

Oil and Gas Manager™ (OGM™)

A collaborative platform for screening, optimizing and evaluating designs of onshore and offshore oil and gas developments with consistency and control

Overview

OGM is an industry leading modeling, evaluation, planning, and decision support software solution for global application in the oil and gas industry. It is the solution for concept development screening and design for greenfield and brownfield developments. It enables the user to estimate lifecycle CAPEX/OPEX costs and optimize them based on alternative field development plan options.

How can OGM be used?

With OGM, Owner/Operators and their advisors (EPCs and consulting firms) can:

- Evaluate prospects, conduct screening studies, and optimize concepts
- Leverage an up-to-date worldwide cost database that can be updated as needed
- Leverage the built-in thermodynamic-based heat and mass balance simulation to design and size for production assets
- Generate complete lifecycle field CAPEX and OPEX costs
- Collaborate to consolidate design and cost estimating practices to improve consistency
- Benchmark existing in production assets to re-use for similar new or modified developments
- Significantly reduce manhours and schedule for concept screening, design, and optimization while maintaining consistency and an auditable trail of decisions



Software Capabilities

OGM is an integrated solution that covers onshore and offshore oil and gas developments for both conventional and some unconventional assets.

Offshore Key Features

- Fixed platforms (4, 8 and 12 legged) and bridge-connections, Jack-Ups, Compliant Towers, GBS, TLPs, SPARs, Semi-Subs, FPSO, FPDSO, FSO, CALM Buoys
- Subsea well trees and cluster manifolds, flowlines, umbilicals and multiple riser types
- Infield flowlines, pipelines, and subsea power cables
- Topsides processing facilities and systems for oil, gas, and water separation, treatment and transport
- Drilling, production, and living quarters platforms
- Various utilities systems and flare booms or towers
- Topsides layout and spacing including structural steel for the substructure and supporting the production facility
- Complete weight, CAPEX and OPEX cost estimate with ability to model and plan CAPEX investment including future additions
- Comprehensive transportation, installation, hook-up and commissioning costs
- Decommissioning costs for all key field components

Onshore Key Features

- Reservoir well profiles, wellsites, manifold stations, flowlines, gathering stations and trunk lines

- Trunk lines and export pipelines with various terrain options and complete hydraulic modeling
- Pump and compressor stations
- Central processing facilities with complete oil, gas and water separation and treatment options
- Gas and NGL processing
- Storage terminals and tank farm
- Stick, skid or modular construction options by equipment system
- Construction and operating camps, roads, airstrips, helipads, and buildings

In addition to the above features OGM includes:

- Default, but user-managed cost norms for major producing regions in the world populated with default unit rates for labor, equipment, bulks, transportation, installation, hook-up and commissioning, and other costs
- Several technical reports including major process and utility summaries, system/equipment datasheets, and major equipment lists
- Offshore facility topsides layout schematic and a facility process flow diagram
- Management summaries and detailed cost and weight reports
- Reservoir profiling to assess changes in the production profile and its impact on design options
- Brownfield optimization to compare asset design and modification options

- CO₂ emission and energy efficiency calculations for carbon footprint assessment

OGM is built on the latest technology standards incorporating a building block layout and simulator with the ability to create reusable design templates for various development concepts, enhancing a company's efficiency.

Access to OGM via the cloud minimizes company IT effort and cost. Alternatively, OGM can be deployed on a standalone computer or a company network.

Who can benefit from using OGM?

OGM can be utilized as an enterprise concept development planning solution with collaborative use across many functions from engineering, development planning, estimating, project management, and company management.

Example Use Cases

- A company is preparing a bid for an oil and gas block and needs to determine if economically feasible to develop the block. As part of a feasibility study, high-level lifecycle costs must be estimated for several production profiles.
- The company can save hundreds of engineering manhours using OGM's predefined facility templates for offshore and onshore upstream oil and gas facilities to quickly generate concept level sizing and cost estimates with limited input data.
- A company has an existing oil and gas production facility with declining reserves and needs to examine alternative hydrocarbon recovery concepts to increase or maintain production and assess potential bottlenecks in the existing facility.

- OGM can help the company quickly compare the current design capacity versus the required capacity to quickly identify bottlenecks, visualize upgrades, and do a first pass analysis of the size and cost of the required upgrades.

OGM Benefits

Field Development Planning

- Facility costs provide input for evaluation of field economics
- **Optimize** process design by assessing the impact of changes in production profiles

Feasibility Studies

- Compare multiple concepts **quickly and consistently**

Conceptual Engineering

- Automate engineering calculations and customize cost norms to **reduce effort** for a complete initial design and facility cost estimate
- Get **consistent** and **traceable** results by incorporating design preferences, benchmarks and past project experience
- Evaluate greenfield or brownfield design change impacts **quickly and consistently**

Efficiency

- Significant savings over using spreadsheet
- Collaborative tool that enables the experience of the entire project team to be incorporated

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