

WE DESIGN FOR FUTURE

COMPANY PROFILE



SUMMARY

ReGulf Offshore and Onshore Design Solution Pvt.Ltd is a premier Engineering, Design and Consultancy Organization located in Kochi the commercial capital of Kerala, India.

ReGulf deliver expertise in Engineering and Design Services from concept to commissioning to customers globally ensuring sustained compliance with Quality, Health, Safety, Security and Environmental standards within the schedule and budget of projects.

ReGulf is conceptualized and formulated by highly experienced engineering professionals having a combined 300+ years of experience in the field of Engineering, Design, Consultancy and Project Management in India and abroad.

ReGulf is facilitated and managed by efficient managers and excellent engineers, augmented with top notch design professionals supported with state of the art software and 3D tools, capable of providing engineering solutions to meet the needs of our customers from smallest advisory assignment to large multidisciplinary projects and will endeavor to be a world class provider of value Engineering and Design Services across the globe.

ReGulf is equipped with personnel who are having hands-on experience in- HYSIS, PIPESIM, PIPENet, PDMS, CEASER-II, STADDPro, PVELITE, TANK, INTTools, PVsyst 6.7.0.

COMPANY ACTIVITIES

ReGulf activities cover the entire array of Engineering, Design, Procurement and Project Delivery Management of various Offshore and Onshore, Upstream, Downstream, Green field and Brown field in Oil & Gas, Refinery, Fertilizer, Chemical, Petrochemical, Water Distribution Systems and Onshore & Offshore Pipelines. The Procurement management supports includes vendor pre-qualification, RFQ preparation, bid evaluation, purchase order preparation, inspection, vendor document review, and expediting services, Construction engineering support, PMC services, Secondment of technical experts, Interface Management service, Risk Management service and third party inspection services and commissioning support services.

Activities also include plant operation, maintenance, de-bottlenecking, energy audit, Plant safety studies such as HAC, HAZID, HAZOP, QRA, SIL and other related services.

OUR VISION

Our vision is to be a global Prime Engineering, Design and Consultancy Organization providing safe and environment friendly engineering solutions to our customers.

OUR MISSION

ReGulf will strive to deliver tailored engineering solutions to meet the needs of our customers from smallest advisory assignment to large multidisciplinary projects and will endeavor to be a world class provider of value Engineering and Design Services with commitment on continuous improvement in Quality, Health, Safety, Security and Environmental standards within schedule and budget.

QUALITY, HEALTH, SAFETY, SECURITY AND ENVIRONMENT

ReGulf are committed to continuous improvement of Quality, Health, Safety and Security of our employees, contractors and all stake holders through our good engineering practices.

We are committed to environmental protection, conservation of natural resources and sustained development and provide exemplary service standards to exceed customer expectations using our three (3) tier quality check procedure.

While engineering, we

- Regularly monitor safety performance against measurable targets
- Consistently implement proactive and reactive measures to identify, analyze, reduce and prevent risk by appropriate design
- Observe and adopt all applicable legal requirements, international standards and best practices across the industry

ENGINEERING CAPABILITIES

Following are some of the salient engineering capabilities of **ReGulf** :-

1. Project Feasibility studies for oil and gas facilities, Oil Field Developments, tank farms, Offshore and onshore facilities, fertilizer, petrochemical, onshore and offshore pipelines, Water Distribution System, HVAC, Firefighting System, Renewable Energy and Marine Engineering applications
2. Preparation of Pre-FEED, FEED, Validation of FEED, Detailed Engineering and As-built engineering
3. Electronic Document Management System
4. Conducting energy audit of plants
5. EIA Studies
6. Conducting safety studies like HAC, HAZID, HAZOP, QRA and SIL
7. Procurement management including vendor pre-qualification, RFQ preparation, bid evaluation, purchase order preparation and vendor document review
8. Third Party Inspection and expediting services
9. Construction engineering support
10. Secondment of technical experts
11. Project Management Consultancy service
12. Interface Management service
13. Risk Management service
14. Pre-Commissioning and Commissioning Support
15. Due diligence studies
16. Hands-on experience in - HYSYS, PIPESIM, PIPENet, PDMS, CEASER-II, STAAD Pro, PVELITE, TANK, INTTools, PVsyst 6.7.0.

ENGINEERING DESIGN GROUP

ReGulf Engineering Group consists of a team of well experienced professionals in engineering and design, who can able to contribute during all phase of Offshore and Onshore projects. Our expertise helps to design production facilities in multiple phase of project through increased level of definition, to manage risks and maximize value across all stages of project development. Our full complement of knowledge and skills help to find solutions towards sustainable design in the following area:-

1. Project Delivery Management
2. Process and Safety
3. Piping
4. Static Equipment and Pressure Vessels
5. Rotating Equipment and Material Handling
6. Electrical
7. Instrumentation & Controls, F&G systems.
8. Architectural, Civil and Structural
9. HVAC
10. Fire Fighting System
11. Offshore and Marine Engineering
12. Offshore pipeline & Onshore pipeline

ENGINEERING DESIGN

PROJECT DELIVERY MANAGEMENT

Project Delivery Management has overall responsibility for the successful initiation, planning, engineering, design, execution, monitoring, controlling and closure of the projects. The responsibilities include organizing the preparation of project deliverables and establishing effective communication with our valued clients at different phases of the project. Project Delivery management includes:-

- Project execution plan and schedule
- QHSSE plan
- Coordination of inter-disciplinary meetings
- Coordination of meetings with clients, vendors and contractors
- Organize risk studies
- Organize constructability studies
- Organize interface management plans
- Progress reporting , Resource mapping, Cost control
- Change Management
- Project Closeout

PROCESS AND SAFETY

ReGulf is having expertise in the field of Process Engineering and Safety in upstream, downstream Oil and Gas facilities which includes Refinery, Fertilizer, Chemical, Petrochemical industries. We also carryout required process studies and simulations using software like HYSIS, FLARENET. Our capabilities include both Offshore and Onshore facilities. Process Engineering groups provides:-

- Concept & Feasibility studies
- Process Design Basis
- Equipment & Pipe sizing calculations
- Hydraulic studies
- Material selection studies & preparation of MSD
- PFDs , P&IDs
- Process simulations
- Cause & Effect Diagram
- HAC, HAZID,HAZOP, QRA, SIL studies
- Commissioning and Start-up assistance

PIPING

ReGulf carryout Piping Detailed Engineering for Offshore and Onshore Oil & Gas, Fertilizer, Chemical, Petrochemical, Refinery and Oil Field development projects using state of the art software for 3D Modeling based on approved P&ID, Flexibility analysis and Isometric to obtain accurate MTO. The Piping engineering team provides:-

- Piping Design Basis
- Pipe wall thickness calculations
- Specifications, Data Sheets and associated 2D drawings
- Piping Layout & GA drawings
- 3D Modeling & Models reviews
- Isometric & Stage wise MTO's
- Valve list
- Flexibility analysis
- Pipe support drawings
- Purchase requisitions, Technical Queries, Technical Bid Evaluation
- Review of Vendor Data and Drawings for technical compliance
- Preparation of Installation Specifications and Schedule of Work
- Technical support during the phase of construction

STATIC EQUIPMENT & PRESSURE VESSELS

ReGulf Design and Engineer Stationary equipment, Pressure Vessels, Heat Exchangers, Fired Equipment, Storage Tanks and Packaged equipment. The pressure vessel design team delivers:-

- Mechanical Design Basis
- Specifications, Data sheets, associated drawings and documents for procurement for Static Equipment, Fired heaters, boilers, flare systems, incinerators and Packaged Equipment
- Preparation of Purchase Requisition, Technical Quires, Technical Bid Evaluation
- Review of Vendor Data and Drawings for technical compliance

ROTATING AND MATERIAL HANDLING EQUIPMENT

ReGulf undertake design of Rotating and Material Handling equipment, Preparation of Data Sheets, Specifications, layout drawings and packaged equipment for Oil & Gas, Refinery, Fertilizer, Chemical and Petrochemical plants. The Rotating & Material Handling Equipment design groups provides:-

- Design Basis,
- Specifications, Data sheets, associated drawings and documents for procurement for Rotating & Material Handling Equipment and Packaged Equipment
- Preparation of Purchase Requisition, Technical Quires, Technical Bid Evaluation
- Review of Vendor Data and Drawings for technical compliance
- Attending Kick off meeting and witnessing FAT.

ELECTRICAL

ReGulf carryout Design and Engineering for Sub stations, Power systems, Power factor improvement systems, Cathodic protection, Earthing & Lightning protection for Oil & Gas, Refinery, Fertilizer, Chemical and Petrochemical plants. The Electrical Engineering team delivers:-

- Electrical Design Basis
- Load Schedule, Electrical Equipment Sizing, Single line Diagrams, Cable Sizing, Cable Schedule, DB Schedules
- Interlocking and Protection studies
- Data Sheets and Specifications
- Design and Engineering of power systems
- UPS and Power backup systems
- Power factor improvement systems
- Sub-station layouts, Lighting Layouts, Cable Layouts, Earthing & lightning protection drawings
- Renewable Energy System engineering
- Detailed specifications for procurement
- Vendor data review

INSTRUMENTATION

ReGulf undertake Design and Engineering of Control and Instrumentation system, Safety Instrumented Systems, F&G Systems, Telecommunication systems, and Surveillance systems. We extensively make use of software like INTools for engineering. The Instrumentation and Control Engineering team provides:-

- Design Basis
- Data Sheet and Specification
- Instrument Layout drawings
- Cable block diagrams, Hook-up drawings, Control panel drawings, Routing drawings, F&G System, JB diagrams, Loop diagram.
- Up-gradation of conventional instrumentation & control systems and shutdown systems to state-of-the-art ICSS (Integrated Control and Safety Systems)
- SCADA system, PLC Engineering
- Pipeline Leak Detection System
- Tank-farm management System
- Renewable Energy System engineering
- Plant alarm and General announcement System, Surveillance System.
- Vendor data review.
- Installation specifications and schedules of work.

ARCHITECTURAL, CIVIL & STRUCTURAL

ReGulf technical experts provide detailed Civil, Structural, Architectural Design and Engineering for Oil & Gas, Refinery, Fertilizer , Chemical and Petrochemical plants. ReGulf prepare Design basis of Civil, Structural and Infrastructure facilities , Civil layout drawings, Plant building design, Equipment footing and Pipe rack design. The Civil and Structural Engineering group delivers:-

- Civil and Structural Design Basis
- Specification for Geotechnical and Soil investigation Studies, Contour Survey
- Architectural plan and elevation in composite projects

- Infrastructural development drawings
- Valuation of assets
- Civil layout
- Plant building design
- Equipment footing design
- Pipe rack design

HVAC

ReGulf undertakes Design and Engineering of Heating, Ventilation and Air conditioning for plants and facilities. The HVAC system team provides:-

- Design Basis
- Carry out adequacy study of HVAC system based on project requirement
- Heat load calculations
- Layout drawings
- Purchase Requisitions, Technical Queries, Technical Bid Evaluation
- Review of Vendor Data and Drawings for technical compliance

FIRE FIGHTING SYSTEM

ReGulf Design and Engineer of Firefighting network using PipeNet Analysis, Firewater calculations and Pumping stations for plants and facilities. The Fire Fighting system group delivers:-

- Preparation of Firefighting system conforming to NFPA , OISD, TAC
- Specification and Data Sheets of packaged equipment
- Firewater, Form and other fire mitigation system requirement calculations
- Firewater pump house layout drawings, GA Drawings
- Auto sprinkler and Deluge system for Tank farm , control room
- Adequacy study of existing system.

OFFSHORE & MARINE ENGINEERING

OFFSHORE PLATFORM

ReGulf expertise in Offshore facility Services helps to design production facilities in multiple phases through increased levels of definitions, to manage risks and maximize value across all stages of project development. ReGulf carry out and support all offshore related Engineering analysis, for Offshore Platforms, Risers, FPSO, FSO, SPM and MOPU.

Our full complement of knowledge and skills help to find solutions towards sustainable design in the following area:-

- Pre FEED, FEED
- Design Basis
- Specification for Geotechnical studies
- Specification for packaged equipment like Chemical injection, EDG, Compressor
- Detailed Engineering and Design for Process, Fire & Safety, Mechanical, Piping, E&I and Telecom
- Detail engineering for flare and venting system
- Weight distribution calculation and Center of gravity studies of the platform at varies stages of design.
- Riser analysis and subsea pipeline approach drawing
- Power requirement calculation
- Subsea cable routing
- 3D modeling and multi discipline model reviews at varies stages , layout drawings, Isometrics and MTO
- Design and Engineering of Boat landing, Material handling
- Engineering for personal safety requirements including escape route and Muster area
- Specification for Helideck
- Studies like, Installation analysis, transportation analysis, loading and unloading analysis, Flexibility analysis, stability analysis
- Pile drivability study

FLOATING PRODUCTION STORAGE AND OFF LOADING (FPSO)

- Pre FEED, FEED
- Design Basis
- Specification for packaged equipment like Chemical injection, EDG Compressor, Separator.
- Detailed Engineering and Design for Process, Fire & Safety, Mechanical, Piping, E&I and Telecom
- Detail engineering for flare and venting system
- Weight distribution calculation and Center of gravity studies for Topsides at varies stages of design.
- Riser analysis and subsea pipeline approach drawing
- Power requirement calculation
- Subsea cable routing
- 3D modeling and multi discipline model reviews at varies stages, layout drawings, Isometrics and MTO for FPSO, FSO and MOPU
- Design of Material handling system.
- Engineering for personal safety requirements including escape route and Muster area
- Preparation of specification for Helideck
- Studies like Lifting Analysis, Flexibility analysis, stability analysis
- Design of Single Point Mooring (SPM)
- Mooring Analysis

MARINE ENGINEERING

ReGulf maritime expertise covers engineering service including data collection and analysis, studies, planning, design, project management, modeling, construction management and monitoring of the following:-

- Breakwaters and coastal protection works
- Dredging, reclamation and ground improvement
- Quays, wharf and jetties
- Design and build marine works
- Container terminals
- General cargo and multipurpose berths
- Liquid and dry bulk terminals
- Shipyards and dry docks
- Cruise ship and ferry terminals
- Structural assessments and repair for existing facilities
- Fishing harbors
- Marinas , small craft harbors and jetties
- Port infra-structure including roads, building and pavements
- Numerical modeling

ONSHORE & OFFSHORE PIPELINE

ONSHORE PIPELINE

ReGulf carry out conceptual studies, Techno-commercial feasibility reports, Pre FEED, FEED and detailed engineering of Onshore pipeline including Route selection, Pig Launching/Receiving Stations, Valve stations, Upheaval & lateral buckling calculation and engineering analysis such as Flexibility, Hydraulic and Surge Analysis. A combined team of Pipeline and Piping provides:-

- Pipeline Design Basis
- Pipeline Techno-commercial feasibility reports
- Pipeline Wall thickness calculation/ Steel grade selection
- Specifications and Data sheets for Linepipe, bends, fittings, appurtenances, coating
- Specification for cathodic protection
- Pipeline Route Plans
- Pipeline Alignment Sheets
- Pipeline Crossing Matrix and Crossing Drawing
- Valve Station design
- Pig launching / Receiving station design
- Pipeline Constructability Reports
- Flexibility Analysis
- Upheaval & Lateral Buckling Calculation for buried pipelines
- Pipeline MTO
- Provide Project Management and Engineering consultancy (PMC) service for onshore pipeline
- Facilitate HAZID, HAZOP, Constructability review
- Construction Support

OFFSHORE PIPELINE

ReGulf carry out conceptual studies, Techno-commercial feasibility reports, Pre FEED, FEED and detailed engineering of Offshore pipeline including Route selection, Subsea layouts, Pig Launching/Receiving Stations, engineering analysis such as Flexibility, Hydraulic, Surge , Bottom stability, loading & unloading, transportation, installation, bottom stability and pipeline & cable floatation. The offshore pipeline group delivers:-

- Pipeline Design Basis
- Pipeline Techno-commercial feasibility reports
- Sizing/ hydraulic studies
- Route Selection
- Constructability Reports
- Wall thickness calculation/ Steel grade selection
- On-Bottom stability calculation
- Anticorrosion coating selection/ thickness calculation
- Cathodic protection design
- Specifications and Data sheets for Linepipe, Bends, Fittings, appurtenances, Pig launcher/ Receiver, Coating, Sacrificial anodes
- Subsea layout/ Pipeline route map
- Pipeline Alignment Sheets
- Flexibility Analysis
- Pipeline MTO
- Specification for Installation , testing and pre-commissioning
- Preliminary installation/ Pipelay analysis
- Scope of work for pipeline route survey
- Provide Project Management and Engineering consultancy (PMC) service for route survey Installation of Offshore pipeline, Risers, Subsea Cable laying
- Facilitate HAZID, HAZOP, and Constructability review

ENGINEERING SERVICES

ReGulf offer Offshore as well as Onshore Engineering support services to clients across the globe cost effectively without compromising QHSE standards. The Engineering services covered by ReGulf are in the business areas of Upstream, Downstream, Greenfield and Brownfield in Oil & Gas sector, Refinery, Fertilizer, Chemical, Petrochemical, Offshore & Cross country pipeline and Renewable Energy projects. ReGulf do engineering services like:- Project management, Feasibility studies, Pre FEED, FEED, and Detailed engineering. Also the engineering capabilities include Pre-Bid & Proposal assistance, FEED validation & Endorsement, As Built Engineering and Domain services. We provide Secondment Services for Pre commissioning, Commissioning, Operation, Maintenance, Construction support, Third party Inspection support, PMC Services, Plant Operation supports, Maintenance support, De-bottlenecking, energy auditing and Plant Safety Studies. The area of services includes but not limited to:

- I. Project Feasibility studies for oil and gas facilities, tank farms, offshore facilities, fertilizer, petrochemical, onshore and offshore pipelines, and marine applications
- II. EIA and QRA Studies
- III. Conducting safety studies like HAC, HAZID, HAZOP
- IV. Procurement management including vendor pre-qualification, RFQ preparation, Bid evaluation, Purchase order preparation, Inspection , Vendor document review, and Expediting services
- V. Preparation of Tender documents
- VI. Energy Audits and Safety Studies for plants
- VII. Conducting SIL Studies
- VIII. Procurement support
 - a. Provide Procurement services such as, Functional specifications, Data sheets, Requisitions for quotation, Preparation of Technical Queries, Technical Bid evaluations with Recommendations, and Vendor data/drawings reviews.
- IX. Engineering Construction Support
 - a. Provide Engineering construction support such as Construction planning, preparation of Method statement, Engineering calculation for lifting, Pile loading, and field supervision supports

X. Inspection Support

a. Provide qualified inspectors for stage wise and final inspection for shop and site fabrication/erection of equipment at site.

i. FAT & SAT

ii. Welder Qualification Tests

iii. NDT

XI. PMC Support

a. ReGulf provide Project Management Consultancy (PMC) Service for all disciplines of Engineering, Project Management, Procurement, Construction and Commissioning

XII. Pre-Commissioning and Commissioning Support

a. ReGulf provide Pre-Commissioning and Commissioning assistance for Offshore and Onshore installations including :-

i. Preparation of Pre-Commissioning and Commissioning Manuals.

ii. Preparation of Pre-Commissioning and Commissioning Procedures for systems

iii. Preparation of Operation and Maintenance Manuals