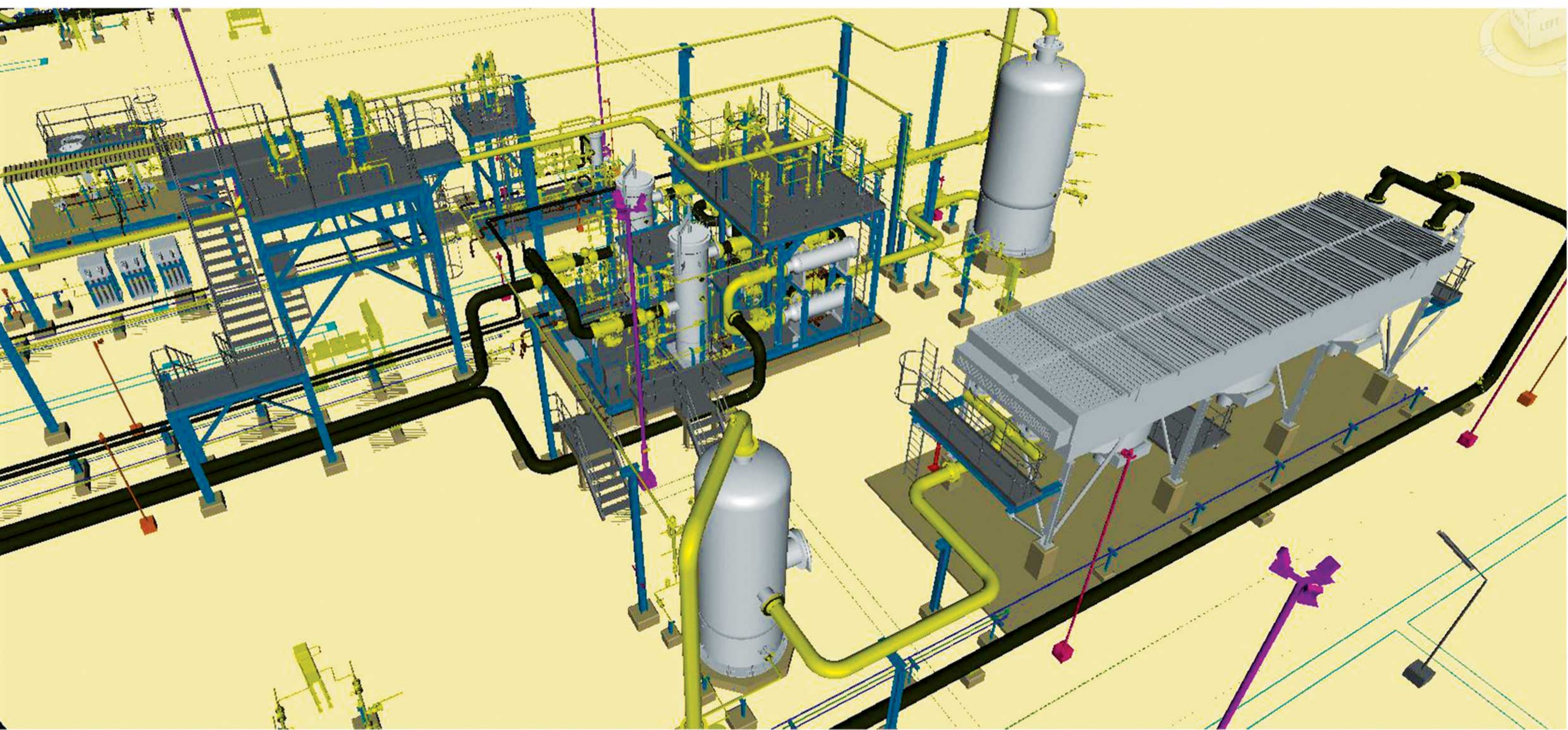
MISCELLANEOUS

- Project Manuals Compilation
- As-built Documentation

PLANT DESIGN MANAGEMENT SYSTEM (PDMS)

AIN Engineering is the first, and so far the only, engineering company in Pakistan developing 3D models of the plants in PDMS. It has also has expertise in other PDMS supporting modules such as Mechanical Equipment Interface (MEI) and Satellite Global etc. This enables us to the following business benefits;

- Increase productivity
- Live link b/w Specifications and 3D Model
- Effective use of global dispersed teams
- Reduced site rework
- Maximize project quality
- Discipline wise customized undo / redo
- Customized reporting to meet client's requirements



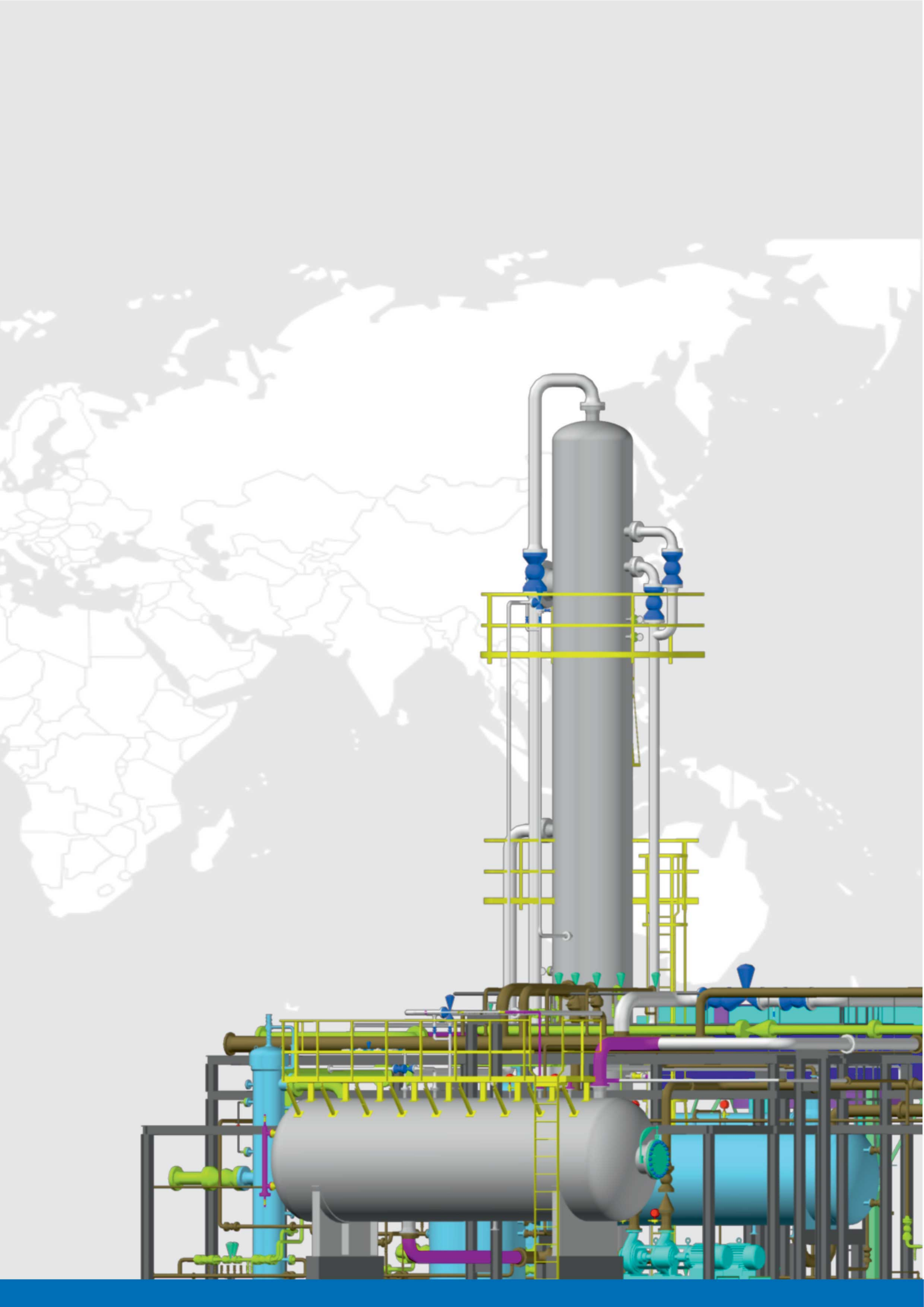


PROCUREMENT SUPPORT



AIN can provide the following procurement support services to companies in general and for projects in particular:

- Development of systems and procedures
- Vendor identification
- Pre-qualification of vendors, suppliers and contractors
- Preparation of tender documents/material requisitions
- Technical and commercial evaluation of bids
- Negotiations with vendors, suppliers and contractors
- Preparation of contract documentation
- Progress monitoring and expediting
- Spare parts management





TENDERING AND COST ESTIMATION SERVICES

AIN can prepare for you the technical and commercial proposals, including cost estimations, for engineering, supply, and /or EPC of all afore-mentioned plants and equipment. Our services would include, but not be limited to:

- Review of ITB
- Extraction of Scope of Work
- Preparation of Project Synopsis
- Preparation of Queries for Client

Engineering

- Process Simulations, preparation of PFD / WB
- Preparation of P&IDs
- Preparation of layouts
- Equipment / PSV / Control Valve Sizing
- Preparation of datasheet
- Any other engineering work required

Cost Estimation

- Preparation of inquiries for suppliers
- Preparation of mechanical estimation package
- Instrumentation and control system estimation
- Preparation of packages for fabrication
- Clarifications to suppliers
- Review of suppliers' quotations

Proposal Preparation

- Preparation of Technical Offer
- Cost estimates
- Proposal compilation
- Reply of client queries
- Compilation of project handover documentation

Pre-qualification

We can free up a lot of your man-hours by preparing pre-qualification documents for all kinds of projects. Our services would include, but not be limited to:

- Filling in questionnaires
- Preparation of experience profile
- HSE data compilation
- PQ document compilation

The information for pre-qualifications is gathered through an initial interview with the relevant person(s) in your company and secondly from the company profile. Usually this is enough interaction for us to prepare the first draft of the pre-qualification document. Thereafter the document is finalized in light of your comments.

We fully understand that information provided in pre-qualification documents is of confidential nature, and any loss of trust in our services will be an immediate deal-breaker. Therefore we employ various IT and organizational techniques to ensure that your information remains confidential at all times.

Through our experience of preparing hundreds of pre-qualification documents, we know the importance of document presentation and can provide document designing and presentation services as well.

Data Gathering

For cost estimations and proposal preparation, we start with an initial kick-off meeting/conference call to define and clarify the responsibilities of each party and the range of cost estimate required. Thereafter the progress can be monitored through weekly meeting / video conferences.

Presentation

Through our experience of preparing hundreds of pre-qualification and proposal documents, we know the importance of document presentation and can provide document design and presentation services as well.

Confidentiality

We fully understand that information provided in cost estimation and proposals is of extremely confidential nature, and any loss of trust in our services will be an immediate deal breaker. Therefore we employ various IT and organizational techniques to ensure that your information remains confidential at all times.


In any case we provide the best baseline estimates for our scope of responsibilities; the commercial costs, contingencies, overheads, and profit are added by the clients themselves; therefore the final price is never know to us.

MAJOR PROJECTS



Project	Client	Capacity	AIN Scope
Front End Engineering Design (FEED) for Meahr-2, Pakistan	OMV Pakistan	30 MMSCFD Gas, 4500 BPD Condensate & 850 BPD Water	Design basis, simulations, equipment sizing, P&IDs development, packages specifications/datasheets, plot plan, operating philosophy, CAPEX, OPEX
Front End Engineering Design (FEED)of Condensate Stabilization Mehar-2	OMV Pakistan	1500 BPD	Design basis, simulations, equipment sizing, P&IDs development, packages specifications/datasheets, plot plan, operating philosophy, CAPEX, OPEX
Fuel Gas Treatment Unit – Bayoot Field Yemen	Enerflex Middle East Ltd.	3.0 MMSCFD FG TU comprising of Inlet Separation, Feed Gas Compression, HCDP Control, Condensate Stabilization, MEG Injection and Propane Refrigeration	Process, Mechanical, Piping, Control & Automation, and Structural Design Project management and Procurement Support
De-bottlenecking Study of Kandanwari Gas Plant, Pakistan	OMV Pakistan	250MMSCFD Gas	De-bottlenecking study to identify the bottlenecks to increase the capacity from 230MMSCFD to 250MMSCFD. Study included detailed evaluation of existing facilities, identification of bottlenecks, analysis of existing problems, process simulation, lines hydraulics, vessels and equipment rating, evaluation of alternatives, sensitivity analysis, energy analysis and cost estimation
Kausar Field Gas Development Project, Pakistan	Descon Integrated Project (Pvt.) Limited	33.0 MMSCFD	Process design verification of amine sweetening and gas dehydration units already installed for new process conditions. Study included process simulations, lines rating, equipment rating, material selection
Early Production Facility – Standard Design	Schlumberger, Dubai	10,000 BPD Oil Sweetening and Stabilization Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design
Miran Oil Early Production Facility, Iraq	Schlumberger, Dubai	10,000 BPD Oil Sweetening and Stabilization Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design
Concept Study of Mehar Gas Reinjection to Wellheads for Enhanced Oil Recovery, Pakistan	OMV Pakistan	-	Concept study includes identification of potential location for compression and processing Units, analysis of available options and option selection, compressor selection, material selection study, cost estimation
Stanley Liquids Recovery Gas Plant, Papua New Guinea	Enerflex Energy Systems Inc., Houston	2x75MMSCFD Gas and 2x2450BPD Condensate	Basic engineering Gas Mercury Removal Unit and Condensate Mercury Removal Units. The scope included control valves/PSV sizing, P&IDs, equipment datasheets, instrument datasheets, piping layouts
Far West Gas Compression Facility	Enerflex Middle East Ltd.	15.0MMSCFD Gas Compression Facility c/w all Utilities	Process, Mechanical, Piping, Control & Automation, and Structural Design Project management and Procurement Support
Banyu Urip Well Clean-up (EOE), Indonesia	Schlumberger, Dubai	10,000 BPD Oil Sweetening and Stabilization Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design
Remboue Field Early Production Facility (EPF), Gabon	Schlumberger, Dubai	10,000 BPD Oil Sweetening and Stabilization Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design

Project	Client	Capacity	AIN Scope
Gas Compression Facilities, Bahrain	Enerflex Middle East Ltd.	3 Trains of each 52 MMSCFD Gas Compression Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design Project management and Procurement Support
Orinoco Belt, Faja, Venezuela	Schlumberger, Dubai	20,000 BPD Oil Sweetening and Stabilization Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design
MWHT Plant Singue, Ecuador	Schlumberger, Dubai	10,000 BPD Oil Sweetening and Stabilization Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design
Khamilah Gas Compression Facility	Enerflex Middle East Ltd.	40.0MMSCFD Gas Compression Facility c/w all Utilities	Process, Mechanical, Piping, Control & Automation, and Structural Design Project management and Procurement Support
Block 62 Gas Compression Facility	Enerflex Middle East Ltd.	100MMSCFD Gas and 2600BPD Condensate Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design Project management and Procurement Support
Block 62 Gas Compression Facility – Process Packages	Enerflex Global KL Sdn Bhd	100MMSCFD Gas Dehydration Unit and HCDP Control Unit, 2600BPD Condensate and Unit	Piping 3D modeling of Process Skids, piping general arrangement drawings, BOQ, isometrics
Sabriya Gas Facility	Schlumberger Dubai	160.0MMSCFD Gas and 46000BBL/D Crude Treatment Facility	Process design including process simulations, PFD/UFDs, P&ID development, equipment sizing/verification, utilities consumption, equipment list, line list, hydraulic study, flare study Piping design including plot plan
Umm Niqa Crude Stabilization Facility	Schlumberger Dubai	20000BBL/d Crude Treatment facility	Process design including process simulations, PFD/UFDs, P&ID development, equipment sizing/verification, utilities consumption, equipment list, line list, hydraulic study, flare study Piping design including plot plan
EPC For Wellhead Compression Pilot Project	Enerflex Middle East Ltd.	20.0MMSCFD Gas Compression Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design Project management and Procurement Support
Gas Compression Facility	Enerflex Middle East Ltd.	450MMSCFD	Process, Mechanical, Piping, Control & Automation, and Structural Design Project management and Procurement Support
Khulud Gas Development Project Phase 1	Enerflex Middle East Ltd.	95MMSCFD Gas Sweetening Facility	Process, Mechanical, Piping, Control & Automation, and Structural Design Project management and Procurement Support
Arcadia Compressor Station 2 Power Station	Enerflex Ltd., Australia	5.0MW Power Plant	Process, Mechanical, Piping, Control & Automation, and Structural Design Project management and Procurement Support

The background of the page is a photograph of an industrial facility, likely a water treatment plant. In the foreground, there are several large, rectangular metal tanks with grates on top, supported by concrete pillars. To the right, there is a complex network of pipes, valves, and a ladder. In the background, more industrial structures, including tall towers and storage tanks, are visible under a clear sky. The left side of the image is partially obscured by a large blue graphic element that curves from the top left towards the bottom right.

109-II, Block C, Model Town
Lahore, Pakistan.
Tel: +92 42 3586 5209
+92 42 3586 5210
Fax: +92 42 3586 5211
Email: info@ain-engineering.com

www.ain-engineering.com