



Global Refiner Deploys Cost Estimation Solution to Accelerate Decision Making and Lower Costs



“By using Aspen Capital Cost Estimator on a systematic basis and tracking historical project cost performance, Phillips66 has greatly improved its ability to manage capital costs. This has made the estimating function valuable in the downstream capital investment decision process.”

- Jim Whiteside, Phillips66



As one of the world’s leading integrated oil producers, operating 12 refineries in the U.S. and Canada with a throughput of 2.6 million barrels per day, Phillips66 is North America’s second largest refiner.

To support its downstream operations, Phillips66 invests millions of dollars a year in refining capital projects, which can include maintenance, clean fuels upgrades, and growth investments. Completing these projects in a timely, efficient manner will help the company meet its operational goals and significantly improve the bottom line.

Looking for a solution to enhance and speed up project decision making, Phillips66 adopted **Aspen Capital Cost Estimator** for the team that handles all refinery project estimating. Since implementation in 2001, Phillips66 has not only increased estimating accuracy, but has also

Standardized, systematic approach from AspenTech enables Phillips66 to aggressively complete \$1.4B in capital projects, while reducing risk and doubling end-user productivity.

CUSTOMER PROFILE - Phillips66 - Refining

CHALLENGE

Provide accurate cost estimates with fewer staff to support a \$1.4B budget for growth investments.

SOLUTION

Aspen Economic Evaluation software providing downstream estimating solutions.

BENEFITS

- Increases estimator productivity from \$30M estimated/day to \$80M estimated/day in two years
- Reduces overruns to near zero
- Reduces variability in estimates from 35% to 12%
- Reduces cost variability to <15%
- Increases capital project workload while keeping same staff levels
- Extends same tools to third parties for faster analysis of E&C bid

CASE STUDY

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moved the business decision point forward in the design process—ensuring projects are completed much faster at significant savings. A statistical database enables the company to review and analyze post-project results for continuous process improvement.

SUPPORT AN INCREASE IN DOWNSTREAM CAPITAL PROJECTS

With market dynamics keeping refinery loads at over 90% capacity and regulatory pressures requiring clean fuels and emissions upgrades, Phillips66 faces a steady growth of downstream capital investment projects. Phillips66's philosophy is to employ a balanced approach in its downstream business to create shareholder value.

The company adheres to three principles for each project: capital discipline, operational excellence and execution, and financial optimization. That's why the estimating function—now managed through **Aspen Capital Cost Estimator**—is so critical in examining the volume of capital proposals, and providing estimates earlier in the process.

STANDARDIZED AND SYSTEMATIC CAPITAL COST ESTIMATION

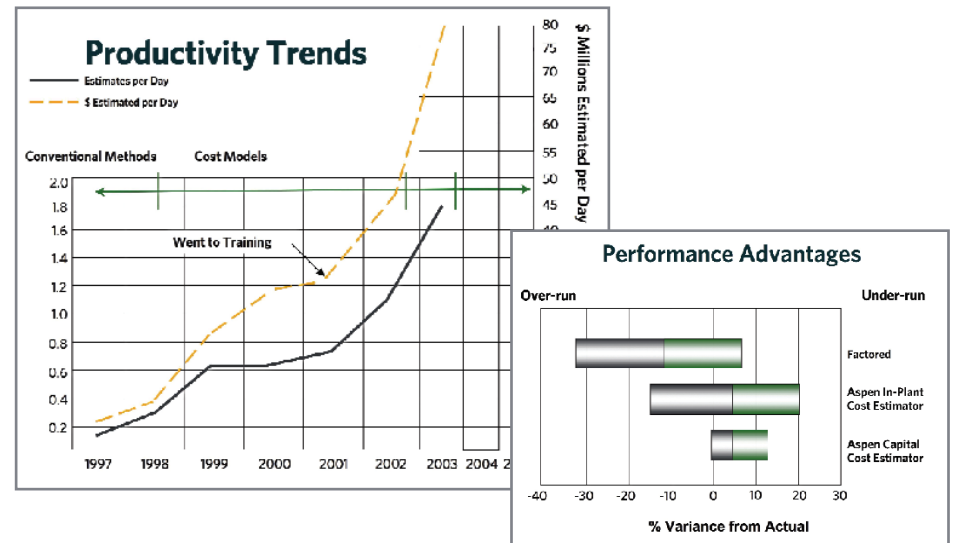
Aspen Capital Cost Estimator not only provides a robust, viable estimation solution for downstream estimators, but also works with other project tracking tools to help Phillips66 closely monitor and analyze results long after the estimate is complete.

The AspenTech solution provides systematic work processes, allowing Phillips66 to use consistent tools and collect results from projects for ongoing benchmarking. As such, the company can require E&C suppliers to use the same tools when bidding or working on projects.

STANDARDIZED WORK PROCESSES FOR REUSABLE DESIGNS

After adopting **Aspen Capital Cost Estimator**, Phillips66 has improved estimators' productivity. The company has built metrics into a statistical database resulting in decision support feedback and use of statistical analysis for enhanced economic decision making. Importantly, at the business level, this new estimating leads to early capital decisions on projects at the FEL 2 engineering stage.

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AspenTech is a leading supplier of software that optimizes process manufacturing—for energy, chemicals, engineering and construction, and other industries that manufacture and produce products from a chemical process. With integrated aspenONE® solutions, process manufacturers can implement best practices for optimizing their engineering, manufacturing, and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs, and become more energy efficient. To see how the world's leading process manufacturers rely on AspenTech to achieve their operational excellence goals, visit www.aspentech.com.

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