

Industry Outlook



July 2009

U.S. Regulated Electric Utilities

Six-Month Update

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The outlook for the U.S. investor-owned electric utility sector is stable. This outlook expresses Moody's expectations for the fundamental credit conditions in the industry over the next 12 to 18 months.

- Sector well-positioned within investment-grade range, with continued strong access to capital, protection from widespread economic turmoil and regulators still granting timely cost recovery
- Longer-term pressures on sector serve to raise over-all operating risks
- Modest declines in financial profile over past few years not alarming at this time but few issuers appear to be taking material steps to mitigate
- Utilities gradually expected to adjust "tone at the top" management strategies with balance-sheet strengthening and more conservative corporate finance philosophies

Key challenges include:

- Growing consumer intolerance for steadily increasing rates
- Exposure to increasingly stringent environmental regulations, including those related to carbon dioxide and mercury
- Wave of credit facility expirations in 2011-2012
- Protracted recessionary conditions adding to business and operating risks, raising some doubts over availability of credit and ongoing regulatory recovery

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Moody's Investors Service

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Overview

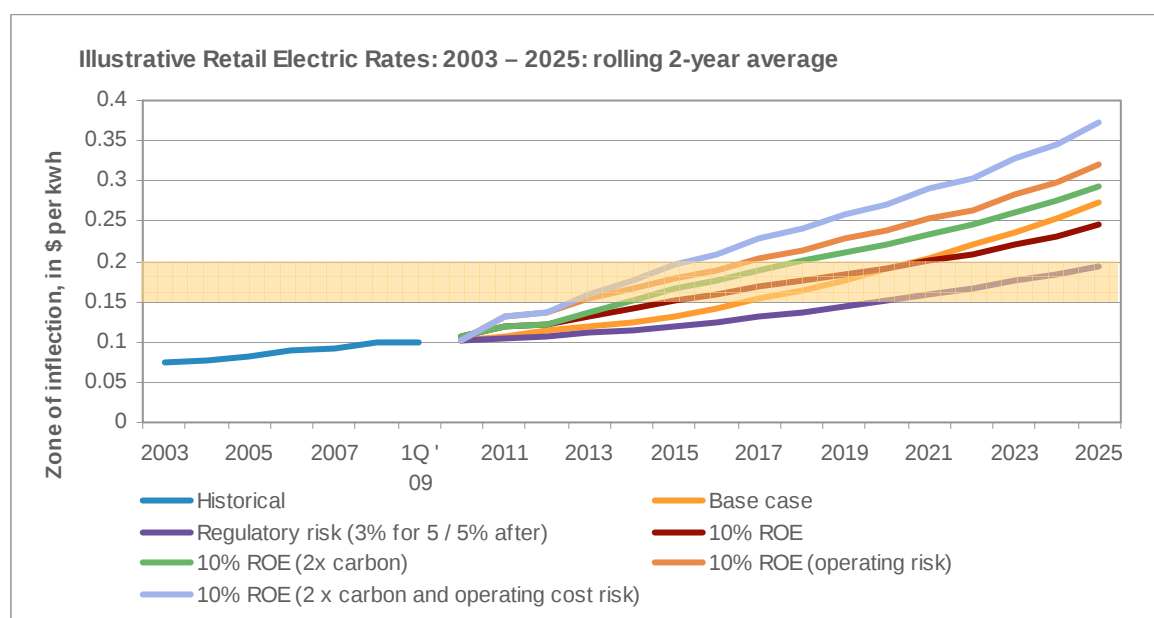
All the evidence we have seen suggests that the fundamental credit outlook for the electric utility sector will remain stable over the next 12-18 months. While most industrial sectors have negative sector outlooks today, we continue to view regulated utilities as relatively well insulated—although not immune—from economic and financial market turmoil. Regulation provides a key material benefit to the sector's overall credit profile, and we believe regulators will provide timely recovery of prudently incurred costs and investments over the near term. We have long held that regulators would rather regulate financially healthy companies than imperiled ones, and that utilities maintain effective constituency outreach efforts.

For the longer term, however, we are becoming increasingly concerned about possible changes to our fundamental assumptions about regulatory risk, particularly the prospect of a more adversarial political (and therefore regulatory) environment. A prolonged recessionary climate with high unemployment, or an intense period of inflation, could make cost recovery more uncertain. This could easily spark a negative vicious cycle.

We first highlighted these regulatory concerns in the 2004-2005 timeframe, as the sector's "back to basics" period came to an end and we questioned whether the (then-recent) improvement in financial metrics had reached its peak. Today, we have an eye on the theoretical "inflection point" beyond which consumers will no longer tolerate annual rate increases without protest. We do not know where this inflection point lies, but we believe it exists somewhere near the point at which consumers begin to change their behavior—as when gasoline reached \$4 per gallon last year—and begin to contact their elected officials with vocal protests. But because consumers cannot easily alter their electricity consumption, the inflection point could actually spark a major political reaction. We believe this reaction could develop suddenly, and probably not at a welcome time. Should this happen, it is unclear how regulators would react and how the sector would fare.

The average annual electric bill costs the typical U.S. household about 3.4% of its disposable income. We estimate that the inflection point might be crossed once an annual electric bill reaches roughly 5%-10% of a given household's disposable income—and that this could happen within the next decade, judging from our base-case projections. In various downside scenarios, the inflection point could accelerate by several years, to 2013-2015—well within our typical ratings horizon.

It appears that many of the chief executives and regulators with whom we speak regularly have either not yet arrived at a consensus view of exactly where this inflection point lies, or are uncertain how close we are to approaching this point. This uncertainty is truly surprising, in our opinion, given the magnitude of the potential risk to both a utility's credit profile and its shareholder's equity.



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Utilities remain well positioned within rating category

Of all the factors affecting U.S. electric utility ratings, we have long considered regulatory support perhaps the most critical driver. We continue to believe regulators prefer to oversee financially healthy utilities, and certainly for the near term, we believe the sector will continue to enjoy reasonably good regulatory support. Our focus remains fixed on cash flow, not on authorized returns on equity (ROEs). We also remain more interested in written regulatory orders—not initial indications from utilities, regulatory staff, intervenors, or administrative law judges (although they may offer some hint about the likely rulings).

We believe today's utilities generally act as solid corporate citizens within their respective service territories. Most utilities practice reasonably effective constituency outreach programs: they are large employers; provide socialized relief for special customer classes; serve as effective tax-collecting (and taxpaying) agencies for state and local governments; and usually support parochial philanthropic endeavors. For these reasons, utilities tend to get the political support they need, when they need it—ultimately a credit positive.

Regulatory oversight is crucial for sector

We consider most utility issuers reasonably well-positioned within their respective ratings categories. Four principal sub-sectors comprise our utility universe: parent utility holding companies; vertically integrated utilities; transmission and distribution-only utilities (T&Ds); and natural gas local distribution companies (LDCs). For a list of the issuers that comprise these sub-sectors, see Appendix B, page 15.

We place the operating utility sectors, which include the vertically integrated electric, T&D and LDC utilities in the A3 / Baa1 ratings category range. The utility parent holding companies tend to be rated about one notch lower, in the Baa1 / Baa2 range.

In general, we incorporate a view the regulatory framework across the U.S. represents a material credit positive, but is less favorable than the regulatory frameworks in Europe or Asia. This is primarily due to the highly fragmented and parochial effects of state-by-state regulatory policies. We note that the business activities that are primarily regulated by the Federal Energy Regulatory Commission (FERC) typically receive a more favorable view. Our regulatory views are usually slightly less favorable when evaluating the utility parent holding companies, largely reflecting non-regulated business activities, which typically comprise roughly 15%-25% of consolidated operations.

The operating utility sub-sectors are also well positioned in terms of rates and cost recovery, where the vast majority of costs and investments are recovered in a reasonably timely basis. Of course, regulatory lag on various issues will remain a factor. As a result, we generally incorporate a view that utilities derive a benefit from diversification across state lines, broadening the risk of regulatory jurisdictions and implied recovery lag.

We tend to view the rates and recovery mechanisms for the vertically integrated utilities as slightly less favorable than the T&D and LDC peers, primarily because of the greater uncertainties related to fuel commodities and increasingly stringent environmental mandates such as carbon regulations.

Finally, we consider the sector's overall liquidity adequate, although this assumes that utilities will continue to enjoy unfettered access to the capital markets. Little evidence to date suggests we should change our views regarding access to the capital markets. Nevertheless, our assumption represents a major component to our liquidity assessments, and ultimately ratings, so unexpected challenges to access could result in a materially adverse ratings consequence across the entire sector.

Utilities, in general, have proven capable of issuing senior secured debt in times of crisis—debt that has performed extremely well historically in terms of expected loss and recovery values.¹ During the most recent financial turmoil, most utilities had little trouble accessing capital across the entire capital structure. Yet we are often reminded that the past is not a reliable indicator of future performance. While challenged market access

¹ See Special Comment, "Proposed Wider Notching Between Certain Senior Secured Debt Ratings and Senior Unsecured Debt Ratings for Investment Grade Regulated Utilities," May 2009.

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strikes us as unlikely, its effects could be substantial, not unlike the “tail risk” often discussed in hedging strategies, and possibly resulting in multiple notch rating changes over a very short period of time.

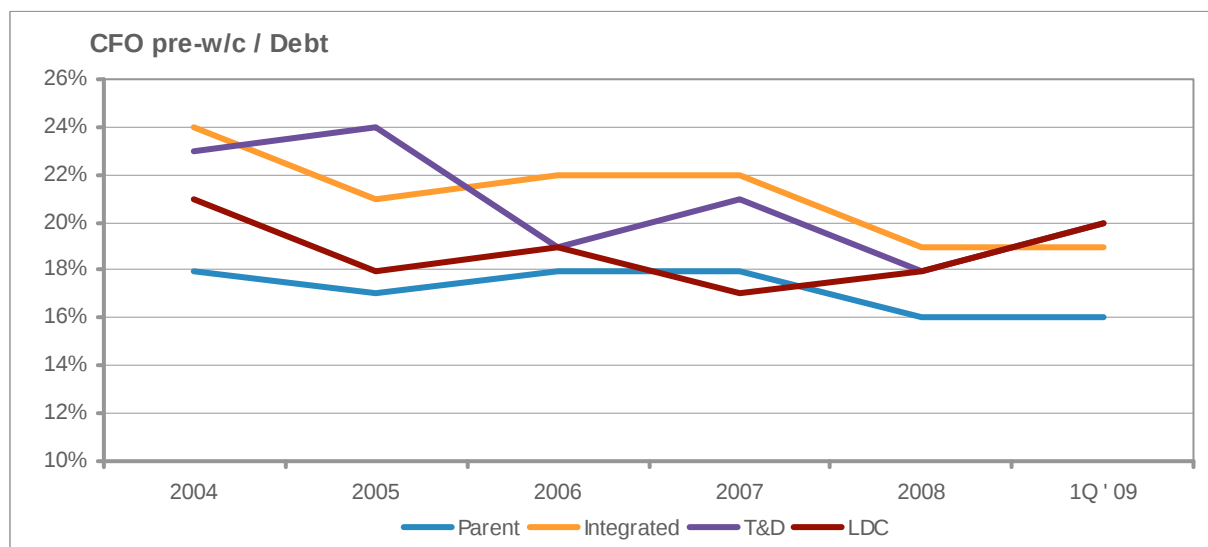
Over the past three years, the principal sub-sectors have produced relatively stable, if modestly deteriorating, key financial credit ratios.

Selected historical credit metrics

	CFO / Debt	CFO / Interest	CFO / Debt	CFO / Interest	CFO / Debt	CFO / Interest	CFO / Debt	CFO / Interest
	5-yr	5-yr	3-yr	3-yr	2008	2008	LTM 1Q 2009	LTM 1Q 2009
Parent	17%	3.9	17%	3.9	16%	3.7	16%	3.7
Integrated	21%	4.7	21%	4.6	19%	4.4	19%	4.2
T&D	21%	4.6	19%	4.2	18%	4.0	20%	4.7
LDC	19%	4.5	18%	4.3	18%	4.5	20%	4.3

CFO / Debt = cash flow from operations before changes in working capital / total adjusted debt outstanding

While a modest decline in the financial ratios is not alarming today, the breadth of the decline across sub-factors is noticeable (with the exception of LDCs) when comparing the more recent results with the historical averages. We noted the possibility of this deterioration several years ago, when we questioned whether the industry's “back-to-basics” strategy was being retired prematurely, or at least before the originally articulated balance sheet goals were reached.



Regulation provides multiple notches of ratings benefit

About 50% of the utility sector's rating stems directly from its status as a regulated monopoly that provides an essential service to the general population. To gauge regulation's influence on the utility sector's ratings, we evaluated selected financial credit metrics, using the 3-year average financials (2006-2008) for the utility sector, and ran them through the rating methodologies for a selected group of large, capital-intensive, commodity-exposed industrial peers. Although many of these industrial sectors are also affected by various forms of regulation, regulation over profitability is less evident than the utility sector.²

² These industries may be affected by regulation, but our key interest for the electric utilities is the cost-recovery mechanism, which these other sectors lack.

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Clearly, based only on the financial metrics, the utility sector would be, at best, a borderline investment-grade sector, if not for the regulatory support. The utility parent holding companies would more clearly appear in the non-investment-grade range. This is primarily a result of the industrial peers being required to maintain RCF/debt ratios of roughly 30% to be considered investment-grade, while utility-sector issuers need only maintain ratios above roughly 10%.

We conducted a second exercise, evaluating the selected industrial peer financials within our general utility rating methodology framework. Again, we only examined the three-year historical average financial ratios and excluded all other industry-specific rating factors. As the next table shows, the industrial peers appear to be strongly investment-grade when compared to the lower financial metric thresholds held out for utilities on a cash flow measure, but less so when evaluated on a capitalization perspective.

Sectors *	Implied utility ratings based on selected industrial rating methodologies								Selected industrial ratings based on Utility rating methodology	
	Parent utility companies				Integrated utilities					
	RCF/ Debt	Debt / Capz.	Debt / EBITDA	FCF / Debt	RCF/ Debt	Debt / Capz.	Debt / EBITDA	FCF / Debt	RCF/ Debt	Debt / Capz.
Airlines	--	Ba	Ba	Caa	--	Baa	Ba	Caa	Baa	Caa
Capital Goods	Ba	A	Ba	Caa	Ba	A	Baa	Caa	Aaa	Baa
Chemicals	--	Ba	Ba	Caa	--	Baa	Ba	Caa	Aa	Ba
Coal	Ba	Ba	Ba	Caa	Ba	Baa	Baa	Caa	Aaa	Baa
Oil & Gas integrated	Ba	Ba	--	--	Ba	Baa	--	--	Aaa	Aa
Packaging	--	--	Ba	Ca	--	--	Ba	Ca	A	B
Paper & Forest Prod.	Ba	--	Ba	Caa	Ba	--	Ba	Caa	Baa	Ba
Pharmaceutical	Ba	Ba	--	Caa	Ba	Ba	--	Caa	Aa	Baa
Shipping	B	--	Ba	B	Ba	--	Baa	B	Baa	Ba
Steel	--	Ba	Ba	Caa	--	Baa	Baa	Caa	Aaa	A

* Most of these selected groups of comparable industrial peers include 8-12 companies.

Because the regulatory benefit is so critical to our ratings, it tends to represent the most important risk factor. While we continue to consider regulatory risk a lower risk today, we believe there are potential longer-term regulatory risks that could emerge on two fronts:

- Regulatory support for timely recovery could erode; and
- Regulators could reduce the authorized returns on investments, based on the perception that utilities have lower business risks than other industrial sectors and will find it easier to compete for capital.

Theoretically, regulators could attack the standard cost of capital arguments that assert competitive ROEs and other returns are necessary to attract capital. Our concern is that regulators could attempt to modify their views on the appropriate returns, since the sector's leverage is already benefited by regulation.

What could change the sector outlook to negative?

The electric utility industry appears reasonably well-positioned today within its investment-grade rating category, despite increasing business challenges. Modestly declining financial metrics—a fundamental credit negative—could eventually force us into a more negative position for the sector. For now, though, we continue to incorporate a view that regulators will ultimately provide timely financial relief.

A shift to a negative outlook could emerge based on our view that few utility management teams are taking meaningful steps to strengthen their balance sheets and therefore may not be sufficiently positioned to withstand unexpected shocks or challenges to the longer-term fundamental business plan, for its given rating category.

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Nevertheless, most utility executives agree with our general view of the pending risks and challenges. They also believe they have enough time to assess the situation and gain better clarity about the facts. Our concern is if one or more challenges appear unannounced, at exactly the worst possible time. Since there is general agreement that these risks are legitimate, we conclude that conservative utility management teams would otherwise take precautionary measures to protect their franchise.

Beyond a widespread management failure to actively strengthen their balance sheets, the outlook for this sector could turn negative with a material change in the regulatory environment, which today tends to support the utilities' recovery of reasonable costs from ratepayers. We foresee no significant changes in this regulatory support at this time but will be carefully evaluating many of the rate case proceedings currently underway, including those in Texas, Florida, Virginia, New York and South Carolina.

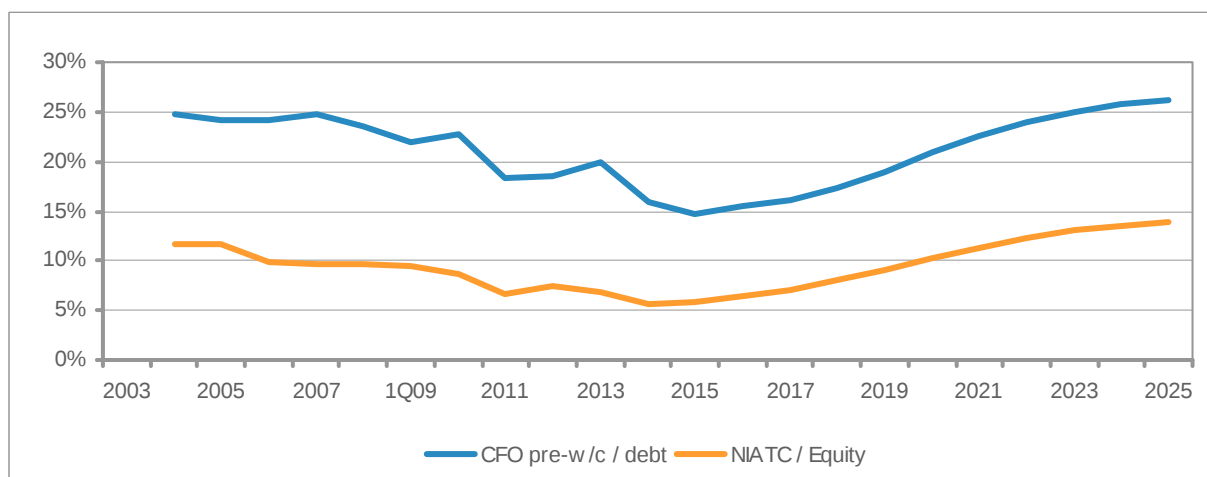
Base-case financial projections for vertically integrated utilities

We evaluated historical financial statements for about 75 vertically integrated electric utilities, creating a hypothetical utility to illustrate financial projections over the next 20 years. Some of our assumptions:

- All revenues come from sales of electricity.
- Volumes rise modestly over the next few years before reversing and remaining flat (0% growth) by the late 2010s. We believe these volume assumptions reflect a modest economic recovery over the next few years followed by flat volume growth associated with energy efficiency programs.
- Total authorized rate increases of 5% per year between 2010-2014, followed by 7.5% rate increases every year thereafter.
- Fuel and purchase power expenses alternating between 50% and 55% of total revenue every year, reflecting the volatility of fuel commodities. This creates some "choppiness" in our financial returns, so we illustrate the results of our models with rolling two-year averages.
- Carbon costs begin in 2014 at \$5 per ton, increasing to \$10 per ton in 2015 and by an additional \$2.50 per ton annually thereafter.
- Energy efficiency costs, renewable energy costs, and other incremental costs total roughly 3% of revenues for the next three years, and 5% of revenues thereafter. We assume all "tracker" mechanisms are incorporated into this assumption. Any automatic recovery is assumed to be captured in the annual rate increase assumption noted previously.
- Operating and maintenance costs grow by 2% every year.
- Annual projected capital expenditures are based on the previous year's depreciation and amortization. Capital expenditures will amount to 250% of the previous year's D&A in 2010-2011, gradually scaling down to 125% by 2019 before rising again, to 275% by 2025. These capital expenditure trends reflect the sector's need for infrastructure investment—and herd cyclicity.
- We adjust the dividend-payout ratio and the amount of new debt financing (assuming a 6% coupon on all incremental new debt) to maintain a general debt-to-capitalization ratio of about 50%.

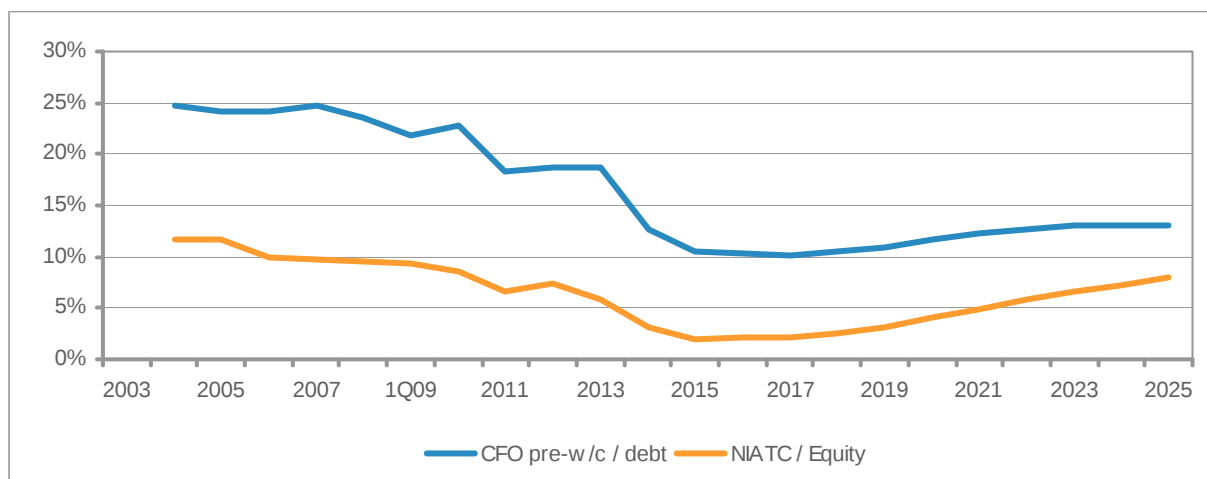
As a result of these base case assumptions, our hypothetical utility would generate CFO pre-w/c to debt and ROE over the next two decades as illustrated in the next graph:

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Even allowing for some volatility in the financial ratios, this hypothetical utility would most likely be positioned for ratings upgrades. This could be based on the continued regulatory support and steadily improving CFO/debt ratios, possibly in the 2014-2015 timeframe, when the visibility over carbon-cost implications is clearer, and the majority of the bank credit facilities have already rolled.

If, however, our base-case assumptions included a more costly carbon impact—for example, doubling our per-ton cost estimates to \$10/ton in 2014 and \$20/ton in 2015, and increasing by \$5/ton every year thereafter—our hypothetical company's results would look less robust. This utility is likely to suffer modest rating downgrades, possibly around 2011-2013, as CFO / debt ratios approach the 10% threshold before showing signs of improvement in 2014-2015.

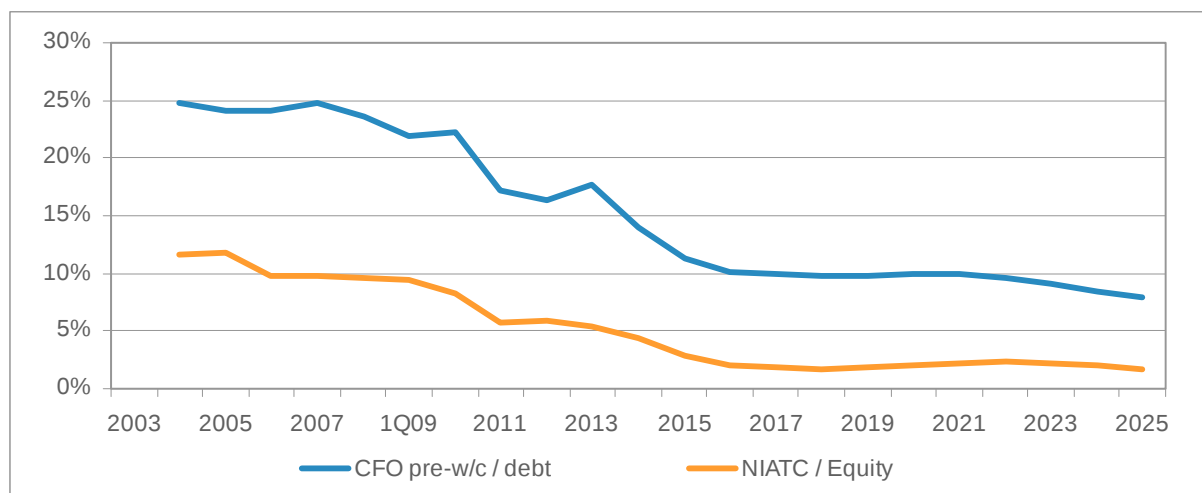


Carbon obviously represents a significant potential risk to this sector's long-term credit profile. Although we do not consider ROE a primary credit driver, we would be concerned if it fell significantly below the 9%-10% range over a sustained period: the lower the ROE, the greater uncertainty over the sector's capital allocation and stewardship by management teams and boards of directors. Presumably, management could look for better uses for their capital.

The current economic climate could make it impossible for our hypothetical utility regulators to authorize annual rate increases of 5%-7.5%, which is incorporated into our illustration. If today's severe economic conditions persist—as we believe they may into 2010, if not beyond—rate increases could eventually spark a backlash by both ratepayers and regulators.

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If rate increases were limited to only 3% a year over the next five years, followed by 5% annual increases thereafter (versus 5% annual increases over the next five years and 7.5% annually thereafter), there could be a material amount of pressure on both the credit, as well as the equity, all other assumptions held constant.



Three primary challenges

The utility sector faces three major threats that would increase its overall business and operating risk profile. For the most part, these risks are not new to the sector, but are arguably downplayed or dismissed. Utilities have not yet reached a crisis point, but we think these challenges may combine and emerge together in the 2011-2013 timeframe, as the majority of the credit facilities expire and the incremental operating costs associated with carbon begin to appear. As a result, we believe the most effective course of action to protect existing ratings (and equity values) is to take active evasive measures and strengthen the balance sheet and bolster liquidity reserves. This will not be easy.

As noted previously, the biggest challenge is maintaining a supportive regulatory relationship. One component of this regulatory risk includes increasingly stringent environmental mandates for carbon and mercury. The likely passage of some federal law regulating carbon dioxide emissions—possibly as soon as this year or next³—could be a fundamental sector-changing event, with unknown effects on balance sheets and liquidity. Such uncertainties increasingly represent a primary consideration for credit ratings. We are struck by the industry's apparent lack of urgency regarding new, complex and potentially costly carbon rules. Moreover, we expect incrementally strict environmental mandates over the near to intermediate term concerning mercury, NOX, and SOX, among other pollutants. Again, though, few utilities appear visibly concerned.

A second big risk stems from the sector's heavy reliance on unfettered access to the capital markets as a component of its liquidity. The capital markets have accepted this reliance over many decades, and many utility issuers have been all but untouched by the recent and ongoing turmoil in the financial markets. Even so, the reliance on third-party financing remains a critical risk factor—especially as numerous bank credit facilities expire over 2011-2012. The increasing burden on our overall liquidity analysis may eventually stop us from assuming the sector has unfettered access to the capital markets. The dramatic changes in credit availability and the financial institutions require some caution. We believe utilities will see their available borrowing capacity decrease, possibly by as much as 25%-30%; that tenors will shorten, with two-year facilities more widespread than five-year; and that pricing will be substantially higher than today.

Finally, we are not sure today's level of authorized cost relief will continue. Utilities are among the most capital-intensive of all industrial sectors, with aging infrastructures that require constant maintenance and long-term capital investment. In addition, public policy agendas are influencing utilities' operating cost structure, which will contribute to increasing rate pressure. Utilities will find it increasingly difficult to balance a need for higher

³ Most industry participants predict that new environmental mandates will take effect around 2012-2013.

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rates with the ability to post returns that attract new capital investment. At some point, ratepayers and regulators may begin to resist these higher rates.

Consumers have limited ability to absorb new rate increases

All of these pressures indicate that there is pressure for higher electric rates, and we believe consumers and ratepayers may eventually complain to their elected officials. Once this inflection point is breached, the political and regulatory reaction will represent a major, fundamental and highly uncertain risk for the sector.

Regulators might find it increasingly difficult to authorize steadily increasing rates, especially in today's uncertain economic climate. No one knows how big an increase consumers can absorb; in any case the size would vary by location.

Even so, gasoline prices offer a look at how consumers react once this inflection point is reached, when \$4-a-gallon gasoline in 2008 led to a distinct shift in behavior among U.S. motorists. That shift still persists a year later, even with gasoline prices much lower nationwide.

Although we acknowledge that electricity volumes are more inelastic than gasoline, we attempt to illustrate the possible U.S. consumer inflection point regarding electric rates. Our illustration begins with average household income in 2007. We subtract about 30% to reflect state and federal taxes and other primary deductions. The result is average disposable household income. We then compare the average annual utility bill to the average disposable household income, and arrive at the average electric bill as a percentage of disposable household income. As of 2007, this ratio was about 3.4%.

While no one claims to know exactly at what point consumers will begin to object to higher electric rates, we believe this inflection point is crossed roughly when the electric bill reaches 5%-10% of disposable income. This would imply annual electric bills of about \$3,500-\$1,800 from the current \$1,200, and total aggregate rate increases of roughly 100%-50% over the existing national average of 10.65 cents per kwh.

Sharply higher utility bills and lackluster income growth: A politically volatile mix

If U.S. household outlays for electric and gas bills advance by 20% annually between 2010-2012, they would represent a record 4% of disposable personal income (DPI) by the end of that period. Aggregate outlays on electric and gas rose by 21.3% annualized on average during the three years that ended in the first quarter of 1977, while spending on electric and gas rose no higher than 2.8% of DPI—mostly because DPI grew by a comparatively rapid annual 9.9% on average.

By contrast, U.S. consumers would be enraged if their overall electric and gas bills soared more than 20% annualized during the 2010-2012 period if DPI rose by a much slower 1.8% annually, on average. DPI growth could indeed be this low, based on expectations of a soft U.S. labor market subject to competitive pressures from workforces in China and India—a marked contrast from 1977, when American workers were not yet subject to wage pressures from competitively priced labor in the emerging markets.

Consumer spending on gasoline and fuel oil soared by 26% during the 12 months that ended September 2008. These prices became a political issue, even though DPI rose at a relatively normal 5.3% during this period. Any sharp acceleration of energy costs amid decidedly weak income growth is likely to spark political discord.

Sources: John Lonski, Managing Director, Moody's Capital Markets Research Group; National Income Product Accounts (NIPA)

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Carbon dioxide regulations represent huge risk

Six months into the Obama administration, legislation concerning federally mandated carbon dioxide regulations—the American Clean Energy and Security Act of 2009 (ACES), also known as the Waxman-Markey bill—has passed the House, and now resides with the Senate. The vast majority of our industry contacts—utility executives, regulators, legislators, bankers, consultants, and investors alike—feel that carbon-emission restrictions are now inevitable. Most expect the passage of some form of carbon-emission limits in 2009 or 2010, with actual implementation likely around 2012-2013.

But few market participants claim to understand the intricacies of the current version of the bill, and in any case, details will continue to change as the bill goes through the Senate (and eventually the House-Senate reconciliation process, if it passes). But we note that any version of ACES that becomes law could place a steep cost-burden on the electric utility industry, which relies heavily on emission-producing coal and natural gas.

The current legislation aims to achieve a 17% reduction in carbon emissions by 2020 from 2005 levels, and an 83% reduction by 2050. Assuming the electric utility sector was responsible for about two-thirds of the 6 trillion metric tons of carbon produced in 2005, the sector would have to reduce its own carbon emissions by about 1 trillion metric tons by 2020.⁴ Estimates for the industry's carbon emission costs vary widely—from roughly the mid-single digits initially (\$5/ton) growing to anywhere from \$25/ton to \$100/ton by 2025. We anticipate that the costs will begin at about \$5/ton, increase rapidly to about \$10/ton, and then rise at a modest but steady annual \$2.50/ton.

We believe carbon-emission taxes could threaten some utilities' liquidity. For a simple utility that sells 20 Twh's of electricity, with 50% generated from coal and 25% from natural gas, the costs of carbon might range from \$60 million-\$300 million annually (assuming carbon taxes of \$5/ton-\$25/ton). Although we accept that most issuers would be able to recover their carbon costs from ratepayers, the timing related to any potential recovery remains unclear. This could put significant pressure on an issuer's liquidity position; in the current environment, this presents a material concern.

⁴ This assumes that the electric utility sector must reduce its own carbon emissions by the same amount as the overall mandate—i.e., by 17% by 2020).

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	Millions of Metric Tons	
	Total Sources	Energy Related
2005 CO2 emissions	6,032	5,975
Percentage derived by utilities	67%	67%
Implied utility CO2 emissions	4,011	3,974
Estimated total MW capacity (US)		950,000
Assumed % coal		50%
Assumed % natural gas		20%
Implied MW's by fuel source		
Coal		475,000
Natural gas		190,000
		665,000
Assumed capacity factors		
Coal		70%
Natural gas		25%
Implied generation (MWh's)		
Coal		2,912.7
Natural gas		416.1
		3,328.8
Implied CO2 emissions		
Coal (1 MWH = 1 ton)		2,912.7
Natural gas (1 MWH = 0.5 tons)		208.1
		3,120.8

From a credit perspective, we believe the carbon-emission legislation poses a major risk for the sector, primarily because of its complexity and apparent implications to liquidity. The legislation may become less imposing for the utility sector as it makes its way through the U.S. Senate, in part based on the sector's effective lobbying efforts. But the bill's complexity creates an expectation that a utility's financial statements could become less transparent with respect to these costs and their overall financial implications—a credit negative.

Liquidity harder to manage amid tighter credit markets

About 10% of the sector's \$110 billion of credit facilities are expected to expire around October 2009, with another 10% expiring in April 2010. The remainder is due to expire in 2011 and 2012.

We believe the turmoil impacting the financial institutions will remove about 30% of the utility industry's current available credit which will drop overall liquidity capacity to roughly \$77 billion from about \$110 billion—a drop of about \$30 billion. That is a lot of credit capacity coming out of the system.

The maturities of these credit facilities are most likely to be in the 1-2 year tenor. More restrictive covenant packages, and possibly even material adverse-change clauses, may become more standard.

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The capacity reduction results in a roughly \$33 billion of liquidity sources removed from the system. Several utilities—including DTE Energy, FPL Group, NICOR, Southern and TECO Energy—have been reasonably successful in rolling over near-term credit facilities. Liquidity appears more challenged for others, such as AEP and Duke Energy. Ultimately, we believe the issue is one of pricing, not capacity availability.

No one knows how much carbon costs will impact working capital, and therefore liquidity. We would be concerned if more stringent borrowing restrictions and financial covenant requirements conspire to challenge the sector's ability to borrow on its facilities.

Two key issues sum up the unknowable effect of these potential emissions costs: How utilities will plan their long-term investments in this environment, and what their projected financial statements show.

Pension obligations weigh further on debts

In our last industry outlook we reviewed the 2007 funded status of pensions for several utilities. Based on these numbers we estimated that the utility sector might have exposure of upwards of \$40 billion in under-funded pensions at the end of 2008. The actual pension disclosures indicated a modestly lower exposure, at \$33 billion or a 73% funded status. While this funded status is better than we estimated it is by no means reason to celebrate.

From a credit perspective, Moody's treats under-funded pension obligations as a debt equivalent. As such \$33 billion of additional debt equivalents clearly adds downward pressure to the credit ratings of some utilities. However, large pension under-funding in isolation did not lead to a broad wave of rating downgrades but were a factor in some downgrades, and will likely be a factor in future rating actions.

An important determinant in the rating impact on affected issuers is the magnitude of cash required to meet increased funding obligations relative to the company's liquid resources.⁵ Pension funding requirements are governed by the Pension Protection Act of 2006 (PPA), which became effective in 2008. A required contribution must be paid within 8.5 months of the close of the plan year. As plan years begin one day after the fiscal year closes this would mean that a company with a December 31, 2008 year end may have until September 15, 2010 to make its contribution. However, companies' plans which were under-funded in the prior year compared to the PPA transition thresholds must make quarterly contributions in the current year.

While the PPA is very strict in many regards, there is some flexibility regarding required quarterly contributions. If a plan sponsor previously made voluntary contributions, which are referred to as prior year credits, it may be able to defer some or all of the required quarterly payments until the next year. Specifically if the plan is at least 80% funded in the current plan year it may be able utilize its prior year credits to defer payments. What these provisions effectively mean is that many plans which were in decent shape at the end of 2007 could push 2009 contributions off until 2010. If funding levels do not increase by the end of 2008, a utility might be required to make two years of contributions in 2010. Several may be positioned to push contributions off until 2011, but eventually the contributions will be made. We observe that many utilities are using prior year credits to delay funding requirements until 2010.

As the year draws to a close and we get some insight into probable 2009 funding levels we will take a very close look at potential liquidity issues due to large pension contributions in 2010 and 2011. This potential use of liquidity could become more of a concern depending on the state of the credit markets at this time, and the success utilities have in managing their liquidity sources.

Capital planning for future uncertainties

The electric utility sector depends on long-lived physical assets and long-term planning—both of which pose challenges for companies' business and operating risk profiles. Changes to federal and state policies over base-load requirements and emission regulations can wreak havoc on utility managers' ability to plan and invest.

⁵ See Special Comment, "Managing Ratings With Increased Pension Liability," March 2009.

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Moreover, the apparent solutions to several of the sector's challenges—renewables, smart grids, efficiency measures—may raise near-term costs for consumers. In essence, it is easier to maintain the status quo (and continue polluting with carbon-based fuels) than to change consumer behaviors. The up-front costs have to be authorized for recovery and amortized over a longer-term period of time, thus creating challenges for consumer acceptance. Of course, it is difficult to estimate the unintended consequences associated with burning those carbon-based fuels.

Nevertheless, we know consumer behaviors can change quickly, as the makers of horse-drawn carriages, typewriters, videocassettes, or even SUVs can attest. Although consumers may be slow to risk their own personal comfort by changing their use of an essential service like electric power, few analysts think the electric utility sector is immune to the risks of changing technology.

Federal initiatives associated with renewable energy standards also cause us some concern. We believe a material increase in renewable energy sources can create challenges with transmission grid operators, primarily because they cannot be scheduled. The greater the percentage of renewable resources used to generate power, the likelier we are to see “problems” for grid operators—and thus higher costs for ratepayers.

Conclusion

Historically, we have held that utilities manage their financial positions in a relatively conservative manner—that safe and reliable service is fundamental to their business plans and that they need healthy, regular infusions of debt and equity to fund their sizeable negative free cash flows.

Most of our issuers expect Washington to impose some form of carbon tax over the near- to intermediate term. Whether enacted this year or next, few believe it will disappear. But we believe utilities tend to downplay the magnitude of the potential risks from such legislation, with managements continuing to assume they will see the appropriate regulatory relief to cover their costs. Today, we continue to believe that prudently incurred costs and investments will be recovered, but we do not consider future cost-recovery a given. The uncertain economic climate clouds our visibility regarding these assumptions.

The sector needs significant capital to refurbish its infrastructure, implying sizeable negative free cash flows that must be financed in the capital markets. But credit availability is now tighter and costlier than even a year ago, and may remain this way indefinitely. Today we believe the sector will maintain unfettered access to the capital markets, and that expiring credit facilities will be rolled over into new facilities without a material reduction in capacity.

Regulators continue to scrutinize authorized ROEs, and intervenors increasingly feel that trackers and other recovery mechanisms can lower a utility's business risk profile. We expect to see growing tension between utilities—which need financial relief for increasing costs and investment—and consumers, whose tolerance for higher rates may be tested further in a poor economic environment.

Since few, if any, industry participants disagree with the risks identified in this report, we are somewhat baffled that utility management teams seem reluctant to proactively strengthen their balance sheets in the face of such challenges. In essence, we are talking about protecting the ultimate franchise of the utility's service territory and their ability to assure a safe and reliable essential service.

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Appendix A: Macroeconomic Risk Scenarios

Our central outlook for the global economy has worsened since late last year, now taking the shape of a hook when plotted on a graph, as opposed to a "U."

This means we expect that the global recession this year will be deeper than we thought six months ago and that it will be followed by a slow and painful recovery for most economies in 2010, not a steep rebound, as previously thought.

We also can't rule out the risk that the global economy will follow a darker path, the downside scenario described below. The central and downside scenarios both begin with a severe downturn. It is the shape of the recovery that distinguishes them.

Central scenario (hook-shaped recovery): The prospect for a robust recovery is bleak, taking the shape of a hook. The U.S. economy could shrink between 2% and 3% in 2009, before expanding 1% to 2% in 2010—meaning that once the recovery takes shape, growth will be tepid at best.

Implications for the industry: Our stable outlook on the U.S. regulated utilities industry incorporates this view.

Downside scenario (L-shaped recovery): A recovery in 2010, if one emerges, takes the shape of an "L"—signifying years of little or no economic growth for most major economies.

There is a real risk of this happening. But it is too early to adopt this scenario as our base case because it is too early to tell whether fiscal and monetary stimulus policies are working. Some signs should emerge this summer. Odds are the fiscal packages will limit the damage.

Implications for the industry: Worsening U.S. unemployment adds to pressures on consumers, and commodity prices begin to rise, increasing bills for ratepayers. The hardship that some consumers face in paying their monthly bills creates political pressure against utilities. Regulators begin to question more closely, and in some cases deny, the utilities' requests for cost recovery, putting pressure on the companies' revenues and cash flow. Access to capital deteriorates and liquidity becomes a concern.

For the full report, published by the economists at Moody's Global Financial Risk Unit on May 6, 2009, please click here.

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Appendix B: Peer index composition

PORTFOLIO: Parents		Vertically Integrated Utilities		T & D utilities		LDC utilities	
Entity Name	Current LT Rating	Entity Name	Current LT Rating	Entity Name	Current LT Rating	Entity Name	Current LT Rating
AES Corporation, (The)	B1	Alabama Power Company	A2	AEP Texas Central Company	Baa2	Alabama Gas Corporation	A1
Allegheny Energy, Inc.	Ba1	ALLETE, Inc.	Baa1	AEP Texas North Company	Baa2	Atlanta Gas Light Company	A3
Alliant Energy Corporation		Appalachian Power Company	Baa2	AES El Salvador Trust	Ba2	Bay State Gas Company	Baa2
Ameren Corporation	Baa3	Arizona Public Service Company	Baa2	American Transmission Company LLC *	A1	Berkshire Gas Company	Baa2
American Electric Power Company	Baa2	Avista Corp.	Baa3	Atlantic City Electric Company	Baa1	Boston Gas Company	Baa1
Black Hills Corporation	Baa3	Black Hills Power, Inc.	Baa2	Baltimore Gas and Electric Company	Baa2	Cascade Natural Gas Corp.	Baa1
CenterPoint Energy, Inc.	Ba1	Central Illinois Light Company	Ba1	CenterPoint Energy Houston Electric	Baa3	Colonial Gas Company	A2
Cleco Corporation	Baa3	Central Vermont Public Service	Ba2	Central Hudson Gas & Electric	A2	Connecticut Natural Gas	Baa1
CMS Energy Corporation	Ba1	Cleco Power LLC	Baa1	Central Illinois Public Service	Ba1	Indiana Gas Company, Inc.	Baa1
Consolidated Edison, Inc.	Baa1	Columbus Southern Power Company	A3	Central Maine Power Company	Baa1	KeySpan Gas East Corporation	A3
Constellation Energy Group, Inc.	Baa3	Consumers Energy Company	Baa2	Cleveland Electric Illuminating	Baa3	Laclede Gas Company	Baa1
Dominion Resources Inc.	Baa2	Dayton Power & Light Company	A2	Commonwealth Edison Company	Baa3	Michigan Consolidated Gas Company	Baa1
DPL Inc.	Baa1	Detroit Edison Company (The)	Baa1	Connecticut Light and Power	Baa1	New Jersey Natural Gas Company	Aa3
DTE Energy Company	Baa2	Duke Energy Carolinas, LLC	A3	Consolidated Edison Company of NY	A3	North Shore Gas Company	A3
Duke Energy Corporation	Baa2	Duke Energy Indiana, Inc.	Baa1	Delmarva Power & Light Company	Baa2	Northern Illinois Gas Company	A2
Duquesne Light Holdings, Inc.	Ba1	Duke Energy Kentucky, Inc.	Baa1	Duquesne Light Company	Baa2	Northwest Natural Gas Company	A3
Edison International	Baa2	Duke Energy Ohio, Inc.	Baa1	Empresa Electrica de Guatemala, S.A.	Ba3	Peoples Gas Light and Coke	A3
Emera Inc.	Baa2	El Paso Electric Company	Baa2	FortisAlberta Inc.	Baa1	Piedmont Natural Gas Company	A3
Enersis S.A.	Baa3	Empire District Electric Company	Baa2	Georgia Transmission Corporation *	Baa1	Public Service Co. of NC	A3
Entergy Corporation	Baa3	Entergy Arkansas, Inc.	Baa2	Illinois Power Company	Ba1	Questar Gas Company	A3
Exelon Corporation	Baa1	Entergy Gulf States Louisiana, LLC	Baa3	International Transmission Company *	A3	SourceGas LLC	Ba2
FirstEnergy Corp.	Baa3	Entergy Louisiana, LLC	Baa2	ITC Midwest LLC *	A3	South Jersey Gas Company	A3
FPL Group, Inc.	A2	Entergy Mississippi, Inc.	Baa3	Jersey Central Power & Light Company	Baa2	Southern California Gas Company	A2
Great Plains Energy Incorporated	Baa3	Entergy New Orleans, Inc.	Ba2	Massachusetts Electric Company	A3	Southern Connecticut Gas Company	Baa1
IDACORP, Inc.	Baa2	Entergy Texas, Inc.	Ba1	Metropolitan Edison Company	Baa2	Southwest Gas Corporation	Baa3
Integrus Energy Group, Inc.	Baa1	Florida Power & Light Company	A1	Michigan Electric Transmission Company, LLC *	A3	Terasen Gas (Vancouver Island) Inc.	A3
MidAmerican Energy Holdings Co.	Baa1	FortisBC Inc	Baa2	Narragansett Electric Company	A3	Terasen Gas Inc.	A3
NiSource Inc.	Baa3	Georgia Power Company	A2	New England Power Company	A3	Terasen Inc.	Baa2

Industry Outlook

U.S. Regulated Electric Utilities

PORTFOLIO: Parents		Vertically Integrated Utilities		T & D utilities		LDC utilities	
Entity Name	Current LT Rating	Entity Name	Current LT Rating	Entity Name	Current LT Rating	Entity Name	Current LT Rating
Northeast Utilities	Baa2	Green Mountain Power Corporation	A3	New York State Electric and Gas	Baa2	UGI Utilities, Inc.	A3
NSTAR	A2	Gulf Power Company	A2	Newfoundland Power Inc.	Baa1	Washington Gas Light Company	A2
NV Energy Inc.	Ba1	Hawaiian Electric Company, Inc.	Baa1	Niagara Mohawk Power Corporation	A3	Wisconsin Gas LLC	A1
OGE Energy Corp.	Baa1	Idaho Power Company	Baa1	NSTAR Electric Company	A1	Yankee Gas Services Company	Baa2
Pepco Holdings, Inc.	Baa3	Indiana Michigan Power Company	Baa2	Ohio Edison Company	Baa2		
PG&E Corporation	Baa1	Indianapolis Power & Light Company	Baa2	Oncor Electric Delivery Company	Baa1		
Pinnacle West Capital Corporation	Baa3	Kansas City Power & Light Company	Baa1	Orange and Rockland Utilities, Inc.	Baa1		
PNM Resources, Inc.	Ba2	Kansas City Power & Light (MO)	Baa3	PECO Energy Company	A3		
PPL Corporation	Baa2	Kentucky Power Company	Baa2	Pennsylvania Electric Company	Baa2		
Progress Energy, Inc.	Baa2	Kentucky Utilities Co.	A2	Pennsylvania Power Co.	Baa2		
Public Service Enterprise Group	Baa2	Louisville Gas & Electric Company	A2	Potomac Edison Company (The)	Baa3		
Puget Energy, Inc.	Ba2	Madison Gas and Electric Company	Aa3	Potomac Electric Power Company	Baa2		
SCANA Corporation	Baa1	MDU Electric & Gas Utilities	Not Rated	PPL Electric Utilities Corporation	Baa1		
Sempra Energy	Baa1	MidAmerican Energy Company	A2	Public Service Electric and Gas Company	Baa1		
Southern Company (The)	A3	Mississippi Power Company	A1	Rochester Gas & Electric Corporation	Baa2		
TECO Energy, Inc.	Baa3	Monongahela Power Company	Baa3	Superior Water, Light and Power	Baa1		
UIL Holdings Corporation	Baa3	Nevada Power Company	Ba3	Texas-New Mexico Power Company	Baa3		
UniSource Energy Corporation	Ba1	Northern Indiana Public Service	Baa2	Toledo Edison Company	Baa3		
Vectren Utility Holdings, Inc.	Baa1	Northern States Power (Minnesota)	A3	Transelec S.A. *	Baa3		
Westar Energy, Inc.	Baa3	Northern States Power (Wisconsin)	A3	United Illuminating Company	Baa2		
Wisconsin Energy Corporation	A3	NorthWestern Corporation	Baa2	West Penn Power Company	Baa3		
Xcel Energy Inc.	Baa1	Nova Scotia Power Inc.	Baa1	Western Massachusetts Electric	Baa2		
		Ohio Power Company	A3				
		Oklahoma Gas & Electric Company	A2	* Transmission only			
		Pacific Gas & Electric Company	A3				
		PacifiCorp	Baa1				
		Portland General Electric Company	Baa2				
		Progress Energy Carolinas, Inc.	A3				
		Progress Energy Florida, Inc.	A3				
		Public Service Company of Colorado	Baa1				
		Public Service Company of NH	Baa2				

Industry Outlook

U.S. Regulated Electric Utilities

PORTFOLIO: Parents		Vertically Integrated Utilities		T & D utilities		LDC utilities	
Entity Name	Current LT Rating	Entity Name	Current LT Rating	Entity Name	Current LT Rating	Entity Name	Current LT Rating
		Public Service Company of NM	Baa3				
		Public Service Company of Oklahoma	Baa1				
		Puget Sound Energy, Inc.	Baa3				
		San Diego Gas & Electric Company	A2				
		Sierra Pacific Power Company	Ba3				
		South Carolina Electric & Gas	A3				
		Southern California Edison Company	A3				
		Southern Indiana Gas & Electric	Baa1				
		Southwestern Electric Power	Baa3				
		Southwestern Public Service	Baa1				
		Tampa Electric Company	Baa1				
		Tucson Electric Power Company	Baa3				
		Union Electric Company	Baa2				
		Virginia Electric and Power Company	Baa1				
		Wisconsin Electric Power Company	A1				
		Wisconsin Power and Light Company	A2				
		Wisconsin Public Service Corporation	A2				

* Transmission only

U.S. Regulated Electric Utilities

PORTFOLIO: Unregulated Power - affiliated		Unregulated Power - independent		Cooperatives	
Entity Name	Current LT Rating	Entity Name	Current LT Rating	Entity Name	Current LT Rating
Allegheny Energy Supply Company	Baa3	AEI	B1	Arkansas Electric Cooperative Corporation	A2
AmerenEnergy Generating Company	Baa3	AES Chivor & Cia. S.C.A. E.S.P.	Ba2	Associated Electric Cooperative, Inc.	A2
Exelon Generation Company, LLC	A3	AES Gener S.A.	Baa3	Basin Electric Power Cooperative	A2
FirstEnergy Solutions Corp.	Baa2	Calpine Corporation	B2	Big Rivers Electric Corporation	(P)Baa1
KeySpan Generation LLC	Baa1	Covanta Holding Corporation	Ba2	Buckeye Power, Inc.	A2
PPL Energy Supply, LLC	Baa2	Dynegy Holdings Inc.	B2	Chugach Electric Association, Inc.	A3
PSEG Power L.L.C.	Baa1	Edison Mission Energy	B1	Dairyland Power Cooperative	A2
Southern Power Company	Baa1	Empresa Electrica del Norte Grande S.A.	Ba3	Golden Spread Electric Cooperative, Inc.	A3
System Energy Resources, Inc.	(P)Ba1	Mirant Corporation	B1	Great River Energy	A3
		NRG Energy, Inc.	Ba3	Hoosier Energy Rural Electric Cooperative Inc	Baa2
		RRI Energy, Inc.	B1	Minnkota Power Cooperative, Inc	Baa1
		Texas Competitive Electric Holdings Co LLC	Caa2	Oglethorpe Power Corporation	Baa1
		TransAlta Corporation	Baa2	Old Dominion Electric Cooperative	A3
				PowerSouth Energy Cooperative	Baa1
				South Mississippi Electric Power Assoc	Baa1
				Tri-State G&T Association Inc.	Baa2

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Appendix C: Estimated Inflection Points by State

State-by-State Electricity Bill / Household Disposable Income Study*

Source:	BEA		EIA	Moody's	Estimates		
	2007 Annual Household Income	2007 Annual Household Disposable Income	2007 Average Retail Electricity Price (Cents/KWh)	2007 Average Yearly Bill / Disposable Income	Implied Max Rate	Implied Max rate increase	Un - employ- ment Rate
State							
Colorado	\$61,141	\$42,799	9.25	1.8%	\$0.251	172%	7.9%
Utah	\$53,529	\$37,470	8.15	2.1%	\$0.195	139%	6.0%
Minnesota	\$58,058	\$40,641	9.18	2.3%	\$0.204	122%	8.1%
New Mexico	\$44,356	\$31,049	9.12	2.3%	\$0.202	122%	7.5%
Washington	\$58,080	\$40,656	7.26	2.3%	\$0.158	117%	9.2%
Wyoming	\$48,744	\$34,121	7.75	2.4%	\$0.163	111%	5.3%
New Hampshire	\$67,576	\$47,303	14.88	2.4%	\$0.312	110%	6.5%
Idaho	\$49,184	\$34,429	6.36	2.4%	\$0.133	109%	8.0%
Michigan	\$49,370	\$34,559	10.21	2.4%	\$0.210	106%	14.2%
California	\$55,734	\$39,014	14.42	2.6%	\$0.280	94%	11.3%
Illinois	\$52,506	\$36,754	10.12	2.6%	\$0.194	92%	10.3%
Wisconsin	\$51,277	\$35,894	10.87	2.6%	\$0.206	90%	9.0%
Kansas	\$48,497	\$33,948	8.19	2.7%	\$0.154	88%	7.8%
Rhode Island	\$54,210	\$37,947	14.05	2.7%	\$0.260	85%	11.3%
Nebraska	\$49,174	\$34,422	7.59	2.7%	\$0.140	84%	5.4%
Alaska	\$62,993	\$44,095	15.18	2.7%	\$0.277	82%	10.3%
Oregon	\$50,235	\$35,165	8.19	2.8%	\$0.145	77%	10.6%
Montana	\$43,655	\$30,559	8.77	2.8%	\$0.155	76%	7.1%
North Dakota	\$47,205	\$33,044	7.30	2.9%	\$0.128	75%	5.1%
District of Columbia	\$50,783	\$35,548	11.18	2.9%	\$0.192	71%	10.0%
New Jersey	\$60,508	\$42,356	14.14	2.9%	\$0.242	71%	9.1%
Iowa	\$48,908	\$34,236	9.45	2.9%	\$0.161	70%	5.8%
South Dakota	\$46,418	\$32,493	8.07	3.0%	\$0.137	69%	5.4%
Massachusetts	\$58,463	\$40,924	16.23	3.0%	\$0.269	65%	8.7%
Vermont	\$47,390	\$33,173	14.15	3.0%	\$0.233	65%	7.9%
Virginia	\$59,161	\$41,413	8.74	3.1%	\$0.143	64%	7.1%
Ohio	\$49,099	\$34,369	9.57	3.1%	\$0.155	62%	10.8%
West Virginia	\$42,091	\$29,464	6.73	3.1%	\$0.108	60%	7.3%
Maine	\$47,894	\$33,526	16.52	3.1%	\$0.264	60%	8.9%
Indiana	\$47,453	\$33,217	8.26	3.2%	\$0.131	58%	10.7%
Missouri	\$46,005	\$32,204	7.69	3.2%	\$0.120	56%	9.8%
Maryland	\$65,630	\$45,941	11.89	3.4%	\$0.176	48%	7.0%
Pennsylvania	\$48,437	\$33,906	10.95	3.4%	\$0.162	48%	8.5%
New York	\$48,944	\$34,261	17.10	3.6%	\$0.236	38%	8.9%
Nevada	\$54,058	\$37,841	11.82	3.7%	\$0.160	35%	10.9%
Oklahoma	\$43,216	\$30,251	8.58	3.7%	\$0.115	34%	6.5%
Georgia	\$48,641	\$34,049	9.10	3.8%	\$0.121	33%	9.7%

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State-by-State Electricity Bill / Household Disposable Income Study*

Source:	BEA		EIA	Moody's	Estimates		
State	2007 Annual Household Income	2007 Annual Household Disposable Income	2007 Average Retail Electricity Price (Cents/KWh)	2007 Average Yearly Bill / Disposable Income	Implied Max Rate	Implied Max rate increase	Un - employment Rate
Kentucky	\$39,452	\$27,616	7.34	3.9%	\$0.095	29%	10.2%
Connecticut	\$64,141	\$44,899	19.11	3.9%	\$0.245	28%	8.1%
Delaware	\$54,589	\$38,212	13.16	4.0%	\$0.166	26%	8.0%
Arizona	\$47,215	\$33,051	9.66	4.0%	\$0.121	25%	8.7%
Arkansas	\$40,795	\$28,557	8.73	4.1%	\$0.106	22%	8.2%
Hawaii	\$64,022	\$44,815	24.12	4.2%	\$0.285	18%	6.8%
North Carolina	\$43,513	\$30,459	9.40	4.2%	\$0.111	18%	10.3%
South Carolina	\$44,213	\$30,949	9.19	4.3%	\$0.107	16%	10.7%
Tennessee	\$41,195	\$28,837	7.84	4.4%	\$0.089	14%	9.8%
Florida	\$45,794	\$32,056	11.22	4.9%	\$0.115	2%	10.0%
Alabama	\$42,212	\$29,548	9.32	4.9%	\$0.094	1%	8.8%
Louisiana	\$41,313	\$28,919	9.37	5.0%	\$0.094	1%	7.3%
Texas	\$46,053	\$32,237	12.34	5.2%	\$0.118	-4%	7.8%
Mississippi	\$37,279	\$26,095	9.36	5.4%	\$0.086	-8%	11.4%
National	\$50,233	\$35,163	10.65	3.4%	\$0.157	47%	8.6%

* Assumes implied maximum electric bills of 5% of calculated household disposable income.

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Moody's Related Research

Industry Outlooks

- U.S. Investor-Owned Electric Utility Sector, January 2009 (113690)
- North American Natural Gas Transmission & Distribution, March 2009 (115150)
- U.S. Coal Industry Outlook: Six-Month Update, April 2009 (116778)
- EMEA Electric and Gas Utilities, November 2008 (112344)

Special Comments

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- New Nuclear Generation: Ratings Pressure Increasing, June 2009 (117883)
- Texas T&D Utilities: Low Business Risk, but Credit Challenges Remain, June 2009 (117479)
- Proposed Wider Notching Between Certain Senior Secured Debt Ratings and Senior Unsecured Debt Ratings for Investment Grade Regulated Utilities, May 2009 (116748)
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- Near Term Bank Credit Facility Renewals To Be More Challenging For U.S. Electric And Gas Utilities, January 2009 (114031)
- Investor-Owned Electric Utilities in Ohio, January 2009 (114137)
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- New Nuclear Generating Capacity: Potential Credit Implications for U.S. Investor Owned Utilities, May 2008 (109152)
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- Decommissioning and Waste Costs for New Generation of Nuclear Power Structures, May 2008 (109086)
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