SOLUTIONS FOR ONSHORE FACILITIES

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MULTIDISCIPLINARY SOLUTIONS FOR OFFSHORE FACILITIES

Ramboll provides engineering consultancy services for offshore facilities worldwide

For decades Ramboll has serviced the petrochemical industry with multidisciplinary consultancy services. Our comprehensive technical know-how and extensive consulting experience from onshore and offshore developments provide us with the perfect basis for developing the best solutions for our clients.

There is a constant need to upgrade existing facilities as the technologies are rapidly changing according to new safety demands and technological developments. We offer our clients vast practical experience and comprehensive engineering & consulting services throughout the project life cycle.

Comprehensive gas studies
We constantly keep updated on the industry requirements. Since the 1980s we have carried out numerous comprehensive feasibility and policy studies for oil and gas projects. This includes analyses of local markets, actors, technology, regulations etc.

Environmentally sound solutions
In response to the call for environmentally sound solutions, we have helped many of our clients to maintain regulatory compliance for plants and equipment installed decades ago, when production and legislative requirements were not as strict as today. An example is a conceptual study for a closed flare system for Statoil that collects all hydrocarbon relief sources into a new common flare system.

Integrated risk and safety services
Risk and safety issues are an integrated part of our consultancy services. We perform risk analyses, safety screenings and calculations on both new and existing facilities to ensure that all safety regulations are maintained and follow the standard safety demands set by local authorities or our clients’ even stricter safety requirements.

Improving production on refineries
To accommodate the rising energy demands, it is important that the facilities for refining the hydrocarbons is completely up-to-date, efficient and environmentally safe. Our experience with refinery projects counts e.g. zero-flare systems for several installations, replacement of flare systems, hydrogenation projects and design of fuel reduction plants including integration of a grass-roots section with a refinery’s sideboiler. We have worked on several modification projects on refineries to ensure improved and more efficient production.

Natural gas storage
With indigenous gas production in decline and thus gas markets being dependent on long-haul pipeline throughputs, gas storage plays a crucial role in market players’ management of seasonal and daily imbalances and price volatility. Further, governments are looking to gas storage facilities as a way of providing much needed sources of strategic reserves.

Underground storage fields are developed in three basic types: depleted gas/oil reservoirs, aquifer reservoirs and salt caverns. Ramboll has been involved in large-scale gas storage projects in all three types of gas storages covering services such as feasibility studies, project concepts, environmental impact studies, basic and detailed engineering, risk analysis, authority management, and project & construction management.

Liquefied natural gas (LNG)
LNG is one of the fastest growing means of transporting natural gas. LNG allows suppliers of natural gas to meet distant markets in a cost-effective manner. Our LNG experience includes liquefaction and re-gasification of natural gas and bogas.

Onshore pipeline systems
Design of onshore pipelines systems, including compressor stations and Meter & Regulator stations, is part of our core competences. Pipeline system design requires careful planning to select the optimum pipeline route, with consideration to overall length, right-of-way access, existing use of the land, population intensity, planning for existing infrastructure such as roads, highways, railroads or waterways.

We also provide assistance in obtaining authority approvals including preparation of environmental impact assessment and geotechnical assessment of the soil conditions.

In the design of compressor stations our services include studies on selection of the optimum compressor type as well as driver selection. Further, Ramboll has up-to-date experience in design of MR stations including SCADA systems, IP communication, flow measurement for gas consumption analysis, automated data acquisition and storage.

Safeguarding systems
Since the early 1980s we have designed complete instrument and process control systems solutions for the oil and gas industry. We offer a full range of services for design and implementation of instrument, SCADA/DSC, safeguard/ESD/F&G systems including SIL assessment, and system set-up for measuring and regulator stations.

Onshore production
We also work on onshore well projects, including civil engineering and onshore pipelines, for instance on a project in Abu Dhabi. Our experience with onshore production also covers on treatment facilities.

OUR LIFE CYCLE SERVICES
- Early phase studies and project definition
- Feasibility and policy studies (including market analyses)
- Concept FEED and FEED studies
- Conceptual design and selection
- Detailed design
- Authority management and procurement support
- Engineering and construction management
- Risk & safety analyses, and EIA
- Supervision and commissioning

CONTACT INFORMATION
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Our clients:
- ADMA
- Maersk Oil
- BP & Shell
- DOSM Energy
- Enegntag di GASAL, Air Liquide
- Gazprom, Germany
- MEDIAS & GAFCO
- Qatar Petroleum
- Orby QTL & RasGas
- Statoil