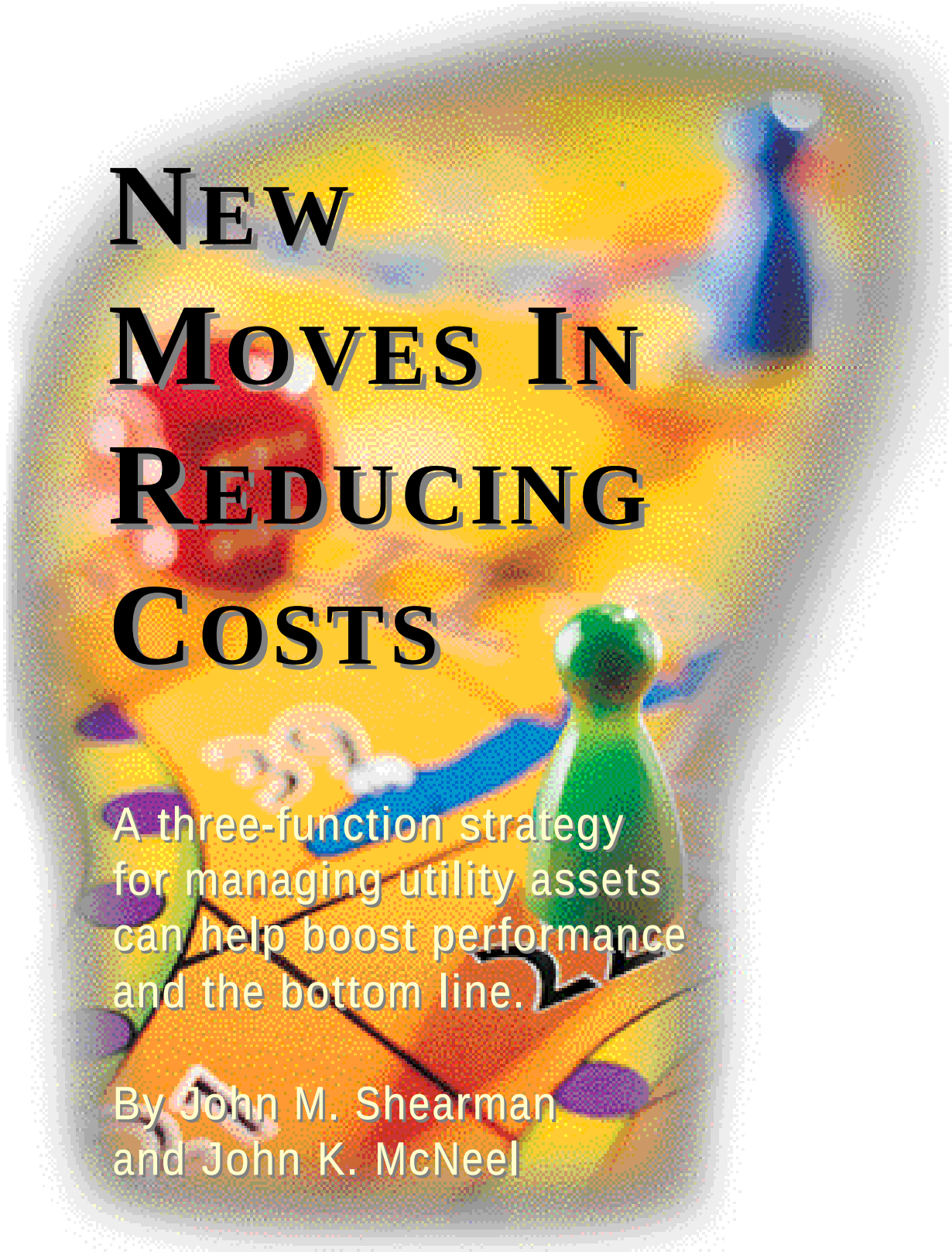


# New Moves In Reducing Costs

A three-function strategy for managing utility assets can help boost performance and the bottom line.

By John M. Shearman and John K. McNeel

Strategic asset management is a business model in many unregulated, asset-intensive industries. Essentially, it provides a systematic approach to allocating resources to the acquisition, use, and disposal of assets and to managing related risks and costs over each asset's lifecycle. In the commercial real estate industry, for example, an insurance company may own portfolios of assets with different risk profiles it is not in the business of operating buildings but instead views commercial properties as investments that produce streams of returns. As an asset owner, the company contracts with other companies asset managers to manage those buildings. In effect, the owner outsources the management functions to a company that specializes in those areas, so that the owner can focus on its own areas of competence strategic portfolio management and long-term investment strategy.

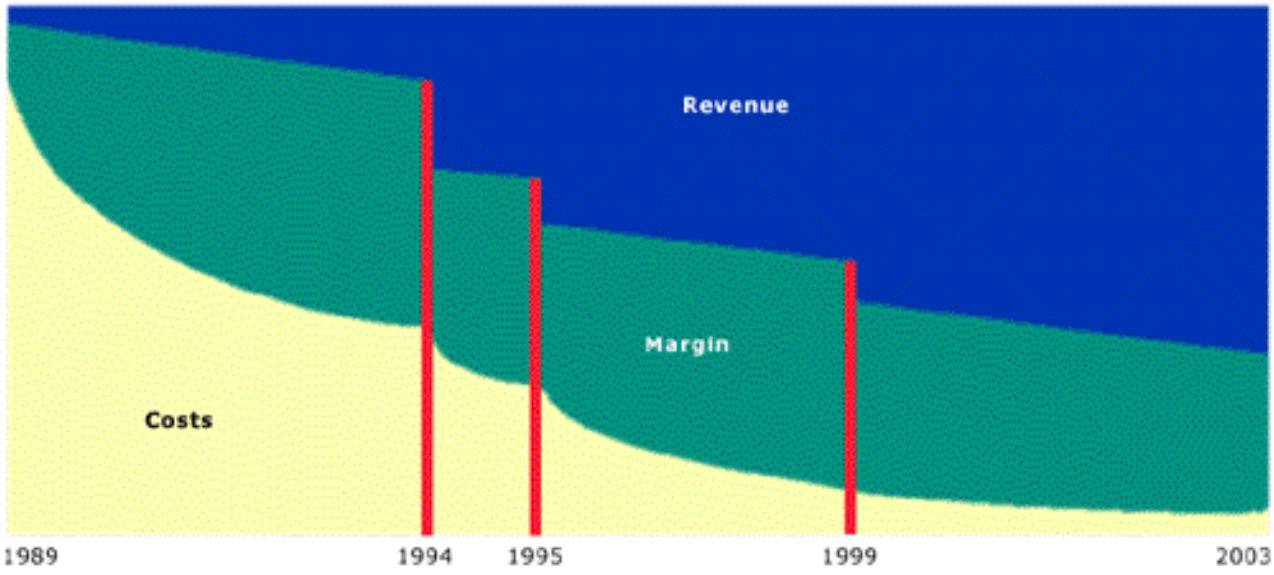
## Only a few utilities have taken steps to separate their asset ownership from their asset management in a complete way.

The asset managers focus on maximizing the long-term occupancy and profitability of the buildings. As such, they have established competencies in marketing, leasing, contract management, credit and collections, and performance management. They, in turn, generally outsource the operation and maintenance of different aspects of the asset (the building) to elevator, heating and cooling, janitorial, and landscaping firms, among others.

Largely as a result of deregulation, strategic asset management has found its niche in the electric utility industry, too. In the United Kingdom, for example, utilities have experienced 12 years of regulator-imposed rate reductions a declining price cap structure which have applied constant pressure to reduce costs (see Figure 1). At the outset of deregulation, these companies went through downsizings to wring out system inefficiencies and for the first six or so years were able to maintain pace with the declining price curve. In 1995, however, they began to reach the limits of efficiency, and margins began to suffer. To achieve lower costs, they applied strategic asset management as a business model. With it, many UK companies have found that they could achieve additional cost reduction (in some cases as much as 50 percent) with no sacrifice in performance. Moreover, some use this model to enhance their prospects for continued earnings growth.

FIGURE 1

**The Effect of Declining Price Caps in the United Kingdom**



The United Kingdom, Australia, and New Zealand have completed vertical unbundling and are now well into horizontal unbundling. They are opening up to competition the services and processes traditionally provided in-house by utilities in managing and operating network (pipes and wires) and generation businesses. As a result, some utilities are becoming simply asset managers, outsourcing the asset operations functions. In other cases, utilities are strengthening their capabilities in managing and operating assets, transforming these functions into competitive enterprises.

Because deregulation is less advanced in the United States, strategic asset management has been adopted here less widely than abroad. Certainly, over the years, many utilities have outsourced different aspects of their network operations, like tree-trimming or billing or meter reading. But only a few have taken steps to separate their asset ownership from their asset management in a complete way. There are an increasing number of companies that provide a whole package of these services - and very often, if a utility compares the cost to provide those services in-house against the cost charged by an external network services company, it will discover ways to produce breakthrough improvements in cost and performance. Strategic asset management provides an innovative approach to improving business performance, increasing shareholder value, and accomplishing long-term business objectives.

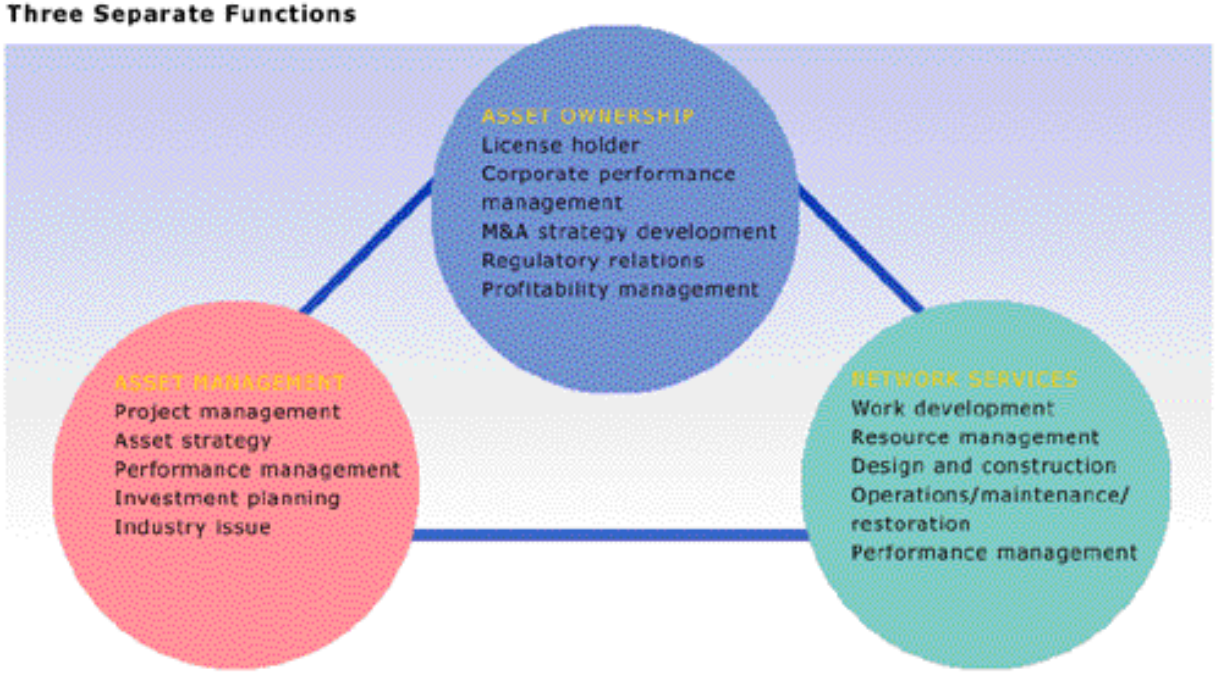
### Restructuring the Organization

The strategic asset management business model requires a clear separation of accountabilities into three areas: asset ownership, asset management, and network services (see Figure 2). This new structure realigns the utility's traditional organizational structures, which are characterized by regional authority and accountability models. These structures have often fostered compromise and inefficiency.

The asset ownership function focuses on the return on investment of the utility's assets. It has a long-term interest in the makeup of the asset portfolio, the desired performance of that portfolio over time, and growth in shareholder value. This function's responsibilities include business and regulatory strategy, regulatory relations and licensing, development of merger and acquisition strategies, and management of the other two functions. The asset ownership function is often accountable to the

**FIGURE 2**

**Three Separate Functions**



board of directors.

The asset management function is the primary arm of the asset owners. It focuses on optimizing system operating cost and performance, thereby maximizing the return on assets and overall asset value. Its responsibilities include asset strategy, investment planning, project management, performance management, and industry issue tracking.

The network services function is responsible for providing all operational services for the assets, including utility plant design and construction, operations, maintenance, restoration, work development, and resource and performance management. As a separate entity, it puts these functions into a service agreement, which it negotiates with the asset management group.

### Improving Decisionmaking and Resource Allocations

So much of the purpose of such a restructuring is to change the utility's way of thinking: If the functions are separate, their costs become clearer, and their focus on cost reduction and performance becomes more acute.

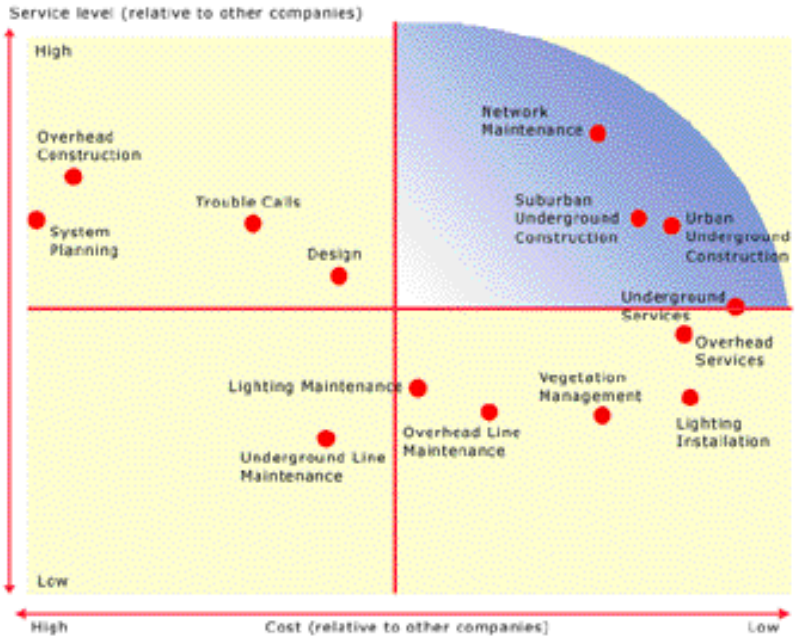
The separation allows the asset management function to analyze, compare, and question costs. In general, the asset managers, with their objective of optimizing asset performance, seek to minimize costs while achieving performance targets for assets and assuring their long-term profitability. With the establishment of the asset management unit, there is a new focus on such tools as investment option evaluation, system cost/performance analysis, economic lifecycle optimization, system utilization modeling and capacity management, risk and reliability management, market and regulatory scenario analysis, and asset value management. The function demands them: These tools can provide a sophisticated set of information and decision-support systems that improve the asset managers' analytical and decision-making processes. That way, the managers can perform more rigorous analyses of resource allocation alternatives and develop the best mix for achieving business objectives.

**Benchmarking studies show that well-run companies are typically among best performers in fewer than half their component functions.**

Armed with these tools, asset managers can drill into the service agreement proposed by the new network services organization to assess the value and costs of each work program. Typically, the asset managers find activities and work steps that have crept into the system over the years - legitimate at one time in the regulated world but of low value today. With a much more thorough analysis of what is required to optimize system performance, asset managers can then negotiate with the network services function to remove as many of those low-value activities as possible. The result is a reduction in the volume of work performed by the network services function, and a reduction in resource commitments and billings to the regulated business.

**FIGURE 3**

**Potential Improvement Opportunities Of A High-Performing Company**



**EXAMPLES OF NETWORK SERVICES COMPANIES**

North American companies:

Qanta
EMCOR
Exelon Infrastruction Services
Black & Veatch
Enron Energy Services
Asplundh
Henkels & McCoy
RSI

Foreign companies looking to enter the U.S. market:

24seven
GEC Alstom

### Optimizing the Delivery Process

For its part, the network services function can find cost improvement on its own, primarily from efficiency gains and lower unit costs - and this can happen even at companies considered to be among the most efficient. In fact, the performance of even the best-run companies is often far from "best performer" levels in a number of areas, once the network services business is deconstructed into its major functions and processes. Benchmarking studies by UMS Group show that well-run companies are typically among best performers in fewer than half their component functions (see Figure 3). In this example, while a high-performing company performs almost two-thirds of the functions at relatively low cost, most have below-average service levels. And, while a little more than half of all functions have better-than-average service levels, half of them are high-cost. While this company is better than average in terms of cost and service, it may have opportunities to improve its other components by as much as 50 percent.

Network services managers can determine improvement opportunities in several ways. The easiest is via benchmarking, which will compare cost and service performance and work practices against "best performer" companies and will show how specific practices can be modified.

Another approach to uncovering performance improvements is through participating competitively in the market. Customers are excellent sources of feedback on cost and service performance. But competitors provide companies the best feedback by outbidding them, outperforming them and taking their business.

Outsourcing elements of network construction, operations, and maintenance is not a new concept to the utility industry. Most utilities use outside contractors to some extent - in some cases to perform complete tasks, in others to supplement workforces in times of peak workloads. Tree-trimming is a typical example. But the network services outsourcing business is beginning to grow in the United States (see the box, "Examples of Network Services Companies").

Recently, Puget Sound Energy announced a deal to outsource a majority of its gas and electric network services functions. UtiliCorp has issued a request for proposals to outsource its network services functions, too; it believes that its core competencies are in the area of asset management. Interestingly, UtiliCorp has a substantial equity interest in Qanta, one of the largest network services companies in the United States.

Competing against such companies is an education and it helps with the network services organization's learning curve. Network services can be structured as a business that bids on outsourcing opportunities for other companies. Not surprisingly, new utility entrants into this business have often found themselves underbid by anywhere from 50-75 percent. They are bidding against fiercely competitive companies that perform these services as their main business and whose costs are usually much lower. The result: The pricing of new entrants' services is driven toward these lower levels.

Competing against such companies is an education – it helps with the network services organization's learning curve.

One Australian utility put out a request for proposals for outsourcing its asset management and network services functions. A consortium that bid on the work felt fairly confident in proposing a cost structure that was 60 percent lower than the utility's costs. It was surprised when the utility said the consortium needed to sharpen its pencil if it wanted the business - another firm had underbid it by 15 percent!

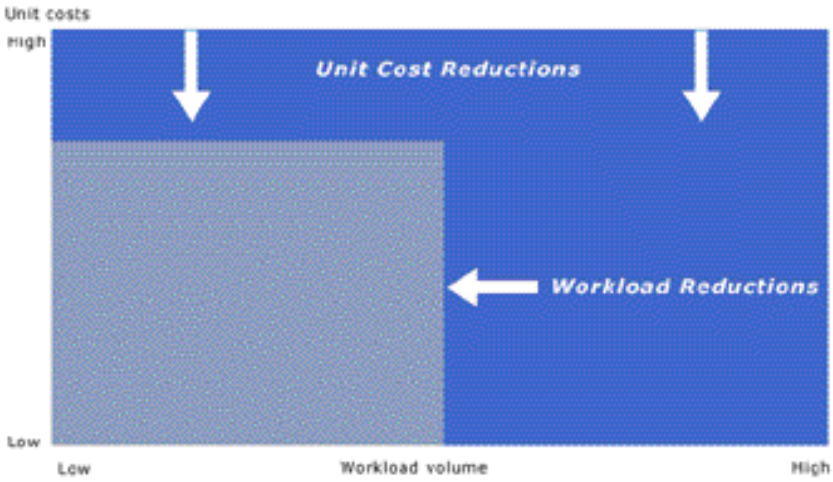
Being in the market and competing against companies that have work practices superior to those of the home team can be a painful but constructive learning experience. Eastern Energy in Australia, for example, built a significant business servicing regional assets for electric, water, gas, and telecommunications asset owners. Along the way, they discovered that they were uncom-

petitive in many of their core services. They downsized the organization by almost half by exiting those uncompetitive areas and were successful at tripling the remaining business.

Most electric distribution companies in countries that have undergone deregulation have gone through such an evolution in their network services areas and have achieved significant savings from efficiency improvements. Even companies with relatively efficient operations have been able to extract more than an additional 20 percent improvement in unit costs (increased efficiency) as a result of the learning-curve effect. Combined with the workload reductions driven by the asset management function overall cost improvement can be as high as 50 percent (see Figure 4).

FIGURE 4

**Two Types of Performance Improvement**




Here are a few examples of the benefits of the asset management model:

- A UK utility instituted asset management and produced greater than 30 percent reductions in operating and capital costs, while also increasing competency/capability to provide asset management and operating services as a competitive business. Its asset-related decisionmaking process climbed from performance benchmarked in the fourth quartile to a benchmark in the top 10 percent over a two-year period, and it gained a new culture focused on improving asset performance.
- A North American utility used the asset management model to assist in consolidating a decentralized organization comprised of 11 regions with 50 operating districts across multiple operating companies with separate management. The new organization was made up of five zones run under a single asset management organization that is supported by localized field staff. The company also went from semi-autonomous operations with independent policies, procedures, and construction standards to more common standards controlled by a peer review committee. This resulted in cost savings of more than 40 percent.

There is a substantial opportunity to take on asset management duties for a number of asset types, including gas, water, and telecom.

- The fossil generation business unit of a North American utility adopted the asset management model. The same principles were applied into restructuring the organization into asset management and asset services units to produce more than a 40 percent reduction in operating and capital costs. This initiative not only reduced costs, but over a two-year period also improved the availability factor from 82 percent to 89 percent, reduced the forced outage rate from 14.5 percent to 3.4 percent, and reduced the maintenance backlog from ore than 1,000 work orders to less than 100.

### Bigger Growth at Less Cost

In the United States, utilities in the unregulated generation business can achieve growth by buying more generation assets. Transmission and distribution businesses can do the same thing. In both these businesses, companies can acquire the assets, extract value from them through cost and performance improvement via the strategic asset management model, and either hold the assets or dispose of them to investors looking for an investment vehicle. In the case of regulated network assets, the buyer would likely be an institutional investor (such as an insurance company or pension fund) seeking a low-risk investment.

More important, both businesses can achieve growth through expansion of the asset portfolio without purchasing the incremental assets - instead, they can provide asset management and asset operations services to the new entities under contract. This approach has several advantages. First, service providers can capture the margin without tying up precious capital, thereby increasing the return-on-assets ratio and shareholder value. Second, regulatory approvals under this regime can be less complex and time-consuming, which makes it easier and faster to replicate the process with other assets. Third, the contracting services business can be structured outside the regulated domain, giving more earnings directly to shareholders.

Companies that have adopted the strategic asset management model have found that the asset management function is highly leverageable: it can take on duties for a large increment of assets (in terms of value) with a relatively small increase in the cost of management. An Australian company, for instance, managing roughly $1 billion worth of assets, determined that it could double the assets under its management for about a 25 percent increase in its asset management cost.

The network services function can also experience substantial scale economies, although to a lesser extent than the asset management function.

Also, there is a substantial opportunity to take on asset management duties for a number of asset types, including electric, gas, water, waste water, and telecom. Leveraging the key competencies of asset management and network services across these types of assets can produce overall scale economies in excess of 30 percent. In the United Kingdom, Australia and New Zealand, there are several examples of this practice. United Utilities in the United Kingdom, for example, has had success in managing electric, water, and gas assets on a global scale. Also, TXU-Europe and London Electricity Group have combined their asset management and network services organizations into a joint venture, 24seven. This effort began as a round of cost reductions, which turned out to be approximately 30 percent. But they now view the joint venture as an opportunity to be a player in the growing market for these services and are aggressively pursuing electric, gas, and water opportunities in the United Kingdom and around the world. 24seven estimates that the market for these services in Eastern Europe, the United Kingdom, and North America alone is almost $200 billion.

### More Than Sharp Pencils

Strategic asset management requires a major business transformation - and the transformed company will be characterized by a new set of descriptors:

- new work quality standards,
- new standards of pace and cycle time,
- increased intensity of work environment,
- broader responsibilities,
- work less rigidly defined,
- required adaptation to continuous change, and
- new levels of personal risk.

Switching to a riskier environment and changing work processes often produce friction, cynicism, fear, and resistance to change, to name a few. Getting the organization to adapt in a timely manner requires careful nurturing and effective leadership. But when these challenges are properly addressed, the organization can be transformed into a business machine that not only operates more efficiently and effectively but also will support a growth strategy.

Regardless of how deregulation unfolds in the United States, there is a trend toward the UK concept of "universal contestability" a management group's commitment to being among the best performers in activities it chooses to perform internally or else outsourcing them. If strategic asset management does catch on, then scale advantage will drive cost reductions, and there will be no defensive strategy for protecting the right to perform asset-related services.

And we have only talked about strategic asset management in terms of physical assets and work processes. The business model can also be applied to other areas of the industry customer care, for example. Once you begin thinking along the lines of asset management, then your options multiply. And you'll need to keep a lot of sharp pencils on hand.