Deregulation Lessons from Down Under

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While the eyes of most American energy experts are on the Texas deregulation process, many Asian and European industry decision makers are taking cues from two countries on the other side of the world: Australia and New Zealand.

One of the first countries to adopt deregulated models, New Zealand officially opened its energy market up to competition in 1992. Unlike the United States' relatively disjointed deregulation process, New Zealand transitioned to fully a deregulated environment quickly and smoothly.

Compared with New Zealand, Australia's energy market is larger and more fragmented. The Australian states began their deregulation process in 1998, progressively introducing competition at retail level. This process is now nearly complete.

Each country's triumphs—and mistakes along the way—can offer valuable lessons for American companies wrestling with the challenges and opportunities of deregulation.

New Zealand's Pre-deregulation Energy Environment

New Zealand's small, geographically isolated population and minimal residual market regulation makes the country an ideal model for energy deregulation. The nation's single spot market is effective and stable, and customers have the right to choose their retailer. The secret of this success? A tiered deregulation process.

The roots of New Zealand's deregulation process trace back to the mid-1980's, when growing concerns over the country's economic future sparked reforms across the nation. Leading New Zealand economists recommended a growth strategy that called for a better way of managing resources, clearer price signals and more transparent competitive markets.

At the time, 50 integrated distribution and retail power boards serving 1.6 million customers littered New Zealand's energy landscape. The government's Ministry of Energy ran New Zealand's electricity generation and transmission, and politics determined wholesale pricing and generation investments. Operations were plagued by cross-subsidies, inefficiency and lack of customer choice. Something had to change.

A Tiered Transition

The New Zealand government decided that a tiered approach was the best way to improve the system without letting it break down completely. New Zealand's first step toward deregulation was small but firm: in 1987 New Zealand's Ministry of Energy transformed its electricity operation into a state-owned company, the Electricity

Corporation of New Zealand. This company was subject to the same laws and incentives as private corporations.

Tier Two came in 1992, when the government converted local power distributors into individual companies. Two years later, it made the national transmission grid into a standalone corporation.

By steadily growing these distinct sectors and companies, the Ministry of Energy was able to set the stage for Tier Three, the deregulation of the wholesale electricity market.

In 1996 the wholesale electricity market officially opened with the launch of a state-owned generation company, Contact Energy. Contact Energy operated in direct competition with the Electricity Corporation of New Zealand, and bids from generators, purchasers and traders set market electricity prices.

Continuing to move closer to the goal of full deregulation, the government made its most dramatic reform in 1998 when it demanded corporate separation of line and energy businesses. This was instigated to prevent cross-subsidies between the effective monopolies of local distribution networks and any associated retail operations. Instead of capping prices the government requires that local line companies disclose their prices and profits to the public while depending on market forces to control energy retail costs.

New Zealand's Energy Industry Today

More than 10 years on from those first steps, competition in the New Zealand electricity market is flourishing. The market has consolidated from more than 50 integrated energy companies to less than half of that number of lines companies and just five national retailers. New Zealand's distribution sector is now known for its efficiency, streamlined staff structures, strong service ethic, and professional management processes. Each distributor must publish set targets for service quality parameters and measure outage frequency, duration and impact – all factors that have driven investment into new processes and technologies.

The system works well, but like any evolving marketplace it has had the occasional setback. Last year, for example, a water shortage lead to unprecedented surges in hydro-dominated spot market energy prices and one major retailer suffered such significant financial losses that it folded as a result. Energy retailers owning significant generation assets were able to offset fixed contract retail losses against windfall wholesale market profits, reducing customer exposure to wholesale market prices.

Overall, however, New Zealand has succeeded in making deregulation work. In Auckland, the nation's largest city, domestic customers have a choice of five energy retailers and prices have remained low. Deregulation has boosted the efficiency of industry business operations, and some experts have even gone so far as to claim that the free energy market has improved the health of nation's economy.

The Australian Move Toward Deregulation

Until 1998 Australia's state governments owned distribution and retail operations that were integrated at the regional level. Together, the state governments also held and managed the county's transmission infrastructure and most of the generation operations.

The decision to deregulate Australia's energy industry was, in essence, a national agreement to separate the distribution, retail, transmission and generation sectors. Like their American counterparts, the Australian states had the opportunity to migrate to a deregulated environment at their own pace—and each did so in its own way.

Five of Australia's six states and two territories came together to form the Australian National Electricity Market, but each state within this group made specific changes at different times. Some states chose to sell the generation component into private ownership, while in other areas entrepreneurs and commercial businesses constructed new generation facilities. Transmission infrastructure remains state owned, although individual regional transmission networks have been restructured into separate legal entities. One privately owned transmission company provides a high capacity link between the states of New South Wales and Queensland.

Private energy brokers and load aggregators are flooding the retail market, which has been separated from distribution operations in theory but only partially in practice. Many companies maintain ownership of both distribution and retail operations by isolating one component from the other.

A single market body administers schedules and coordinates transmission capacity for the national market. Each state has also established its own regulatory body to issue licenses, set maximum prices and establish service and supply parameters.

Striving for a More Agile Electricity Sector

In those states that joined the Australian National Electricity Market, deregulation has been achieved for commercial and industrial customers and is nearly complete for domestic customers. As a whole, however, the nation still has a few issues to resolve. For one thing, the disparity between the regulatory regimes of different states is causing some national confusion. Retail price regulation is also a potential problem, because it inhibits demand management initiatives by preventing retailers from passing on appropriate price signaling. Finally, ongoing political interference within the industry could scare off independent capital investment.

In spite of these concerns, however, Australia's deregulation process has been a positive exercise and almost all of the objectives for deregulation have already been met.

Competition has driven generation operations to increase productivity and reduce costs by boosting plant performance. Distribution operations are more efficient, causing wholesale prices to decrease in regions once classified as having over-capacity. In areas where supply and demand are more closely balanced, wholesale price signals are stimulating investment in additional capacity. Supply reliability has also improved in many areas.

Large commercial and industrial customers in particular are reaping the rewards of deregulation because energy companies can offer them more tailored billing structures and a greater reduction in real energy costs.

The Australian and US markets are similar in several key ways. In both nations, each state has an autonomous regulator. Both markets are also subject to political interference, which can slow the deregulation process. On the positive side, the United States and Australia both have the capacity for inter-state transmission, and in Australia private capital is already funding a transmission link between Queensland and New South Wales.

Six Lessons from Down Under

More than half of the U.S. states are implementing legislation to restructure their energy markets. If the US has anything to learn from their Kiwi and Aussie cousins, it is that deregulation is possible as long as competitive market forces are allowed to act as freely as possible. Here are six tips for success from Down Under:

- Regulatory constraints should remain as watchdogs only, designed to ensure that positions of natural monopoly and market dominance are not abused.
- Different regions need to coordinate regulatory frameworks, preferably by a national market body not influenced by market participants.
- Energy generation assets must remain independent of retail operations.
- Distribution networks should maintain independent profit rather than contribute to cost centers.
- Pricing signals are best managed through interval metering and complex tariffs.
- Market competition is most effective when customers have the ability to respond to pricing signals and the tools to manage their energy load profiles.

Gavin Mitchell is Chief Executive of Kinetiq, a New Zealand-based provider of customer management solutions for energy companies. Evolving out of New Zealand's positive energy experience, Kinetiq gives companies like Mid-American in Iowa the tools they need to overcome the complexities of deregulation and make the market work in their favor. For more information on Kinetiq, visit www.kinetiq.com