

# ENERGY TECHNOLOGY RISK: MANAGING HYPER GAS MARKETS

Gas price volatility has increased. Relying on antiquated scheduling systems is a recipe for disaster.

BY MATT FRYE

**T**he energy industry today faces the most significant trading and risk-management technology integration issues in its history. Even as many companies sit on orphaned or grandfathered software from previous mergers and business initiatives, an expected wave of mergers will further exacerbate the current technology integration problems.

But that's just the start of the industry's woes. Aside from increased energy commodity volatility, some companies are using thinly supported applications and relying on manual workarounds.

That's why energy companies eventually must replace their old systems to effectively manage business growth as well as technology changes. Obtaining a firm-wide risk profile by aggregating a summary of physical and financial metrics of disparate, local systems is an ongoing trend in the industry and a major achievement in energy company risk management.

However, given energy markets' newfound volatility and the range of exposures that global energy firms must deal with, the reactive, reporting-oriented nature of transaction management practices is in need of serious revision. A new scheduling module can add tremendous strength and value to a company, primarily in the areas of gas logistics and risk management.

## The Benefits of Modern Scheduling Systems

New scheduling modules should be unencumbered by isolated, legacy designs. And they should be risk-compatible or risk-enabled as well as straight-through-processing friendly. Designed and developed to increase productivity and eliminate integration issues, these modern systems allow organizations to greatly improve the efficiency of scheduling-related activities, including but not limited to the management and valuation of storage balances, allocation of best available volumes, and maintenance of tariff rates databases.

Such schemas offer flexible, user-friendly filtering and query capabilities for nomination management, allowing users to create bookout or back-to-back nominations, paths into and out of interconnections and pools, and movements into or out of storage facilities and park-and-loan contracts. Users should be able to manage imbalance accounts by transportation contracts (standard or zone-based), and create operational balancing agreements (OBAs) for specific meter locations. Cash-out and non-cash-out imbalance support also is important because proper imbalance positions must be monitored and displayed at all times.

These systems can also provide enhanced and expanded operations capabilities, such as detailed invoice generation and tracking, intelligent support of prior period adjust-»

ments, and the capture and management of complex transportation and storage entitlements. Transportation and storage entitlements should be designed within an open, real-time framework to provide robust interface capabilities to external systems. This framework also should maintain a strong tariff rates database, which contains comprehensive rate structures (including daily and monthly tiers, seasonal-based charges, and mileage-based rates) so that transportation and storage charges can be calculated accurately and seamlessly.

### **The 24-7 Energy Market**

The trading benefits of a seamless gas solution are obvious: Schedulers and cash traders can exchange ideas on possible execution strategies in real time, providing an effective mechanism for furthering inter-group efficiency and managing expected operational variances. Advanced scheduling systems provide a seamless flow of transaction data, from trading and risk operations to scheduling for next-day, or real-time scheduling within some markets.

Regardless of the geographic focus, energy traders should have the capacity to customize their module to suit their specific needs. Although supporting third-party pipelines is a standard feature, with optional add-on modules, many new scheduling applications will allow pipeline operators to man-

age volumes on their own pipelines as well.

### **The Commonsense Approach**

Another common mistake to avoid is overlooking the true, total costs of the competing solutions. The temptation is to select the solution with the lowest software license—usually a relatively small component of the total project cost. The commonsense saying, “You get what you pay for,” definitely applies here. A cheaper solution with limited capabilities usually requires more add-on patches or manual workarounds with expanded professional service expenses. In the end, you wind up paying more.

Finally, given the energy software industry’s not-so-stellar record in product development/investment, how comfortable would you be with under-capitalized companies supporting your mission-critical applications? That’s how many energy companies got into their energy trading system integration problems in the first place. ■

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