CASE STUDY

Grassroots Olefins Plant Operator Finds $52M in Potential Savings for Facility

Solomon’s Q1 Day 1™ benchmarking analysis and process performance review reveal opportunities for efficiency and identify best practices

CHALLENGE
A company wanted to create a state-of-the-art, highly competitive olefins plant in an already compressed market.

SOLUTION
The company used Solomon’s Q1 Day 1 benchmarking analysis and target identification to develop a plan for the plant to be a best-in-class facility.

RESULTS
By implementing the Q1 Day 1 recommendations, the client is expected to save approximately $52 million over a 20-year period.

Insight to compete in highly compressed market
A company came to Solomon for help in creating a highly competitive, state-of-the-art, grassroots olefins plant — a difficult undertaking in an already compressed market. The company used Solomon’s proprietary Q1 Day 1™ assessment service to estimate the plant’s future performance with data-driven insights into operational and financial performance. The client also defined an effective organizational structure using top-quartile philosophies rather than minimum staffing, design, and budget projections.

Benchmarking for a competitive edge
Solomon began its assessment by performing a benchmarking exercise to compare the projected performance of the new facility with that of high-performing peers in Solomon’s olefins database. The company was then able to adjust its plan based on Solomon’s data to prepare for plant operation.

Using data from the Q1 Day 1 analysis, Solomon developed aggressive, best-in-class performance targets for key yield and margin indicators to give the company a competitive edge. Data also revealed that some of the budgeted expenses for the plant were not competitive with peers, including catalyst and chemical expenses. These expense categories are difficult to estimate accurately, as licensor estimates must fall within a guaranteed range, often rendering operating budgets inaccurate.

Charting the course
Solomon’s assessment delivered specific recommendations and targets for the company to achieve operational success efficiently, including:

• Confirming key advantages vs. competitive peers
• Evaluating Q1 operational targets for reliability and energy efficiency vs expected Q2 performance
• Identifying specific operating expense gaps that could be addressed prior to full-scale plant operation
Identifying critical personnel gaps that had to be addressed prior to full-scale operation
Setting more competitive personnel targets to achieve best-in-class personnel efficiency metrics
Recommending industry best practices to optimize existing processes

The goal of Q1 Day 1 analysis is to help ensure top-quartile industry leadership by setting performance targets that make companies and operators more competitive. The financial benefit to this company was worth an estimated $2M per operating year, or $52M over a 20-year period based on potential increased margin.