

## Enter Stage Left: The New Energy Merchants

Financial institutions and private equity investors have been buying merchant generating assets at a furious pace, and they don't play by the same rules as independent power producers (IPPs) and electric utilities. Are traditional players ready for the disruptions to come? Have distressed IPP plant prices bottomed out? The interest of these new entrants has several implications for future market fundamentals.

The U.S. power generation sector is experiencing a wave of merchant plant acquisitions by non-traditional players composed primarily of private equity investors and large financial institutions with energy trading businesses. During the 2003-2004 period, at least 25 unique financial groups purchased assets accounting for close to 40,000 megawatts (MWs) of capacity, or 70% of total transaction volume. That's roughly five times the activity by these types of firms over the previous three years.

Although a clear trend for 2005 acquisition activity has not yet developed, preliminary evidence suggests that an increasing number of utilities are interested in purchasing well-placed merchant plants to meet their capacity shortfalls. If utilities can ultimately pay for these plants through the rate base, the attractiveness of the sector to financial participants could diminish significantly. There is also a growing momentum behind the perceived need for scale and scope economies as the logic behind IPP mergers. It will be hard to overcome the skeptics, however, as scale economies cannot overcome revenue shortfalls. Perhaps the best news for the industry about 2005 has been hot weather, high air-conditioning loads, and relatively strong plant capacity factors.

During the 2003-2004 period, asset sellers were primarily composed of the non-regulated merchant arms of investor owned utilities (60% or 35,000 of the MWs sold). These entities pur-

chased or developed significant generation portfolios in order to gain access to physical positions and information flow to augment their burgeoning trading floors. As the trading business faltered, these assets proved to hold little intrinsic value and have been liquidated as utilities move to shore up their balance sheets. A distant second on the sell side has been sales of IPP plants.

With few exceptions, traditional market participants—utilities and IPPs—have been unable or unwilling to step up and buy merchant assets. While utilities once actively augmented their physical assets to enhance robust trading businesses, in a post-Enron market, the majority of utility-owned trading organizations have scaled back dramatically or closed shop altogether.

### Deregulation takes hold

A shift in generation asset ownership of this magnitude, while unprecedented, can be viewed as a natural outcome of deregulation. Events across most deregulating sectors (e.g., telephony, trucking, airlines) tend to proceed in a predictable way:

1. New entrants rush to challenge inefficient established firms.
2. Too much capacity gets built, prices fall, and bankruptcies ensue.
3. Distressed assets change hands amid strengthening prices.
4. Firmer pricing encourages more capacity and the cycle begins anew.

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## ■ Asset Turnover Picks Up Steam

During 2003-2004, the U.S. merchant generation sector saw financial participants purchase assets at a remarkable pace. At least 25 unique financial groups announced 30 (of a total of 39) transactions to acquire or invest in generating assets totaling close to 40,000 MWs of capacity. A summary level overview of this recent surge of transactions reveals:

- For the 24 months ending December 2004, companies announced 39 transactions valued at \$14.6 billion.
- A total of 40,700 MWs changed hands representing 4.5% of total U.S. generating capacity of approximately 905,000 MWs.
- Financial participants are the prime movers behind the acquisitions, announcing three-quarters of the transactions.
- Utilities' merchant arms and IPPs are the predominant sellers as they move to shore up their balance sheets.

Currently, we appear to be in the third of the four phases. The increased pace of acquisitions suggests that many market participants are betting that the supply and demand balance has turned and the pricing for peak power is about to improve. This trend is consistent with shrinking peak reserve margins for a growing list of U.S. utilities.

The surge in activity seems likely to continue as more capital enters the market seeking infrastructure investments, interest rates remain relatively low, and sale processes and Board approvals become more routine. The consensus view from equity analysts' suggests that an additional 40,000 to 60,000 MWs will change hands over the next one to two years. These transactions could involve partial fire sales by existing owners, resales by large private equity interests, and three to five large-scale utility mergers on a par with recent transactions announced by Exelon, Duke, and Berkshire Hathaway.

For traditional players, this shift in plant ownership raises a number of questions. How well do existing owners of peaking capacity understand new entrants' intentions and future participation in the power markets? Should distressed merchant plant owners view this period as a relative market peak for the sale of their assets? What means will incumbent utilities employ to meet growing needs for peak capacity? What new market behaviors will be displayed by new counterparties in peak markets?

Answering such questions will help senior managers anticipate how value will shift in the merchant generation sector and will enable informed decision-making about power plant portfolios over the next decade. It takes five to seven years and up to \$1 billion to obtain permits and build a large coal-fired plant. Natural gas suppliers, meanwhile, will require a massive liquefied natural gas (LNG) build-out to support the introduction of new gas-fired plant. Nuclear power is returning to favor, but nuclear plants require lead times and capital commitments far in excess of coal plants. For existing coal plants, stricter air quality standards will impose hundreds of billions of new investment without increasing capacity or efficiency.

Solutions to capacity needs require finding a balance between market competition and vertical integration; low prices and clean air; and adequate generation capacity and land use. It's not clear that the new equity interests in the sector fully appreciate the sheer complexity of the so-called deregulated wholesale power market they are buying into.

### Profiling the new energy merchants

Most recent acquisitions have been made by three types of entities (see Exhibit 1):

- **Energy traders.** Some large financial institutions have made significant commitments to their burgeoning energy trading businesses, notably Goldman Sachs, J.P. Morgan, and Merrill Lynch. They offer fresh capital, risk management services (i.e., trading), and A-rated balance sheets. They're most interested in plants used for peaking capacity which offer the best complement to their trading floors.
- **Large equity.** Private equity firms, such as Blackstone, Carlyle, and KKR, are flush with cash and seeking distressed infrastructure assets. They are cycling significant fresh capital into the power industry. Many will likely resell the assets as they try to call a supply/demand cycle reversal and a run-up in asset values. They exhibit the classic "buy cheap with lots of leverage" ethic while scouting opportunities to cash out.
- **Niche equity.** Certain industry-focused investors, including Delta, ArcLight, and Rockland, are seeking natural gas and power infrastructure investments with a portion of this cash moving into power plants. Small private equity investors often hold onto generating assets for long-term cash flow growth. These firms typically possess complementary assets and asset management talent from the power sector.

### Turmoil ahead

Financial players take a view of the power sector that is fundamentally different than that of most utilities, and they will behave accordingly.

## Exhibit 1 Who are the new participants?

Type of merchant	Examples	Investment thesis
<b>Energy traders</b>	<ul style="list-style-type: none"> <li>Goldman Sachs</li> <li>Morgan Stanley</li> <li>Merrill Lynch</li> <li>Bank of America</li> <li>Louis Dreyfus</li> </ul>	<ul style="list-style-type: none"> <li>■ Possess strong credit, large balance sheets, and an investor base accustomed to earnings volatility</li> <li>■ Trading market large and growing; price risk management services needed</li> <li>■ Viewed as source of trading profits as stock market volatility declines</li> <li>■ Commodities viewed as counter-cyclical to other revenue streams</li> <li>■ Power plants provide market knowledge to augment trading opportunities</li> <li>■ Provide cross-sell opportunities for investment banking, acquisition financing, etc.</li> </ul>
<b>Large private equity investors</b>	<ul style="list-style-type: none"> <li>Blackstone</li> <li>Carlyle</li> <li>KKR</li> <li>Texas Pacific</li> </ul>	<ul style="list-style-type: none"> <li>■ Flush with capital as investors move farther afield to realize returns</li> <li>■ Traditional “buy cheap and leverage” credo abetted by low interest rates</li> <li>■ View cyclical power market as having over-capacity and laden with cheap assets</li> <li>■ Like “infrastructure” investments with the potential for high cash flow</li> </ul>
<b>Niche private equity investors</b>	<ul style="list-style-type: none"> <li>Delta Power</li> <li>Complete Energy</li> <li>ArLight</li> <li>LS Power</li> <li>Rockland Capital</li> </ul>	<ul style="list-style-type: none"> <li>■ Tend to invest across power, natural gas value chain</li> <li>■ Recent focus on natural gas and coal-fired power plants</li> <li>■ Acquire power projects viewed as distressed</li> <li>■ Seek strong potential cash flow</li> <li>■ Have structured finance and asset management talent or partner that brings these capabilities</li> </ul>

Disruptive effects on the market could be most profound in the Southeast and West where the need for new capacity is projected by the Energy Information Administration (EIA) to be the greatest. The Electric Reliability Council of Texas (ERCOT) will be greatly affected as asset turnover from incumbent utilities to financial participants has been significant and a large number of MWs have been mothballed. We expect to see several trends in behavior over the next few years:

- **More trading influence.** Just as the industry thought it was rid of the trading high jinks of the late 1990s, we can expect aggressive tactics from some of the same institutions that aided Enron. The energy trading space is too large, volatile, and potentially lucrative to ignore.
- **Momentum swing.** The combination of more money and fewer generation assets could cause a shift from a buyer’s market to a seller’s market, particularly during a brief period characterized by shrinking capacity margins and long build-out times for utilities attempting to put peaking capacity into the rate base.
- **Big arbitrage.** Financial institutions, with little loyalty to their assets, will own a significant portion

of peak capacity and will await the return of the surviving merchants looking for assets. The same institutions might offer bridge or structured financing to spur the next wave of buyers and to capture multiple sources of transaction value.

- **Less grid stability.** Financial participants are notorious for being unwilling or unable to participate in a closely coordinated grid environment. Traditional utilities will have to pick up the slack in the ancillary services market and with respect to necessary transmission investments.
- **Resistance to rate base investments.** With large stakes in the wholesale market, the new players will likely resist utilities’ attempts to finance new generating plants through the rate base. Instead, they will insist on turning to the “competitive market” that includes the plants they own.

In the short term, integrated utilities face the issue of whether to meet their capacity deficiencies with purchases (in the form of capacity or plants) from distressed IPPs. The IPPs, on the other hand, need to carefully weigh the value of their distressed plants as the merchant sector continues to mature. As energy consumption

grows, reserve margins shrink, and utilities experience long build-out cycles for new plants, a window of underlying scarcity could emerge, thereby making distressed peaking units more valuable.

Over the longer term, traditional utilities and the new market-oriented players will be competing to provide the next generation of new generating capacity from some mix of existing and new technologies (e.g., Integrated Gasification Combined Cycle (IGCC) Plants). It remains to be seen if this capacity will be provided by the market or whether large, ratebased plant will become the norm again. After writing down hundreds of millions of dollars, it seems unlikely that investor capital will shoulder the risk tolerance for large plant investments, especially given uneven regulatory approaches to introducing wholesale and retail competition and increasingly strident demands from environmentalists regarding air quality and land use. Current dynamics suggests that only utilities, with their ability to lock in cash flows through putting the plants into the rate base, have the tolerance to invest. This longer-term public policy debate pits not only investor owned utilities against wholesale merchants but also brings environmentalists into a face-off with free market advocates.

### Setting strategy in tumultuous times

The combination of new market dynamics and tough portfolio planning issues make the U.S. IPP market a difficult sector for senior managers (see Exhibit 2). Power plant development cycles, and particularly their inflection points, are diffi-

cult to predict. Companies in cyclical industries often commit to big capital-spending programs just when prices are high and the cycle hits its peak; conversely, they sit on the sidelines when markets have bottomed out and assets are available for bargain prices.

Strategic thinking about these issues may be difficult for plant owners that have an internal culture and organizational mindset devoted more to managing operational efficiencies and day-to-day tactics. Several characteristics may impede a companies' ability to thrive in dynamic wholesale power markets:

- Lack of accountability for strategic asset buying and selling
- Minimal resources committed to strategic portfolio issues
- Poor quality information regarding market fundamentals
- No forum for debate and decision-making regarding the composition of the portfolio
- Lack of strategic skills in key managers who are focused primarily on short-term objectives

The framework in Exhibit 3 is one way to organize thinking and resources around vital portfolio management issues. Senior managers don't necessarily have to follow this equation perfectly, just better than competitors do.

This approach recognizes that regional power

### Exhibit 2 Challenges in the wholesale markets

#### Regulation

- Enabling rate-based merchant plant
- Imposing environmental risks/costs
- Spotty commitment to open markets

#### Value compression

- Rising interest rates, commodity prices
- Long lag-times for utility rate increases

#### Merchant energy risk

- Long-term recovery outlook
- Natural gas supply challenges

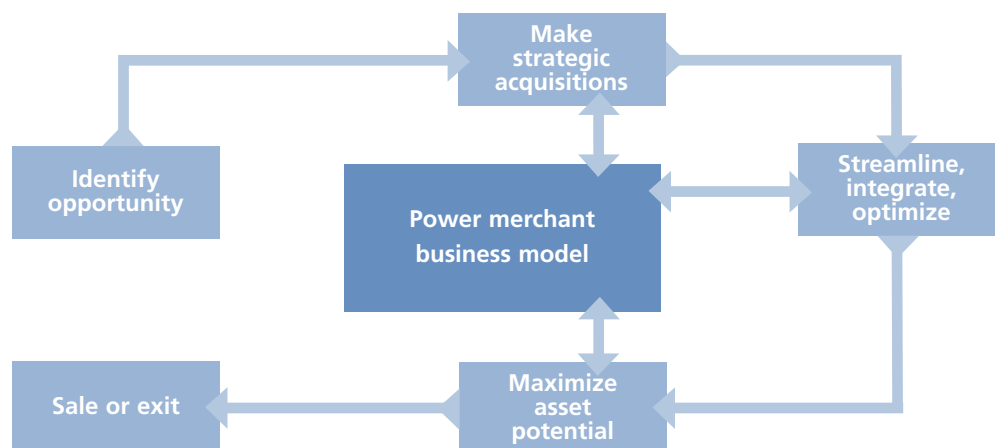
#### Supply/demand outlook

- Constant shift between new and mothballed units
- Irregular transmission investments
- Uncertain public policy discourages new building

#### Lack of scale

- Notable for capital-intensive industry
- Particularly acute in fragmented IPP sector

Exhibit 3 Nimble portfolio strategies



markets take on different supply and demand characteristics over relatively short periods. In such an environment, nimble asset positions coupled with a willingness to change direction are key success factors. The oil and gas industry has long used fast-paced decision-making to contend with political risk, changing tax regimes, and the emergence of new production basins. By contrast, most players in the IPP sector are far less flexible; too often, major decisions to build new businesses or to acquire or divest assets are made without significant attention to exit strategies.

The overriding objective should be to acquire

significant interests in a portfolio with short- to medium-term cash flow potential. This is accomplished by establishing a balanced portfolio of high risk/high reward peaking units coupled with projects possessing longer-term off-take contracts that introduce lower risk and moderate returns.

Shrewd management can both reduce cyclicity and exploit it. After all, managers have detailed information about their markets and could be expected to do a better job than the capital markets at predicting cycles and reacting appropriately. The trick is to become expert at both gathering and exploiting superior knowledge about regional market conditions. ❖

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## ■ To Buy or Build?

Many recent buyers of generating assets believe they are buying at bargain prices. How realistic is that assumption? In general, average prices per kilowatt hour suggest assets are being purchased below the cost to build. For example, in 2004, a gas-fired combined-cycle combustion turbine plant cost between \$520 and \$570 per kilowatt hour to build, versus an average \$446 to buy in 2003 and \$464 in 2004.

However, there is a wide dispersion in acquisition value ranging from the Matlin Patterson purchase from Duke at \$89 per kilowatt hour to the Bear Stearns purchase from AEP at \$1,137. Drawing conclusions is difficult as commercial terms behind transactions vary dramatically. Nonetheless, as land values, interest rates, and prices for coal, steel, and other commodities rise, it appears likely that building costs will rise, making distressed gas plants more attractive for acquisition. ❖

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This Commentary was prepared by **David Hoffman** and **Andrew Patterson**, both directors of Oliver Wyman. David is based in Boston, and Andrew is based in Atlanta. They can be reached at [david.hoffman@oliverwyman.com](mailto:david.hoffman@oliverwyman.com) and [andy.patterson@oliverwyman.com](mailto:andy.patterson@oliverwyman.com).