

A Utility Executives' Guide to 2007

A CLOUDY FORECAST



BY RICHARD STAVROS & MICHAEL T. BURR

Experts predict the top issues that utilities will have to weather this year, and beyond.

At the dawn of a new year, what will 2007 bring the utilities industry? To paraphrase Charles Dickens, will it be the best of times, or the worst of times? The age of wisdom or the age of foolishness? The season of light or the season of darkness?

Some utility experts are coming to the sobering conclusion that the industry's darkest hour may be just ahead.

After several years of extraordinary stock performance, improved balance sheets, and restored credibility—not to mention the passage of an Energy Policy Act in 2005 (EPACT) that many utility executives hoped would bring needed consolidation and more infrastructure investment—a number of disturbing trends took shape last year.

First and foremost, the political backlash in Maryland and Illinois against large but necessary rate increases changed the financial calculus utilities were using to manage higher costs and plan for new infrastructure investment.

Moreover, the failed FPL-Constellation and Exelon-PSEG mergers showed the prominent role that state regulatory commissions could play in derailing a merger when rate concessions become too onerous.

FERC Chairman Joseph T. Kelliher, in early December, told Reuters he was “not really” surprised by the failure of these mergers, noting that state blockage of mergers was not a new phenomenon. “Most utilities mergers that have failed in the last 10 years were due to state actions,” he said.

But the merger failures raise the prospect that utilities may not be able to pursue consolidation strategies to achieve greater economies of scale as a way to contain escalating costs.

Furthermore, in late October, the North American Electric Reliability Council (NERC) issued a grim report warning that demand for electricity in the United States is increasing three times as fast as resources can be added, and is threatening to make electric service unreliable in the coming decade.

NERC, which won official certification this past summer as the nation's Electric Reliability Organization (ERO)—said U.S. demand would increase by about 20 percent from 2006 to 2015, outstripping investment in new power supplies.

“The operation and planning for a reliable and adequate electricity system is becoming increasingly difficult,” said Rick Sergel, CEO of NERC, offering a reason why reserve margins are threatening to fall below required levels.

Of course, the multi-billion-dollar challenges have not been lost on utility executives. In a survey conducted by Cambridge Energy Research Associates (CERA), utilities executives said they expected their companies to face major risks and changes in the coming years from fuel and capital costs, environmental mandates, and potential mergers and acquisitions, as well as long-term investment and technology challenges, to name just a few big issues.

As far as building power plants, CERA respondents predicted possible supply shortfalls in regional markets in the coming years—a shocking revelation. But what may be even more shocking is that utilities do not regard this as their greatest business risk. The top three business risks CERA respondents identified were input commodity price volatility, output commodity price volatility, and a restrictive carbon mandate. How might these issues affect the industry?

In this 2007 Utility Executives' Guide, *Public Utilities Fortnightly* provides an overview of how these forecasts and others could shape the industry's future.

Mergers, Spinoffs and Interest Rates

Speaking at Accenture's International Utilities and Energy Conference (IUEC) late last year in Boca Raton, Fla., Kenneth Marks, managing director at Morgan Stanley, made his predictions for 2007.

"The industry is entering a challenging period. There will be substantial rate increases needed to fund capital expenditures. Commodity prices are likely to remain relatively high, although [they] may come down somewhat, and [be] volatile, putting additional pressure on the need for increased rates. And interest rates are more likely to rise than to fall," Marks predicted.

These pressures might not drive M&A activity only, but also create the potential for separation transactions or spinoffs—creating "pure plays"—in transmission and generation. Such spinoffs will be driven by the need to enhance shareholder value for the parent company, as well as improve prospects for the spun-off venture.

"While an integrated company may not be willing to leverage up its balance sheet and risk a downgrade in its credit ratings, a stand-alone genco can do this," Marks said. Additionally, generation companies are valued in the market place on a cash-flow basis at a relatively high metric.

"Merchant gencos are trading about 9 to 10 times 2007 EBITDA, reflecting the benefit of being a pure play and having additional leverage," Marks said. "By contrast, the nifty 50 utilities trade at about 8 times 2007 EBITDA." Finally, being a pure-play genco avoids negative synergistic situations where "the temptation of regulators may be to have the generation business subsidize the distribution business." Moreover, many of the issues associated with managing counterparty credit associated with pure-play gencos have been resolved with the emergence of improved credit offerings and products.

Turning to transmission, Marks advocated the divestiture of transmission as a potentially attractive proposition, reflecting increased returns available, better leverage and higher valuation. Additionally, FERC provides a return-on-equity adder as long as the owner of transmission is not deemed to be a market participant, and he said there's potential to receive a rate-base adder in certain circumstances.

Of course, Marks conceded that several factors impede such a transaction. It's difficult to separate the transmission business if: 1) It isn't already in a separate subsidiary; 2) there's a need from the utility standpoint to replace the earnings of the transmission business; and 3) transmission ownership is perceived as a strategic asset.

Meanwhile, on the mergers and acquisitions (M&A) front, this Morgan Stanley investment banker expects additional M&A transactions, although there will be continuing concerns about state regulatory approvals.

As a result, Marks believes more M&A activity will involve medium and small-cap companies because issues on the regulatory side probably will be easier to manage. "Certainly there will be a focus on combinations that don't have the obvious issues with regard to federal and state regulatory approvals that the Exelon-PSEG transaction in retrospect had," he said.

In fact, Rich Charles of Alliance Data Systems told the *Fortnightly* recently, the canceled Exelon/PSEG and FPL/Constellation mergers suggest the multi-region mega-mergers may not pan out. However, regionally based deals, such as between WPS Resources and Peoples Energy, still will be attractive. "The characteristics of the consumers and commissions are more homogenous; issues affecting one commission are likely affecting neighboring commissions," Charles said.

Furthermore, Charles foresees utilities emphasizing—and needing to prove—the customer-care benefits of potential mergers more than they have in the past. "Customers are critical of how much they're spending on electric and gas, and rising fuel costs aside, there's an assumption that the more you spend, the better service you should receive."

Climate Change and NSR

Hot winds are rising on Capitol Hill, and in courts and statehouses across the country. In 2007 and through the rest of the decade, trends toward tougher environmental regulation—most notably mandatory greenhouse-gas (GHG) constraints—likely will pick up steam, challenging utilities to find effective and economical ways to manage fossil-fuel consumption and carbon emissions.

After the 2006 mid-term elections, the Senate Democratic caucus nominated California Sen. Barbara Boxer to chair the Senate Environment & Public Works Committee. Boxer replaces James Inhofe, R-Okla., the Senate's most strident skeptic on global-warming issues. As an indication of how this change will affect the legislative agenda in the 110th Congress, Boxer's first announcement after being named chairwoman included a pledge to advance climate-change legislation. Congress considered GHG constraints in 2006 as part of multi-pollutant legislation (S. 2724 and H.R. 1873) and dedicated climate-change bills (S. 1151 [McCain-Lieberman] and S. 4039 [Kerry-Snowe]).

However, while political winds seem to be blowing in the direction of federal carbon constraints, climate legislation will face a practically insurmountable set of barriers in the 110th Congress—namely, a potential filibuster in the Senate and the veto pen of President Bush. As outgoing Chairman Inhofe stated in a recent press conference: "Our government is not going to embrace economy-killing carbon caps next Congress. Since it only takes 41 senators to defeat legislation, it is hard

TIMELY & QUOTABLE

Experts highlight the industry's top issues.

"I'm hoping that the backstop authority is like a nuclear weapon whose principal value is in its deterrence and never has to be used."

—Marc Spitzer, FERC Commissioner
(on FERC's electric transmission siting authority)

"We are seeing energy efficiency and demand response becoming intertwined. The customer wants them both and doesn't really care about the names or terms."

—Dan Delurey, Executive Director, U.S. Demand Response Coordinating Committee

"A Midwest utility [executive] said to me, 'We have lost so many technical people who were the liaisons with the public utility commission. ... The PUC no longer trusts us. We now have regulatory decisions going against us that are costing us billions.'"

—Dr. David DeLong, David DeLong & Associates
(on aging workforce issues)

"[In a *New Yorker* cartoon], a couple decides between a 16-slot toaster or a 2-slot toaster version. There's a serious point in here—one should not confuse higher efficiency necessarily with less

energy use. The 16-slot toaster may be more efficient per piece of toast if you use it fully, but it will almost certainly use more energy in real use."

—Ernest J. Moniz, Cecil and Ida Green Professor of Physics and Engineering Systems, Massachusetts Institute of Technology

"In the U.S., clearly, the thing that will push nuclear power off the starting line is a CO₂ policy. Most utility executives believe that post 2010, 2011, 2012, there will be a CO₂ policy, whether that is a tax, a credit, or a cap and trade."

—James Reinsch, president, Bechtel Nuclear

"If you don't have legislation to support [climate-friendly] development, you kill the profit-and-loss proposition of utilities that will implement the solution. Legislation is imperative to orient the market toward a carbon-trading regime and allow utility leaders to justify development that carries a 15- to 20-percent cost premium."

—Philippe Joubert, President, Alstom Power

"My thesis would be that utilities shouldn't worry too much about inventing stuff. Perhaps funding some pro-

grams in the right places. ... But I would worry a great deal about the innovation process that occurs, to understand those inventions and how to get them commercialized."

—Omar Abbosh, Accenture
(on utilities and technology)

"We must first get the technology ready to address CO₂, not the policy. If you put policy before technology, you won't get the result you want."

—Brad Jones, vice president, TXU Generation

"Now, there are some things on the horizon I think that could seriously reduce energy consumption. I think LED lighting, for example, is one thing that you really have to watch. It saves 70 percent of electricity compared with regular signage and light bulbs. If that catches on, that's going to be a global phenomenon"

—Roger Goodman, Cambridge Energy Research Associates

Editor's Note: Some quotes were taken from presentations made at Accenture's International Utilities and Energy Conference (IUEC) and Power-Gen International in late 2006.

to imagine any scenario where the McCain-Lieberman bill would pass even two Congresses from now."

Thus federal carbon constraints probably will not be enacted this year or next. At the same time, however, regulatory pressures are building on several fronts. How those pressures might evolve in 2007 will affect how and when greenhouse-gas constraints might arrive.

For example, the U.S. Supreme Court will rule on *Massachusetts v. EPA*, in which the U.S. Court of Appeals for the District of Columbia Circuit decided in 2005 that states cannot force the Environmental Protection Agency (EPA) to regulate greenhouse gases under the Clean Air Act (CAA). The lower court produced a fractured ruling, and depending on how the Supreme Court handles the case, it might establish whether states have standing to sue the federal government in future climate-change cases—and, potentially, whether the CAA gives EPA the authority to regulate carbon emissions at all.

"If the court rules global warming is a political question,

beyond the scope of the courts, then the litigation filed by attorneys general in these states may not go anywhere," says Robert Graham, chairman of the environment, energy, and natural resources practice at Jenner & Block in Chicago. "But there might be more to it than meets the eye. The Supreme Court took the case for a reason; it could have just deferred."

Also, the court's ruling in *Massachusetts v. EPA* will send a message to federal and state lawmakers. A ruling for EPA might actually spur legislators forward, to fill the statutory gap. Conversely—and even more ironically—a ruling for the plaintiffs could slow down legislation on climate change. "It might allow Congress to say, 'We don't need legislation; let's see what the EPA gives us in terms of regulation,'" Graham says.

In the absence of federal regulation, however, lawmakers in many states are following the example of California and 10 states in the Regional Greenhouse Gas Initiative (RGGI), enacting carbon constraints and emissions-trading schemes. Climate concerns are working their way into other states' poli-

cies as well, creating regulatory challenges for many companies—especially those whose markets cross state borders.

“The regulated community needs consistency and a concerted approach,” says Lewis T. Putman, partner and head of the environmental practice at Milbank, Tweed, Hadley & McCloy in Washington, D.C. “Utilities are hindered in their ability to use their scale-economies to address these issues if there isn’t consistent regulation.”

Meanwhile, the multi-year battle over EPA New Source Review (NSR) regulation might culminate with a Supreme Court verdict in 2007—perhaps reconciling conflicting verdicts from two federal appeals courts in 2005 and 2006.

Late last year, the court heard arguments in *Environmental Defense v. Duke Energy* (formerly known as *EPA v. Duke et al.*; the EPA declined to seek *certiorari* in the case after the 4th Circuit ruled against the agency in 2005.) The court will consider whether a “modification” triggering NSR under the CAA should be defined by plant modifications resulting in greater hourly emissions rates or greater total annual emissions.

The 4th Circuit Court’s decision in *Duke* seems to directly conflict a 7th Circuit Court decision earlier in the year, in *United States v. Cinergy*, which upheld the total-annual emissions standard.

How the Supreme Court might rule in *Duke* is difficult to predict. The court’s first term under Chief Justice John Roberts was marked by several splintered decisions, in which thorny legal questions were left to be resolved by other courts on a case-by-case basis. Such an outcome might occur in *Duke*. “Physical change which increases the amount of any air pollutant could mean different things in different places,” observed Justice Stephen Breyer during oral arguments on Nov. 1, 2006.

Nevertheless, the outcome of the case might be obviated by changes EPA proposed to its NSR rules in September. The changes explicitly would exempt increases in total annual emissions resulting from increased hours of operation that in principle a plant “could have accommodated” before the modification in question.

The Future of Nuclear

If the winds of greenhouse-gas regulation are blowing hot on Capitol Hill, they are whipping up a perfect storm for nuclear energy development, according to **Mark Herlach**, a partner and head of the nuclear practice group at Sutherland Asbill & Brennan in Washington, D.C.

“The outlook for nuclear-power development is quite good,” **Herlach** says. “Significant drivers in the world market—concerns about oil and gas prices, global warming, and energy security—have changed the dynamics for nuclear power. The revival is real; the question is how many people

will take the plunge and move forward in the short term.”

Developments in 2007 will clarify the answer to that question. Of the approximately 29 Generation III nuclear-reactor projects being considered for sites in the United States, some 17 might submit license applications to the Nuclear Regulatory Commission (NRC) in 2007—a huge milestone, considering the years of preparatory work that go into a nuclear license application. Some of these projects likely will be canceled, however, once the first six projects are selected for federal loan guarantees and up to \$500 million in “standby support” authorized under EPACT.

Additionally, 2007 will see major progress in nuclear-fuel enrichment capacity in the United States. Early this year, NRC expects to complete its review of USEC Inc.’s application to build a commercial enrichment facility at the site of the former DOE Lead Cascade centrifuge demonstration plant in Piketon, Ohio, which USEC manages under a five-year license. And last year, construction began at the National Enrichment Facility, a new \$1.5 billion gas-centrifuge complex in Lea County, N.M., by a limited partnership including Europe’s Urenco and U.S. utility companies Duke, Entergy, and Exelon.

Recent progress on nuclear-fuel enrichment, if nothing else, serves as a harbinger of things to come—particularly in the context of climate-change policy trends and the November 2006 elections. “People from both sides of the aisle passed EPACT,” **Herlach** says. “[Sen. Jeff] Bingaman [D, N.M.] was just as supportive of the National Enrichment Facility as [Sen. Pete] Domenici [R-N.M.]. Prospects are good for bipartisan support.”

Such support has strengthened enough to revive hopes for Generation IV approaches—*i.e.*, “fast” reactors and thorium-fuel designs that could reduce waste-disposal issues and bring other benefits. The DOE launched the Global Nuclear Energy Partnership in 2006, and solicited expressions of interest to build an advanced burner reactor.

But while support for nuclear energy in America has strengthened, opposition has not disappeared. Ongoing delays in the Yucca Mountain waste repository, for example, continue creating uncertainties about long-term alternatives for spent-fuel storage. After two decades and nearly \$7 billion of investment, the federal government still is working on a license application for the Yucca Mountain site, and does not expect to complete such an application until 2008.

Real Value: The Investor’s View

Veteran utilities analyst Leonard Hyman believes he knows what utility investors want. In his editorial in the *Rudden Energy Strategies Report*, published late last year by Black & Veatch, he wrote, “What I am proposing is that investors in utilities may

have return expectations in the 7 to 9 percent range per year, in nominal terms. If inflation heated up, the expectations would rise, and that would present a problem for utilities because they do not earn inflation-adjusted returns in this country.”

Bankers assert that utilities need to do something (such as M&A) to boost growth rates enough to satisfy investors, he says. But Hyman argues that investors have a pretty good idea of what utilities can achieve, and would be happy to see those modest results realized.

He supports this conclusion with analysis of 199 years of data in the United States. “During that period, investors in common stock earned total returns (dividends plus capital gains) of roughly 2 to 3 percentage points per year more than the bond yield. Bond yields, nowadays, are around 5 to 6 percent. So, investors in stock, based on historical ‘experience,’ would settle for around 7 to 9 percent,” he writes. In fact, any pension fund’s annual report will reveal an expected return of generally 8 percent, he adds.

Morgan Stanley’s Marks says he asked institutional investors (in a limited survey) for their forecast of utility stock prices during the next 18 to 24 months, and their views on valuation.

“Please keep in mind this was a group of long-only investors. Most responded their prices would increase modestly—single digit levels—and drivers cited were expected earnings growth and a stable interest-rate environment,” he said, in contrast to his own prediction that interest rates were more likely to rise.

Furthermore, Morgan Stanley asked these investors to rank the economic factors they believed would most impact the stock.

“By far, the most highly cited factor was commodity prices. The focus on commodity prices reflects the high volatility of commodity prices relative to most other macro economic factors. The impact of changing commodity prices on any utility will, of course, vary depending on whether it is in the long or short position relative to commodity exposure. Notwithstanding the strong relationship between PEs and interest rates ... interest rates were deemed less important by investors surveyed.”

Eyeing metrics investors favor in valuing stocks, standard approaches include earnings, cash flow, return on invested capital, discounted cash flow, and the dividend discount model. “About half of the investors said the cash-flow metrics were increasingly used over the last 18 to 24 months,” Marks said. “The others felt there was no discernable change. Investors generally noted that cash flow metrics were much more important in assessing the value of unregulated businesses.”

And with fundamental uncertainties in demand patterns, fuel prices, and regulation, predicting cash flow will remain a rather black art in 2007 and beyond. For regulated utilities—

and the unregulated generators that rely on them—the big question remains how regulators will receive utilities’ rate-recovery plans in an era of rising investment needs, commodity prices, and environmental concerns. Utilities’ abilities to manage ratemaking engagements will set the tone in the years to come.

Recipe for Volatility

As 2007 begins, natural-gas prices provide an apt metaphor for the utility industry’s business environment.

Natural-gas prices have fallen to levels far lower than many expected to see only 16 months after Hurricane Katrina. But the steady rise of prices since 2003, combined with the post-Katrina pinch, has left utilities understandably wary about natural gas.

“Volatility in the forecast, if not the daily cash market, can be tremendous,” says George Hopley, commodities strategist with Barclays Capital in New York. “The spread has been anywhere from \$2 to \$15, so people are a little guarded. How do you approach that type of volatility?”

Futures markets have provided limited help, as they have proven to be poor predictors of price trends. Futures prices several months after Katrina were \$12 and higher, yet warm-weather conditions pushed spot prices down to \$4.

“We have a lot of gas in storage—3.5 trillion cubic feet—but everyone is sensitive now about the weather,” Hopley says. Even average temperatures this winter and summer would result in major storage draw-downs, and extreme temperatures could quickly drive gas prices back into double-digit territory.

In the longer term, the industry’s fortunes will depend on how supply-side constraints are resolved. Permitting processes for liquefied natural gas (LNG) terminals have moved forward, and counterparties are negotiating to resolve disputes over gas quality and interchangeability. But whether gas supplies—from imports or new domestic sources—will keep pace with rising gas demand remains uncertain.

In many respects, 2007 will be a pivotal year. Just as major swings in weather patterns and infrastructure development will determine whether gas remains cheap or returns to levels seen shortly after Katrina, the utility business climate is subject to whipsaw changes in regulation, investment, and technology.

Whether these changes lead toward the best of times or the worst of times might be a matter of perspective. But at least one thing seems certain: 2007 will be an exciting year for almost everyone in the industry. ■

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