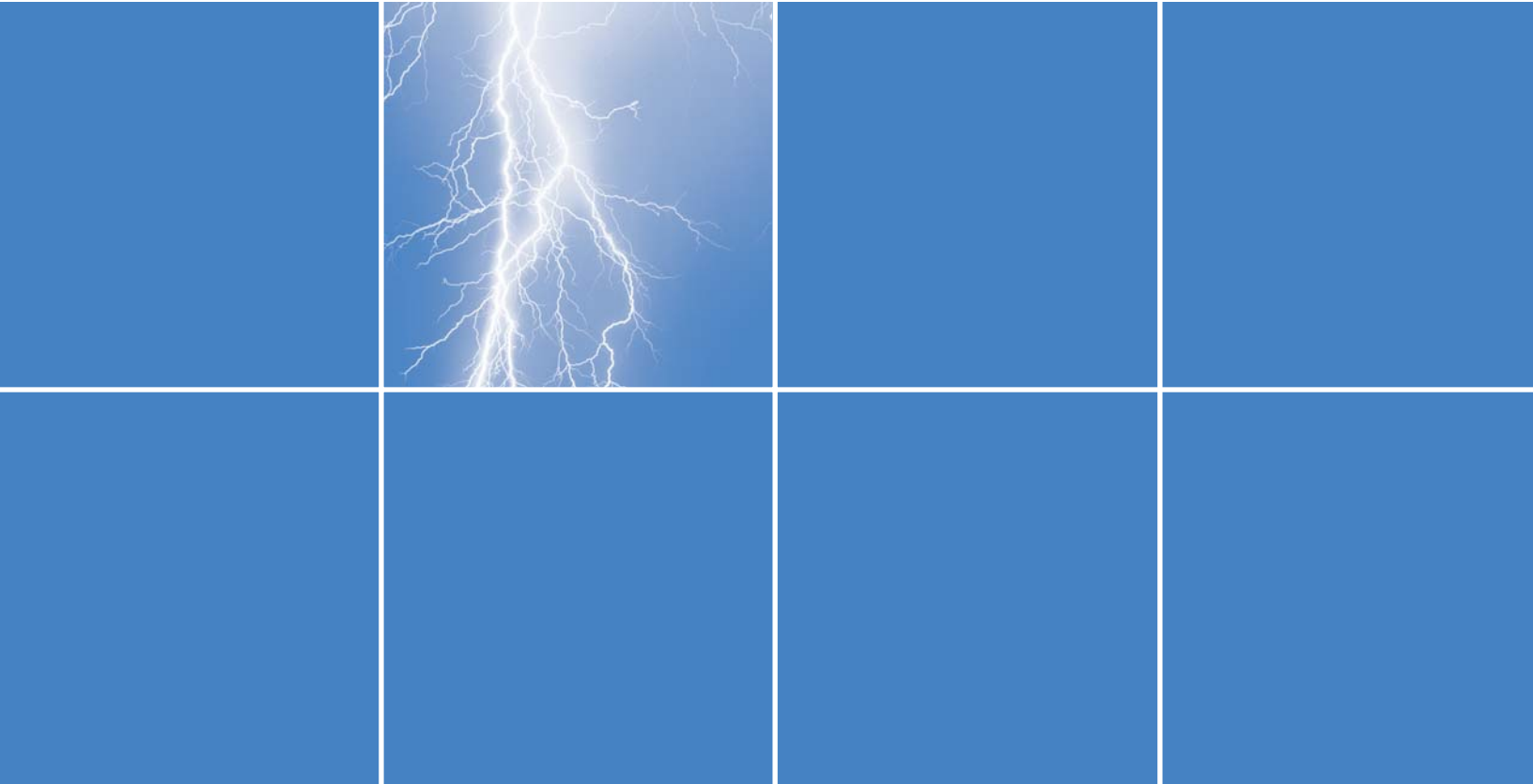




The next generation of energy trading

To reach new levels of functionality and maturity, companies need to know where the risk is, how to define what's wrong and what tools to use.



Executive brief

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Investments in energy trading, curtailed in the wake of the turbulent years following 2000, have begun to swing back, and agile companies are identifying new models to improve their results and establish competitive advantages. This new generation of energy trading will require risk-centric and control-oriented processes and technologies. Companies must increase the maturity of their internal capabilities in order to differentiate and position themselves in the evolving marketplace. The movement of financial institutions into the vacated energy trading market signals growing opportunity, and utilities will be required to work harder to achieve credible and competitive energy trading and risk management capabilities.

Evolving imperatives of energy trading

Corporate interest in energy trading in the U.S. has begun to recover from recent hibernation; the emerging models, however, have fundamental differences from their predecessors. In addition to the traditional operations-based companies starting to test the waters, financial institutions have begun to fill the energy trading and services void as they identify new opportunities and space in the market. This market recovery is creating requirements on energy companies to focus on better management of the risks and regulation in their core businesses, as well as respond to growing competition in their markets.

Given the evolution of the industry and competition, companies are facing several strategic imperatives as they reassess their as-is and need-to-be capabilities in the market and seek to define the scope of their trading activities and capabilities.

Energy trading has evolved to be risk-centric, as opposed to profit-centric, mandating a new level of systems and data integration and transparency. As

financial institutions explore new roles in the energy market, utilities must recognize the importance of meeting the challenges head on. Energy companies that wish to be successful in trading must develop their capabilities to better analyze the risks and opportunities present in their trading books on both an aggregated and disaggregated basis and make decisions based on this information in accordance with the firm's strategic direction. According to recent META Group research, "Accountability is now more important than trading volume," and this is leading companies to focus on improving data management, extraction and reporting capabilities.¹

Energy trading operations must raise their capabilities to enable rapid response to changes in regulation and competition. Corporations that have invested in clarification of processes and ensuring oversight in response to regulatory mandates must now work harder to confront an evolving market and increased competition. Strategic corporate priorities and the corresponding internal resource capabilities need to be weighed against the potential risks of failure to comprehensively manage market and regulatory risks.

Consistent gaps in process, information management and reporting must be corrected. In addition to trading and risk management, decision makers, executive management, corporate boards, regulators and stakeholders will continue to require an auditable, safeguarded base of information to support business continuity of trading operations. The drive for operational excellence and improved financial performance will force companies to integrate and optimize business processes across functional areas while using existing legacy applications.²



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Evolution of technology is increasing the speed of information integration and derivatives calculations, opening new opportunities and raising regulatory expectations. As information integration software enables the combination of information previously housed in disparate legacy systems, it creates both the ability and responsibility to consider potential revenue generation opportunities within an acceptable risk-reward curve. Enterprise risk management is breaking traditional product silos, integrating risk analysis with customer, geographic and product analyses.³

Critical success factors

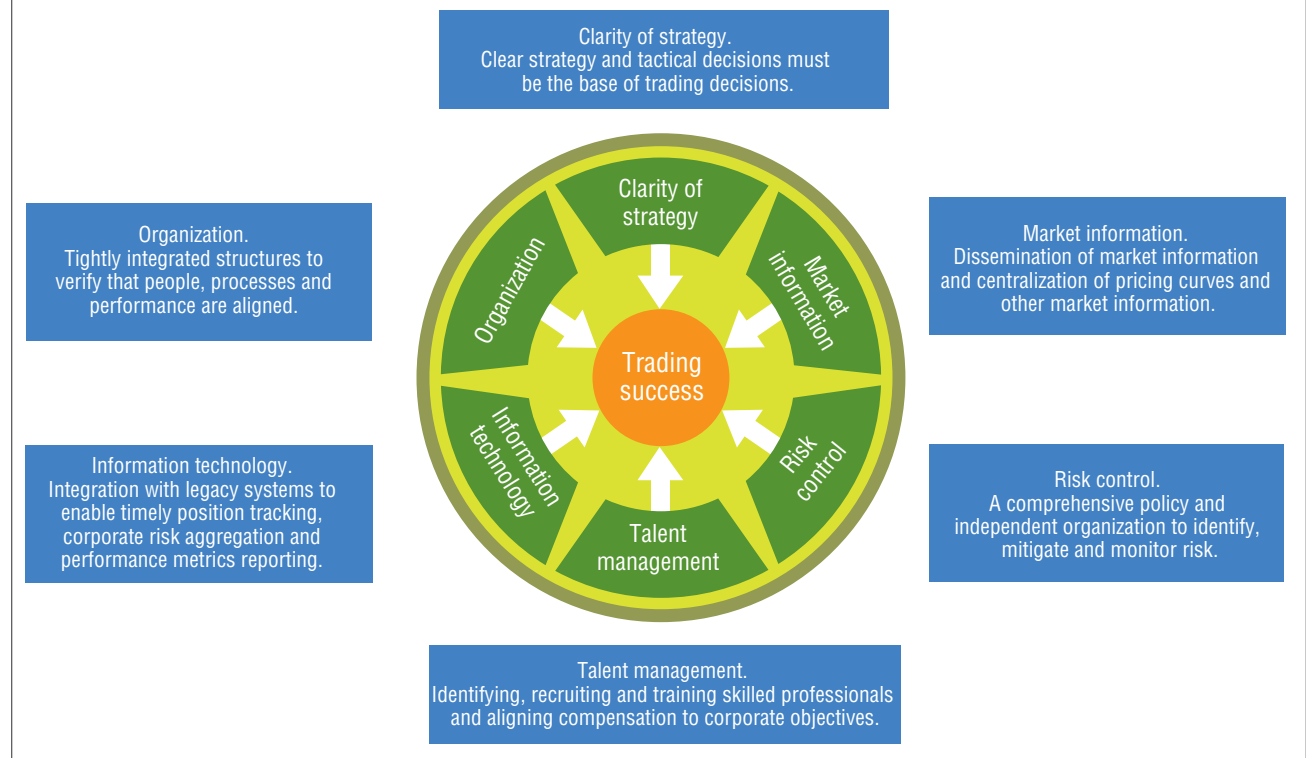
These strategic imperatives are creating the need for companies wanting to participate in energy trading to re-evaluate certain critical success factors and develop plans for improving their abilities to meet increased competition and evolve quickly to meet new challenges.

These factors are presented in Figure 1. Although each area is important to increasing competencies and creating competitive advantages in energy trading, three aspects are particularly important at this time.

Organization

The ability to continue to identify efficiencies in operating models continues to be an important focus for energy companies. As energy trading activity increases, prior cutbacks in organizational capabilities must be reconsidered. Examine consistency and alignment between roles, processes and incentive plans, to verify that all areas of the organization are working to contribute to the same strategic goals. Increased focus on business performance management (BPM) via executive dashboards is enabling business leaders to measure efficiencies, establish goals and achieve quantifiable progress.

Figure 1. Necessary strategic imperatives.



Risk control

Regulation at federal, state and local levels will continue to require focus on operational controls, accountability and reporting. Companies should verify that reporting requirements are automated to reduce costly manual data consolidation or analysis. In addition, energy trading companies need to elevate their ability to quickly and accurately quantify and analyze risk (market, credit, operational) to a level that paces them astride their new financial institution competitors.

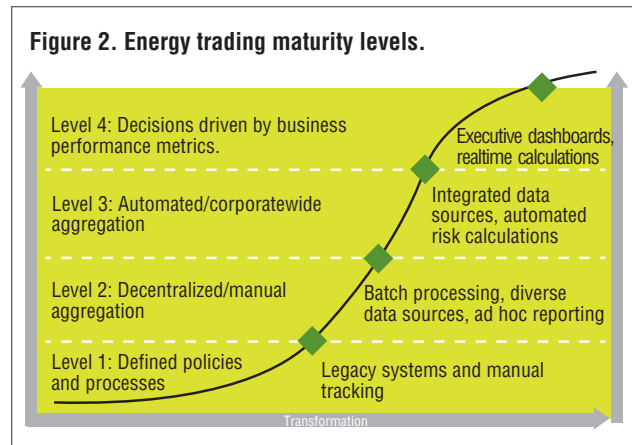
Integrated IT systems

IT systems are crucial to all phases of energy trading, from acquisition of market information, analytics and trade processing to portfolio optimization and sophisticated scenario analysis, as well as the obvious reporting and back-office processing. So critical to effective energy trading are improved IT capabilities that, according to META Group, 70 percent of companies are increasing spending in energy trading support systems. Competitive advantage will be gained by companies that also use technology to gain visibility to enterprise risk and market opportunities.⁴

Toward a higher level of maturity

Important components and levels of competency in energy trading can be evaluated along a maturity curve. Particularly important is the realization that although an integrated technology platform is a critical step in attaining high levels of maturity, it alone is not capable of generating value without strong underlying processes, roles and incentive systems.

Level 1 maturity has been attained by the vast majority of utilities as a fundamental part of operations resulting from focus on regulatory issues and risk controls implemented over the past several years (see Figure 2). How consistently companies build upon these



underlying policies and processes and generate true business value will determine their success moving forward.

Most utilities are currently operating at a Level 2 maturity, and many are working to verify that roles, responsibilities and reward structures are consistent with corporate policy. Reductions (or elimination) of skilled professionals in trading, research, analytics, control and processing functions have resulted in increased workloads and multiple roles for some trading staff. Incentive payment structures need to be aligned with measures of corporate value, and leaders require accurate information to correctly recognize and reward desired results.

At Level 3, an integrated technology base becomes a strategic imperative, enabling integration of information sources, reducing manual efforts required and providing a flexible basis for developing new products. Although some utilities have invested heavily (and not always successfully) in new systems implementations, the majority of companies are assessing their capabilities to quickly integrate existing systems via data warehouses, middleware or integrated energy trading applications.

The next generation of energy trading

Level 4 maturity is attained only by firms with integrated organizational structures, processes, analytics and straight-through processing which is designed to enable seamless end-to-end trade processing and control, from market research to regulatory reporting. Once at this level, companies have the flexibility to rapidly respond to market changes and opportunities and have established processes of continuous improvement to support adjustments as market conditions change.

Next-generation platforms

The next generation of energy trading platforms will respond to the imperatives of regulatory oversight, increased competition from traditional and nontraditional segments, sector convergence, mergers and consolidations and continuous change in the business environment. Mature energy traders require new business and technological capabilities based on new systems architecture requirements. Trading organizations will require prompt access to various components integrated into a consolidated trading platform with underlying data warehouses and interfaces for access to market information and back-office systems. Speed to market, flexibility and integrated services will be paramount.

Legacy system transformation

Energy trading organizations that lack the appetite for investments in new trading systems are adopting strategies to transform their existing systems so they can introduce flexibility and portability not currently present. Utilizing new technologies to unlock the value resident in legacy systems, companies are leveraging enterprise architecture solutions and portals to reduce laborious systems integration efforts, to reduce the

need to modernize interfaces and to solve data synchronization issues. Established methodologies focused on application consolidation, renovation and Web enablement are bringing results at reduced costs and reduced risk to ongoing operations.

Service-oriented architecture and web services

The goal of service-oriented architecture (SOA) is to “componentize” key business processes so that they can be more easily changed to meet new business conditions while also lowering the cost needed to manage and change the application. Componentization of business processes and application functions create opportunities for collaborative development and permits integration of established business rules with new applications. Energy traders will have the ability to graft new functionality to the existing suite of applications and diverse databases. Energy trading organizations have invested heavily in legacy applications that often have achieved neither the desired capabilities nor ROI. Web services allow true plug-and-play capabilities, giving the energy trader the ability to implement new components or functionality quickly and cost effectively as the business environment evolves. In addition, SOA gives the energy trading organization the ability to achieve true BPM functionality; more than real-time position management, it is proactively managing the portfolio to a set of enterprise performance measures (as opposed to reacting to stale indicators). Energy traders utilizing BPM concepts do not wait until the end of closing periods to know their integrated key performance measures. BPM is designed to provide near-real-time access to the performance measures and the ability to assess the impact of potential decisions on these measures.



Data Warehouse Integration

The importance of seamless data access (both transactional and market information) to energy trading cannot be overstated. In the past, much of the data created or acquired was simply dumped into discrete databases. Because of regulatory pressure, more data integrity control has been introduced; however, many organizations have yet to realize the full benefits of having a componentized data service capability, enabling and controlling access to all corporate data. Next-generation architectures must provide tools that will expedite the flow of business information to the critical decision-making processes and support enterprise value optimization. These tools are becoming a necessity to identify and evaluate potential trades and their impact on the trading book and on the enterprise portfolio. The capability to quickly and accurately assess the impact to credit risk, liquidity and market risk enables comprehensive scenario-building to support risk management and enterprise value optimization.

The next-generation energy trading platform offers companies the ability to perform in the new risk-focused environment. The ability to integrate information from trading platforms with information from other corporate systems will be a critical factor in determining which energy traders will be key players and which will cede space to more capable competitors.

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Endnotes

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- ² META, Jill Feblowitz, "Energy Trading and Risk Management: Staying Ahead of the Curve." Nov. 17, 2004
- ³ The TowerGroup, "Automating the Crystal Ball," Guillermo Kopp, May 2002, p.iii.
- ⁴ META, Feblowitz.





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