BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Docket Nos. UE-090704 and UG-090705
Puget Sound Energy, Inc.'s
2009 General Rate Case

PUBLIC COUNSEL DATA REQUEST NO. 170

PUBLIC COUNSEL DATA REQUEST NO. 170:

(Morin Direct, p. 50, ll. 18-20)

Please explain why Dr. Morin's sample group was drawn from integrated utilities listed by Moody's, but uses a S&P Electric Utility sample. Please also provide a complete list of integrated electric utilities listed by Moody's as well as copies of the source document(s) from which the list is obtained.

Response:

As explained at page 49, line 14, through page 53, line 2, of the Prefiled Direct Testimony of Dr. Roger A. Morin, Exhibit No. ___(RAM-1T), Dr. Morin's discounted cash flow ("DCF") analysis used two proxies for Puget Sound Energy, Inc. ("PSE"): a group of investment-grade dividend-paying integrated electric utilities identified by Moody's and a group consisting of the electric utilities that make up Standard & Poor's ("S&P") Electric Utility Index.

As described in his Prefiled Direct Testimony, Exhibit No. ___(RAM-1T), Dr. Morin does not use or rely upon the Moody's Electric Utility Index because Moody's has discontinued the publication of such electric utility index:

> In past testimonies, I have relied on the Moody's Electric Utility Index to perform my historical risk premium study. Following the acquisition of Moody's by Mergent in 2002, publication of the electric utility index was discontinued. Therefore, I chose to rely on the S&P Utility Index instead of the Moody's Index in order to ensure continuity and timeliness of the risk premium data. I note that the use of S&P Utility Index instead of the Moody's Index is consistent with the use of the electric utilities that make up the S&P Utility Index as one of my two proxy groups. Moreover, I note that the results using the S&P Index are not materially different from those using the discontinued Moody's index.

Exhibit No. ___(RAM-1T) at page 39, lines 9–17.

Attached as Attachment A to PSE's Response to Public Counsel Data Request No. 170, please find a document published by Moody's Global Infrastructure entitled "U.S. Investor-Owned Electric Utilities," dated October 2008, which includes, at Appendix A, a list of vertically integrated operating companies.

Attachment A

www.moodys.com

UE-090704, UG-090705
Exhibit No.
Page 4 of 21

Moody's Global
Infrastructure

Special Comment

October 2008

U.S. Investor-Owned Electric Utilities

Somewhat Insulated But Not Immune from Credit Market Stress, Economic Weakness

Table of Contents:

Overview	2
Conclusion	13
Appendix A	14
Appendix B	15
Moody's Related Research	16

Analyst Contacts:

New York **1.212.553.1653**

Jim Hempstead 1.212.553.4318
Senior Vice President

Mike Haggarty 1.212.553.7172
Vice President / Senior Credit Officer

Mihoko Manabe 1.212.553.1942
Vice President / Senior Credit Officer

Allan McLean 1.416.214.3852
Vice President / Senior Credit Officer

A.J. Sabatelle 1.212.553.8756
Vice President / Senior Credit Officer

Kevin Rose 1.212.553.0389
Vice President / Senior Analyst

Laura Schumacher 1.212.553.3853
Vice President / Senior Analyst

Scott Solomon 1.212.553.4358
Vice President / Senior Analyst

Ed Tan 1.212.553.1097
Vice President / Senior Analyst

Jim O'Shaughnessy 1.212.553.1607
Analyst

Ryan Wobbrock 1.212.553.7104
Associate Analyst

W. Larry Hess 1.212.553.3837
Team Managing Director

- Fundamental industry outlook for U.S. electric utilities remains stable
- Liquidity appears adequate over near-term, but for most utilities only with continued unfettered access to capital markets
- Perception of increased investor interest across the entire capital structure – possibly indicating a defensive flight to quality – viewed positively given utilities' long-term financing requirements
- Proactive actions to bolster liquidity availability and strengthen balance sheet viewed as prudent given current economic and financial market conditions
- Reluctance or resistance by some utility Boards of Directors to issue common equity, given current economic and financial market conditions, viewed negatively – especially if utility encounters some form of distress over near- to intermediate-term horizon
- Continued support from regulators provides reasonable recovery of prudently incurred costs and investments with a reasonable return in a timely manner
- Financial profile continues to exhibit stability, but some modest deterioration seen in selected credit metrics

Moody's Investors Service

UE-090704, UG-090705
Exhibit No. ____
Page 5 of 21

Overview

With credit markets in flux and the U.S. economic downturn gaining momentum, the nation's investor-owned electric utility sector is in an enviable position compared with many other industries. The business model associated with the sector is relatively recession resistant, since the primary fuel for every functioning economy is electricity. As a result, the sector tends to enjoy widespread support from its legislative and regulatory authorities, who, in our opinion, prefer to regulate financially healthy companies. This support is evidenced by the relatively stable financial profile that the sector has produced over the past several years.

Nevertheless, the sector is not immune to the current tumultuous environment in the broad, macro markets, nor is it completely immune from the effects of a protracted recessionary environment. For example, the sector is an enormous consumer of natural resource commodities (including uranium, coal and natural gas), which have been exhibiting a significant amount of pricing volatility. Roughly half the sector's volumes represent commercial and industrial sales, which could be negatively impacted by a protracted recession, and there are risks associated with increasing bad debt expenses.

In the current environment, our primary concern relates to consumers who may reach a tolerance point to absorb annual rate increases. If this tolerance point is reached, consumers may seek some form of a bailout from their elected officials and regulators, thereby creating incremental pressure to limit rate relief and / or defer costs or investments. We incorporate a view that the sector is attempting to request financial relief more frequently, with lower average annual rate increases, in an effort to limit the potential risk of future rate shock.

A large portion of rate increases relate to costs that are currently being "tracked," or passed through directly to consumers. As a result, a significant portion of the annual rate increases are beyond management's control (i.e., fuel commodities) and could be subjected to longer-term recoveries by regulators. These pass-through expenses (which typically do not include an authorized margin component) could increasingly be viewed by regulators as materially lowering the overall business and operating risk profile of a utility, thereby resulting in lower authorized equity returns.

Furthermore, we note that many utility business plans incorporate a view that material capital expenditures are necessary over the next few years to support, refurbish and/or fortify the existing (aged) infrastructure; that environmental costs, which are a component of the infrastructure, are also increasing due to increasingly stringent mandates; and that costs associated with an aging workforce are growing at an increasing rate. A protracted recessionary environment may mitigate, but will not eliminate, these challenges.

Until recently, the sector was sharing some concerns over its ability to attract enough capital into their businesses to finance these infrastructure investment needs. A recession-induced slowdown could provide improved reserve margins over the near term, and offer the sector a chance to "catch up" with infrastructure improvements. Given current economic and financial market conditions, an investor "flight to quality" for the sector could be perfect timing for many utilities.

Liquidity adequate near term, assuming ongoing market access

Near-term liquidity is by far the most important factor for near-term ratings stability (for purposes of discussing a company's liquidity, near-term is defined as approximately 12 months). The utility sector appears to be adequately positioned with respect to its overall, near-term liquidity profile, but this incorporates an assumption that many utilities will continue to have unfettered access to the capital markets.

In general, the sector's liquidity can be characterized as having relatively low cash balances. However, utilities typically maintain a significant amount of availability under their bank credit facilities. The majority of these bank credit facilities were initially multi-year, fully syndicated facilities and they generally have a few more years before their scheduled expiration dates. The typical credit facility also has relatively modest financial restrictions (covenants) incorporated into the credit agreement and there usually is no material adverse change language regarding on-going drawings. This is a critical point to any liquidity evaluation or assessment.

UE-090704, UG-090705
Exhibit No. ___
Page 6 of 21

In the table below, we show a summary of the cash sources and uses, on a consolidated basis, for a selected peer group of parent holding companies and large operating utilities in the sector. In general, cash sources include cash, availability under the credit facilities, gross cash flow and pending asset sales; while cash uses include capital expenditures, dividends and / or share repurchases, scheduled debt maturities and any other pending payments (such as tax payments or pension contributions). As evidenced in the table, there are a number of large, well-positioned, investment-grade companies whose business plans incorporate a view that access to capital will not be impeded.

Table 1

Estimated Sources and Uses as of June 2008 ($ billions)

Company	Senior Unsecured Rating	Short-Term Rating	Rating Outlook	Total Sources	Total Uses	Net Sources/ Uses
AEP	Baa2	P-2	Stable	$7.0	$5.8	$1.2
ConEd NY	A1	P-1	Negative	$3.4	$3.7	($0.3)
Consolidated Edison	A2	P-1	Negative	$5.6	$4.3	$1.3
Dominion Resources	Baa2	P-2	Stable	$6.6	$7.8	($1.1)
Duke Energy	Baa2	P-2	Stable	$7.4	$8.2	($0.8)
Duke Energy Carolinas	A3	P-2	Stable	$2.6	$3.7	($1.1)
Exelon Corp	Baa1	P-2	Stable	$12.6	$7.4	$5.2
Pepco	Baa3	P-3	Stable	$2.1	$1.9	$0.2
Progress Energy Carolinas	A3	P-2	Stable	$1.7	$2.0	($0.3)
PSEG	Baa2	P-2	Stable	$5.1	$5.4	($0.3)
Public Service E&G	Baa1	P-2	Stable	$1.5	$1.6	($0.1)
SCANA	Baa1	NR	Stable	$1.6	$1.7	($0.1)
Southern Company	A3	P-1	Stable	$2.6	$1.8	$0.8
Virginia Electric and Power	Baa1	P-2	Stable	$4.2	$3.9	$0.3

** Corporate Family Rating / Senior Unsecured*

Steps to bolster liquidity, balance sheets key amid market stress

In light of current economic and financial market conditions, any action to increase capital, increase credit capacity, eliminate refinancing risk and otherwise inoculate the business from capital market volatility should be viewed as a significant credit positive. From a liquidity perspective, Moody's does not view the recent announcements by some utilities that they are making material draw-downs on their bank credit facilities negatively, since it simply transfers the source of cash to cash from the availability under its credit facilities. Nevertheless, we would be concerned if the current conditions in the financial markets, which include a disruption to the commercial paper markets, were to remain in effect for a protracted period of time or if the ability to access the term markets were to be disrupted for an extended period of time. These risks argue for a relatively quick reduction to these drawn facilities before liquidity has a chance to become stressed over the intermediate term horizon.

As a result, we are increasingly focused on a utility's execution strategies associated with managing near-term liquidity and its overall approach to corporate finance policies. In general, we incorporate a view that utility management teams will act in a reasonably conservative manner when addressing their liquidity strategy. We view some recent actions on the part of several utility companies positively, which includes recent additions to bank credit capacity (Duke Energy, PPL), the pre-funding of near-term scheduled maturities (SCE&G), and the issuance of common equity (Xcel Energy, Otter Tail Power Corp).

UE-090704, UG-090705
Exhibit No. ____
Page 7 of 20

Business volatility dictates liquidity capacity needs

From a liquidity perspective, Moody's tends to group the sector first by rating category (investment grade versus non-investment grade) and then by the inherent cash flow volatility incorporated into the business model. In the table below, we summarize a recent grouping of utility and power companies that could benefit from materially increasing their total available credit capacity:

Table 2

Group I: Investment Grade Utility/Power Companies — Significant Merchant Energy/Trading/ Non-regulated Activity			Group II: Non Investment Grade Utility/Power Companies — Significant Merchant Energy/Trading Activity		
Company	Senior Unsecured Rating	Short-Term Rating	Company	Senior Unsecured Rating	Short-Term Rating
AEP	Baa2	P-2	Allegheny Energy Supply	Ba1	NP
AmerenEnergy Generating	Baa3	na	Calpine Corporation	**B2	SGL-3
Black Hills Corporation	Baa3	na	Dynegy Holdings	***B1 / B2	SGL-3
Constellation Energy	Baa2 / RUR Down	P-2	Edison Mission Energy	***Ba3 / B1	SGL-2
Dominion Resources Inc.	Baa2	P-2	Energy Future Holding Corp.	**B2	SGL-3
Edison International	Baa2	na	Mirant Corporation	**B1	SGL-1
Entergy Corp	Baa3	na	NRG Energy	***Ba3 / B1	SGL-1
Exelon Corporation	Baa1	P-2	PNM Resources, Inc.	Ba2	NP
Exelon Generation	A3	P-2	Reliant Energy	**Ba3 / RUR Down	SGL-1
FirstEnergy Corp.	Baa3	na			
FPL Group, Inc.	*A2	P-1			
Integrys Energy Group, Inc.	A3	P-2			
Otter Tail Corporation	A3	na			
PPL Corporation	*Baa2	na			
PPL Energy Supply, LLC	Baa2	P-2			
PSEG	Baa2	P-2			
PSEG Power	Baa1	na			
Sempra Energy	Baa1	na			
TransAlta Corporation	Baa2	na			

** Issuer Rating*
*** Corporate Family Rating*
**** Corporate Family Rating / Senior Unsecured*

In our opinion, most companies in the sector that maintain significant non-regulated business activities, which we tend to view as being higher risk, non-core (to the regulated utility operations) and more volatile (to cash flows), will need to maintain robust amounts of liquidity capacity. This liquidity capacity needs to be sized at a level that is sufficient to withstand the relatively high amounts of volatility associated with the commodities that are being hedged as well as the cash flow and earnings volatility that may exist with their non-regulated businesses. Often, the volatility associated with natural gas and power commodities have surprised utility companies, as well as non-regulated merchant generators.

In addition, we view the steady exit of large financial institutions as counterparties in the commodity trading and marketing sector as a fundamental credit negative for those companies that engage in these hedging

UE-090704, UG-090705
Exhibit No. ___
Page 8 of 21

activities. In our opinion, the exit of counterparties could result in a decrease in market liquidity, a decline in the length of contract liquidity and wider bid-ask spreads.

Investor 'flight to quality' facilitates capital market access

Although credit is tightening substantially even for investment-grade companies, U.S. utilities continue to maintain reasonably good access to the markets. Borrowing costs are increasing, but utilities have been able to boost their liquidity capacity with additional revolvers or other credit facilities from banks. They continue to tap the capital markets for term debt, both on a secured and unsecured basis.

We believe the sector will maintain access to the markets. Investors perceive utilities as a safe haven, presenting the industry with ready access to debt and equity capital to finance capital expenditures and dividends. This "flight to quality" should particularly benefit utilities that have reduced the overall operating risk of their business activities during the last few years.

Market access is coming at a higher cost. But interest rates remain modest by historical standards and utilities generally have rate mechanisms that allow them to recover higher borrowing costs from customers. Still, the credit crunch has contracted the availability of commercial paper for some issuers and has substantially widened spreads over Treasuries for intermediate and long-term maturities. Since August, the sector has issued almost $7 billion in debt securities. We observe that a majority of these new offerings are from single-A rated utilities and primarily include senior secured debt.

Table 3

Recent Debt Offerings

Issue Date	Issuer	Type	Rating	Size ($mm)	Coupon	Yield	Term	Spread
10/7/08	Southern California Edison	FMBs	A2	$500	5.750%	5.862%	5 yr	340
10/7/08	Detroit Edison	G&R Mtg	A3	$250	6.400%	6.462%	5 yr	400
10/1/08	Interstate P&L	Sr. Unsec.	A3	$250	7.250%	7.375%	10 yr	358
10/1/08	Wisconsin P&L	Sr. Unsec.	A2	$250	7.600%	7.750%	30 yr	350
9/25/08	PECO Energy	FMBs	A2	$300	5.600%	5.664%	5 yr	263
9/25/08	South Carolina E&G	FMBs	A2	$250	6.500%	6.538%	10 yr	265
9/25/08	Wisconsin Electric	Notes	A1	$300	6.000%	6.041%	5 yr	300
9/4/08	Oklahoma G&E	Sr. Unsec.	A2	$250	6.350%	6.399%	10 yr	275
9/4/08	Ohio Power	Sr. Unsec.	A3	$250	5.750%	5.769%	5 yr	290
9/3/08	Northern States Power	FMBs	A2	$200	6.375%	6.433%	30 yr	210
9/3/08	Oncor Electric	Fallaways	Baa3	$300	7.500%	7.526%	30 yr	320
9/3/08	Oncor Electric	Fallaways	Baa3	$550	6.800%	6.815%	10 yr	313
9/3/08	Oncor Electric	Fallaways	Baa3	$650	5.950%	5.982%	5 yr	305
8/27/08	Sierra Pacific Power	G&R Mtg	Baa3	$250	5.450%	4.494%	5 yr	247
8/21/08	Duke Energy Indiana	FMBs	A3	$500	6.350%	6.365%	30 yr	193
8/13/08	Southern Company	Sr. Unsec.	A3	$600	L+70	L+70	2 yr	N/A
8/11/08	Entergy Louisiana	FMBs	Baa1	$300	6.500%	6.509%	10 yr	248
8/11/08	Southern California Edison	FMBs	A2	$400	5.500%	5.575%	10 yr	155
8/6/08	Public Service Co of Colorado	FMBs	A3	$300	5.800%	5.820%	10 yr	175
8/6/08	Public Service Co of Colorado	FMBs	A3	$300	6.500%	6.531%	30 yr	185
	TOTAL			$6,950				

Source: Barclays Capital

Recession effect on infrastructure investment plans unclear

If the current economic and financial market conditions were followed by an extended recessionary period, the sector could experience some pressure. A recession could contribute to lower annual average volume growth percentages, or perhaps even volume declines. Depending on the environment, consumers may quickly reach a tolerance level where they more vigorously object to annual rate increases – and articulate those concerns through the political and regulatory processes.

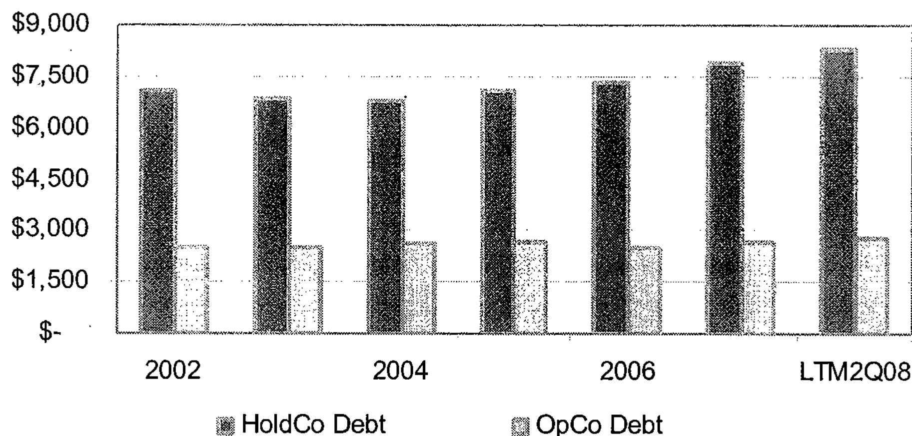
In addition, many regulators may incorporate a view that some of the supportiveness offered to utilities – in the form of expense trackers and/or riders – argues for a lower authorized return on equity, a trend that appears to be continuing.

More importantly, many utilities are playing "catch up" with respect to their investment in their infrastructure. As such, a recession-induced decline in volumes could be viewed as a long-term credit positive – since it provides a utility with additional time to strengthen and refurbish its network without the pressure of tight reserve margins. On the other hand, these investments should result in incremental rate increases, which could exacerbate pressures on regulators to limit near-term relief. Although longer-term relief may not be completely out of the question, many utilities are reluctant to incur the risk of sizeable deferrals on their financial statements.

Reluctance to issue common equity viewed negatively

Excluding the potential implications of recession for the sector, fundamentally we believe the sector should be increasing its equity financing targets, as evidenced by its substantial negative free cash flow generation – both historically and prospectively – and given an over-reliance on incremental debt financing.

Chart A:



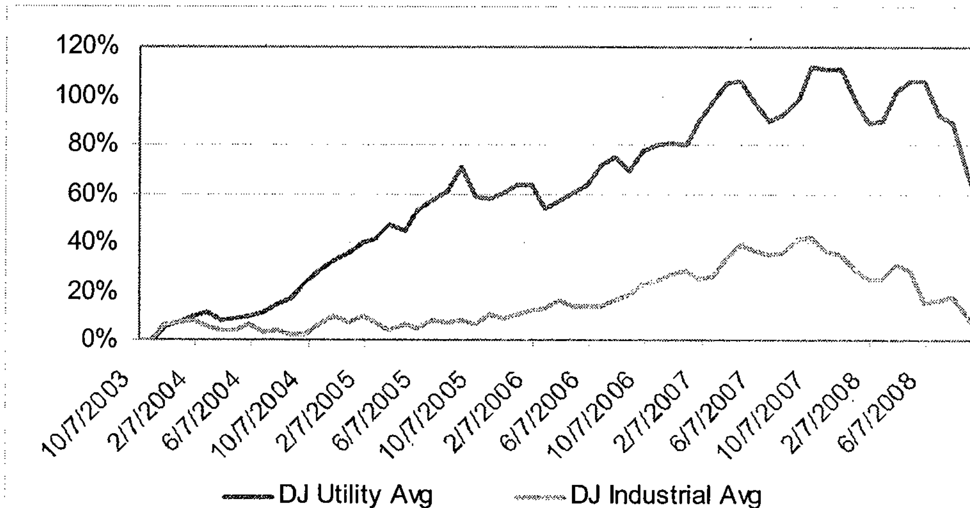
Source: Moody's and company reports. Figures in U.S. $ millions.

Considering the current economic and financial market conditions, it is our opinion that the landscape may present a clear opportunity for utilities to access the equity markets on reasonable terms. The sector has significantly outperformed the broader stock market over the past few years, it continues to enjoy reasonable valuation multiples when compared to other industrial sectors and our perception that investors may be increasingly seeking defensive investment opportunities leads us to conclude that access to equity capital is ready and available.

UE-090704, UG-090705
Exhibit No.___
Page 10 of 21

Chart B:

Relative Stock Performance over past 5 years



Source: Yahoo Finance

However, some companies continue to exhibit a reluctance or resistance to issuing common equity, which we view negatively. In the event that some utilities defer their equity plans, and subsequently experience some business or financial distress, Moody's would likely incorporate only a modest amount of tolerance before potential rating actions followed.

Utilities retain good regulatory support

The support provided to the U.S. electric utility sector by state regulators is the primary foundation for long-term credit stability. In general, Moody's incorporates a view that regulators will provide reasonable recovery for prudently incurred costs and investments with a reasonable return of capital (and on capital) in a timely manner. In addition, we incorporate a view that utility companies often behave as constructive corporate citizens within their authorized service territories, and that they have impressive constituency outreach programs. This contributes to our view that utilities also enjoy strong support from their elected officials in the legislative sector.

As depicted in the charts below, the support provided by regulators is evidenced in the sector's relatively stable revenues, earnings and cash flows. We observe that there has been reasonably steady growth in the revenues for both vertically integrated utilities and their parent holding companies, while cash flows have remained relatively steady. The divergence between the revenues and cash flow could be attributed, in part, to the level of fuel and purchased power and other "trackers" that utilities are utilizing to recover their costs, which generally do not have a margin component.

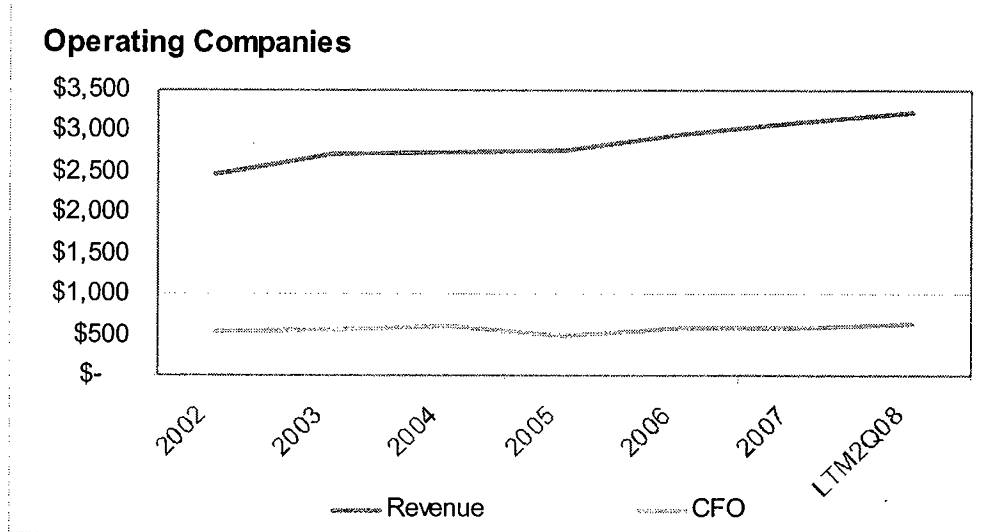
It should be noted that the charts below depict the average revenues and cash flows for a broad base of comparable companies, which are listed in Appendix A.

U.S. Investor Owned Electric Utilities

UE-090704, UG-090705
Exhibit No.____
Page 11 of 21

Chart C:

Operating company average historical revenues and cash flow from operations

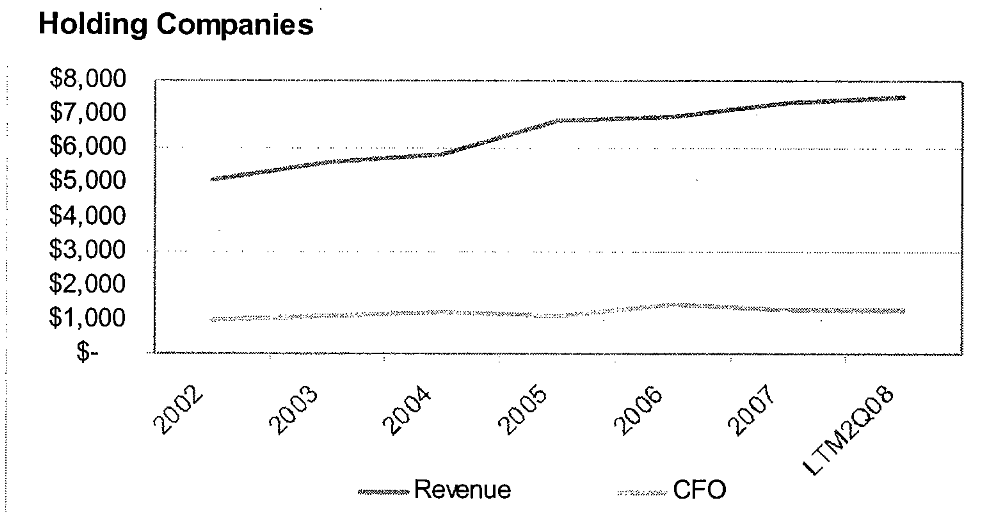


Source: Moody's.

Average includes 56 vertically integrated electric utilities. For a list of the utilities included in the average, please refer to Appendix A. Figures in U.S. $ millions.

Chart D:

Holding company average historical revenues and cash flow from operations



Source: Moody's.

Average includes 43 utility parent holding companies. For a list of the utilities included in the average, please refer to Appendix A. Figures in U.S. $ millions.

We believe regulation is, by definition, political. As a result, there are occasions when the relationship between a utility and its regulators (or legislators) becomes strained. In some instances, this strain can lead to financial distress. Over the past few years, we have observed the interaction in Maryland and Illinois (which was primarily legislatively sponsored) with concern. More recently, we have been monitoring the developments in Ohio, Arizona, Pennsylvania and New Mexico. Prospectively, we remain cautious regarding the potential developments in Texas and the New England and Mid-Atlantic regions. States in these regions (excluding

Vermont) have all experienced a substantial market restructuring in an attempt to introduce competition into the sector, which leads us to conclude that these states also have a higher risk of additional restructuring.

However, over the longer-term horizon, we observe that often, the strain in the relationship is usually replaced with a general level of support that underlies our rating assessments. California, for example, is now considered reasonably constructive in its approach to regulation and Ohio continues to work in a broad collaborative manner to address its infrastructure needs within the scope of its regulatory environment. More recently, it appears that Pennsylvania has taken steps to resolve its issues in a relatively constructive manner.

This view is not meant to understate the financial stress that can be created when the relationship between a utility and its regulators / legislators becomes strained. Often, a strained environment may take several years to fully work out. As a result, we continue to view those states and regions, such as the southeastern region in the U.S., more positively (from an overall credit supportiveness of the regulatory environment) than other states or regions that have experimented with significant market restructuring.

In summary, we incorporate a view that regulators and legislators are aware of the infrastructure investment needs for the sector, the desire to address increasingly stringent environmental mandates and the generally rising operating cost structure. We also incorporate a view that regulators and legislators would prefer to have financially strong utilities providing their service, in part to attract businesses to their local economies. In the table below, we show a sampling of the more recent regulatory decisions, all of which included double-digit rate increases and an authorized return on equity over 10%. A few examples of pending rate cases are given, as well.

Table 4: Selected examples of recent regulatory support

Recently Decided Electric Rate Cases

State	Company	Decision Date	Revenue Result	Allowed ROE
ID	Avista Corp.	9/30/2008	12.0% Increase	10.20%
IL	Commonwealth Edison	9/10/2008	15.1% Increase	10.30%
WV	Appalachian Power	6/27/2008	11.4% Increase	10.50%

Pending Rate Cases

		Requested		Previous Case		
State	Company	Revenue	ROE	Revenue Outcome	ROE	Date
NY	ConEd	11.3% Increase	10.00%	4.7% Increase	9.10%	3/25/2008
KS	Kansas G&E	14.9% Increase	10.95%	3.5% Decrease	10.00%	12/28/2005
KS	Westar Energy	15.0% Increase	10.95%	4.6% Increase	10.00%	12/28/2005
ND	No. States Power - MN	12.2% Increase	10.75%	3.1% Increase	11.00%	12/15/1992
WA	PacifiCorp	14.6% Increase	10.75%	6.3% Increase	10.20%	6/21/2007
AZ	Tucson Electric	23.0% Increase	10.75%	1.1% Increase	10.67%	3/29/1996
MO	Union Electric	11.7% Increase	10.90%	2.0% Increase	10.20%	5/22/2007

Source: Regulatory Research Associates

Financial profile stable, with modest downtrend in some metrics

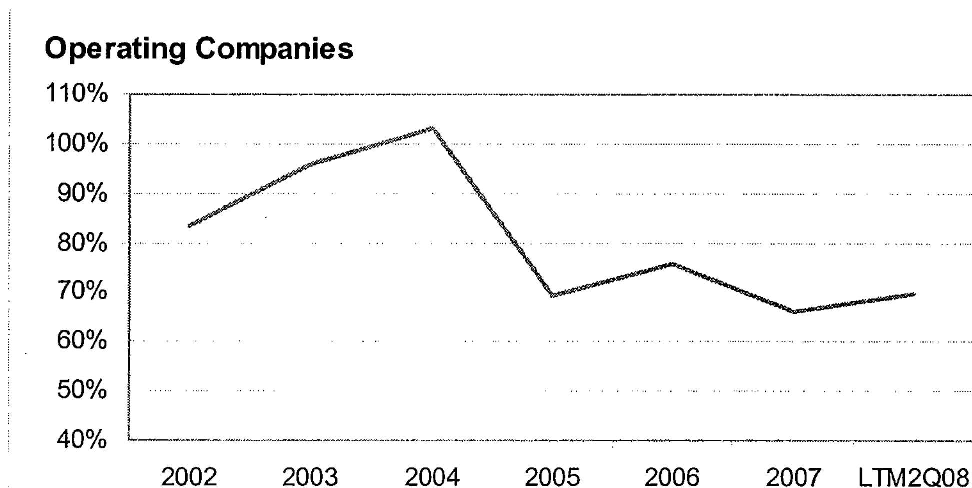
Over the past few years, many of our key financial credit metrics have exhibited some reasonable stability, although we remain concerned over the longer-term implications for several modestly declining trends, most notably the ratios associated with cash flows and capital expenditures. Although these modest declines for the sector have our attention, we do not incorporate a view that the declines are sufficient enough to warrant a change to the sector's stable fundamental industry outlook at this time.

UE-090704, UG-090705
Exhibit No. ____
Page 13 of 21

As depicted in the charts below, we evaluated the average ratios of retained cash flow to capital expenditures and cash flow from operations before any changes in working capital to total adjusted debt. These ratios reflect the substantial increases in the sector's capital investment plans, the incremental debt that the sector has issued to primarily finance those investments and the relative stability of annual cash flows.

Chart E:

Average historical retained cash flow to capital expenditures

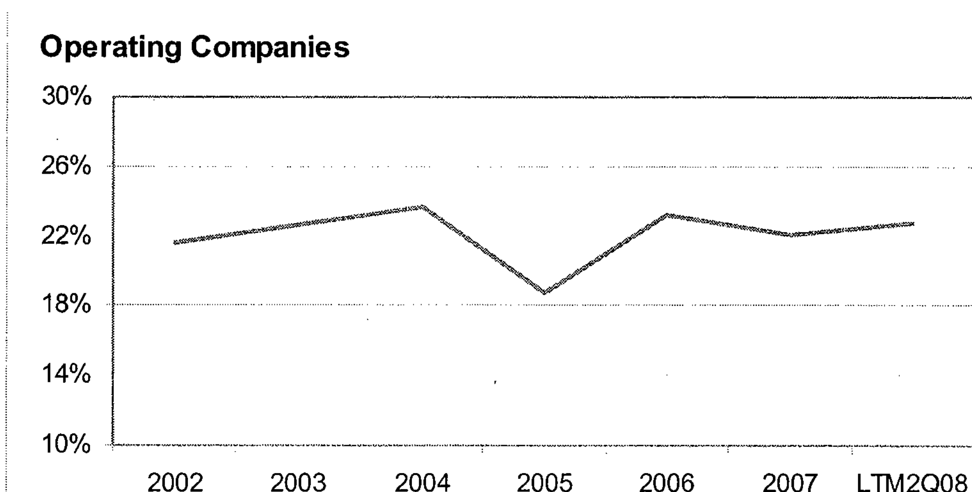


Source: Moody's.

Average includes 56 vertically integrated electric utilities. For a list of the utilities included in the average, please refer to Appendix A.

Chart F:

Average historical cash flow (adjusted for changes in working capital) to total adjusted debt



Source: Moody's.

Average includes 56 vertically integrated electric utilities. For a list of the utilities included in the average, please refer to Appendix A.

UE-090704, UG-090705
Exhibit No.
Page 14 of 30

Prospective financial profile remains investment grade

We incorporate a view that the sector should be reasonably well protected from the effects associated with a protracted recessionary environment and maintain its investment-grade ratings category. Unlike customers for many other capital-intensive industrial sectors, utility consumers may be less likely to sharply reduce their usage, beyond some modest level of conservation. They should still use an average amount of electricity. In contrast, a consumer can defer or decide against purchasing new equipment, automobiles or software.

In an effort to demonstrate the strong resiliency that utilities exhibit over a longer-term horizon, Moody's created a hypothetical, vertically integrated electric utility, which we will refer to as "RegCo." RegCo is an average of the 56 vertically integrated utility companies that are listed in Appendix A, and has produced, on average, roughly $3 billion in revenue and $575 million in cash flow from operations over the past few years. RegCo has approximately $6 billion of property, plant and equipment (net of accumulated depreciation), total assets of roughly $8.5 billion and approximately $2.8 billion of debt.

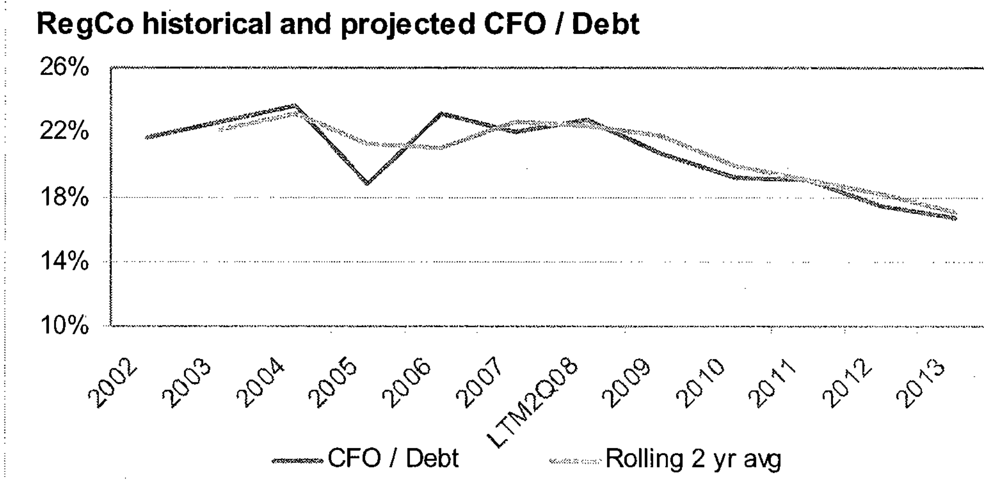
Moody's evaluated the average historical financial statements for RegCo between 2002 and the 12 months ended June 2008. Based on these historical financials, we made a series of assumptions, including assumptions regarding volume growth, rate increases, cost increases and dividend policy, in an attempt to generate a "base-case" view as to how RegCo might perform over the next five years (2009 – 2013). A list of our assumptions is included in Appendix B.

It should be noted that RegCo's base-case financial projections, which are premised on the historical averages for 56 vertically integrated electric utilities, do NOT completely represent our views regarding the likely performance for our individual, rated utility companies. Instead, this exercise should be viewed as an illustrative example of what might happen, based on our simple projections.

As depicted in the charts below, RegCo's base-case assumptions would produce a reasonable amount of CFO to adjusted total debt over our projected 5 year horizon. Although the trend line is modestly declining over the next few years, a credit negative, we observe that it remains comfortably above 15%, a threshold which remains firmly within our Baa investment-grade rating category.

Chart G:

Illustrative cash flow to debt, historical and base case projected



UE-090704, UG-090705
Exhibit No.
Page 15 of 20

Utility financials exhibit resilience to recessionary pressures

Although our concerns associated with a protracted recessionary environment are primarily associated with consumers reaching a tolerance point to absorb incremental rate increases, we remain confident that the sector has the fundamental ability to adjust its corporate finance policies in order to address any potential negative financial implications.

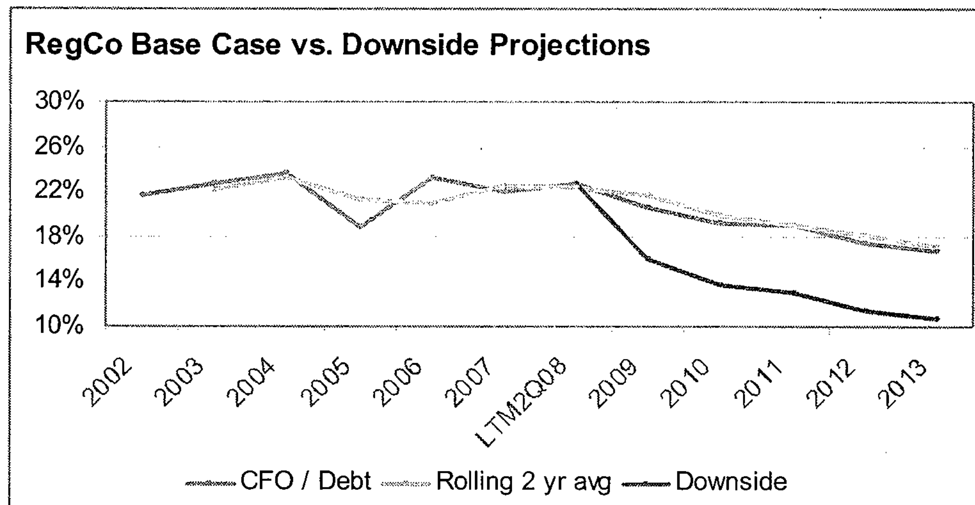
We observe that under many illustrative downside scenarios, RegCo should still be capable of producing positive cash flows from operations that represent over 10% of total adjusted debt outstanding. Although this ratio represents a material reduction from the longer-term average of roughly 23%, it remains unclear if that would be sufficient to push the sector into a non-investment-grade ratings category at this time. At a minimum, a ratio of 10% CFO to total adjusted debt would hardly be viewed as a crisis of solvency.

In the charts below, Moody's illustrates the sector's financial resiliency through projected CFO to total adjusted debt ratios that reflect several relatively severe downside assumptions, which are listed in Appendix B.

Should such downside scenarios materialize, there would be a significant amount of pressure on RegCo's ratings. However, we acknowledge that one of the primary benefits a utility enjoys is its long-term capital intensity and its reasonably stable production of cash flows. As such, RegCo should be in a position to address the negative impacts of a protracted recession by revising its corporate policies.

Chart H:

Illustrative cash flow to debt, historical, base case and downside scenarios

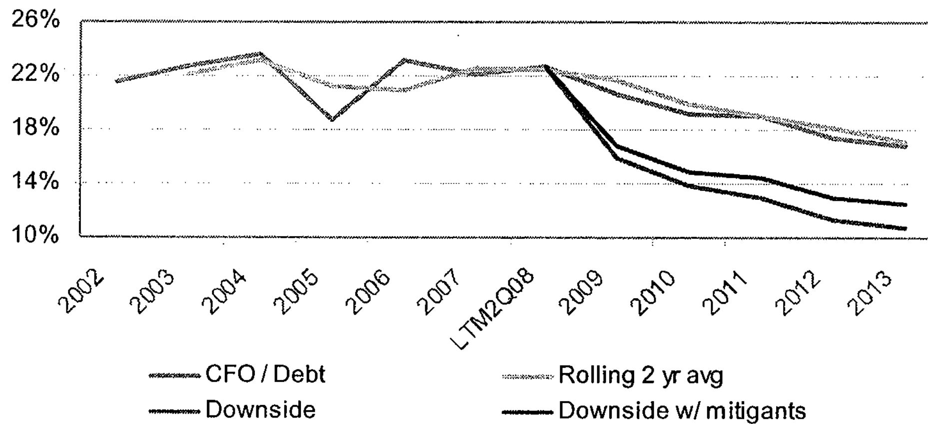


In Chart G below, we illustrate the positive benefits associated with RegCo revising some of its corporate finance policies. In this example, which we refer to as the downside case with mitigants, we assume RegCo reduces its planned capital expenditures by roughly 20% a year over the projection horizon and that RegCo lowers its annual dividend payout ratio to 45% (of prior year's earnings) from 65%. As evidenced in the chart below, there is some moderation of the decline in the ratio of CFO to total adjusted debt.

UE-090704, UG-090705
Exhibit No.
Page 16 of 21

Chart I:

Illustrative cash flow to debt, historical, basecase, downside and downside with mitigants



Conclusion

The fundamentals for the U.S. investor-owned electric utility sector remain intact. The support provided by the regulated business activities produce a relatively stable and predictable stream of revenues, earnings and cash flow, which, when compared to the total amount of outstanding debt, supports a strong investment-grade rating category. The sector appears to be well insulated from the potential for a protracted recession, but it is not immune to the potential negative consequences of continuing with business as usual.

Therefore, we believe some proactive steps may be necessary to fortify the sector's balance sheet over the longer-term horizon, in part due to the challenges associated with commodity fuel costs, massive infrastructure investment needs and increasingly stringent environmental mandates. The quickest and most effective means to accomplish a balance sheet strengthening program is a significant infusion of common equity, in our opinion.

Although the overall liquidity profile for the sector appears adequate, the historical reliance on commercial paper markets and debt financings lead us to believe that additional proactive steps to bolster liquidity are also in order.

It remains unclear, at this time, if a reduction or downward revision to the infrastructure investment needs of the sector is an appropriate long-term action. These infrastructure investments had been identified as necessary, given the age of the assets, and continued regulatory support has been incorporated into most utilities' long-range forecasts, including an expectation that returns on capital would be reasonable. Should this prove not to be the case, it could represent the first crack in our fundamental assumption regarding the sector's ratings and rating outlooks.

While a protracted recessionary environment could create some near- to intermediate-term pressures on the sector's financial profile, we believe most companies have numerous options at their disposal to address these pressures well in advance – actions which we assume a conservative utility management team and Board of Directors would pursue.

U.S. Investor Owned Electric Utilities

UE-090704, UG-090705
Exhibit No. ___
Page 17 of 20

ppendix A

Vertically Integrated Operating Companies

	Senior Unsecured Rating
Alabama Power Company	A2
Appalachian Power Company	Baa2
Arizona Public Service Company	Baa2
Avista Corp.	Baa3
Cleco Power LLC	Baa1
Columbus Southern Power Company	A3
Consumers Energy Company	*Baa1
Dayton Power & Light Company	**A3
Detroit Edison Company (The)	**Baa1
Duke Energy Carolinas, LLC	A3
Duke Energy Indiana, Inc.	Baa1
Duke Energy Ohio, Inc.	Baa1
El Paso Electric Company	Baa2
Entergy Arkansas, Inc.	**Baa2
Entergy Gulf States Louisiana	*Baa3
Entergy Louisiana, LLC	Baa2
Entergy Mississippi, Inc.	**Baa3
Florida Power & Light Company	**A1
Georgia Power Company	A2
Gulf Power Company	A2
Hawaiian Electric Company, Inc.	**Baa1
Idaho Power Company	Baa1
Indiana Michigan Power Company	Baa2
Kansas City Power & Light Company	A3
Kentucky Power Company	Baa2
dison Gas and Electric Company	Aa3
dAmerican Energy Company	A2
Mississippi Power Company	A1
Nevada Power Company	**Ba3
Northern Indiana Public Service	Baa2
Northern States Power Company (MN)	A3
Northern States Power Company (WI)	*A2
Ohio Power Company	A3
Oklahoma Gas & Electric Company	A2
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 New Mexico	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 Co	A3
Southern California Edison Company	A3
Southwestern Electric Power Company	Baa1
Southwestern Public Service Company	Baa1
Tampa Electric Company	Baa2
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	A1

Parent Utility Holding Companies

	Senior Unsecured Rating
Allegheny Energy, Inc.	Ba1
ALLETE, Inc.	**Baa1
Alliant Energy Corporation	****P-2
Ameren Corporation	**Baa3
American Electric Power Company	Baa2
Black Hills Corporation	Baa3
Cleco Corporation	Baa3
CMS Energy Corporation	Ba1
Constellation Energy Group, Inc.	Baa2
Dominion Resources Inc.	Baa2
DPL Inc.	Baa2
DTE Energy Company	Baa2
Duke Energy Corporation	Baa2
Edison International	Baa2
Empire District Electric Company	Baa2
Energy Future Holdings Corp.	***B2
Entergy Corporation	Baa3
Exelon Corporation	Baa1
FirstEnergy Corp.	Baa3
FPL Group, Inc.	**A2
Great Plains Energy Incorporated	Baa2
Hawaiian Electric Industries	Baa2
IDACORP, Inc.	Baa2
IPALCO Enterprises, Inc.	*Ba1
MidAmerican Energy Holdings Co.	Baa1
OGE Energy Corp.	Baa1
Pepco Holdings, Inc.	Baa3
PG&E Corporation	Baa1
Pinnacle West Capital Corporation	Baa3
PNM Resources, Inc.	Ba2
PPL Corporation	**Baa2
Progress Energy, Inc.	Baa2
Public Service Enterprise Group	Baa2
Puget Energy, Inc.	**Ba1
SCANA Corporation	Baa1
Sempra Energy	Baa1
Sierra Pacific Resources	***Ba1
Southern Company (The)	A3
TECO Energy, Inc.	Baa3
UniSource Energy Corporation	*Ba1
Westar Energy, Inc.	Baa3
Wisconsin Energy Corporation	A3
Xcel Energy Inc.	Baa1

enior Secured or First Mortgage Bond Rating

Issuer Rating

*** *Corporate Family Rating*

**** *Short-Term Rating*

UE-090704, UG-090705
Exhibit No. ___
Page 18 of 21

Appendix B

RegCo's base-case simplifying assumptions include the following:

- Cash flow from operations equal 18% of revenue in 2009, but modestly decline to 16% by 2013. Historically, this relationship of cash flows and revenue has exhibited a steady decline from roughly 21% in 2002 to 18% in 2005, where it remains today.
- Annual rate increases are provided at a level that results in a 10% return on equity every year.
- Dividends are paid based on 65% of the prior year's net income available to common shareholders. This results in a projected dividend payout ratio in the low-60% range, which we view as reasonable. The dividend payout ratio in 2007 was 56%.
- Negative free cash flow is financed 80% debt / 20% equity and a 7% interest rate is applied to all incremental debt throughout the forecast period. In the event positive free cash flow is generated, the model will reduce debt and equity in the same 80% / 20% percentages.
- There are no other debt maturities assumed.
- Volumes grow at 1% per year.
- Operations and maintenance expenses grow at 5% per year.
- Fuel and purchased power increases are assumed as follows:
  - 5% increase in 2009
  - 7.5% increase in 2010 and 2011
  - 5% increase in 2012
  - 2.5% increase in 2013

Base capital expenditures are assumed as follows:

- 225% of prior year's depreciation and amortization (D&A) in 2009
- 210% of prior year's D&A in 2010
- 200% of prior year's D&A in years 2011- 2013

As a simplifying assumption, Moody's incorporates a view that all capital expenditures are immediately placed in rate base and depreciated. This assumption avoids the creation of construction work in progress accounts (CWIP) or other deferral accounts that can complicate our projection model. Essentially, this assumes that regulators will be providing real time recovery on all expenditures on an annual basis.

Downside assumption adjustments to the base case:

- 0% annual volume growth instead of 1% in the base case
- The ratio of CFO to revenues is reduced by 300 basis points across the projection horizon.
- Annual rate increases limited to 3% per year across the projection horizon.
- The annual fuel and purchased power expense increases are cut by 50% across the projection horizon.
- Average interest expense increases by 200 basis points (to 9% from 7%) for any incremental debt issued over the next five years

UE-090704, UG-090705
Exhibit No. ___
Page 19 of 21

Moody's Related Research

Covenant Quality Assessments

- Oncor Electric Delivery, August 2008 (111034)
- Public Service Company of New Mexico, May 2008 (109223)
- PNM Resources, May 2008 (108991)
- AmerenEnergy Generating Company, April 2008 (108549)
- Dominion Resources, February 2008 (107829)
- Virginia Electric and Power Company, February 2008 (107828)

Rating Methodologies

- North American Diversified Natural Gas Transmission and Distribution Companies, March 2007 (102513)
- North American Natural Gas Pipelines, December 2006 (101229)
- North American Regulated Gas Distribution Industry (Local Distribution Companies), October 2006 (99282)
- Probability of Default Ratings and Loss Given Default Assessments for Non-Financial Speculative-Grade Corporate Obligors in the United States and Canada, August 2006 (98771)
- Rating Methodology: Global Regulated Electric Utilities, March 2005 (91730)

Industry Outlooks

- US Investor Owned Electric Utilities – Six Month Industry Update, July 2008 (109675)
- US Electric Utility Sector, January 2008 (107004)
- North American Natural Gas Transmission & Distribution: Six-Month Industry Update, July 2008 (111486)
- US Coal Industry Outlook – 2008, October 2007 (105372)
- North American Natural Gas Transmission & Distribution, September 2007 (104854)
- U.S. Electric Utilities, December 2006 (101304)

Special Comments

- North American Midstream Energy Companies: Industry Snapshot and Issuer Profiles, September 2008 (111650)
- Natural Gas Pipelines Manage Risks Amid Building Boom, September 2008 (111220)
- Gas Distribution Companies See Late Payments Rise, But Liquidity Holds Up, August 2008 (110376)
- New Nuclear Generation Capacity: Potential Credit Implications for US Investor Owned Utilities, May 2008 (109152)
- EU Climate Change Strategy, May 2008 (108846)
- Decommissioning and Waste Costs for New Generation of Nuclear Power Structures, May 2008 (109086)
- New Generating Capacity in a Carbon Constrained Environment, March 2008 (107453)
- Credit Challenges Ahead For Public Power: Difficult Decisions on New Generation Capacity, November 2007 (105997)

(continued on next page)

UE-090704, UG-090705
Exhibit No. ___
Page 20 of 21

Special Comments *(continued)*

- New Nuclear Generation in the US: Keeping Options Open Vs Addressing An Inevitable Necessity, October 2007 (104977)
- Storm Clouds Gathering on the Horizon for the North American Electric Utility Sector, August 2007 (103941)
- Environmental Regulations Increase Capital Costs for Public Power Electric Utilities, June 2007 (103616)
- Regulation Of Greenhouse Gases: Substantial Credit Challenges Likely Ahead For U.S. Public Power Electric Utilities, June 2007 (103356)
- Regulatory Pressures Increase For U.S. Electric Utilities, March 2007 (102322)
- Proposed Acquisition of TXU Corp. by a Consortium of Private Equity Investors Raises Potential for a Multi-Notch Ratings Downgrade, March 2007 (102471)
- Moody's Comments on the Credit Implications Associated with North American Utility Consolidation, December 2006 (101392)
- Moody's Comments on the Back to Basics Strategy for the North American Electric Utility Sector, November 2006 (100660)
- Texas Retail Electric Providers Face Credit Challenges, October 2005 (94787)
- Uncertainties Remain With Respect To The Restructuring of the Texas Electric Utility Industry, March 2004 (81796)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

U.S. Investor-Owned Electric Utilities

Report Number: 111891

Author	Associate Analyst	Editor	Production Associate
'ames Hempstead	Ryan Wobbrock	Scott Stearns	Shubhra Bhatnagar

© Copyright 2008, Moody's Investors Service, Inc. and/or its licensors and affiliates including Moody's Assurance Company, Inc. (together, "**MOODY'S**"). All rights reserved. **ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY COPYRIGHT LAW AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.** All information contained herein is obtained by **MOODY'S** from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, such information is provided "as is" without warranty of any kind and **MOODY'S**, in particular, makes no representation or warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability or fitness for any particular purpose of any such information. Under no circumstances shall **MOODY'S** have any liability to any person or entity for (a) any loss or damage in whole or in part caused by, resulting from, or relating to, any error (negligent or otherwise) or other circumstance or contingency within or outside the control of **MOODY'S** or any of its directors, officers, employees or agents in connection with the procurement, collection, compilation, analysis, interpretation, communication, publication or delivery of any such information, or (b) any direct, indirect, special, consequential, compensatory or incidental damages whatsoever (including without limitation, lost profits), even if **MOODY'S** is advised in advance of the possibility of such damages, resulting from the use of or inability to use, any such information. The credit ratings and financial reporting analysis observations, if any, constituting part of the information contained herein are, and must be construed solely as, statements of opinion and not statements of fact or recommendations to purchase, sell or hold any securities. **NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.** Each rating or other opinion must be weighed solely as one factor in any investment decision made by or on behalf of any user of the information contained herein, and each such user must accordingly make its own study and evaluation of each security and of each issuer and guarantor of, and each provider of credit support for, each security that it may consider purchasing, holding or selling.

MOODY'S hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by **MOODY'S** have, prior to assignment of any rating, agreed to pay to **MOODY'S** for appraisal and rating services rendered by it fees ranging from $1,500 to approximately $2,400,000. Moody's Corporation (MCO) and its wholly-owned credit rating agency subsidiary, Moody's Investors Service (MIS), also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually on Moody's website at www.moodys.com under the heading "Shareholder Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Moody's Investors Service