The GaffneyCline Track Record

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Additional Information

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The Issue
Over recent years, the oil & gas industry has progressed to larger and more technically-challenging projects across the spectrum of producing territories, coupled with the challenge of project definition and execution management functions, as well as increased risk to project commerciality and delivery.

GaffneyCline has observed through direct experience, that these trends frequently lead to underestimation of investment risk appreciation as well as gaps and inconsistencies develop in mission-critical project information. These risks can in turn quickly invalidate key aspects of the entire asset business plan.

The traditional response to mitigation of these project risks is to appoint a Project Management Contractor (PMC), who is typically a sub-division of an Engineering, Procurement, Construction (EPC) contractor. However a PMC does not typically have any subsurface experience or risk appreciation. Moreover, a PMC contractor is generally appointed to the project at a relatively late stage, possibly even after final Investment Decision (FID), where substantial deviations from an optimum plan may already be occurring resulting in unmitigated project risks. The PMC is usually focused on the details of facilities project execution, not the risk to the overall business plan.

Achieving the original business plan and expected commercial returns requires early, active, informed and experienced project management: anything less risks serious project value leakage. The Project Investment Baseline document is appropriate for the specific project stage but could comprise geological and reservoir models, production forecasts, field development plans (FDPs), cost estimates (including project contingency funding), contract documentation, the development schedule and the economic model, and typically forms the basis for acquisition, project sanction and project funding.

The Solution
It is essential that project stakeholders regain the initiative and take full control of the management of the project, identify and mitigate the key risks and thereby defending the stakeholders' investment. Improved Project Investment Risk Management is a prerequisite and should be applied through the lifespan of a project.

GaffneyCline employs many experienced professionals who cover all the technical, key operational and regulatory disciplines across the entire hydrocarbon spectrum. Our professionals use their considerable experience and training to look for weaknesses, gaps and inconsistencies in asset evaluations, development plans and project execution strategies. GaffneyCline covers in depth, in-house expertise: exploration; geology; geophysics; petrophysics; geo-modeling; reservoir modeling; field development and management; wells and completions engineering; deep-water, onshore and offshore production; as well as transportation and downstream gas monetization technologies of all types. We are practised in conducting this across the spectrum of each discipline and can claim a unique level of integrated evaluation skills.

In our due diligence work, GaffneyCline is exposed to both the excellence and the shortcomings of many project evaluations, contracting and execution strategies, and witnesses the dire absence of connection from subsurface risk through to operational management.

GaffneyCline understands and has developed the processes needed to identify and manage the business plan risks associated with these common project issues. We offer an independent structured approach as well as a depth of technical expertise combined with global experience that is unmatched by any other company. GaffneyCline is able to use that experience and expertise to evaluate and manage any business plan through the investment life cycle and value chain - from acquisition and appraisal through to completion and ultimately execution.

The Process
The core of GaffneyCline’s Project Investment Risk Management service lies in two separate but connected activities with the intent to create a Project Investment Baseline:

- **Evaluation (and quantification) of the full spectrum of subsurface and surface risk.**
- **Evaluation and advisory support of all investment decisions, both technical and commercial, in the light of the subsurface and surface risk.**

The Project Investment Baseline is driven by consistent, independent evaluation and reporting of the whole project investment risk profile, and comprises the integrated assessment of:

- **Subsurface risk (hydrocarbon) assessment based on over 50 years as the world’s leading integrated geological and reservoir engineering consultant, providing resource evaluation services to the widest range of institutions, with expert input from technical, legal, commercial and economics professionals.**
- **Technical risk assessment drawing on the capabilities of GaffneyCline’s field development and engineering advisors.**

These professionals bring very considerable collective experience of managing major projects, engineering design, onshore and offshore construction, and high level technical audit and due diligence services to bear on the construction of project budgets and schedules as well as on execution planning.

Once evaluation of the project or asset development risk profile is complete, GaffneyCline creates this “Project Investment Baseline” document - in effect, an enhanced Stage Gate Decision Package which fully describes all project components and assesses the associated project risk, impact and the mitigations.

The Project Investment Baseline document is appropriate for the specific project stage but could comprise geological and reservoir models, production forecasts, field development plans (FDPs), cost estimates (including project contingency funding), contract documentation, the development schedule and the economic model, and typically forms the basis for acquisition, project sanction and project funding.

As the project progresses through the next Decision Gate phase, GaffneyCline scrutinises all new data, new documentation as well as all project modifications and augmentations to ensure that the revised project investment risk is understood, minimised and controlled. The intent ultimately is that all cash flow is consistent with plans, construction commitments and achievements, to ensure that the overall business plan aims are being preserved. GaffneyCline works as an integral part of the project management alongside the owner or stakeholders to ensure the protection of the Project Investment.
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GaffneyCline has observed through direct experience, that these trends frequently lead to underestimation of investment risk appreciation as well as gaps and inconsistencies develop into unrealistic expectations, particularly around project risks associated with project budgets, low operational flexibility and the inability to react to project changes. These project risks can in turn quickly invalidate key aspects of the entire asset business plan.

The traditional response to mitigation of these project risks is to appoint a Project Management Contractor (PMC), who is typically a sub-division of an Engineering, Procurement, Construction (EPC) contractor. However a PMC does not typically have any subsurface experience or risk appreciation. Moreover, a PMC contractor is generally appointed to the project at a relatively late stage, possibly even after Final Investment Decision (FID), where substantial deviations from an optimum plan may already be occurring resulting in unmitigated project risks. The PMC is usually focused on the details of facilities project execution, not the risk to the overall business plan.

Achieving the original business plan and expected commercial returns requires early, active, informed and experienced project management: anything less risks serious project value leakage. As highlighted in the review of current global megaprojects: CAPEX overshoot and delays are commonplace and risk to project investment is high.

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- Technical risk assessment drawing on the capabilities of GaffneyCline’s field development and engineering advisors. These professionals bring very considerable collective experience of managing major projects, engineering design, onshore and offshore construction, and high level technical audit and due diligence services to bear on the construction of project budgets and schedules as well as on execution planning.
- Project Execution risk assessment is based on the GaffneyCline’s ability, practised over many years, in the independent evaluation and supervision of project execution and progress, regulatory approvals, through value measurement and forecasting techniques.

Once evaluation of the project or asset development risk profile is complete, GaffneyCline creates this “Project Investment Baseline” document - in effect, an enhanced Stage Gate Decision Package which fully describes all project components and assesses the associated project risk, impact and the mitigations.

The Project Investment Baseline document is appropriate for the specific project stage but could comprise geological and reservoir models, production forecasts, field development plans (FDPs), cost estimates (including project contingency funding), contract documentation, the development schedule and the economic model, and typically form the basis for acquisition, project sanction and project funding.

The subsequent performance of all project components is then monitored against this Project Investment Baseline and all reporting is referred back to the Project Investment Baseline documentation which is revised accordingly through to successful project completion.

As the project progresses through the next Decision Gate phase, GaffneyCline scrutinises all new data, new documentation as well as all project modifications and augmentations to ensure that the revised project investment risk is understood, minimised and controlled. The intent ultimately is that all cash flow is consistent with plans, construction commitments and achievements, to ensure that the overall business plan aims are being preserved. GaffneyCline works as an integral part of the project management alongside the owner or stakeholders to ensure the protection of the Project Investment.

Sample Reporting - Variance to Business Plan

GaffneyCline Scope of Services
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