Commentary

Risk Management Systems Identified for Post-Enron Era

The focus of energy trading is changing from that of speculative trading in derivative instruments to effective asset management, such as selling excess power, as one means of risk mitigation.

The instability of the energy industry is widely evident and reinforced daily by the reported financial woes of industry leaders such as Enron, Dynegy, American Electric Power, CMS Energy, Aquila and Williams Energy. The Federal Energy Regulatory Commission (FERC) investigation into round-trip trading, financial reporting inaccuracies, and market manipulation has further eroded investor and public confidence. The core of the issue is that many trading organizations within this beleaguered sector are faced with increasing and highly dynamic levels of multiple risks: operational, liquidity, credit, price/volatility, political and security.

One of the most visible trends emerging from the demise of energy merchants is an increased focus on managing counterparty credit risk exposure, that is, dealing with companies that have financial problems; are under siege by financial investors, insurers and auditors; or have already filed for Chapter 11. Access to credit has been sharply reduced in the aftermath of Enron’s bankruptcy. U.S. investor-owned power companies that raised large amounts of debt to fund unregulated business ventures or acquisitions are in a significantly worse state than the public power cooperatives that have sustained a level of rating stability. Wholesale energy marketing companies (electric, oil and gas), energy trading companies or subsidiaries of larger companies, and large utilities and power generators are facing demand for greater transparency (which facilitates accountability) concurrent with the need for increased profitability and operational efficiency.

Emphasis in this Commentary is primarily focused on nonstandard (for example, emissions credits) and electricity contracts by newly deregulated businesses in the utilities industry rather than by established financial services players trading core energy products. The latter has a well-established trading history on regulated exchanges such as the International Petroleum Exchange (IPE) and the Chicago Board of Trade (CBOT). For example, volume increases on the IPE alone have risen from about 5 million lots in the late 1980s to more than 25 million lots today on an annual basis.
Business Environment

Although energy trading is not new for core energy products, specifically oil and gas, the variety in type of contracts (for example, bandwidth, electricity and telephone units) is recent. Energy traders must manage an onslaught of information (for example, weather data and news) amid the reality of shrinking per-trade margins. The adoption of online trading has driven traders to price trades several times a minute that were previously priced several times a day. As both volatility and trading volumes continue to increase rapidly, end-of-day batch processing methods by which a trader’s market position is determined adds significant risk in today’s environment. Intraday and real-time position management and portfolio reporting are required to handle the real-time valuations of potential deals. The simple truth is that the energy trading market is fast becoming a highly complex environment that requires sophisticated data analysis and modeling.

The trend in energy trading toward nonstandard and complicated deals, such as complex formula pricing, options, basis swaps and other derivative tools, is driving future requirement for a multicommodity environment with sophisticated real-time data analysis and modeling solutions. The advent of emissions trading and the burgeoning weather-related derivative market are further legislative and market-based indicators of a healthy, although rapidly changing, future energy trading market.

Role of Technology

The Internet has enabled online trading systems, which in turn, has exponentially driven the growth of Internet-enabled transactions. As these systems have proliferated across the industry, companies have created systemic challenges for themselves and their stakeholders because multiple risk and transaction management processes do not interface well or at all. Consequently, disjointed risk systems that either delay or lack access to real-time information can increase market exposure if sudden changes in commodity prices occur or counterparty credit information is outdated.

Market players use various transaction-related software applications that may not interface with the online trading platform; however, it depends on the system. A continuous and costly balancing act of managing portfolio and counterparty risk exposure is the result. Streamlining and Web-enabling secure trading processes while eliminating system “disconnects” has become an imperative to the future of energy trading and to the functionality of trading and risk management systems in this industry.

Current and future applications must address the following business issues:

- Facilitate improved corporate governance
- Maintain appropriate credit administration and internal credit reporting
- Allow integration of front-, mid-, and back-office systems
- Integrate risk management systems with transaction-handling systems
- Provide enterprise application integration to create adaptable information infrastructures that are flexible and simplify subsequent changes to established business rules
- Support asset- and non-asset-based activity at the midoffice level
- Security (authenticity and data integrity)
- Streamline desktop management
- Facilitate transparency in the trading process
• Simplify the auditing process
• Ensure optimal operational efficiency
• Mitigate enterprise risk (corporate and business unit)
• Mitigate primary counterparty risk
• Mitigate systemic risk
• Manage risk on a real-time basis

Unrealized Opportunity

Energy trading companies generally have not yet integrated their Web-enabled applications. A fully integrated energy-trading platform can disseminate real-time information across an energy company’s critical internal resources: front office trading staff, midoffice risk management teams, back-office credit and accounting departments, treasury department, and senior management. Such capability is critical for maximizing the profitability of positions and proactively managing outcomes if deal variables change. Energy trading companies can calculate their future value and risk exposure in real-time using integrated risk management tools throughout the trading cycle.

Back-Office Technology

Upgrading their IT is the most critical step energy companies can take to improve their risk management. Beyond the benefits of front-office online trading, the midoffice and back office are bastions of unrealized potential — although the back office has yet to widely benefit from digital confirmations, automatic verification and invoice matching, and electronically signed documents. All of these technologies serve to lower costs, errors and risk, while increasing security.

Management Strategy

Management strategies and execution are as important as realizing the potential benefits of IT. Strategy should incorporate creating a culture of internal and external company awareness that addresses risk exposure practices and standards. A chief risk officer that reports to the board and oversees enterprise or integrated risk management activities may be an appropriate approach for an energy/utility company. Creating internal awareness will assist in self-monitoring, while outbound communications objectives should target building investor and regulator confidence. Ultimately, comprehensive risk management strategy, policy and execution are integral to an effective enterprisewide technology strategy. The risk management strategy should include the following:

• Streamlining trading systems and creating a secure infrastructure
• Developing a companywide risk management strategy to maximize company assets and market position
• Creating a comprehensive risk mitigation framework that includes, but is not limited to, credit risk
• Clearly define reporting functionality and accountability for policy and procedure

The Upturn

Companies that offer software and consulting services for commodity trading organizations include services such as outsourcing, systems integration/selection and workflow analysis. The focus of the
utilities industry is shifting over the near-term to effective asset management (such as selling excess power) and de-emphasizing energy trading as one means of risk mitigation. Software and consulting services providers will be well-positioned for the uptake in trading system investment that will likely begin by the second half of 2003 or first half of 2004. These vendors are modifying their established software solutions (as ERisk has done with its Energy Analytics) so that the software will measure the future exposure from individual counter parties by assessing total risk-adjusted capital requirements.

Other vendors are focused on pioneering the use of straight-through processing, such as Platts and JET-A.com, to reduce transaction costs. Already emerging are integrated suites of enterprisewide multicommodity trading systems, scaled-down solutions targeted at small to midsize customers, and application service provider alternatives targeted at midmarket utilities, retailers and independent power producers. As the complexity of risk modeling increases, trading companies that feel daunted by the prospect of proactive risk management can outsource modeling and price forecasting to a third party. However, the key question is: Do outsourcers offer a viable alternative for nontraditional risk management or for the risk management function when it is a core corporate element? As seen with Basel methodologies, the application of advanced internal ratings/weightings can become a key competitive differentiator. Given the changing political climate and stringent operational security requirements, can outsourcers effectively manage the ongoing risk for companies of new business lines?

A number of well-known providers of physical positioning and risk management functionality for electricity and natural gas commodities already exist. This category includes ABB, Allegro Development, Caminus, OpenLink, Real Time Engineering, RiskAdvisory Software, Sakonnet Technology, SunGard and Triple Point Technology.

Additional providers of software and consulting services include Reuters, e-Acumen, Reval, Raft International, Capix, Applied Trading Systems, Intermark Solutions and Lester Associates. Larger systems integrators such as Cap Gemini Ernst & Young, SchlumbergerSema, Logica and Wipro offer varying levels of integration and consultancy support for trading exchanges, trading and risk management system development, and ongoing support.

New Competitors Mean New Rules

During the upturn in trading system investment, utilities are much less likely than financial institutions to engage in any level of speculative trading. Financial institutions and established independent clearinghouse exchanges, such as IPE and CBOT, will likely have the most prominent role in the trading of new types of contracts in a post-Enron business and regulatory climate. Financial institutions such as Cargill, J.P. Morgan, Salomon Smith Barney, Deutsche Bank and UBS have an established track record — that is, commodities trading is not new business for them.

First-rate credit ratings and well-established accounting and disclosure practices, along with strict monitoring and reporting procedures, are key attributes that utilities companies will be hard-pressed to duplicate with any credibility in the short term. This is especially true because many have been selling off hard assets to improve their balance sheets and credit ratings, and sustain access to capital. Rather than vastly retrenching now from their investment in IT, utility companies are well-advised to develop a companywide risk management strategy and to deepen integration of front-, mid-, and back-office systems to ensure real-time visibility (and transparency) of regulated and nonregulated assets.

Bottom Line: Sound risk management practices are not only a key competitive differentiator for utilities companies, but they are also essential for cost control and facilitating the profitable delivery of products to the market. Moreover, utilities that ignore risk management run the gamut of failed shareholder and
market expectations and will increasingly incur regulator wrath. Utility companies are advised to improve internal risk management practices, appoint a chief risk officer and implement technological improvements that will streamline process flows.