

IHS ENERGY

Maximising Asset Lifecycle Value with OPE\$T™

Operations Cost Forecasting, Analysis
and Performance Improvement



Why IHS OPE\$T?

OPE\$T™ is a tool designed for business improvement management and lifecycle operations expenditure (OPEX) estimation. The program enables the effective lifecycle management of business risk and hence consistently maximises business performance. Its power comes from its ability to simply and clearly integrate all costs associated with a business into a single environment, and through its comprehensive business reports, stimulate their systematic challenge for performance improvement.

IHS has developed OPE\$T™ in response to a series of client-stated needs for the rigorous identification of both the current and future costs of running their business and the distribution of these costs within their business. OPE\$T™ combines an easy to navigate asset based hierarchy structure with an Activity Based Costing (ABC) methodology to accurately and intuitively assign activities and resources to all areas of an Asset from maintenance of a single compressor to Asset management and corporate overheads. OPE\$T is typically implemented with early IHS Consulting assistance and then used by clients in an ongoing basis over the life of the project.

OPE\$T™ is a modelling system which can be used from the Concept Definition to the Operations and Abandonment Phase of a venture. It can be used to:

- Forecast operating expenditure to aid business decisions
- Allow decision making based on knowing the full cost and activity impact
- Provide a transparent and auditable approach to forecasting costs and preparing budgets
- Ensure the planning of activities do not incur unnecessary costs or penalties or lose market opportunities
- Select the most effective resources to execute the asset-related activities
- Rapidly test improvement suggestions for impact on cost and resources
- Provide a common model from the operations through to management
- Ensure that operating costs are effectively deployed and provide the best value for money for the business
- Provide pre-tax reports for the main business performance indicators to identify improvement actions
- Provide a consistent format to allow comparison between assets
- Allow the transfer of best operating practices

OPE\$T at a Glance

Whole-life-cycle cost:

A cost philosophy to look at the impact of any decision across the whole-life-cycle of an asset

Activity based costing:

The methodology for the allocation of all costs at the level of activity on an asset

Asset based analysis:

The process of associating all costs directly to the asset that is consuming them

Intra-Asset Collaboration & Buy-in

In an asset the OPE\$T™ model provides an effective translation between engineering data and financial indicators, allowing operational personnel the power to forecast scenarios, create budgets, evaluate and justify optimisation investments or target high cost areas for cost reduction initiatives. An OPE\$T™ model gives an overarching view of inputs from multiple departments and systems so Stakeholders can share information in a common environment enabling effective collaboration.

Asset Business Management

In an individual Asset an OPE\$T™ model is an essential component of a continuous improvement program, providing transparency of OPEX drivers and allowing efficient budgeting and forecasting. By modelling the Assets over the project lifecycle, Assets can anticipate and proactively manage the evolution from plateau through the mature operation and add-on developments. The model allows rapid and complete evaluation of ideas enabling all to be fairly ranked and justified.

Inter-Asset Benchmarking & Shared Learning

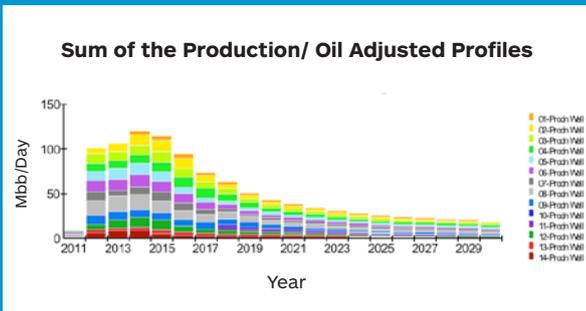
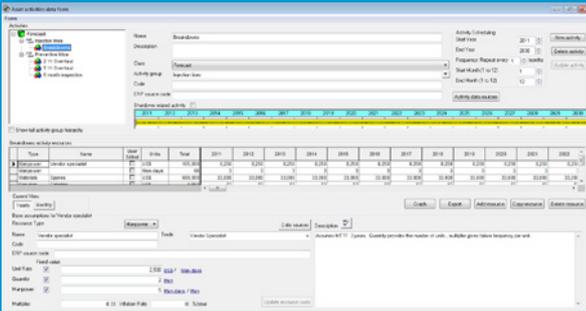
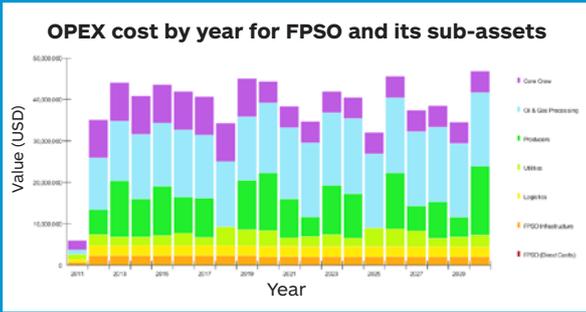
With multiple Assets preparing OPE\$T™ models a consistent comparison of like for like data between Assets is possible. This enables significantly more valuable and informative internal benchmarking exercises providing a rigorous platform for propagation of best practice and sharing of lessons learnt.

New Project & Capital Allocation Optimisation

Modelling existing operations in OPE\$T™ provides a valuable and easily accessible library of data for rigorous evaluation and OPEX forecasting of new projects or acquisitions. When new projects are initiated existing OPE\$T™ models can be used to quickly pull together a rigorous and in depth OPEX forecast. Having this level of detail at an early stage improves the quality of investment decisions and enables the design team to evaluate CAPEX/OPEX tradeoffs and make use of best practice from the organisation to optimise a project for operations early in the design phase. Here changes can be made at minimal cost and deliver the maximum value.

Maximise Corporate Performance

At a corporate level, individual Asset OPE\$T™ models can be rolled up to provide rigorous and in depth company OPEX budgets and forecasts. Instead of relying on high level financials or inconsistent reports from each Asset, using OPE\$T™ can provide a rigorous reporting format enabling effective drilldown into detail and aggregation of cost drivers and trends across Assets. These trends are not limited to OPEX but include critical management parameters, for example long term manning trends between assets, giving management the data and insights to best manage the business. The structure and depth of data in the models enables management to understand and target areas that are ripe for OPEX reductions whilst avoiding areas that may impact production or HSE.



ABOUT IHS ENERGY

IHS Energy, a part of IHS (NYSE: IHS), is the industry’s authoritative provider of information, analytics, and insight to help clients understand the interconnected, dynamic forces that shape energy markets and asset performance. Our experts and analytical tools enable clients to continuously improve their strategy and operations across the entire energy value chain, covering oil & gas, coal, power, and renewables.

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Maximise Corporate Performance

- Comprehensive rollup of comparable OPEX budgets & forecasts
- Highlight cross Asset trends and drivers
- True in-depth visibility & understanding of OPEX drivers and trends
- Informed corporate decisions to effectively target OPEX

New Project & Capital Allocation Optimisation

- Implement best practice at a design stage
- Low cost of optimisation – high return
- Accurate & rigorous forecasts enable optimal capital allocation

Inter-Asset Benchmarking & Shared Learning

- Benchmarking at a practical and relevant level of detail
- Accurate like for like comparison
- Propagate best practice

Asset Business Management

- Efficient & Accurate Budgeting & Forecasting
- Transparency of OPEX Drivers & Trends
- Easy modelling & ranking of improvement ideas
- Continuous Improvement in a constantly changing operating environment

Intra-Asset Collaboration & Buy-in

- Effective collaboration & visibility across departments
- Comprehensive buy-in to and team ownership of methodology and process
- Visibility of individual actions on asset performance