BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 1633

In the Matter of	)
PUBLIC UTILITY COMMISSION OF OREGON	)
Investigation into Treatment of Pension Costs in Utility Rates	)

REPLY TESTIMONY
OF THE
CITIZENS' UTILITY BOARD OF OREGON

December 19, 2013

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In the Matter of PUBLIC UTILITY COMMISSION OF OREGON Investigation into Treatment of Pension Costs in Utility Rates	)	REPLY TESTIMONY OF THE CITIZENS' UTILITY BOARD OF OREGON

Our names are Bob Jenks and Jaime McGovern. Our qualifications can be found in CUB Exhibit 101.

I. Introduction: The not-so simple story

This generic investigation into rate treatment of utility pension costs was opened as a result of issues raised in Docket UG 221, the 2012 NW Natural general rate case. The new UM 1633 docket commenced with the utilities providing a simple, and on the surface, compelling narrative. CUB, in this UM 1633 Reply Testimony, will not only scratch the surface of the utilities' story but will provide a factually distinct, and very different, analysis.

Our Reply Testimony begins with a review of the utilities' rendering of the pension narrative:

The Joint Utilities' Pension Narrative

Pension recovery, in ratebase, is based on pension expense (FAS 87).[1] This worked fine, for all the utilities, until the Pension Protection Act of 2006, which became effective in 2008 and requires each company to "fully amortize" shortfall obligations over seven years and also places restrictions on pensions that fall below 80% of the funding target.[2] This truncated amortization schedule, combined with the recession, and the decline in discount rates triggered a need for each of the Joint Utilities[3] to make significant cash contributions to its pension funds. Because, current ratemaking treatment allows for recovery of FAS 87 expense only, each utility is not being compensated for its "financing costs associated with the pension contributions in excess of the pension expense."[4] The cumulative contributions above the FAS 87 pension expense are identified as the prepaid pension asset[5]. With some pensions underfunded, utilities are projecting additional required contributions, which will require additional utility outlay.[6] While ultimately these contributions will be recovered through FAS 87, under current ratemaking treatment, shareholders have to finance it.[7] This timing difference for recovery is unfair, but can be solved by allowing the utility to earn a return on its prepaid pension asset. Fundamentally this is no different than allowing the utility

[1] Utility Presentation, UM 1633 Pension Workshop, March 11, 2013, page 6.
[2] Utility Presentation, UM 1633 Pension Workshop, March 11, 2013, page 10.
[3] The Joint Utilities are NW Natural (NWN), PacifiCorp (PAC), Portland General Electric (PGE), Avista Utilities (Avista) and Cascade Natural Gas Company (CNG) and they filed Joint Testimony on September 30, 2013 in this UM 1633 docket. Idaho Power Company has a different pension policy and did not file testimony on September 30, 2013.
[4] Utility Presentation, UM 1633 Pension Workshop, March 11, 2013, page 13.
[5] Spiceland , Seppe and Tomassini, Intermediate Accounting, 847-848: http://highered.mcgraw-hill.com/sites/dl/free/0072994029/291209/Spiceland4e_ch17FINAL_01242007.pdf
[6] *See* CUB Confidential Exhibit 102, CUB Exhibit 103, CUB Confidential Exhibit 104, CUB Exhibit 105, CUB Exhibit 106, CUB Confidential Exhibit 107.
[7] UE 262 - PGE/500/ Barnett-Bell-Jaramillo/2.

to enter into ratebase a physical asset, such as a coal pile that is amortized as it is used over time.[8] Thus ends the Joint Utilities Pension narrative.

Unfolding the Joint Utilities' Narrative

The Joint Utilities tell a good story. It is simple. It is understandable. Unfortunately, it is not supported by the facts. CUB recounts its own simple story.

CUB's Utility Ratemaking Pension Narrative

The Companies offered[9] a pension benefit to employees. Since the FAS 87 statement was introduced, the Joint Utilities have adopted ratemaking treatment based on FAS 87 expense,[10] but have applied that inconsistently to the detriment of their respective customers.

The pension trust fluctuates in value, and accrual accounting rules create an accounting entry that reflects a timing difference between cash funding and expense recognition (FAS87 and FAS 88). The accumulation of this accounting entry creates the prepaid pension asset identified by the Joint Utilities, an asset on which the companies claim they bear a financing cost. However, a review of the pension history data demonstrates that for many years, due to the inconsistent application of FAS 87, much of the prepaid pension asset was not financed by shareholders. In addition, historical review belies other problems with the Joint Utilities' proposal, which we discuss in our testimony below.

Mathematically, FAS 87 does not amortize the prepaid pension asset. The prepaid pension assets grew significantly without any pension contribution by the

[8] UM 1633 - Joint Testimony/100/Joint Utilities/13.
[9] While some Companies still have open plans, most are closed to new employees.
[10] Each company adopted FAS 87 treatment in their own rate cases, independently between 1987 and the early 1990's.

utility.[11] In some cases, the prepaid pension asset was greater before the Pension Protection Act of 2006[12] and the recession.

Contrary to what the Joint Utilities want the Commission to believe, it is not possible to accurately portray the pension issues, that follow from regulatory treatment, as straightforward. This is because the pension issues compound such interactions as revisions in accounting standards, dependency on financial markets, amortization tables, evolving life expectancies, interstate regulatory differentiation, mismatched timing concerns, rates of return, prudency reviews, questions of equity and uncertainty, among others. Fortunately, however, complicated issues do not necessarily require complicated regulatory treatment. There is evidence to support equitable transparent ratemaking based on observable variables in pension funds. CUB supports ratemaking based on easily identifiable content, in order to reduce the burden on each filing utility and in order to promote transparency in funding recovery.

Our testimony is organized as follows: First, for consistency, CUB will identify and define the relevant terminology in this case. Then we will analyze, in detail, the facts related to this proceeding, and how those facts stand contrary to the abridged version presented by the Joint Utilities. CUB will then discuss the difficulty of going backwards to account for the long history of pension decisions that are represented by the prepaid pension asset. Next we will discuss the reasons why shareholder recovery of the prepaid pension asset is both improper and inequitable. Finally, we will conclude with recommendations to the Commission for going forward.

[11] The fact that the prepaid pension asset can grow, instead of depreciating, eliminates the analogy to revenue generating ratebase assets.

[12] We will use the abbreviation PPA for the Pension Protection Act. It is important to recognize that it does not stand for Prepaid Pension Asset. which CUB will always spell out in full.

CUB supports ratemaking treatment based on FAS 87 expense, but that needs to be consistently applied, and CUB is open to a balancing account, if it is fairly applied.

II. Terminology.

Below is a list of terms that we will use in this testimony and the definition of those terms:

- **defined benefit pension plan**: a pension plan, where final benefits are calculated by a formula using an employee's years of service, age and salary progression.
- **defined contribution retirement plan**: a retirement benefit plan , defined by monthly or annual contributions, where final benefits are subject to market returns.
- **FAS 87/net periodic pension expense/ annual pension expense/pension income:** The actuarial defined annual pension expense that companies are required (with some exceptions) to identify in their accounting statements. FAS 87 is annual pension expense when it is positive and pension income when it is negative. CUB will generally refer to this phenomenon as FAS 87 and as negative FAS 87.
- **FASB:** Financial Accounting Standards Board
- **FAS 88:** *pension expense* of defined benefit pension obligations *resulting from one time events,* for curtailment of a defined benefit pension plan, for termination benefits and for final accounting of the pension plan.
- **pension contribution:** an amount deposited in the pension fund.
- **pension expense:** pension expense includes both FAS 87 net periodic expense and FAS 88 expense**.**

- **prepaid pension asset/accrued pension liability/prepaid pension:** In UE 262, CUB charged that it was more accurate to call this a prepaid pension cost rather than a prepaid pension asset. While CUB still believes this is the case, for simplicity, we will use the term prepaid pension asset, since it is the term used by other parties to this case. At the heart of this docket is the prepaid pension asset, the accrued amount of annual differences between cash contributions and pension expense (FAS 87 and FAS 88). If this amount is negative (i.e., over the years, in total, cash contributions have been less than FAS 87 expense) then this amount is termed an accrued pension liability**.**
- **PPA:** Pension Protection act of 2006.
- **Rule of 72:** a mathematical property that states the period of time required to double an investment is approximately 72 divided by the rate of return (assuming annual compounding, faster if compounding more frequently).

III. Background

The Joint Utilities and also Idaho Power, along with many other companies, offer, or have offered in the past, defined benefit pension plans. These are pension plans, offered to company employees. These pension plans guarantee a certain level of payment upon retirement. The pension represents a compact between a company and its employees. A company "guarantees that the employee will receive a definite amount of benefit upon retirement, regardless of the performance of the underlying investment pool."[13] Compared to defined contribution plans, defined benefit plans, offer security to

[13] Investopedia: http://www.investopedia.com/terms/p/pensionplan.asp

the employee and levy the risk and responsibility of maintaining and adequately funding the plan on the plan sponsor, the company. When the economy is prosperous, the investments in the pension plan (trust) grow rapidly and adequate funding is relatively cheap, or even unnecessary. When the pension investments suffer along with the economy, contributions and funding may need to be increased temporarily. The risks that these fluctuations impose upon the plan make it necessary, for the integrity of the plan (trust), and for shareholder transparency, for the companies to employ actuarial forecasts which consistently update the health status of the pension plan trust funds. These actuarial results inform the accrual accounting that the companies must maintain under FASB rules. In particular, FAS 87 rules dictate the reporting of pension expense for a company in a given year, taking into account factors such as service cost, life expectancy, expected rates of return, plan experience, discount rates, and interest rates, among others. When the pension plan trust is lush (overfunded and/or producing significant investment gains), the FAS 87 expense can be negative, signaling that the trust is in good health. When pension investments lose value, the FAS 87 can turn positive, signaling a need for contributions to the pension plan. Contributions do not show up directly under accrual accounting, but do under cash accounting. At any point during the life of the pension trust, the cumulative difference between cash contributions and pension expense (FAS 87 and FAS 88) create an accounting entry: the prepaid pension asset (or when negative, the accrued pension liability). Essentially, the prepaid pension asset is a historical tab that shows the cumulative difference at any single point of time between accrual accounting and cash accounting. It can be calculated as the difference between contributions to the trust and the recognition of expense in the form of FAS 87 and FAS 88. The Joint

Utilities in this docket propose that the utility earn a return on this prepaid pension asset. CUB opposes this treatment for the reasons explained below.

IV. The Facts Do Not Support the Joint Utilities' Narrative, Or The Joint Utilities Proposed Solution.

A. The Story began before 2006 and the Pension Protection Act

CUB began its review by asking all six of Oregon's investor owned utilities to provide historical pension data back to 1986 (a year before the FAS 87 implementation). The results of that request are contained in CUB Confidential Exhibit 102, Exhibit103, Confidential Exhibit104, Exhibit 105, Exhibit 106 and Confidential Exhibit107.[14]

It is true that the recession and the Pension Protection Act required most pension sponsors to make pension contributions, which increased the size of their prepaid pension assets. The recession caused the value of the assets in the pension trust to dwindle temporarily and the Pension Protection Act of 2006 (PPA) accelerated the recognition of the financial impact of this reduction in assets, requiring the plan's sponsor to make contributions to the pension trust. However, in this docket, the Joint Utilities are asking the Commission for a return on an actuarial asset that had it genesis long before either the recession or the PPA of 2006 came into being. NW Natural's prepaid pension asset, for example, peaked in 2005.[15] [redacted],[16] suggesting that under an equitable interpretation of the current filing, [redacted] should currently be paying ratepayers a return on the negative prepaid pension asset (accrued pension liability).

[14] Some utilities consider this information confidential, others do not.
[15] CUB Exhibit 105.
[16] CUB Confidential Exhibit 104.

Equating the burden of the prepaid pension asset to the inception of the PPA vastly oversimplifies the issues in this proceeding.

B. **The Joint Utilities Did Not Treat Accrued Pension Liabilities in the Manner in Which They Propose to Treat Prepaid Pension Assets.**

Consider two of the companies in this docket, PGE and PacifiCorp. [redacted][17] [redacted][18] Between the years of 1998 and 2005, PacifiCorp, for example, carried, on average, an accrued pension liability of $63M per year, which should have been used to reduce ratebase. Had it been applied to ratebase it would have reduced the return on ratebase - paid by customers - by $8.8M per year, or $71M in total.[19] Instead, over that period, PacifiCorp, in rates, charged customers at least $50M for pension expense (FAS 87). However the Company's actual pension expense during this period was negative, meaning customers should not only have received the $8.8M per year, but should also have received the negative FAS 87 expense (pension income).[20]

PGE's prepaid pension asset also has a murky history. [redacted]

[17] CUB Exhibit 106 and Confidential Exhibit 107.
[18] Ibid.
[19] CUB Exhibit 106.
[20] Ibid.

[redacted][21] Also of note, customers did not receive the benefits of the accrued pension liability during that time period.

In theory, the prepaid pension asset and the accrued pension liability need to be treated symmetrically. PacifiCorp agrees that if a prepaid pension asset should cause rates to go up, then an accrued pension liability should cause rates to go down:

> Yes, the Company agrees in principle that the cumulative difference between contributions and expense should be included in rate base, whether this results in a prepaid asset or accrual balance.[22]

PacifiCorp's historic practices do not reflect that theory. We know this because PacifiCorp also confirmed that when it had an accrued pension liability, customers did not receive a benefit associated with that liability. The Company stated:

> The accrued pension liability was not included in rate base and accordingly, no return was paid to customers on the accrued pension liability.[23]

To exempt the prepaid pension asset from ratebase, when it was favorable to customers, but to ask for inclusion of the prepaid pension asset in rate base when it is favorable to the company is fundamentally unfair.

C. Negative FAS 87 increases the Prepaid Pension Asset without the utility making a contribution.[24]

The prepaid pension asset is an actuarial asset that accrues in every year that contributions exceed FAS 87 expense. This does not mean that a contribution is made, because when there is no contribution and FAS 87 is negative, the contribution (zero) exceeds the FAS 87 expense (negative). This can be demonstrated mathematically:

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[21] CUB Confidential Exhibit 107.
[22] CUB Exhibit 108.
[23] CUB Exhibit 109.
[24] Negative FAS 88 has the same effect.

$$prepaid\ pension\ asset = \sum_{y=1987}^{current} (contribution - FAS87)_y$$

$$= \sum_{y=1987}^{current} contribution_y - \sum_{y=1987}^{current} FAS87_y$$

However, if FAS87 is negative, then:

$$= \sum_{y=1987}^{current} contribution_y - \sum_{y=1987}^{current} -|FAS87_y|$$

or

$$= \left[\sum_{y=1987}^{current} contribution_y\right] + \left[\sum_{y=1987}^{current} |FAS87_y|\right]$$

By definition, whenever FAS 87 is negative, it increases the prepaid pension asset, regardless of contribution status.

This increase in prepaid pension asset, regardless of contribution status, can occur when: (a) cash contributions are zero and FAS 87 expense is negative; (b) cash contributions are positive and FAS 87 expense is negative; or (c) cash contributions are positive and FAS 87 expense is positive, but less than cash contributions. In scenario (a) the negative FAS 87 expense is the only driver of the increasing prepaid pension asset, creating an asset on the Company's books without any outlay by the company. In both scenarios (a) and (b), the prepaid pension asset is building faster than the contributions.

i. Much of the Current Prepaid Asset was Caused by Negative FAS 87

Consider the following CUB Confidential graph. CUB that depicts a sequence of events related to PGE.[25]

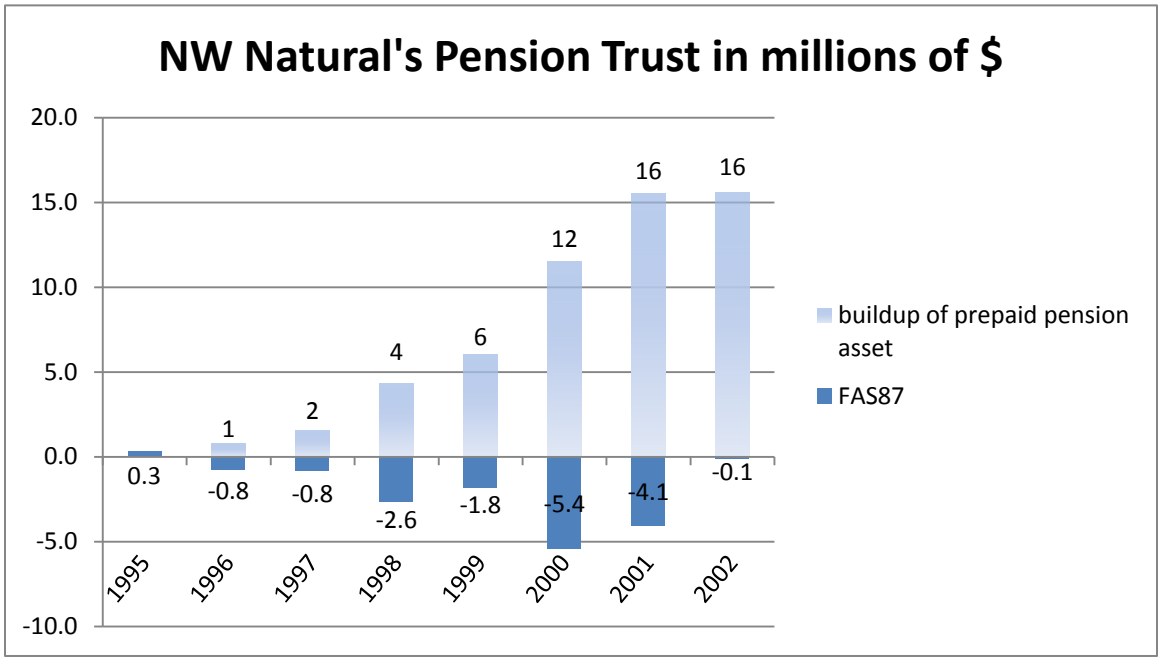
Beginning in 1995, a year of high economic growth,

[25] CUB Confidential Exhibit 107.

[redacted]

[redacted][26]

This set of circumstances is not unique to PGE. A very similar story played out for NW Natural between the years 1995 to 2002.[27]



There is no ambiguity in the formula. The prepaid pension asset grows, dollar for dollar from negative FAS 87 pension expense, even when the Company does not make a contribution. The Company, even though not out of pocket, records pension income, and now proposes to earn a return. There is something very wrong with this picture.

ii. Negative FAS 87 Pension Expense Has Not Been Passed Through to Customers

Significant portions of the current prepaid pension assets, that the Joint Utilities claim require a return, come solely from negative FAS 87, money not financed by the utilities, which was not passed through to customers. CUB fundamentally disagrees with

[26] CUB Confidential Exhibit 107.
[27] CUB Exhibit 105.

the utilities which claim that they should receive a financing cost on monies that they did not in fact finance. In PGE's case, [redacted] came directly from negative FAS 87.[28]

Furthermore, PGE believes that it is appropriate to charge customers for FAS 87 expense when it is positive, but does not believe that customers should receive a benefit when FAS 87 is negative:

> PGE requests no pension benefit cost in this proceeding because future benefit obligations are less than the expected value of the assets currently held in the plan. As in previous rate cases, we exclude negative net periodic pension cost from the test year revenue requirement.[29]

PacifiCorp acknowledges that under treatment symmetric to the proposed recovery method, customers should have received a benefit from the accrued pension liability, even though their customers, in fact, did not. If FAS 87 ratemaking is not applied symmetrically, customers are overpaying. To verify this, consider the accumulation of FAS 87. Over the life of the plan, FAS 87 accrual (along with the FAS 88 adjustment that comes at the end of the pension plan) is set to equal the funding of the plan as confirmed by Mr. Vogl:

> From a high level, both [accrual costs and cash costs] are designed to reflect the cost of the plan over the life of the plan.[30]

If over the life of the plan, pension contributions equal pension expense (FAS 87 and FAS 88), and customers do not receive the negative FAS 87, then customers will may more than the total pension expense or the total pension contributions. This can be demonstrated mathematically:

$$\left[\sum_{y=1987}^{final} contribution_y\right] = \left[\sum_{y=1987}^{final} |pension\ expense_y|\right]$$

[28] CUB Confidential Exhibit 107.
[29] UE 197 - PGE/800 Barnett-Bell/16 lines 9-12.
[30] UM 1633 - Joint Testimony/200/Vogl/10.

separating out the years when pension expense is negative, we have

$$\left[\sum_{y=1987}^{final} contribution_y\right] = \left[\sum_{y^+=1987}^{final} |pension\ expense_{y^+}|\right] + \left[\sum_{y^-=1987}^{final} |pension\ expense_{y^-}|\right]$$

where represents the years where pension expense is positive and, represents the years where pension expense is negative. Then, we have:

$$Total\ Contributions = \left[\sum_{y^+=1987}^{final} |pension\ expense_{y^+}|\right] + \left[\sum_{y^-=1987}^{final} |pension\ income_{y^-}|\right]$$

The historical treatment of FAS 87 ratemaking by the Companies, reflects the elimination of negative FAS 87 in rates. If we eliminate negative FAS 87 (pension income) in rates, this raises the value of the right hand side, then we have:

$$Total\ Contributions < \left[\sum_{y^+=1987}^{final} |pension\ expense_{y^+}|\right]$$

which shows that shareholders are contributing less than they collect in rates, under this lopsided FAS 87 ratemaking treatment.

iii. PGE's New Argument For a Return on the Prepaid Asset Caused by Negative FAS 87

Just this month PGE came up with a new rational for shareholders receiving a rate of return on a prepaid pension asset caused by negative FAS 87:

> Lower or negative FAS 87 expense is largely the result of investment policies by PGE that generated higher returns for customers than the financial market benchmarks. Thus, customers receive the benefit of lower or zero FAS 87 expense. These returns in excess of market benchmarks also affect future FAS 87 expense further reducing costs for customers. Granting a return on the prepaid pension asset allows PGE to be compensated for funding the benefit through both its cash contributions and above average market performance. [31]

Hence, PGE is no longer claiming that the return on the prepaid asset is because the Company needs to recover the financing costs associated with its cash contributions Now, the company is proposing some sort of incentive regulation that rewards the utility for its "above average market performance."

PGE's new position is fundamentally different than the position the utilities have been arguing for the last two years. Just as importantly, it misrepresents the cause of negative FAS 87. While it is true that returns above "market benchmarks" contribute to negative FAS 87, this has little to do with utility performance that would merit incentive payments. The actuarial gains that are projected in pension accounting are the long term expected gains. They have absolutely no relationship to short term forecasts of market returns. Most of the time a company will beat the actuarial projected return in the short term. But the actuarial return has to recognize that over the long term recessions happen – some years the market is contracting. Because the deviations from the projected return which happens during the contractions are larger than the gains above the projected return in the good years, the mean return is greater than the average return. Stated more simply, one would expect the utility to beat the projected return in most years. Finally, we note that if PGE wants a reward for the years that it did better than the projected

[31] CUB Exhibit 110.

return, then it should also be willing to accept a penalty for a year where its expected return was [redacted][32] That year, of course was [redacted].

But PGE does not see the [redacted] failure to meet the actuarial forecasted gain as a management failure that should be penalized. Instead, the Joint Utilities see the declining value of the pension trust under their management, during the recent recession, as one of the primary reasons they are required to make additional contributions and thus deserve a return on their prepaid pension asset.[33] However, if the Companies were granted a return on this prepaid asset, ratepayers would be required to pay a return on the prepaid pension asset for many years to come, or even indefinitely. CUB urges the Commission to recognize the inappropriateness of a utility being rewarded year after year, after year for a single year's showing of "above average market performance."

To CUB, PGE's positions really are as set forth in bullets below:

*When PGE's pension investments are worse than actuarial projections, requiring it to make a contribution, it deserves a return (profit) on the amount of the needed contribution which is greater than that year's FAS 87 expense.

*When PGE's pension investments produce gains that are greater than actuarial projections leading to negative FAS 87 expenses, PGE deserves a return (profit) on the negative FAS 87 as a reward for good management.

Under either circumstance PGE's shareholders would receive additional profits that they are not entitled to under existing regulation. The net effect, regardless of then existing market conditions: rates would be higher. Heads the utility wins, tails you the customers lose.

While not all utilities are as strident about retaining negative FAS 87, customers of all utilities have routinely been shortchanged whenever the pension expense turns

[32] CUB Confidential Exhibit 107.
[33] UM 1633 - Joint Utilities/100/Joint Parties/10.

negative. Take for example, NWN. Between 1996 and 2002 NWN had negative FAS 87 expense each year for a total of approximately $9.0 million. While some of this related to Washington operations, and some was capitalized, Oregon customers were shortchanged by $6.2 million.[34]

D. FAS 87 does not amortize the prepaid pension asset and as such, the return on the prepaid pension asset could go on indefinitely

This is a critical issue. Creating an asset that does not amortize down, leaves each customer on the hook for a rate of return for an indefinite period of time. In addition, it allows the utilities to create a perpetual money machine by making contributions to an overfunded pension. It is important to note that after nearly two years of proceedings talking about pensions, the utilities finally seem to be accepting the fact that FAS 87 does not amortize the prepaid pension asset.

For much of the last two years, we have heard utilities claim that over time the prepaid pension asset will disappear as it is slowly recovered through FAS 87. This made little sense mathematically, because a pension contribution simultaneously increases the prepaid pension asset directly, and indirectly (via a decrease in FAS 87). If FAS 87 actually amortized the prepaid pension asset, even over a very long period of time, it would have to go up at least a little when the prepaid asset grew.

Mr. Vogl, and the Joint Utilities' seem to accept that FAS 87 does not amortize the pension contribution. It is the combination of FAS 87 and FAS 88 that allows contributions and expenses to equalize. Mr. Vogl clarified his position on this issue when he submitted testimony on behalf of the Joint Utilities. He introduced the concept of FAS

[34] CUB Exhibit 111.

88, which at the conclusion of a pension plan makes up the difference between the prepaid pension asset and the historic FAS 87 amounts. He did not claim that FAS 87 amortized the prepaid pension asset, but that FAS 87 and FAS 88 combined would.[35]

Looking historically at what Mr. Vogl has said we find that he stopped just short of this admission when filing testimony before the New Mexico Regulation Commission. There he stated, regarding contributions to the plan, that they have the effect of "quickly improving the funded status of the plan, which would then decrease the FAS 87 financial reporting expense..."[36] Again, if a contribution reduces FAS 87, FAS 87 cannot be amortizing that contribution.

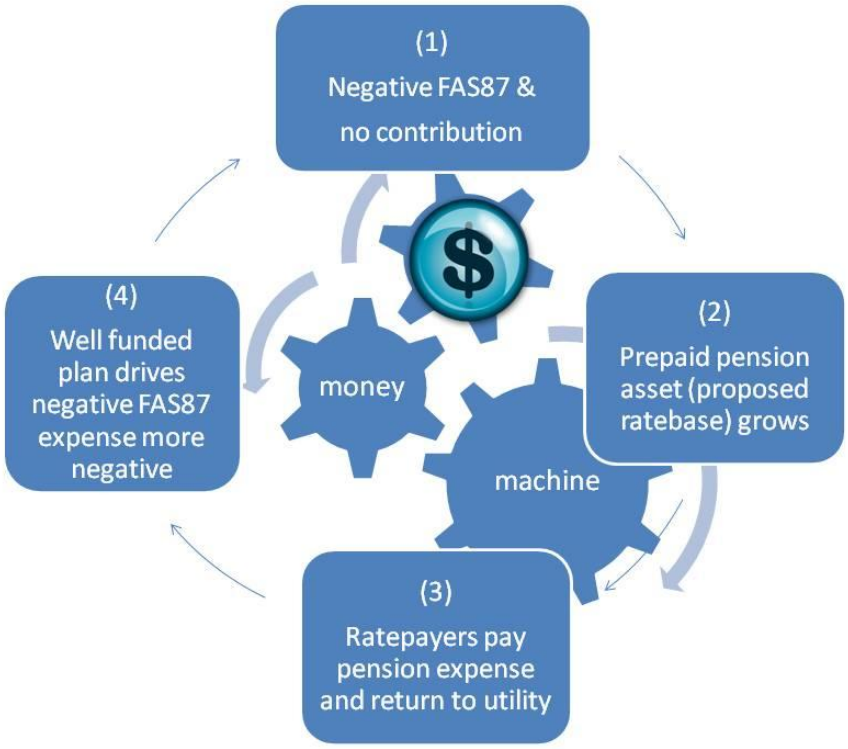
The Joint Utilities agree on this concept:

> Over the life of the pension plan total contributions are expected to equal total FAS 87 and FAS 88 expenses.[37]

But FAS 88 is not an annual expense that shows up on the books of the utility. It is an extraordinary expense that happens when a pension plan is restructured, terminated or otherwise ends.

[35] UM 1633 - Joint Testimony/200/Vogl/11-12.
[36] CUB Exhibit 116: New Mexico Public Regulation Commission Case No. 10-00086-UT, June 1, 2010, Direct Testimony of C. Kenneth Vogl, page 9, lines 1-3.
[37] UM 1633 - Joint Testimony/100/Joint Parties/9.

i. ***Without a method to amortize the prepaid asset, the utilities are creating a perpetual profit machine***



The diagram above demonstrates that (1) an initial negative FAS 87 expense (in combination with or in the absence of shareholder contributions) creates a perpetual money making scheme for the utilities because the prepaid pension asset never amortizes down to zero. This is so because (2) the prepaid pension asset is calculated as the cumulative annual sum of the difference between contributions and the FAS 87 expense.[38] As the prepaid pension asset increases, under the treatment proposed by the utilities, this would also mean an increase in the total return on this asset, paid by the ratepayers (3). Then, any contribution or favorable or neutral market conditions allows

[38] Note that difference is bigger when FAS 87 expense is negative.

FAS 87 expense to remain negative,[39] in turn, (4) driving down the pension (FAS 87) expense into even more negative territory. This begins the cycle all over again, requiring ever increasing contributions from ratepayers.

CUB is particularly disturbed by this potential revenue mechanism. This cyclical accumulation covers the actual circumstances during much of the years in question in this docket. During that timeframe several companies showed large prepaid pension assets, generated from negative FAS 87 expense, all before 2006. Of course, the potential reality could have been even worse. Under the regulatory treatment proposed by the Joint Utilities, a utility would have had an incentive to make additional contributions to its pension - even when the pension fund was overfunded, because those additional contributions would have added to the lucrative nature of the perpetual profit machine.

While some of this perpetual profit could be offset, if negative FAS 87 was passed through to customers, none of the companies fully passed through negative FAS 87 expense to ratepayers in the form of rate relief or refunds during that time period. In fact, [redacted],[40] PacifiCorp,[41] and [redacted][42] all recorded, for multiple years, negative FAS 87 expense (which helps grow their prepaid pension asset), while simultaneously charging customers in rates to fund the pension account. We must be clear here, the math never goes in the other direction – the direction of the ratepayers. There is not a single company in this docket that flowed through rate relief to their customers when FAS 87 expense was positive.

[39] Note: If FAS 87 expense turns positive, under current ratemaking treatment it is collected in rates.
[40] CUB Confidential Exhibit 104.
[41] CUB Exhibit 106.
[42] CUB Confidential Exhibit 107.

What the Joint Utilities are requesting in this docket is a permanent authorization for ratebase, for what was only a very temporary situation. In particular, the Companies are looking to earn a return on an accounting asset that could – if the utilities got what they are asking for - continue to grow indefinitely due to an accumulation of negative FAS 87: Negative FAS 87 that the Joint Utilities already seem unwilling to share with customers.

E. Contributions are not the primary drivers of the funded status of a pension plan.

CUB acknowledges, but does not agree with, the argument made by the Joint Utilities that the PPA has created a burden on the shareholders for which they ought to be made whole. Representing PNM in a 2010 case before the New Mexico Regulation Commission, Mr. Vogl foreshadowed the argument now made by the Joint Utilities in the current proceeding before the Oregon Public Utility Commission:

> the portion of unfunded liability that is required to be funded has been changed by PPA. Historically, the unfunded liability would generally be amortized over a 10-15 year period, meaning that a typical plan would be fully funded after 10-15 years on an expected basis (i.e., assuming no change to interest rates, reasonable investment return, logical demographic experience, etc.). PPA decreased the period for amortizing the unfunded liability to 7 years, which has significantly accelerated and front-loaded required contributions in order to meet the funding obligation.
>
> The resulting impact on companies subject to the PPA is that more cash will be required to fund the plan sooner than under previous regulations. Since no similar changes have taken place relative to accounting for the cost of the pension plan (the current FAS 87 method generally spreads the recognition of the unfunded liability over 15-20 years), the amount received in rates will be unaffected by PPA. Therefore, it is highly likely that PNM will be required to use significant cash in excess of what is being received in rates to fund the pension plan.[43]

[43] CUB Exhibit 116 at 8.

Of course, the assumption in Mr. Vogl's testimony that all things remain equal (interest rates, rates of return, demographical experience) is, fundamentally flawed. We have seen similar projections from our utilities. [redacted].[44] But this projection is based upon the fallacy that the only source of improving an underfunded pension is pension contributions. In fact, a change in one of the underlying assumptions, the rate of return, is a key factor in what the Joint Utilities claim, drove them to the Commission for recovery.

In his testimony on behalf of the Joint Utilities, Mr. Vogl laid out a series of examples that assumed that the only variable that could improve the funded status of the pension was additional contribution from the utility that sponsors the pension.[45] In response to a data request from Staff, Mr. Vogl modeled multiple realistic scenarios in which the required contribution in the upcoming years drops significantly.[46] In particular, he began with a pension fund that had an unfunded liability of $150M, using the same assumptions as were used in the filing of this case. This implied that the pension fund would require $149M in contributions over the next five years.[47] Then, by varying parameters, independently, he demonstrated the impact on the prepaid pension asset and required funding levels. These are his findings:

1. Assuming that (1) the discount rate rises to 6.5% (less than NWN's average discount rate between 1986 and 2012), required contributions fall to $39.6M.

[44] CUB Confidential Exhibit 107.
[45] UM 1633, Joint Testimony/200/Vogl/14.
[46] CUB Exhibit 112.
[47] Ibid.

2. Additionally, under this assumption, FAS 87 turns negative in just one year and the prepaid pension asset continues to grow due to negative FA S 87.[48]
3. If, instead, there is just one year with a 25% plan return, the required contributions fall by nearly half (from the benchmark case) to $79.3M, and negative FAS 87 appears in year 4, driving up the prepaid pension asset for all following years.[49]
4. In only one of the seven simulations did the prepaid pension asset decline for even a single year, and it did so for only two years. In all scenarios the prepaid pension asset began at $120 million. It finished between $165 million and $391 million. In all scenarios, once pension contributions were no longer required, the prepaid asset continued to grow due to negative FAS 87.[50]

In its own study, Towers Watson argues in *Accounting for Defined Benefit Pensions and other Postretirement Benefits, 2012,* that "[t]ypically, the actual return on investments is the main driver in the change of a pension plan's assets."[51] That is, the funding will most likely come from market appreciation of assets, not from shareholder contributions. For example, PGE's pension trust doubled in value between 1991 and

[48] Ibid.
[49] Ibid.
[50] Ibid.
[51] *Accounting for Defined Benefit Pensions and other Postretirement Benefits, 2012* at 10. Accessed at http://www.towerswatson.com/en-US/Insights/IC-Types/Survey-Research-Results/2012/11/accounting-for-pensions-and-other-postretirement-benefits-2012.

1999, from $219M to $439M without a single shareholder contribution, even after accounting for payout withdrawals.[52]

The mathematical rule of 72 tells us that for an asset to double, it only takes 72 divided by the rate of return for returns compounded annually,[53] or 8 years at a 9% return. Clearly, the assumption chosen for estimated rate of return has serious impacts. PGE currently assumes [redacted] return, which would mean that the plan would double (without withdrawals) in [redacted] years.[54] However, even a modest increase that reflects plan experience,[55] cuts the doubling time to [redacted] years. The implication on minimum required contribution and FAS 87 is monumental. Therefore, while shareholder contributions may result in a higher prepaid pension asset, the principle determinant of the plan's value is the market returns.

Conversely, while the rate of return on pension assets is the key driver in determining the value of the pension assets, the discount rate is the key driver in determining the level of pension obligation. We are in a period where the assumed discount rate has been driven to historically low levels by the policies of the Federal Reserve.[56] As recently as December 2009, the discount rate used by pensions accounting was generally at 6%, while today it is at 4%.[57] This historic low is not permanent. This spring, the Fed announced that it was reviewing the end of quantitative easing, and

[52] Actual plan growth over these 8 years was 16%, on average.
[53] The rule of 69 is appropriate for continuous compounding, but less mathematically intuitive.
[54] CUB Confidential Exhibit 107.
[55] CUB Confidential Exhibit 107.
[56] The effect of the FED policy on pensions is consistent with the intent of the policy. It is designed to incent investment today and pension sponsors needing to make investments is a response to that policy. However, it is not necessary to feel bad for the utility shareholder. The FED policy has successfully increased investment in the stock market (including investment in utility stocks). So while the utility may find it necessary to invest more dollars in the pension plan, the utility stock price has increased and the utility shareholder has greater wealth.
[57] UM 1633, Pension Workshop, Utility Presentations, March 11, 2013, page 11.

consequently, historically low interest rates. Movement like this would immediately recharge the discount rate. Underestimating the discount rate directly leads to overestimating minimum contributions, and consequently proposed ratebase in this docket.

F. Retroactive and Single Issue Ratemaking.

The utilities claim that because they are only asking for a rate of return on the prepaid pension asset on a going forward basis, that it does not involve either retroactive or single issue ratemaking. CUB disagree**s.**

The prepaid pension asset is the sum of decades of decisions related to pensions that have flowed through several rate cases. The utilities proposal is to isolate the pension expense that has historically (at least when it is a positive number) been used as the basis of rate setting, and treat the culmination (sum) of those expenses as a reduction against the sum total of pension contributions with the difference being used as ratebase and earning a return.

This violates the prohibition on single issue ratemaking because we are singling out one element of historic rates and altering treatment of it without determining whether rates overall were just and reasonable.

It also violates the principle against retroactive ratemaking, because historic rates were set based on a set of assumptions related to pension recovery and the proposed change in treatment will affect the relative equity of historic rate decisions.

Consider the issue of negative FAS 87. Historically this has either not been passed through to customers, or has been passed through at greatly discounted amounts. While PGE now claims that it deserves a return on negative FAS 87 because of its

superior management of the pension, CUB does not find this convincing. The argument that CUB believes could (and may have) been used to support PGE's position that negative FAS 87 should not be shared with customers, is that the utility cannot take money out of the pension fund in order to fund the rate relief associated with passing negative FAS 87 through to customers. Instead such rate relief would have to be funded by the utility and that would require a carrying charge. But when the utility is not passing the rate relief through, there is no reason to pay the utility a carrying charge.

The outcome of earlier utility rate-cases would have been very different if it had been disclosed that the negative FAS 87 that was not being passed through to ratepayers would instead be added to ratebase at a later date with the utility being granted a return on it. Would CUB, Staff, ICNU or NWIGU have been okay with customers not receiving the benefit of something that was going to be added to rate base and earn a return? Not if any of us were doing our jobs. A decision to rate base the difference between pension contributions and historical FAS 87 expense would have necessitated a change in the ratemaking treatment of FAS 87 in prior rate-cases.

In addition, while it may be accurate to say that FAS 87 was the basis of ratemaking for pensions (at least when FAS 87 was positive), it is not correct to say that the sum of FAS 87 represents the amount that customers have paid, and therefore the difference between contributions and FAS 87 represents the pension costs that shareholders have had to finance. Not only did customers not receive the benefits of negative FAS 87, but FAS 87 was forecasted poorly with customers often paying more than actual FAS 87 expense. Between 1997 and 2012, PGE customers paid, in rates,

[redacted], in excess of actual FAS 87 expense.[58] In addition, ratemaking in Oregon is filled with black box settlements where there is no agreement on the individual elements but there is agreement that the overall rates are at a level that fairly compensate the utility for all of its costs, including pensions.

To determine the level of pension contributions for which the utility bears carrying costs, because it was not compensated, requires a labor-intensive exercise in retroactive ratemaking in order to true up the prepaid pension asset reflective of the fact that the utility is not bearing carrying costs for the full amount of the prepaid pension asset.

B. Used and Useful.

The principle of used and useful means that utilities can only charge customers for costs that are currently used and useful in the provision of utility service. Oregon law codifies this under the "presently used for providing utility service”“directly or indirectly" which the courts have interpreted to say that utilities cannot earn a return on a rate-based asset unless that asset is "presently used." With regards to pensions, which include historic costs and future liabilities, what level of pension recovery is considered "presently used?"

FAS 87 is “presently used” because it is the identifiable cost/income relating to that year's change in a set of factors that determine pension liability. The architects of the FASB Statement 87 were explicit in this intention:

[58] CUB Confidential Exhibit 107.

> A fundamental objective of this Statement is to recognize the compensation cost of an employee's pension benefits (including prior service cost) over that employee's approximate service period.[59]

They were intentionally attempting to rectify an inadequacy of other accounting methods, possibly including cash accounting.

> The Board believes that the terms of the plan that define the benefits an employee will receive (the plan's benefit formula) provide the most relevant and reliable indication of how pension cost and pension obligations are incurred. In the absence of convincing evidence that the substance of an exchange is different from that indicated by the agreement between the parties, accounting has traditionally looked to the terms of the agreement as a basis for recording the exchange. Unlike some other methods previously used for pension accounting, the method required by this Statement focuses more directly on the plan's benefit formula as the basis for determining the benefit earned, and therefore the cost incurred, in each individual period.[60]

Dr. Vogl also speaks to the fact that FAS 87 represents the present year's pension cost:

> FAS 87 requires employers to recognize the cost of their pension plan(s) on an accrual basis rather than a cash basis. In other words, pension cost is recognized over the period during which benefits are earned (or "accrued")…[61]

Thus FAS 87, the net periodic pension expense, represents pension costs that are currently "used and useful." The additional question that needs to be answered is whether the prepaid pension asset represents costs that are used and useful. And, perhaps even more importantly, since the Joint Utilities are proposing adding it to ratebase, is whether the prepaid pension asset meets the statutory requirement of "presently used for providing utility service." Consider these examples:

1. A utility acts on the incentive created by allowing a return on the prepaid pension asset, by making contributions to the pension fund, even though the pension fund

[59] http://www.fasb.org/summary/stsum87.shtml
[60] http://www.fasb.org/summary/stsum87.shtml
[61] UM 1633/Joint Testimony/200Vogl/4.

is overfunded. On the one hand, the utility could argue that it was trying to build up a cushion to reduce the risk that a future recession will cause the pension fund to be underfunded. On the other hand the pension fund has enough to meet the future obligations that have currently been incurred.

2. A utility's prepaid asset includes negative FAS 87, recorded on its books 20 years ago without being shared with customers. How is it that 20 year old negative FAS 87, that never required financing, could be considered presently used? PGE has argued that in this case it is not about financing costs, but about a reward for good management. But in this case that good management, if indeed such there was, was 20 years ago. Since a return on the prepaid asset is not a one-time only event, but a perpetual stream of income, how many years of return on this FAS 87 is allowed before the reward has been paid?

G. Deferred Tax Benefits Should Be Passed Through to Oregon Ratepayers As Required by Law.[62]

Pension contributions create deferred tax benefits that typically would be used to reduce rate base. Simultaneously to this docket, there have been general rate cases for PacifiCorp and Avista and this has led to the realization that neither Avista nor PacifiCorp pass these tax benefits through to customers by adjusting rate base. During the November 13, 2013 workshop, PacifiCorp employee, Mr. Stuver, stated that PacifiCorp now plans to flow through the tax benefits of the prepaid pension asset to its ratepayers, if the ratepayers are required to pay a return on the prepaid pension asset to PacifiCorp.[63] CUB is not swayed by this olive branch. Contributions to the pension fund offset income in subsequent years, thus decreasing future tax obligations. That reduction in future tax obligations must, by law, be passed through to ratepayers. This is a requirement first set forth in SB 408 and later in ORS 757.269, independent of whether shareholders are earning a return. Not only does CUB reject the exchange of the inclusion of the prepaid pension asset for tax benefits, CUB insists that any company which neglected to pass

[62] https://olis.leg.state.or.us/liz/2011R1/Downloads/MeasureDocument/SB0967/Enrolled
[63] UM 1633 November 13, 2013 All Party Workshop.

through the tax benefits of the prepaid pension asset, now be required to do so. The utility tax law, which was developed and supported by, among others, CUB, the PUC, PacifiCorp and Avista is clear:

> When establishing schedules and rates under ORS 757.210 for an electricity or natural gas utility, the Public Utility Commission...must ensure that the income taxes included in the electricity or natural gas utility's rates: (a) Include all expected and current and deferred tax balances and tax credits made in providing regulated utility service to the utility customers in the state.[64]

Pension contributions create a deferred tax benefit. Because the pension is part of the regulated utility (regardless of whether it is charged to ratepayers as an expense or contribution), ORS 757.269(2)(a) requires that the PUC ensure that the income taxes included in the utility's rates include all expected current and deferred tax balances and tax credits made in providing regulated utility service to the utility's customers in Oregon.

H. Providing a Return on Prepaid Pension Assets Requires Us to Go Back in Time and Examine How that Asset Developed

The prepaid pension asset was not created this year, but is the culmination of decades of actions related to the pension. As we have demonstrated, a significant portion of the asset grew out of negative FAS 87 that was not shared with customers. But the utilities proposal requires us to look much deeper into the history of each pension plan.

i. Prudence review for current and future investments is burdensome to all parties

A basic principle of good utility regulation is that only prudently incurred assets should be allowed into rate base and that it is the company that bears the burden to demonstrate the prudence of these assets. However, in practice, all parties enter into

[64] ORS 757.269(2)(a).

lengthy burdensome research, discovery and negotiation in prudence dockets. Pension prudency review involves an additional layer of complexity in that the investment is in a sector not inherently native to the utility, the Commission, or interested parties. All parties might do well to be wary of offloading the risk onto an expert, or trusting that the Utility was acting prudently, merely because it hired a pension consultant.

Although the vast majority of companies which offer pensions (92%) do hire a pension consultant, the decision to do so, does not come without risk.[65] Pension consultants hired by corporations tend not to reveal their past performance to prospective clients.[66] This is important to know because recommendation of a fund manager is regarded as the most important service that a pension consultant can provide the sponsor of the pension plan. Also important to recognize is that pension consultants are very proprietary about their choice methodology. And, disturbingly, research finds that although pension consultants demand full performance disclosure from fund managers, financial returns are not the lead driver for the pension consultants' choice of fund managers.[67] Moreover, funds recommended by pension consultants typically underperform, by as much as 1%, relative to other funds not recommended by pension consultants.[68] Plan sponsors heed the consultant's recommendation, and pay for it, to the trust's and ultimately, the ratepayers' detriment.[69]

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[65] Goyal, Amit, and Sunil Wahal, 2008, The selection and termination of investment management firms by plan sponsors, *Journal of Finance* 63, 1805–1847: http://www.hec.unil.ch/agoyal/docs/hirefire_jof.pdf
[66] Jenkinson, T., Jones, H. and Martinez, J.V. Picking winners? Investment consultants' recommendations of fund managers, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2327042
[67] Jenkinson, T., Jones, H. and Martinez, J.V. Picking winners? Investment consultants' recommendations of fund managers, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2327042, pg. 18.
[68] Jenkinson, T., Jones, H. and Martinez, J.V. Picking winners? Investment consultants' recommendations of fund managers, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2327042 page 26.
[69] Jones, Howard, and Jose Martinez, 2013, How Institutional Investors Form and Ignore Their Own Expectations: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2252122

Considering that these institutional investors constitute such a large part of the stock market, regulators attempting to assess the prudency of decisions made by plan sponsors should not rely on the assumption that utilization of experts ensures optimal strategy or asset allocation.

If pension prudency review is difficult to conduct, one alternative mechanism is to incent prudency by requiring cost sharing. However, in this case, were the prepaid pension asset to be placed in rate base then each utility would have no incentive to allocate resources for increased performance. Under the Joint Utilities proposal customers bear all risks associated with the performance of the pension plan. As we have seen, when pensions perform well, and FAS 87 expenses are negative, then the Companies keep all the proceeds. When the pension trust underperforms, the Companies then file for recovery. CUB is not the only one who has noticed this phenomenon, Royce Kosoff, of Towers Watson, also notes that utility companies are alone in their ability to always come out on top. "That means pension obligations are built into the rate structures approved by the various public utility commissions, and when a company needs to meet its obligations, the PUC can grant those rate changes."[70] If even the Joint Utilities own expert's colleagues at Towers Watson are making note of this phenomenon, the Commission should beware.

In economics it is generally accepted that there are two methods to gain compliance: incentivized compliance, and forced compliance. Profit and cost sharing are methods of incentivized compliance for optimal asset allocation. Forced compliance would be, in this case, regulatory structure, detailing prudent investment strategies.

[70] Choma, Russ, "Pension Liabilities LOOM", EnergyBiz Magazine November/December 2012, http://www.energybiz.com/magazine/article/288471/pension-liabilities-loom

Recognizing that random events inhibit the Commission from demanding final asset performance, parties would be required to detail the actions necessary to ensure diligent pension fund allocation. Lest one think that pension governance is always approached with the utmost diligence, Towers Watson reports that less than half of all companies surveyed even have a metric for measuring the effectiveness of plan governance committee structure.[71] They also find that a full 25% have no metric for measuring compliance (ERISA and otherwise).[72] This may be because only half of the companies surveyed actually have ERISA trained experts present at each governance meeting. This is not meant to be a comment on the methods practiced by the Utilities or their expert in this proceeding, it is intended as a demonstration of the minute detail of oversight that would be required to ensure prudency of the prepaid pension asset, were it to be added to ratebase.

ii. Retroactive Prudence Review is overly burdensome and technically problematic

The above discussion of prudency becomes exponentially more difficult when we are considering retroactive prudence review, first and foremost because proper analysis is impossible without data. Much of the information that would be integral in determining prudency of pension asset allocation and pension plan offerings is frankly not available – for example, some of the data required to calculate components of the prepaid pension asset and pension expense is missing. PacifiCorp for example, provides no pension data prior to 1998.[73] It also amortized some FAS 88 pension expense, or pension income

[71] The New Governance Landscape: Implications for the 2011 Towers Watson U.S. Retirement Plan Governance Survey: http://www.towerswatson.com/DownloadMedia.aspx?media={5C12FE2D-E15F-42DB-8D22-B1EB0789CBA4}
[72] Ibid.
[73] CUB Exhibit 106.

(negative FAS 88), to unknown O&M accounts rather than to pension expense making it impossible to track.[74] PGE, on the other hand provides the relevant data.

A secondary issue is the prior ownership structure of each utility and the effect that the unique ownership structure may have had on the pension decisions that were made, for example. Prior to 2006, PGE was owned by Enron and it was Enron that determined the pension plan's choices and investment strategy at that time. And, this complication is not unique to PGE, PacifiCorp was previously owned by ScotishPower and during its ownership that company made the pension plan decisions based on the circumstances of that company. Since the corporate structure and incentives were and are different for each of the utilities in this docket, it is likely that the prudency review would have to be unique as well.

Corporate mergers and acquisitions illuminate another layer of difficulty in retroactive prudency review. Pensions have an important place in mergers and acquisitions because of the risk they represent. That risk is evidenced by fluctuations in the corporate share price, adjustments to ratings by various credit rating agencies and the mere mention of risk on companies' 10-k reports and general rate case filings. And that risk is constantly assessed and absorbed by investors around the globe, and internalized at the share purchase. Specifically, as long as the prepaid pension asset has been reported to shareholders (since FAS 87 was effective), shareholders have been explicitly aware of the asset/liability status and the recovery treatment related to pensions. That is, when the accrued pension liability favored (in theory) the ratepayers, the shareholders were able to assign value to the fact that the company was not paying ratepayers a return. When the asset flipped in value and became a prepaid pension asset, shareholders were equally

[74] CUB Exhibit 113.

aware of the fact that the company was not earning a return on the prepaid pension asset, and assigned value to their stock accordingly.

CUB notes that to now award a return on the prepaid pension asset ex-post to each utility would not, in any way, compensate the existing shareholders for a burden that they had to bear. Instead, it would provide a windfall to shareholders today that purchased their stock at a discount and did not have to bear the risk. The net effect of awarding the Companies return on their prepaid pension asset, unilaterally, would be to create undeserved value for the current shareholders.

In addition, in many rate cases, the companies and interested parties come to an unlitigated black box settlement, and so monies are not allocated explicitly. Therefore it is impossible to identify what pension expense was actually identified in the past, and without being able to identify pension expense it is impossible to identify the utility contribution in excess of that expense. CUB continues to argue that this is one of the many reasons that returns to the prepaid pension asset should not be allowed – no one can tell exactly what the utilities have and have not been compensated for in the past – a past that encompasses over two and a half decades.

Finally, because customers have not been treated equitably in the past with regards to negative FAS 87, or accrued pension liabilities, it is unfair to reach back into past history and assume that the prepaid pension asset currently established on the books of a utility represents the true cost on which a utility bore any carrying cost. To claim that utilities have not been fairly compensated for historic pension contributions is not supported without a historic review. This would mean that for every year in question, the Commission would have to be able to decipher exactly who/what contributed to the

pension fund, how much was contributed by ratepayers, how much was contributed by shareholders and what the prior balances were. In any years that there was a black box settlement, or the company was earning above its authorized rate of return, it would not be justifiable to simply give the shareholders the benefit of the doubt by assuming that the black box settlement in fact excluded collection in rates for pension funds, or to assume that contributions made by shareholders should not come out of the return on equity.

I. Balancing Accounts.

CUB Exhibits 114 and 115 include recent papers from Moody's and S&P discussing pension ratemaking for utilities, and suggesting that "supportive" regulators should allow for a balancing account for FAS 87. In recent years, as utilities have amortized the losses from the recession into FAS 87, FAS 87 has increased. The regulatory lag associated with recovery of this FAS 87 causes concern for the rating agencies. But it is important to note that this amortization will be offset by more recent investment gains and that as the discount rate increases FAS 87 expense will begin to decline.

It should also be noted that notwithstanding the ratings agencies' concerns, neither Moody's nor S&P addressed any need for a return on a prepaid pension asset.

J. Recovery of the Prepaid Asset, Itself.

If the prepaid pension asset is eventually accepted into rate base, the utilities will then be forced to recognize that it is not in fact being amortized down. For a utility looking for earnings this is fine. But for a utility looking to improve its balance sheet and short term cash, it will be tempting to ask for an additional mechanism that allows recovery of

the prepaid pension asset. This is what happened in NM. The New Mexico Public Regulation Commission allowed Public Service Company of New Mexico to recover its FAS 87 contribution and earn a return on its prepaid asset.[75] Dr. Vogl, citing the funding requirements of the Pension Protection Act of 2006, argued that because the prepaid pension asset would actually "never be recovered in rates," that an additional recovery mechanism was required to allow the utility to recover not just its FAS 87 expense, and its return on its prepaid asset, but also to recover the prepaid pension asset itself.[76]

V. CUB's Recommendations

After two years of discussing this issue, CUB is increasingly convinced that allowing a return on the prepaid asset would be unfair to customers. CUB's position is based upon a multiplicity of factors.

First, is the fact that "Accrual Accounting" and "Cash Accounting" both account for the same thing but with different timing. If customers fully pay for pension costs under either system, then the utility has been fairly compensated for all pension costs. CUB recognizes that there will be times when a utility would benefit more from the timing associated with accrual accounting and that there will be times, like today, when the utility would benefit more from cash accounting. But this is inherent in all accounting including pension accounting and creates a good incentive for a utility when managing a pension trust. Each utility made the independent decision to offer its employees a pension. By doing so each utility took on certain risks associated with offering that pension.

[75] CUB Exhibit 116 at page 6.
[76] Ibid, page 8-9.

Second, also of note is the fact that Oregon's investor owned utilities, such as PacifiCorp (see PacifiCorp's 2012 General Rate Case – UE 246), have in the past settled rate-cases through Stipulations that include pension recovery limited to FAS 87. And, in the course of agreeing to those Stipulations, those utilities also agreed that the ensuing rates were fair, just and reasonable.

Third, there is the fact that the total of pension expense (FAS 87 and FAS 88) over the life of the pension will in fact equal the pension cost. CUB, Mr. Vogl and the Joint Utilities all agree on this. This is the basis of accrual accounting. The total of cash contributions over the life of the plan also represents the full cost of the pension to the Company. This is the basis of cash accounting. The utilities requested rate treatment would result, however, in the total cost of the pension expense, plus a return on much of the cash contributions and negative pension expense being, by definition, greater than the total of the pension expense or cash contributions incurred by the utilities.

Fourth, this docket has exposed the fact that FAS 87 recovery has been applied inconsistently. Customers are charged when FAS 87 is positive, but do not benefit when it is negative. If this remains the policy in Oregon, then customers will pay more than the sum total of FAS 87 over the life of the pension. In other words, customers will pay more than the actual pension expense. The total pension expense (FAS 87 and FAS 88), which includes the sum of all years both positive and negative, will be less than the sum of all years excluding the negative years. This means that Oregon customers have in fact already overpaid pension expense in Oregon. This practice has to end. Customers should receive FAS 87, regardless of whether it is positive or negative.

Fifth, CUB would like to highlight that it would be open to consideration of, though not necessarily supporting, the establishment of a FAS 87 tracker as suggested by Moody's and S&P. CUB is not generally supportive of trackers, because such mechanisms violate the general prohibition on single-issue ratemaking. In addition, Moody's and S&P are proposing trackers when the utilities were amortizing the losses from the recession into their pension expense. This created a period where FAS 87 was increasing, but there will eventually come a time when the amortization of gains above actuarial projections, combined with increasing discount rates, will cause FAS 87 to decline and to turn negative. Agreement on a balancing account as FAS 87 increases is only a reasonable policy if that balancing account is also maintained as FAS 87 falls.

Sixth, CUB recommends that all deferred tax benefits associated with pensions be passed through to customers as required by law.

Seventh, when a similar case involving the company Delmarva went before the Delaware Commission, the Hearing Examiner agreed that it was unfair to customers. She stated that the Company "had not demonstrated 'why now it should recover these expenses when it did not allow ratepayers to enjoy the fruits of the good years when it experienced pension income' and that its proposal was 'lopsided in favor.'"(sic)[77] It is CUB's position that Oregon's investor owned utilities are guilty of providing the same imbalanced proposal.

CUB finds it particularly instructive that the Delaware Commission cited the following statements of the Hearing Examiner when rejecting the Delmarva proposal for the inclusion of the prepaid pension asset into ratebase:

[77] *In re Delmarva Power and Light Co.*, PSC Docket No. 09-414 and 09-276T, Final Findings, Opinion and Order No. 8011 at 53 (DE PSC)(citing Hearing Examiner at 87-88).

> Further, the Company's proposal in this instance gives me the unpleasant feeling that Delmarva believes its ratepayers should be its private insurance company. Whenever there is a financial downturn or an unfortunate economic event, the Company appears to believe the ratepayers should bail it out and make it whole. What Delmarva has experienced with the recent economic downturn is nothing more than the vicissitudes of business (as painful as that may be) that all companies in the United States are grappling with – nothing more. Although Delmarva's ratepayers are captive customers; they are not hostages who should be required to open their wallets every time the Company suffers an economic setback.[78]

Eighth, divining the prudency of any prior pension costs would require an extremely costly, and time consuming, review of previously settled dockets for each utility. CUB fears that even were such an investigation undertaken that it may prove fruitless due to the number of black box items in some of the cases and the multiplicity of compromises made by parties to achieve settlements in cases. In order to attempt to find past pension costs the Commission would have to make parties re-litigate cases and this would likely result in different outcomes which would lead to potentially unlawful retroactive ratemaking. CUB strongly recommends that the Commission not engage in such a fruitless effort for pensions that all utilities previously agreed were part of rates that were fair, just and reasonable.

Ninth, and last, since ratepayers should not be saddled with a perpetual utility money making machine CUB respectfully recommends that the Commission deny the utilities' proposed mechanism to change the form of pension ratemaking in Oregon.

In summary, CUB supports continuing ratemaking based on FAS 87, but applying it fairly and consistently, whether FAS 87 is positive or negative. Thus CUB is willing to

[78] Ibid at 54 (citing Hearing Examiner at 87-88).

consider a balancing account for FAS 87 expense. CUB also believes that deferred tax benefits associated with pensions are required to be passed through to customers.

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EDUCATION: Ph.D., Economics
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EXPERIENCE: Worked as Utility Analyst at the Oregon Public Utility Commission from 2006-2008, providing advice on rate cases, analysis in meetings with the Bonneville Power Administration and performing benchmarking studies regarding telecom and electric competition in the state of Oregon.

Economics professor at Mesa Community College and the State University of New York from 2004 -2010.

CUB EXHIBIT 102 IS CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER NO. 13-013

	Pension Plan Worksheet, in Millions of $s	NYL to provide	Questions from NYL						
	YEAR			2008	2009	2010	2011	2012	2013
Status									
A	Pension Benefit Obligation	Y	Assumed to be at end of year	61,684,201	66,898,654	73,472,802	87,103,752	92,987,240	To be determined
B	Prepaid pension asset	Y	Assumed to be at end of year	11,516,654	9,885,455	7,834,430	11,781,679	15,134,521	To be determined
C	Present value of plan assets in $*	Y	Not sure what the "*" footnote means. Assumes this means assets used for funding, which would include receivables and asset smoothing.	60,918,709	48,027,030	51,109,064	53,264,719	61,515,517	63,514,799
D	Funding target in $	Y		63,648,320	52,282,111	62,247,142	66,580,898	73,786,540	67,651,284
E	Unfunded liability in $/funding shortfall	Y	Credit balance is subtracted from plan assets.	13,187,659	10,456,422	12,449,428	13,316,179	14,757,308	4,136,485
F	Target normal cost	Y		839,398	651,416	808,885	849,179	111,282	278,861
G	Minimum required contribution	Y		839,398	1,955,002	2,633,414	3,405,977	4,161,353	2,080,982
H	Credit balance (A-B)	Y	Reference to "(A-B)" doesn't make sense.	10,458,048	6,201,341	1,311,350	0	2,486,285	0
I	Annual contribution in $s	Y	Assume that I = I1 plus I2	842,100	1,955,002	6,691,204	6,923,447	4,672,063	To be determined
I1	Contribution from shareholders in $s	Y	Assumes this means actual cash deposited. Includes contributions paid after year-end attributable to current year.	485,000	0	5,379,854	6,923,447	2,185,778	To be determined
I2	Contribution from credit balance in $s	Y		357,100	1,955,002	1,311,350	0	2,486,285	0
I3	Capital cost of shareholder contribution	N							
I4	Debt financing cost of contribution	N							
J	Funding status (choose one Y/N)								
J1	Underfunded	Y		Y	Y	Y	Y	Y	Y
J2	Overfunded	Y		N	N	N	N	N	N
J3	Fully funded	Y		N	N	N	N	N	N
J4	Funding target attainment percentage (A/B)	Y	Reference to "(A-B)" doesn't make sense. Assumes credit balance subtracted from plan assets.	79.28%	80.00%	80.00%	80.00%	80.00%	93.88%
K	Amount recovered in rates (pre-tax)	N	Amount recovered would be amount booked as expense (FAS 87)	93,269	1,631,199	2,161,731	3,296,961	2,618,841	628,782
L	Amount recovered in rates (post-tax)	N							
L1	FAS 87 expense	Y		93,269	1,631,199	2,161,731	3,296,961	2,618,841	628,782
M-1	Actual interest rate	Y	Effective rate used to calculate funding target in Row D	6.11%	8.19%	6.67%	6.27%	5.49%	6.30%
M-2	Actual interest rate	Y	Effective rate used to calculate PBO in Row A	6.25%	5.75%	5.25%	4.15%	3.68%	To be determined
N	Actual return on plan assets	Y	Estimated actual return based on market value assets	-24.2%	20.5%	14.7%	-1.7%	12.3%	To be determined
Assumptions									
O	Assumed discount** rate for		The "**" footnote doesn't make sense. Are these discount rates for FAS87 purposes? Why the reference to PPA?						
O1	Benefit obligation	Y	Assumed to be at end of year	6.25%	5.75%	5.25%	4.15%	3.68%	To be determined
O2	Benefit cost	Y	Assumed to be beginning of year	6.00%	6.25%	5.75%	5.25%	4.15%	3.68%
P	Expected return on plan assets	Y	Assumed to be beginning of year	8.50%	8.50%	8.25%	7.75%	7.75%	7.00%
Q	Wage escalation assumed	Y	Assumed to be beginning of year	N/A	N/A	N/A	N/A	N/A	N/A
R	Years of ammortization assumed	Y	Assumes the amortization refers to FAS87 expense (gain/loss component).	11.50	11.32	10.95	10.11	9.83	25.01
S	Funding target percentage per year	Y		80%	80%	80%	80%	80%	93%
T	"at risk" under PPA (choose one Y/N)	Y		N	N	N	N	N	N
U	Tax benefit, in dollars of annual contribution	N							
V	Cash flow benefit of cash contribution	N							
W	Value of prepaid pension asset	Y	Same as Row B (as of end of year)	11,516,654	9,885,455	7,834,430	11,781,679	15,134,521	To be determined
X	Accumulated Other Comprehensive Income/Expense	Y	Assumed to be at end of year	29,539,919	27,738,370	28,742,448	43,874,190	45,407,742	To be determined
Y	Company contribution (cash basis)		Without receivables	485,000	0	110,706	7,244,210	4,948,385	To be determined
	*as determined by the actuarial calculation of future retirement obligations - please specify any assumptions								
	**as determined by the PPA post 2006. Please specify method determination in earlier years.								
	NYL provided funding and expense valuations starting with the 2008 plan year.								
	NOTE: For all historical values, use information that was available in the year of filing. For future years, use predictions consistent with the company's filings								

CUB EXHIBIT 104 IS CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER NO. 13-013

NW Natural
UM 1633 CUB DR 5 Attachment-1 REDACTED
Historical and Projected Pension Data - 1984 - 2023

NOTE: Clarifying explanations and assumptions used to complete this worksheet are provided in the UM 1633 CUB DR 5 word document.

Pension Plan Worksheet, in Millions of $s

	YEAR	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Status																								
A	Pension Benefit Obligation	N/A	N/A	57	59	57	61	65	69	77	87	85	97	100	114	132	126	136	156	172	192	209	254	256
B	Prepaid pension asset	N/A	N/A	0	(0)	(0)	0	0	1	2	2	2	2	2	3	6	8	13	17	17	11	13	37	29
C	Present value of plan assets in $*	N/A	N/A	66	67	72	79	75	88	95	109	100	125	134	158	176	193	191	169	143	168	187	219	237
D	Funding target in $	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	196	211
E	Unfunded liability in $/funding shortfall	N/A	N/A	10	8	15	18	10	19	17	22	15	28	34	44	44	67	54	13	(29)	(24)	(23)	(36)	(19)
F	Target normal cost	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G	Minimum required contribution	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	0	0
H	Credit balance (A-B)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I	Annual contribution in $s	N/A	N/A	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	8	31	0
I1	Contribution from shareholders in $s	N/A	N/A	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	8	31	0
I2	Contribution from credit balance in $s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I3	Capital cost of shareholder contribution	N/A	N/A	N/A	13.25%	13.25%	13.25%	13.25%	13.25%	13.25%	13.25%	13.25%	13.25%	13.25%	13.25%	13.25%	13.25%	10.25%	10.25%	10.25%	10.20%	10.20%	10.20%	10.20%
I4	Debt financing cost of contribution	N/A	N/A	N/A	12.23%	12.23%	12.23%	10.32%	10.32%	10.32%	10.32%	10.32%	10.32%	10.32%	10.32%	10.32%	10.32%	7.75%	7.75%	7.75%	7.06%	7.06%	7.06%	7.06%
J	Funding status (choose one Y/N)																							
J1	Underfunded	N/A	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y
J2	Overfunded	N/A	N/A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N
J3	Fully funded	N/A	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
J4	Funding target attainment percentage (A/B)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
K	Amount recovered in rates (pre-tax)	N/A	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(1)	(1)	(1)	2	6	6	6
L	Amount recovered in rates (post-tax)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L1	FAS 87 expense	N/A	N/A	1	0	0	0	0	0	1	0	0	0	(1)	(1)	(3)	(2)	(5)	(4)	(0)	6	7	7	8
M	Actual interest rate	N/A	N/A	7.00%	7.00%	8.00%	8.00%	8.00%	8.00%	8.00%	7.50%	8.00%	7.50%	7.50%	7.25%	6.75%	7.75%	7.50%	7.25%	6.75%	6.25%	6.00%	5.75%	6.03%
N	Actual return on plan assets	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16.49%	N/A	15.43%	9.92%	-4.81%	12.80%	N/A	7.40%	14.90%
Assumptions																								
O	Assumed discount** rate for																							
O1	Benefit obligation	N/A	N/A	7.00%	7.00%	8.00%	8.00%	8.00%	8.00%	8.00%	7.50%	8.00%	7.50%	7.50%	7.25%	6.75%	7.75%	7.50%	7.25%	6.75%	6.25%	6.00%	5.75%	6.03%
O2	Benefit cost	N/A	N/A	7.00%	7.00%	7.00%	8.00%	8.00%	8.00%	8.00%	8.00%	7.50%	8.00%	7.50%	7.50%	7.25%	6.75%	7.75%	7.50%	7.25%	6.75%	6.25%	6.00%	5.75%
P	Expected return on plan assets	N/A	N/A	8.00%	8.50%	8.75%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	10.00%	10.00%	9.00%	9.00%	8.00%	8.25%	8.25%	8.25%	8.25%
Q	Wage escalation assumed	N/A	N/A	4.75%	4.75%	5.13%	5.13%	5.13%	5.13%	5.13%	5.13%	5.00%	5.00%	5.00%	4.50%	4.50%	4.63%	4.63%	4.63%	4.63%	4.50%	4.50%	4.50%	4.50%
R	Years of ammortization assumed	N/A	N/A	13.84	13.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.5	11.4	11.4
S	Funding target percentage per year	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
T	"at risk" under PPA (choose one Y/N)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
U	Tax benefit, in dollars of annual contribution	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	1	1	2	2	0	(1)	7	2	(3)
V	Cash flow benefit of cash contribution	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
W	Value of prepaid pension asset	N/A	N/A	0	(0)	(0)	0	0	1	2	2	2	2	2	3	6	8	13	17	17	11	13	37	29
X	Accumulated Other Comprehensive Income/Expense	N/A	N/A	(9)	(8)	(15)	(18)	(10)	(18)	(15)	(19)	(13)	(26)	(31)	(40)	(38)	(59)	(41)	4	47	35	35	73	48

*as determined by the actuarial calculation of future retirement obligations - please specify any assumptions
**as determined by the PPA post 2006. Please specify method determination in earlier years.

NOTE: For all historical values, use information that was available in the year of filing. For future years, use predictions consistent with the company's filings

NW Natural
UM 1633 CUB DR 5 Attachment-1 REDACTED
Historical and Projected Pension Data - 1984 - 2023

NOTE: Clarifying explanations and assumptions used to complete this v

Pension Plan Worksheet, in Millions of $s

	YEAR	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Status																		
A	Pension Benefit Obligation	243	262	285	315	363	404										N/A	N/A
B	Prepaid pension asset	22	18	28	27	31	35										N/A	N/A
C	Present value of plan assets in $*	241	163	201	219	216	250										N/A	N/A
D	Funding target in $	233	244	206	250	268	256										N/A	N/A
E	Unfunded liability in $/funding shortfall	(2)	(98)	(84)	(96)	(147)	(154)										N/A	N/A
F	Target normal cost	N/A	8	7	6	8	7										N/A	N/A
G	Minimum required contribution	0	8	7	11	17	11										N/A	N/A
H	Credit balance (A-B)	N/A	N/A	N/A	N/A	N/A	N/A										N/A	N/A
I	Annual contribution in $s	0	0	25	10	20	24										N/A	N/A
I1	Contribution from shareholders in $s	0	0	25	10	20	24										N/A	N/A
I2	Contribution from credit balance in $s	N/A	N/A	N/A	N/A	N/A	N/A										N/A	N/A
I3	Capital cost of shareholder contribution	10.20%	10.20%	10.20%	10.20%	10.20%	10.20%										N/A	N/A
I4	Debt financing cost of contribution	7.06%	7.06%	7.06%	7.06%	7.06%	7.06%										N/A	N/A
J	Funding status (choose one Y/N)																	
J1	Underfunded	Y	Y	Y	Y	Y	Y										N/A	N/A
J2	Overfunded	N	N	N	N	N	N										N/A	N/A
J3	Fully funded	N	N	N	N	N	N										N/A	N/A
J4	Funding target attainment percentage (A/B)	N/A	N/A	N/A	N/A	N/A	N/A										N/A	N/A
K	Amount recovered in rates (pre-tax)	6	6	6	6	6	6										N/A	N/A
L	Amount recovered in rates (post-tax)	N/A	N/A	N/A	N/A	N/A	N/A										N/A	N/A
L1	FAS 87 expense	7	4	15	11	16	19										(2)	N/A
M	Actual interest rate	6.80%	6.58%	5.99%	5.48%	4.51%	3.87%										N/A	N/A
N	Actual return on plan assets	8.98%	-27.18%	15.79%	13.20%	2.40%	12.40%										N/A	N/A
Assumptions																		
O	Assumed discount** rate for																	
O1	Benefit obligation	6.80%	6.58%	5.99%	5.48%	4.51%	3.87%										N/A	N/A
O2	Benefit cost	6.03%	6.80%	6.58%	5.99%	5.48%	4.51%										N/A	N/A
P	Expected return on plan assets	8.25%	8.25%	8.25%	8.25%	8.00%	7.50%										N/A	N/A
Q	Wage escalation assumed	4.38%	3.88%	3.38%	3.38%	3.38%	3.38%										N/A	N/A
R	Years of ammortization assumed	11.0	10.7	10.4	N/A	9.1	8.8										N/A	N/A
S	Funding target percentage per year	N/A	91%	94%	85%	81%	94%										N/A	N/A
T	"at risk" under PPA (choose one Y/N)	N/A	N	N	N	N	N										N/A	N/A
U	Tax benefit, in dollars of annual contribution	(3)	8	(4)	5	3	N/A										N/A	N/A
V	Cash flow benefit of cash contribution	N/A	N/A	N/A	N/A	N/A	N/A										N/A	N/A
W	Value of prepaid pension asset	22	18	28	27	31	35										N/A	N/A
X	Accumulated Other Comprehensive Income/Expense	24	116	112	122	178	189										N/A	N/A

*as determined by the actuarial calculation of future retireme
**as determined by the PPA post 2006. Please specify methc

NOTE: For all historical values, use information that was avail

Attachment CUB 5-1

	Pension Plan Worksheet, in Millions of $s																	Preliminary and unapproved projections										
	YEAR : If provided on a fiscal year basis (3/31/XX or 12/31/XX)		1998	03/31/00	03/31/01	03/31/02	03/31/03	03/31/04	03/31/05	03/31/06	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
	YEAR : If provided on a plan year basis (1/1/XX)	1984	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Status																												
A	Pension Benefit Obligation		(1,168.5)	(1,036.1)	(1,093.1)	(1,039.3)	(1,107.6)	(1,181.7)	(1,287.0)	(1,289.8)	(1,279.4)	(1,059.1)	(1,020.1)	(1,144.5)	(1,180.2)	(1,232.9)	(1,328.7)	(1,291.1)	(1,225.0)	(1,156.3)	(1,087.6)	(1,038.1)	(985.8)	(930.3)	(874.2)	(827.4)	(781.2)	(735.1)
B(1)	Plan Assets		983.5	1,192.1	1,152.6	826.2	681.2	733.2	806.5	828.6	883.9	962.6	692.1	824.9	960.0	930.7	1,012.0	1046.9	1015.3	1015.5	1016.4	1013.4	1004.2	984.8	964.7	925.9	888.2	851.2
B	Prepaid pension asset		(108.0)	(60.4)	(104.2)	(89.0)	(60.6)	(46.1)	(20.3)	(17.2)	10.9	35.2	75.8	110.3	210.0	261.8	282.4	311.0	288.6	306.8	332.4	352.3	368.1	378.1	390.4	377.8	366.9	358.0
C	Present value of plan assets in $*		884.9	981.4	1,066.9	1,045.9	953.4	853.6	889.4	882.8	910.9	903.9	968.2	763.2	831.6	958.4	1,016.1	1,052.7	1,035.2	1,016.7	1,010.6	1,007.6	996.3	986.2	985.6	950.5	918.1	883.7
D	Funding target in $		(1,086.4)	(1,044.6)	(1,052.4)	(1,080.3)	(1,018.3)	(1,009.0)	(1,002.3)	(1,022.4)	(1,048.9)	(904.0)	(1,093.4)	(877.2)	(1,037.7)	(1,068.3)	(984.9)	(1,050.9)	(1,083.0)	(1,107.8)	(1,118.4)	(1,109.6)	(1,057.5)	(1,002.8)	(944.9)	(886.6)	(837.8)	(790.0)
E	Unfunded liability in $/funding shortfall		201.5	63.2	(14.5)	34.4	64.9	155.4	112.9	139.6	138.0	0.1	125.2	114.0	206.1	109.9	(31.2)	(1.8)	47.8	91.1	107.8	102.0	61.2	16.6	(40.7)	(63.9)	(80.3)	(93.7)
F	Target normal cost		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.4	22.2	16.0	12.1	9.9	8.8	10.0	9.7	9.2	8.4	7.2	5.9	0.0	0.0	0.0	0.0
G	Minimum required contribution, before credit balance		57.7	42.9	38.9	35.6	33.9	60.1	60.2	72.8	83.8	91.6	49.3	44.7	55.8	47.2	25.3	38.3	46.2	31.8	35.4	19.8	18.2	30.9	0.0	0.0	0.0	0.0
G1	Minimum required contribution, if all credit balance was used		41.5	0.2	0.0	0.0	0.0	11.5	6.2	14.6	17.0	28.1	11.7	44.7	55.8	6.4	0.0	0.0	11.9	31.8	35.3	19.8	18.2	30.9	0.0	0.0	0.0	0.0
H	Credit balance (A-B)		39.5	89.0	61.4	42.1	45.0	50.1	53.8	61.8	58.8	37.5	0.0	0.0	0.0	0.0	34.6	70.2	34.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I	Annual contribution in $s																											
I1	Contribution from Company in $s during fiscal year		94.0	68.0	19.4	4.2	26.4	33.4	61.6	63.7	72.7	75.8	65.6	49.6	112.8	66.5	44.9	59.2	0.0	34.4	35.5	26.2	19.4	20.2	18.7	0.0	0.0	0.0
I1a	Contribution from Company in $s*** for plan year		79.0	87.4	4.2	26.4	33.4	61.6	60.0	76.4	75.8	65.6	12.5	116.3	100.0	44.9	59.2	0.0	13.0	33.1	36.6	20.5	18.8	32.4	0.0	0.0	0.0	0.0
I2	Contribution from credit balance in $s		0.0	0.0	27.6	5.3	0.0	0.0	0.0	0.0	3.0	21.3	37.5	0.0	0.0	0.0	0.0	38.3	34.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I3	Capital cost of Company contribution		please refer to separate excel response																									
I4	Debt financing cost of contribution		please refer to separate excel response																									
J	Funding status (choose one Y/N)																											
J1	Underfunded		Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	N	N	N	N
J2	Overfunded		N	N	Y	N	N	N	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N	Y	Y	Y	Y
J3	Fully funded		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
J4	Funding target attainment percentage (A/B)		77.8%	85.4%	101.4%	92.9%	89.2%	79.6%	83.4%	80.3%	81.24%	95.8%	88.5%	87.0%	80.1%	89.7%	103.2%	100.2%	92.4%	91.8%	90.4%	90.8%	94.2%	98.3%	104.3%	107.2%	109.6%	111.9%
K	Amount recovered in rates (pre-tax)		please refer to separate excel response																									
L	Amount recovered in rates (post-tax)		please refer to separate excel response																									
L1	FAS 87 expense and special charges		(133.6)	(20.4)	(63.2)	11.0	1.9	(18.9)	(35.8)	(60.6)	(44.7)	(51.5)	(25.0)	(15.1)	(13.1)	(14.6)	(24.4)	(30.6)	(22.4)	(16.2)	(9.9)	(6.3)	(3.6)	(10.2)	(6.4)	(12.6)	(10.9)	(8.9)
M	Actual interest rate		7.00%	6.75-7.5%	7.50%	7.75%	7.50%	6.75%	6.25%	5.75%	5.75%	5.76%	6.30%	6.90%	5.80%	5.35%	4.90%	4.05%	4.05%	4.20%	4.35%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
N	Actual return on plan assets		154.5	279.4	55.3	(147.7)	(60.0)	128.3	87.5	72.6	55.4	118.0	(224.0)	160.0	101.9	(12.7)	119.9	74.3	75.1	73.9	73.8	74.5	74.0	63.4	62.0	51.1	49.0	46.9
Assumptions																												
O	Assumed discount** rate for																											
O1	Benefit obligation		6.75-7.5%	7.50%	7.75%	7.50%	6.75%	6.25%	5.75%	5.75%	5.85%	6.30%	6.90%	5.80%	5.35%	4.90%	4.05%	4.05%	4.20%	4.35%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
O2	Benefit cost		7.00%	6.75-7.5%	7.50%	7.75%	7.50%	6.75%	6.25%	5.75%	5.75%	5.76%	6.30%	6.90%	5.80%	5.35%	4.90%	4.05%	4.05%	4.20%	4.35%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
P	Expected return on plan assets		89.4	118.9	105.8	99.9	92.8	80.7	77.7	76.9	54.3	69.4	88.8	70	74.4	75	74.4	74.3	75.1	73.9	73.8	74.5	74	63.4	62	51.1	49.0	46.9
Q	Wage escalation assumed		4-5%	4-4.5%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	3.5%	3.5%	3.5%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
R	Years of amortization assumed		12	12	12	11	11	11	11	11	11	10.17	9.78	9.67	9.31	9.06	9.53	9.306	8.996	8.839	8.693	8.54	8.417	8.312	8.232	8.166	8.107	8.047
S	Funding target percentage per year		77.8%	85.4%	101.4%	92.9%	89.2%	79.6%	83.4%	80.3%	81.2%	95.8%	88.5%	87.0%	80.1%	89.7%	103.2%	100.2%	92.4%	91.8%	90.4%	90.8%	94.2%	98.3%	104.3%	107.2%	109.6%	111.9%
T	"at risk" under PPA (choose one Y/N)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
U	Tax benefit, in dollars of annual contribution		please refer to narrative response																									
V	Cash flow benefit of cash contribution		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
W	Value of prepaid pension asset		(108.0)	(60.4)	(104.2)	(89.0)	(60.6)	(46.1)	(20.3)	(17.2)	10.9	35.2	75.8	110.3	210.0	261.8	282.4	311.0	288.6	306.8	332.4	352.3	368.1	378.1	390.4	377.8	366.9	358.0
X	Accumulated Other Comprehensive Income/Expense	0	77.0	(216.4)	(163.7)	124.2	365.7	402.4	460.2	444.0	406.3	131.8	403.8	429.9	430.1	564.1	599.1	555.1	498.3	447.6	403.6	377.0	349.7	323.5	299.8	279.2	259.9	241.8

*as determined by the actuarial calculation of future retirement obligations - please specify any assumptions

**as determined by the PPA post 2006. Please specify method determination in earlier years.

***Amounts shown are undiscounted. The Company has the ability to make plan year contributions in the following year. For example, in order to meet a 2015 plan year minimum required contribution of $10 million the Company could make a $11 million contribution during calendar year 2016. The contribution would cover the required minimum contribution amount and any asset returns the pension trust lost out on by having the contribution made in the following year. For this reason, there will be times that it appears based on this schedule the Company contributed slightly more than the minimum ($1-3 million) in a given plan year, when in actuality only the required minimum contribution was made.

NOTE: For all historical values, use information that was available in the year of filing. For future years, use predictions consistent with the company's filings

CUB EXHIBIT 107 IS CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER NO. 13-013

UM 1633/PacifiCorp
December 6, 2013
CUB Data Request 31

CUB Data Request 31

In reference to the above question, does the Company agree in principle that ratepayers should be paid a return on the prepaid pension asset when it is negative, or during the periods that it is an accrued pension liability?

Response to CUB Data Request 31

Yes, the Company agrees in principle that the cumulative difference between contributions and expense should be included in rate base, whether this results in a prepaid asset or accrual balance.

UM 1633/PacifiCorp
December 6, 2013
CUB Data Request 30

CUB Data Request 30

According to the Company's response to CUB DR5, for the years 1998-2005, the Company showed a negative prepaid pension asset, also known as an accrued pension liability. Please specify the years and the amounts in which the company paid customers a return on the accrued pension liability, if any.

Response to CUB Data Request 30

The accrued pension liability was not included in rate base and accordingly, no return was paid to customers on the accrued pension liability.

December 6, 2013

TO: Nadine Hanhan
Citizens' Utility Board of Oregon (CUB)
nadine@oregoncub.org
dockets@oregoncub.org

FROM: Patrick G. Hager
Manager, Regulatory Affairs

PORTLAND GENERAL ELECTRIC
UM 1633
PGE Response to CUB Data Request No. 036
Dated November 22, 2013

Request:

UE 197/PGE/800 Barnett-Bell/16 lines 9-12: "PGE requests no pension benefit cost in this proceeding because future benefit obligations are less than the expected value of the assets currently held in the plan. As in previous rate cases, we exclude negative net periodic pension cost from the test year revenue requirement."

a. Does net periodic pension cost in the above quote reference FAS 87?
b. Because the net periodic pension cost adds to the prepaid pension asset, that PGE claims it bears a carrying cost on, please explain how PGE is incurring a carrying cost on this amount.

Response:

a. Yes.

b. Lower or negative FAS 87 expense is largely the result of investment policies by PGE that generated higher returns for customers than the financial market benchmarks. Thus, customers receive the benefit of lower or zero FAS 87 expense. These returns in excess of market benchmarks also affect future FAS 87 expense further reducing costs for customers. Granting a return on the prepaid pension asset allows PGE to be compensated for funding the benefit through both its cash contributions and above average market performance.

NW Natural

Rates & Regulatory Affairs

UM 1633 – Investigation into
Treatment of Pension Costs in Utility Rates

Data Request Response

Request No. UM 1633-CUB-DR 21**:**
Was there ever a year where prior service costs were equal to zero? If so, in what year did this last occur?

Response:

For as far back as we are able to ascertain (beginning in 1991), the Company has had amortization of prior service costs each year. These costs are the result of plan amendment changes made in a specific year which are amortized over time. For further discussion of Northwest Natural's plan amendments, please refer to the Company's response to UM 1633 CUB DR 22.

Response to Data Requests

Projections Shown in Vogl Testimony

Note: Some numbers may not add exactly due to rounding.

(in millions)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Accounting Information										
Funded Status Summary										
Projected Benefit Obligation	$ (800.0)	$ (811.9)	$ (823.8)	$ (835.4)	$ (846.9)	$ (858.2)	$ (869.3)	$ (880.1)	$ (890.6)	$ (900.8)
Fair Value of Assets	650.0	688.0	740.3	791.6	834.2	860.9	881.4	902.1	922.9	943.9
Funded Status	$ (150.0)	$ (123.9)	$ (83.4)	$ (43.8)	$ (12.7)	$ 2.6	$ 12.1	$ 22.0	$ 32.3	$ 43.1
Unrecognized (Gains)/Losses	270.0	254.2	239.9	226.8	215.0	204.2	194.5	185.7	177.8	170.8
(Accrued)/Prepaid Pension Asset	**$ 120.0**	**$ 130.3**	**$ 156.5**	**$ 183.0**	**$ 202.3**	**$ 206.8**	**$ 206.6**	**$ 207.7**	**$ 210.1**	**$ 213.9**
Calculation of Smoothed Asset Value										
Fair Value of Assets	$ 650.0	$ 688.0	$ 740.3	$ 791.6	$ 834.2	$ 860.9	$ 881.4	$ 902.1	$ 922.9	$ 943.9
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	-	-	-	-	-	-	-	-	-
- 2 years prior	-	-	-	-	-	-	-	-	-	-
- 3 years prior	-	-	-	-	-	-	-	-	-	-
- 4 years prior	-	-	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 688.0	$ 740.3	$ 791.6	$ 834.2	$ 860.9	$ 881.4	$ 902.1	$ 922.9	$ 943.9
Calculation of (Gain)/Loss Amortization										
Unrecognized (Gains)/Losses	$ 270.0	$ 254.2	$ 239.9	$ 226.8	$ 215.0	$ 204.2	$ 194.5	$ 185.7	$ 177.8	$ 170.8
Amortization Corridor (10%)	80.0	81.2	82.4	83.5	84.7	86.1	88.1	90.2	92.3	94.4
Amount Subject to Amortization	$ 190.0	$ 173.0	$ 157.5	$ 143.3	$ 130.3	$ 118.1	$ 106.3	$ 95.5	$ 85.5	$ 76.4
Amortization Period (AFS)	12	12	12	12	12	12	12	12	12	12
Amortization Amount	$ 15.8	$ 14.4	$ 13.1	$ 11.9	$ 10.9	$ 9.8	$ 8.9	$ 8.0	$ 7.1	$ 6.4
Calculation of FAS 87 Accounting Cost										
Service Cost	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Interest Cost	32.0	32.5	33.0	33.4	33.9	34.3	34.8	35.2	35.6	36.0
Expected Return on Assets	(51.4)	(55.1)	(59.1)	(62.7)	(65.3)	(67.0)	(68.6)	(70.2)	(71.8)	(73.5)
Amortization of (Gain)/Loss	15.8	14.4	13.1	11.9	10.9	9.8	8.9	8.0	7.1	6.4
Total FAS 87 Accounting Cost	**$ 16.4**	**$ 12.4**	**$ 8.2**	**$ 4.5**	**$ 1.9**	**$ 0.3**	**$ (1.1)**	**$ (2.5)**	**$ (3.7)**	**$ (5.0)**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Actual Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Average Future Service (AFS)	12	12	12	12	12	12	12	12	12	12
Asset Smoothing	None	None	None	None	None	None	None	None	None	None
Annual Benefits Earned	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
PPA Funding Information										
Funded Status Summary										
PPA Funding Liability	$ (760.0)	$ (772.4)	$ (784.8)	$ (797.1)	$ (809.3)	$ (821.5)	$ (833.5)	$ (845.4)	$ (857.1)	$ (868.6)
Market Value of Assets	650.0	702.0	753.1	803.1	840.6	860.9	881.4	902.1	922.9	943.9
Funded Status	$ (110.0)	$ (70.4)	$ (31.7)	$ 6.0	$ 31.3	$ 39.4	$ 47.9	$ 56.7	$ 65.8	$ 75.3
Calculation of Asset Value										
Market Value of Assets	$ 650.0	$ 702.0	$ 753.1	$ 803.1	$ 840.6	$ 860.9	$ 881.4	$ 902.1	$ 922.9	$ 943.9
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	-	-	-	-	-	-	-	-	-
- 2 years prior	-	-	-	-	-	-	-	-	-	-
Impact of 90%-110% Asset Corridor	-	-	-	-	-	-	-	-	-	-
Value of Assets	$ 650.0	$ 702.0	$ 753.1	$ 803.1	$ 840.6	$ 860.9	$ 881.4	$ 902.1	$ 922.9	$ 943.9
Calculation of Shortfall Amortization										
Shortfall Amount	$ 110.0	$ 70.4	$ 31.7	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Value of Previous Shortfall Bases	-	96.1	59.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Value of New Shortfall Base	$ 110.0	$ (25.6)	$ (27.5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Previous Shortfall Base Amortization	$ -	$ 17.6	$ 13.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Shortfall Base Amortization	17.6	(4.1)	(4.4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Shortfall Amortization	$ 17.6	$ 13.5	$ 9.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Calculation of PPA Cash Cost										
Normal Cost	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Amortization of Shortfall	17.6	13.5	9.1	-	-	-	-	-	-	-
Credit for Excess Assets	-	-	-	(5.9)	(24.8)	(25.5)	(26.3)	(27.1)	(27.9)	(28.7)
Total Minimum Required Contribution	**$ 39.6**	**$ 36.2**	**$ 32.5**	**$ 18.1**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Asset Smoothing	None	None	None	None	None	None	None	None	None	None
Annual Benefits Earned	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
A. Annual GRC Pension Expense Only	$ 16.4	$ 12.4	$ 8.2	$ 4.5	$ 1.9	$ 0.3	$ (1.1)	$ (2.5)	$ (3.7)	$ (5.0)
B. Annual GRC Expense and Return On	$ 22.93	$ 26.01	$ 23.80	$ 22.96	$ 22.85	$ 22.55	$ 21.38	$ 20.03	$ 19.02	$ 18.06
C. 3yr GRC Expense Only	$ 16.4	$ 16.4	$ 16.4	$ 4.5	$ 4.5	$ 4.5	$ (1.1)	$ (1.1)	$ (1.1)	$ (5.0)
D. 3yr GRC Expense and Return On	$ 22.93	$ 22.93	$ 22.93	$ 22.96	$ 22.96	$ 22.96	$ 21.38	$ 21.38	$ 21.38	$ 18.06
3 year tracker amount	$ -	$ -	$ -	$ 1.59	$ 1.76	$ 1.95	$ (0.20)	$ (0.22)	$ (0.24)	$ (4.28)
E. 3 yr Expense and Return On w/ Tracker	$ 22.93	$ 22.93	$ 22.93	$ 24.55	$ 24.72	$ 24.91	$ 21.18	$ 21.16	$ 21.14	$ 13.78

Grossed up COC
0.108763

Response to Data Requests

Question 7a - Annual Discount Rate of 4%

Note: Some numbers may not add exactly due to rounding.

(in millions)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Accounting Information										
Funded Status Summary										
Projected Benefit Obligation	$ (800.0)	$ (811.9)	$ (823.8)	$ (835.4)	$ (846.9)	$ (858.2)	$ (869.3)	$ (880.1)	$ (890.6)	$ (900.8)
Fair Value of Assets	650.0	688.0	742.2	797.6	852.6	886.8	909.7	932.7	956.0	979.6
Funded Status	$ (150.0)	$ (123.9)	$ (81.5)	$ (37.8)	$ 5.6	$ 28.6	$ 40.4	$ 52.6	$ 65.3	$ 78.8
Unrecognized (Gains)/Losses	270.0	254.2	239.9	226.8	215.0	204.3	194.7	186.2	178.5	171.7
(Accrued)/Prepaid Pension Asset	**$ 120.0**	**$ 130.3**	**$ 158.4**	**$ 189.0**	**$ 220.6**	**$ 232.9**	**$ 235.1**	**$ 238.8**	**$ 243.8**	**$ 250.5**
Calculation of Smoothed Asset Value										
Fair Value of Assets	$ 650.0	$ 688.0	$ 742.2	$ 797.6	$ 852.6	$ 886.8	$ 909.7	$ 932.7	$ 956.0	$ 979.6
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	-	-	-	-	-	-	-	-	-
- 2 years prior	-	-	-	-	-	-	-	-	-	-
- 3 years prior	-	-	-	-	-	-	-	-	-	-
- 4 years prior	-	-	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 688.0	$ 742.2	$ 797.6	$ 852.6	$ 886.8	$ 909.7	$ 932.7	$ 956.0	$ 979.6
Calculation of (Gain)/Loss Amortization										
Unrecognized (Gains)/Losses	$ 270.0	$ 254.2	$ 239.9	$ 226.8	$ 215.0	$ 204.3	$ 194.7	$ 186.2	$ 178.5	$ 171.7
Amortization Corridor (10%)	80.0	81.2	82.4	83.5	85.3	88.7	91.0	93.3	95.6	98.0
Amount Subject to Amortization	$ 190.0	$ 173.0	$ 157.5	$ 143.3	$ 129.7	$ 115.6	$ 103.7	$ 92.9	$ 82.9	$ 73.7
Amortization Period (AFS)	12	12	12	12	12	12	12	12	12	12
Amortization Amount	$ 15.8	$ 14.4	$ 13.1	$ 11.9	$ 10.8	$ 9.6	$ 8.6	$ 7.7	$ 6.9	$ 6.1
Calculation of FAS 87 Accounting Cost										
Service Cost	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Interest Cost	32.0	32.5	33.0	33.4	33.9	34.3	34.8	35.2	35.6	36.0
Expected Return on Assets	(51.4)	(55.2)	(59.4)	(63.6)	(67.1)	(69.1)	(70.9)	(72.7)	(74.5)	(76.3)
Amortization of (Gain)/Loss	15.8	14.4	13.1	11.9	10.8	9.6	8.6	7.7	6.9	6.1
Total FAS 87 Accounting Cost	**$ 16.4**	**$ 12.3**	**$ 7.9**	**$ 3.6**	**$ 0.1**	**$ (2.0)**	**$ (3.6)**	**$ (5.1)**	**$ (6.6)**	**$ (8.0)**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Actual Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Average Future Service (AFS)	12	12	12	12	12	12	12	12	12	12
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
PPA Funding Information										
Funded Status Summary										
PPA Funding Liability	$ (760.0)	$ (772.4)	$ (784.8)	$ (797.1)	$ (809.3)	$ (821.5)	$ (833.5)	$ (845.4)	$ (857.1)	$ (868.6)
Market Value of Assets	650.0	702.0	755.9	810.6	864.1	887.1	909.7	932.7	956.0	979.6
Funded Status	$ (110.0)	$ (70.4)	$ (28.9)	$ 13.5	$ 54.8	$ 65.6	$ 76.2	$ 87.3	$ 98.9	$ 111.0
Calculation of Smoothed Asset Value										
Market Value of Assets	$ 650.0	$ 702.0	$ 755.9	$ 810.6	$ 864.1	$ 887.1	$ 909.7	$ 932.7	$ 956.0	$ 979.6
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	(17.1)	(18.2)	(19.6)	(21.1)	(22.2)	(23.0)	(23.6)	(24.2)	(24.8)
- 2 years prior	-	-	(8.5)	(9.1)	(9.8)	(10.5)	(11.1)	(11.5)	(11.8)	(12.1)
Impact of 90%-110% Asset Corridor	-	-	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 684.9	$ 729.2	$ 781.8	$ 833.2	$ 854.3	$ 875.6	$ 897.6	$ 920.0	$ 942.7
Calculation of Shortfall Amortization										
Shortfall Amount	$ 110.0	$ 87.5	$ 55.6	$ 15.3	$ -	$ -	$ -	$ -	$ -	$ -
Value of Previous Shortfall Bases	-	96.1	74.1	44.0	N/A	N/A	N/A	N/A	N/A	N/A
Value of New Shortfall Base	$ 110.0	$ (8.5)	$ (18.5)	$ (28.7)	N/A	N/A	N/A	N/A	N/A	N/A
Previous Shortfall Base Amortization	$ -	$ 17.7	$ 16.3	$ 13.3	N/A	N/A	N/A	N/A	N/A	N/A
New Shortfall Base Amortization	17.6	(1.4)	(3.0)	(4.6)	N/A	N/A	N/A	N/A	N/A	N/A
Total Shortfall Amortization	$ 17.6	$ 16.3	$ 13.3	$ 8.7	N/A	N/A	N/A	N/A	N/A	N/A
Calculation of PPA Cash Cost										
Normal Cost	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Amortization of Shortfall	17.6	16.3	13.3	8.7	-	-	-	-	-	-
Credit for Excess Assets	-	-	-	-	(23.9)	(25.5)	(26.3)	(27.1)	(27.9)	(28.7)
Total Minimum Required Contribution	**$ 39.6**	**$ 38.9**	**$ 36.6**	**$ 32.7**	**$ 0.9**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Actual Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
A. Annual GRC Pension Expense Only	$ 16.4	$ 12.3	$ 7.9	$ 3.6	$ 0.1	$ (2.0)	$ (3.6)	$ (5.1)	$ (6.6)	$ (8.0)
B. Annual GRC Expense and Return On	$ 22.93	$ 25.91	$ 23.60	$ 22.49	$ 22.37	$ 22.66	$ 21.85	$ 20.67	$ 19.64	$ 18.88
C. 3yr GRC Expense Only	$ 16.4	$ 16.4	$ 16.4	$ 3.6	$ 3.6	$ 3.6	$ (3.6)	$ (3.6)	$ (3.6)	$ (8.0)
D. 3yr GRC Expense and Return On	$ 22.93	$ 22.93	$ 22.93	$ 22.49	$ 22.49	$ 22.49	$ 21.85	$ 21.85	$ 21.85	$ 18.88
3 year tracker amount	$ -	$ -	$ -	$ 1.47	$ 1.63	$ 1.81	$ 0.01	$ 0.02	$ 0.02	$ (3.90)
E. 3 yr Expense and Return On w/ Tracker	$ 22.93	$ 22.93	$ 22.93	$ 23.96	$ 24.13	$ 24.30	$ 21.87	$ 21.87	$ 21.87	$ 14.99

Grossed up COC
0.108763

Response to Data Requests

Question 7b - Annual Discount Rate of 6.5%

Note: Some numbers may not add exactly due to rounding.

(in millions)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Accounting Information										
Funded Status Summary										
Projected Benefit Obligation	$ (800.0)	$ (623.9)	$ (634.4)	$ (644.7)	$ (654.6)	$ (664.3)	$ (673.7)	$ (682.6)	$ (691.0)	$ (699.0)
Fair Value of Assets	650.0	688.0	715.0	728.0	740.6	752.9	764.8	776.2	787.0	797.1
Funded Status	$ (150.0)	$ 64.1	$ 80.6	$ 83.3	$ 86.0	$ 88.6	$ 91.1	$ 93.6	$ 95.9	$ 98.1
Unrecognized (Gains)/Losses	270.0	66.2	66.3	66.3	66.3	66.3	66.4	66.4	66.4	66.5
(Accrued)/Prepaid Pension Asset	**$ 120.0**	**$ 130.3**	**$ 146.9**	**$ 149.6**	**$ 152.3**	**$ 154.9**	**$ 157.5**	**$ 160.0**	**$ 162.3**	**$ 164.6**
Calculation of Smoothed Asset Value										
Fair Value of Assets	$ 650.0	$ 688.0	$ 715.0	$ 728.0	$ 740.6	$ 752.9	$ 764.8	$ 776.2	$ 787.0	$ 797.1
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	-	-	-	-	-	-	-	-	-
- 2 years prior	-	-	-	-	-	-	-	-	-	-
- 3 years prior	-	-	-	-	-	-	-	-	-	-
- 4 years prior	-	-	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 688.0	$ 715.0	$ 728.0	$ 740.6	$ 752.9	$ 764.8	$ 776.2	$ 787.0	$ 797.1
Calculation of (Gain)/Loss Amortization										
Unrecognized (Gains)/Losses	$ 270.0	$ 66.2	$ 66.3	$ 66.3	$ 66.3	$ 66.3	$ 66.4	$ 66.4	$ 66.4	$ 66.5
Amortization Corridor (10%)	80.0	68.8	71.5	72.8	74.1	75.3	76.5	77.6	78.7	79.7
Amount Subject to Amortization	$ 190.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Amortization Period (AFS)	12	12	12	12	12	12	12	12	12	12
Amortization Amount	$ 15.8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Calculation of FAS 87 Accounting Cost										
Service Cost	$ 20.0	$ 11.8	$ 12.1	$ 12.5	$ 12.9	$ 13.3	$ 13.7	$ 14.1	$ 14.5	$ 14.9
Interest Cost	32.0	40.0	40.7	41.3	41.9	42.6	43.1	43.7	44.2	44.7
Expected Return on Assets	(51.4)	(54.2)	(55.5)	(56.5)	(57.5)	(58.4)	(59.3)	(60.2)	(61.0)	(61.7)
Amortization of (Gain)/Loss	15.8	-	-	-	-	-	-	-	-	-
Total FAS 87 Accounting Cost	**$ 16.4**	**$ (2.4)**	**$ (2.7)**	**$ (2.7)**	**$ (2.6)**	**$ (2.6)**	**$ (2.5)**	**$ (2.4)**	**$ (2.2)**	**$ (2.0)**
Assumptions										
Discount Rate	4.00%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
Expected Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Actual Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Average Future Service (AFS)	12	12	12	12	12	12	12	12	12	12
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 20.0	$ 11.8	$ 12.1	$ 12.5	$ 12.9	$ 13.3	$ 13.7	$ 14.1	$ 14.5	$ 14.9
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
PPA Funding Information										
Funded Status Summary										
PPA Funding Liability	$ (760.0)	$ (593.6)	$ (603.3)	$ (612.8)	$ (622.1)	$ (631.0)	$ (639.6)	$ (647.8)	$ (655.5)	$ (662.6)
Market Value of Assets	650.0	702.0	715.0	728.0	740.6	752.9	764.8	776.2	787.0	797.1
Funded Status	$ (110.0)	$ 108.4	$ 111.7	$ 115.2	$ 118.5	$ 121.9	$ 125.2	$ 128.4	$ 131.5	$ 134.5
Calculation of Smoothed Asset Value										
Market Value of Assets	$ 650.0	$ 702.0	$ 715.0	$ 728.0	$ 740.6	$ 752.9	$ 764.8	$ 776.2	$ 787.0	$ 797.1
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	(17.1)	(6.6)	(6.9)	(7.0)	(7.2)	(7.3)	(7.4)	(7.5)	(7.6)
- 2 years prior	-	-	(8.5)	(3.3)	(3.5)	(3.5)	(3.6)	(3.6)	(3.7)	(3.8)
Impact of 90%-110% Asset Corridor	-	-	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 684.9	$ 699.9	$ 717.7	$ 730.1	$ 742.2	$ 753.9	$ 765.1	$ 775.8	$ 785.7
Calculation of Shortfall Amortization										
Shortfall Amount	$ 110.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Value of Previous Shortfall Bases	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Value of New Shortfall Base	$ 110.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Previous Shortfall Base Amortization	$ -	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Shortfall Base Amortization	17.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Shortfall Amortization	$ 17.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Calculation of PPA Cash Cost										
Normal Cost	$ 22.0	$ 13.0	$ 13.4	$ 13.8	$ 14.2	$ 14.6	$ 15.0	$ 15.5	$ 16.0	$ 16.4
Amortization of Shortfall	17.6	-	-	-	-	-	-	-	-	-
Credit for Excess Assets	-	(13.0)	(13.4)	(13.8)	(14.2)	(14.6)	(15.0)	(15.5)	(16.0)	(16.4)
Total Minimum Required Contribution	**$ 39.6**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Assumptions										
Discount Rate	4.00%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
Expected Return on Assets	4.00%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
Actual Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 22.0	$ 13.0	$ 13.4	$ 13.8	$ 14.2	$ 14.6	$ 15.0	$ 15.5	$ 16.0	$ 16.4
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
A. Annual GRC Pension Expense Only	$ 16.4	$ (2.4)	$ (2.7)	$ (2.7)	$ (2.6)	$ (2.6)	$ (2.5)	$ (2.4)	$ (2.2)	$ (2.0)
B. Annual GRC Expense and Return On	$ 22.93	$ 11.21	$ 12.37	$ 13.42	$ 13.82	$ 14.11	$ 14.49	$ 14.87	$ 15.33	$ 15.78
C. 3yr GRC Expense Only	$ 16.4	$ 16.4	$ 16.4	$ (2.7)	$ (2.7)	$ (2.7)	$ (2.5)	$ (2.5)	$ (2.5)	$ (2.0)
D. 3yr GRC Expense and Return On	$ 22.93	$ 22.93	$ 22.93	$ 13.42	$ 13.42	$ 13.42	$ 14.49	$ 14.49	$ 14.49	$ 15.78
3 year tracker amount	$ -	$ -	$ -	$ (8.70)	$ (9.65)	$ (10.70)	$ 0.41	$ 0.46	$ 0.51	$ 1.39
E. 3 yr Expense and Return On w/ Tracker	$ 22.93	$ 22.93	$ 22.93	$ 4.72	$ 3.78	$ 2.73	$ 14.90	$ 14.95	$ 15.00	$ 17.17

Grossed up COC
0.108763

Response to Data Requests

Question 7c - Year 1 Investment Return of -10%

Note: Some numbers may not add exactly due to rounding.

(in millions)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Accounting Information										
Funded Status Summary										
Projected Benefit Obligation	$ (800.0)	$ (811.9)	$ (823.8)	$ (835.4)	$ (846.9)	$ (858.2)	$ (869.3)	$ (880.1)	$ (890.6)	$ (900.8)
Fair Value of Assets	650.0	572.7	621.3	679.4	743.7	810.6	877.3	914.8	936.7	958.8
Funded Status	$ (150.0)	$ (239.2)	$ (202.5)	$ (156.0)	$ (103.2)	$ (47.7)	$ 8.1	$ 34.7	$ 46.1	$ 58.0
Unrecognized (Gains)/Losses	270.0	369.5	360.7	349.8	336.7	321.2	303.1	286.1	270.5	256.0
(Accrued)/Prepaid Pension Asset	**$ 120.0**	**$ 130.3**	**$ 158.2**	**$ 193.8**	**$ 233.5**	**$ 273.5**	**$ 311.2**	**$ 320.8**	**$ 316.6**	**$ 314.0**
Calculation of Smoothed Asset Value										
Fair Value of Assets	$ 650.0	$ 572.7	$ 621.3	$ 679.4	$ 743.7	$ 810.6	$ 877.3	$ 914.8	$ 936.7	$ 958.8
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	92.2	5.9	4.8	3.5	2.1	0.6	0.3	0.2	0.1
- 2 years prior	-	-	69.2	4.4	3.6	2.7	1.6	0.4	0.2	0.1
- 3 years prior	-	-	-	46.1	3.0	2.4	1.8	1.1	0.3	0.2
- 4 years prior	-	-	-	-	23.1	1.5	1.2	0.9	0.5	0.1
Smoothed Value of Assets	$ 650.0	$ 664.9	$ 696.4	$ 734.7	$ 776.9	$ 819.2	$ 882.5	$ 917.5	$ 937.9	$ 959.3
Calculation of (Gain)/Loss Amortization										
Unrecognized (Gains)/Losses	$ 270.0	$ 369.5	$ 360.7	$ 349.8	$ 336.7	$ 321.2	$ 303.1	$ 286.1	$ 270.5	$ 256.0
Amortization Corridor (10%)	80.0	81.2	82.4	83.5	84.7	85.8	88.2	91.8	93.8	95.9
Amount Subject to Amortization	$ 190.0	$ 196.1	$ 203.2	$ 210.9	$ 218.9	$ 226.8	$ 209.8	$ 191.7	$ 175.5	$ 159.6
Amortization Period (AFS)	12	12	12	12	12	12	12	12	12	12
Amortization Amount	$ 15.8	$ 16.3	$ 16.9	$ 17.6	$ 18.2	$ 18.9	$ 17.5	$ 16.0	$ 14.6	$ 13.3
Calculation of FAS 87 Accounting Cost										
Service Cost	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Interest Cost	32.0	32.5	33.0	33.4	33.9	34.3	34.8	35.2	35.6	36.0
Expected Return on Assets	(51.4)	(53.5)	(56.2)	(59.4)	(62.6)	(65.8)	(69.6)	(71.5)	(73.0)	(74.7)
Amortization of (Gain)/Loss	15.8	16.3	16.9	17.6	18.2	18.9	17.5	16.0	14.6	13.3
Total FAS 87 Accounting Cost	**$ 16.4**	**$ 16.0**	**$ 14.9**	**$ 13.5**	**$ 12.0**	**$ 10.6**	**$ 6.5**	**$ 4.3**	**$ 2.5**	**$ 0.7**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Actual Return on Assets	-10.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Average Future Service (AFS)	12	12	12	12	12	12	12	12	12	12
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
PPA Funding Information										
Funded Status Summary										
PPA Funding Liability	$ (760.0)	$ (772.4)	$ (784.8)	$ (797.1)	$ (809.3)	$ (821.5)	$ (833.5)	$ (845.4)	$ (857.1)	$ (868.6)
Market Value of Assets	650.0	586.7	638.1	696.9	762.3	827.9	893.4	914.8	936.7	958.8
Funded Status	$ (110.0)	$ (185.7)	$ (146.7)	$ (100.2)	$ (47.0)	$ 6.4	$ 59.9	$ 69.4	$ 79.6	$ 90.2
Calculation of Smoothed Asset Value										
Market Value of Assets	$ 650.0	$ 586.7	$ 638.1	$ 696.9	$ 762.3	$ 827.9	$ 893.4	$ 914.8	$ 936.7	$ 958.8
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	59.8	(15.2)	(16.5)	(18.1)	(19.8)	(21.5)	(22.9)	(23.7)	(24.3)
- 2 years prior	-	-	29.9	(7.6)	(8.3)	(9.1)	(9.9)	(10.8)	(11.5)	(11.8)
Impact of 90%-110% Asset Corridor	-	(1.2)	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 645.3	$ 652.8	$ 672.8	$ 735.9	$ 799.0	$ 861.9	$ 881.2	$ 901.6	$ 922.7
Calculation of Shortfall Amortization										
Shortfall Amount	$ 110.0	$ 127.1	$ 132.0	$ 124.3	$ 73.4	$ 22.4	$ -	$ -	$ -	$ -
Value of Previous Shortfall Bases	-	96.1	108.7	109.9	99.5	50.9	N/A	N/A	N/A	N/A
Value of New Shortfall Base	$ 110.0	$ 31.0	$ 23.4	$ 14.4	$ (26.1)	$ (28.5)	N/A	N/A	N/A	N/A
Previous Shortfall Base Amortization	$ -	$ 17.6	$ 22.6	$ 26.3	$ 28.7	$ 24.5	N/A	N/A	N/A	N/A
New Shortfall Base Amortization	17.6	5.0	3.7	2.3	(4.2)	(4.6)	N/A	N/A	N/A	N/A
Total Shortfall Amortization	$ 17.6	$ 22.6	$ 26.3	$ 28.6	$ 24.5	$ 19.9	N/A	N/A	N/A	N/A
Calculation of PPA Cash Cost										
Normal Cost	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Amortization of Shortfall	17.6	22.6	26.3	28.6	24.5	19.9	-	-	-	-
Credit for Excess Assets	-	-	-	-	-	-	(26.3)	(27.1)	(27.9)	(28.7)
Total Minimum Required Contribution	**$ 39.6**	**$ 45.3**	**$ 49.7**	**$ 52.7**	**$ 49.2**	**$ 45.4**	**$ -**	**$ -**	**$ -**	**$ -**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Actual Return on Assets	-10.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
A. Annual GRC Pension Expense Only	$ 16.4	$ 16.0	$ 14.9	$ 13.5	$ 12.0	$ 10.6	$ 6.5	$ 4.3	$ 2.5	$ 0.7
B. Annual GRC Expense and Return On	$ 22.93	$ 29.61	$ 30.59	$ 32.64	$ 35.24	$ 38.17	$ 38.30	$ 38.67	$ 37.16	$ 34.99
C. 3yr GRC Expense Only	$ 16.4	$ 16.4	$ 16.4	$ 13.5	$ 13.5	$ 13.5	$ 6.5	$ 6.5	$ 6.5	$ 0.7
D. 3yr GRC Expense and Return On	$ 22.93	$ 22.93	$ 22.93	$ 32.64	$ 32.64	$ 32.64	$ 38.30	$ 38.30	$ 38.30	$ 34.99
3 year tracker amount	$ -	$ -	$ -	$ 5.57	$ 6.18	$ 6.85	$ 3.11	$ 3.44	$ 3.82	$ (0.80)
E. 3 yr Expense and Return On w/ Tracker	$ 22.93	$ 22.93	$ 22.93	$ 38.21	$ 38.82	$ 39.49	$ 41.40	$ 41.74	$ 42.12	$ 34.19

Grossed up COC
0.108763

Response to Data Requests

Question 7d - Year 1 Investment Return of 25%

Note: Some numbers may not add exactly due to rounding.

(in millions)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Accounting Information										
Funded Status Summary										
Projected Benefit Obligation	$ (800.0)	$ (811.9)	$ (823.8)	$ (835.4)	$ (846.9)	$ (858.2)	$ (869.3)	$ (880.1)	$ (890.6)	$ (900.8)
Fair Value of Assets	650.0	796.9	854.8	896.6	925.7	952.8	980.7	1,009.4	1,038.8	1,069.1
Funded Status	$ (150.0)	$ (15.0)	$ 31.1	$ 61.1	$ 78.8	$ 94.6	$ 111.4	$ 129.3	$ 148.2	$ 168.2
Unrecognized (Gains)/Losses	270.0	145.3	125.8	110.7	100.0	94.1	92.9	92.6	92.5	92.5
(Accrued)/Prepaid Pension Asset	**$ 120.0**	**$ 130.3**	**$ 156.9**	**$ 171.8**	**$ 178.8**	**$ 188.7**	**$ 204.3**	**$ 221.9**	**$ 240.7**	**$ 260.7**
Calculation of Smoothed Asset Value										
Fair Value of Assets	$ 650.0	$ 796.9	$ 854.8	$ 896.6	$ 925.7	$ 952.8	$ 980.7	$ 1,009.4	$ 1,038.8	$ 1,069.1
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	(87.1)	(5.6)	(4.5)	(3.3)	(2.0)	(0.5)	(0.3)	(0.2)	(0.1)
- 2 years prior	-	-	(65.4)	(4.2)	(3.4)	(2.5)	(1.5)	(0.4)	(0.2)	(0.1)
- 3 years prior	-	-	-	(43.6)	(2.8)	(2.3)	(1.7)	(1.0)	(0.3)	(0.2)
- 4 years prior	-	-	-	-	(21.8)	(1.4)	(1.1)	(0.8)	(0.5)	(0.1)
Smoothed Value of Assets	$ 650.0	$ 709.8	$ 783.9	$ 844.3	$ 894.4	$ 944.7	$ 975.9	$ 1,006.8	$ 1,037.6	$ 1,068.6
Calculation of (Gain)/Loss Amortization										
Unrecognized (Gains)/Losses	$ 270.0	$ 145.3	$ 125.8	$ 110.7	$ 100.0	$ 94.1	$ 92.9	$ 92.6	$ 92.5	$ 92.5
Amortization Corridor (10%)	80.0	81.2	82.4	84.4	89.4	94.5	97.6	100.7	103.8	106.9
Amount Subject to Amortization	$ 190.0	$ 151.3	$ 114.4	$ 78.6	$ 41.9	$ 7.8	$ 0.1	$ -	$ -	$ -
Amortization Period (AFS)	12	12	12	12	12	12	12	12	12	12
Amortization Amount	$ 15.8	$ 12.6	$ 9.5	$ 6.5	$ 3.5	$ 0.7	$ -	$ -	$ -	$ -
Calculation of FAS 87 Accounting Cost										
Service Cost	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Interest Cost	32.0	32.5	33.0	33.4	33.9	34.3	34.8	35.2	35.6	36.0
Expected Return on Assets	(51.4)	(56.7)	(61.9)	(66.0)	(69.8)	(73.8)	(76.2)	(78.6)	(81.0)	(83.4)
Amortization of (Gain)/Loss	15.8	12.6	9.5	6.5	3.5	0.7	-	-	-	-
Total FAS 87 Accounting Cost	**$ 16.4**	**$ 8.9**	**$ 1.8**	**$ (4.2)**	**$ (9.9)**	**$ (15.6)**	**$ (17.5)**	**$ (18.8)**	**$ (20.1)**	**$ (21.3)**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Actual Return on Assets	25.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Average Future Service (AFS)	12	12	12	12	12	12	12	12	12	12
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
PPA Funding Information										
Funded Status Summary										
PPA Funding Liability	$ (760.0)	$ (772.4)	$ (784.8)	$ (797.1)	$ (809.3)	$ (821.5)	$ (833.5)	$ (845.4)	$ (857.1)	$ (868.6)
Market Value of Assets	650.0	810.9	866.0	899.4	925.7	952.8	980.7	1,009.4	1,038.8	1,069.1
Funded Status	$ (110.0)	$ 38.5	$ 81.2	$ 102.3	$ 116.4	$ 131.3	$ 147.2	$ 164.0	$ 181.7	$ 200.5
Calculation of Smoothed Asset Value										
Market Value of Assets	$ 650.0	$ 810.9	$ 866.0	$ 899.4	$ 925.7	$ 952.8	$ 980.7	$ 1,009.4	$ 1,038.8	$ 1,069.1
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	(89.7)	(21.1)	(22.4)	(23.3)	(24.0)	(24.8)	(25.5)	(26.2)	(27.0)
- 2 years prior	-	-	(44.9)	(10.5)	(11.2)	(11.7)	(12.0)	(12.4)	(12.7)	(13.1)
Impact of 90%-110% Asset Corridor	-	8.6	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 729.8	$ 800.1	$ 866.5	$ 891.2	$ 917.1	$ 943.9	$ 971.5	$ 999.9	$ 1,029.0
Calculation of Shortfall Amortization										
Shortfall Amount	$ 110.0	$ 42.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Value of Previous Shortfall Bases	-	96.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Value of New Shortfall Base	$ 110.0	$ (53.5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Previous Shortfall Base Amortization	$ -	$ 17.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Shortfall Base Amortization	17.6	(8.6)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Shortfall Amortization	$ 17.6	$ 9.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Calculation of PPA Cash Cost										
Normal Cost	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Amortization of Shortfall	17.6	9.1	-	-	-	-	-	-	-	-
Credit for Excess Assets	-	-	(15.3)	(24.0)	(24.8)	(25.5)	(26.3)	(27.1)	(27.9)	(28.7)
Total Minimum Required Contribution	**$ 39.6**	**$ 31.7**	**$ 8.0**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Actual Return on Assets	25.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
A. Annual GRC Pension Expense Only	$ 16.4	$ 8.9	$ 1.8	$ (4.2)	$ (9.9)	$ (15.6)	$ (17.5)	$ (18.8)	$ (20.1)	$ (21.3)
B. Annual GRC Expense and Return On	$ 22.93	$ 22.51	$ 17.42	$ 13.68	$ 9.17	$ 4.39	$ 3.87	$ 4.38	$ 5.06	$ 5.97
C. 3yr GRC Expense Only	$ 16.4	$ 16.4	$ 16.4	$ (4.2)	$ (4.2)	$ (4.2)	$ (17.5)	$ (17.5)	$ (17.5)	$ (21.3)
D. 3yr GRC Expense and Return On	$ 22.93	$ 22.93	$ 22.93	$ 13.68	$ 13.68	$ 13.68	$ 3.87	$ 3.87	$ 3.87	$ 5.97
3 year tracker amount	$ -	$ -	$ -	$ (2.21)	$ (2.45)	$ (2.71)	$ (5.28)	$ (5.86)	$ (6.49)	$ 1.94
E. 3 yr Expense and Return On w/ Tracker	$ 22.93	$ 22.93	$ 22.93	$ 11.47	$ 11.23	$ 10.96	$ (1.41)	$ (1.98)	$ (2.62)	$ 7.90

Grossed up COC
0.108763

Response to Data Requests

Question 7e - Year 1 Investment Return of 25%, Annual Discount Rate of 6.5%

Note: Some numbers may not add exactly due to rounding.

(in millions)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Accounting Information										
Funded Status Summary										
Projected Benefit Obligation	$ (800.0)	$ (623.9)	$ (634.4)	$ (644.7)	$ (654.6)	$ (664.3)	$ (673.7)	$ (682.6)	$ (691.0)	$ (699.0)
Fair Value of Assets	650.0	796.9	832.7	855.0	877.8	901.1	924.8	949.0	973.6	998.7
Funded Status	$ (150.0)	$ 173.0	$ 198.3	$ 210.4	$ 223.2	$ 236.8	$ 251.2	$ 266.4	$ 282.6	$ 299.7
Unrecognized (Gains)/Losses	270.0	(42.7)	(49.7)	(55.3)	(59.4)	(61.9)	(62.5)	(62.9)	(63.1)	(63.1)
(Accrued)/Prepaid Pension Asset	**$ 120.0**	**$ 130.3**	**$ 148.6**	**$ 155.1**	**$ 163.8**	**$ 174.9**	**$ 188.7**	**$ 203.5**	**$ 219.5**	**$ 236.6**
Calculation of Smoothed Asset Value										
Fair Value of Assets	$ 650.0	$ 796.9	$ 832.7	$ 855.0	$ 877.8	$ 901.1	$ 924.8	$ 949.0	$ 973.6	$ 998.7
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	(87.1)	(5.6)	(4.5)	(3.3)	(2.0)	(0.5)	(0.3)	(0.2)	(0.1)
- 2 years prior	-	-	(65.4)	(4.2)	(3.4)	(2.5)	(1.5)	(0.4)	(0.2)	(0.1)
- 3 years prior	-	-	-	(43.6)	(2.8)	(2.3)	(1.7)	(1.0)	(0.3)	(0.2)
- 4 years prior	-	-	-	-	(21.8)	(1.4)	(1.1)	(0.8)	(0.5)	(0.1)
Smoothed Value of Assets	$ 650.0	$ 709.8	$ 761.7	$ 802.7	$ 846.5	$ 892.9	$ 920.0	$ 946.5	$ 972.5	$ 998.2
Calculation of (Gain)/Loss Amortization										
Unrecognized (Gains)/Losses	$ 270.0	$ (42.7)	$ (49.7)	$ (55.3)	$ (59.4)	$ (61.9)	$ (62.5)	$ (62.9)	$ (63.1)	$ (63.1)
Amortization Corridor (10%)	80.0	71.0	76.2	80.3	84.7	89.3	92.0	94.6	97.2	99.8
Amount Subject to Amortization	$ 190.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Amortization Period (AFS)	12	12	12	12	12	12	12	12	12	12
Amortization Amount	$ 15.8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Calculation of FAS 87 Accounting Cost										
Service Cost	$ 20.0	$ 11.8	$ 12.1	$ 12.5	$ 12.9	$ 13.3	$ 13.7	$ 14.1	$ 14.5	$ 14.9
Interest Cost	32.0	40.0	40.7	41.3	41.9	42.6	43.1	43.7	44.2	44.7
Expected Return on Assets	(51.4)	(56.0)	(59.3)	(62.5)	(66.0)	(69.6)	(71.7)	(73.8)	(75.8)	(77.8)
Amortization of (Gain)/Loss	15.8	-	-	-	-	-	-	-	-	-
Total FAS 87 Accounting Cost	**$ 16.4**	**$ (4.2)**	**$ (6.5)**	**$ (8.7)**	**$ (11.1)**	**$ (13.8)**	**$ (14.9)**	**$ (16.0)**	**$ (17.1)**	**$ (18.1)**
Assumptions										
Discount Rate	4.00%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
Expected Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Actual Return on Assets	25.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Average Future Service (AFS)	12	12	12	12	12	12	12	12	12	12
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 20.0	$ 11.8	$ 12.1	$ 12.5	$ 12.9	$ 13.3	$ 13.7	$ 14.1	$ 14.5	$ 14.9
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
PPA Funding Information										
Funded Status Summary										
PPA Funding Liability	$ (760.0)	$ (593.6)	$ (603.3)	$ (612.8)	$ (622.1)	$ (631.0)	$ (639.6)	$ (647.8)	$ (655.5)	$ (662.6)
Market Value of Assets	650.0	810.9	832.7	855.0	877.8	901.1	924.8	949.0	973.6	998.7
Funded Status	$ (110.0)	$ 217.3	$ 229.4	$ 242.2	$ 255.7	$ 270.1	$ 285.2	$ 301.2	$ 318.1	$ 336.1
Calculation of Smoothed Asset Value										
Market Value of Assets	$ 650.0	$ 810.9	$ 832.7	$ 855.0	$ 877.8	$ 901.1	$ 924.8	$ 949.0	$ 973.6	$ 998.7
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	(89.7)	(7.7)	(8.1)	(8.3)	(8.5)	(8.8)	(9.0)	(9.2)	(9.5)
- 2 years prior	-	-	(44.9)	(3.8)	(4.1)	(4.2)	(4.3)	(4.4)	(4.5)	(4.6)
Impact of 90%-110% Asset Corridor	-	8.6	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 729.8	$ 780.1	$ 843.1	$ 865.5	$ 888.4	$ 911.8	$ 935.6	$ 959.9	$ 984.6
Calculation of Shortfall Amortization										
Shortfall Amount	$ 110.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Value of Previous Shortfall Bases	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Value of New Shortfall Base	$ 110.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Previous Shortfall Base Amortization	$ -	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Shortfall Base Amortization	17.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Shortfall Amortization	$ 17.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Calculation of PPA Cash Cost										
Normal Cost	$ 22.0	$ 13.0	$ 13.4	$ 13.8	$ 14.2	$ 14.6	$ 15.0	$ 15.5	$ 16.0	$ 16.4
Amortization of Shortfall	17.6	-	-	-	-	-	-	-	-	-
Credit for Excess Assets	-	(13.0)	(13.4)	(13.8)	(14.2)	(14.6)	(15.0)	(15.5)	(16.0)	(16.4)
Total Minimum Required Contribution	**$ 39.6**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Assumptions										
Discount Rate	4.00%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
Expected Return on Assets	4.00%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
Actual Return on Assets	25.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 22.0	$ 13.0	$ 13.4	$ 13.8	$ 14.2	$ 14.6	$ 15.0	$ 15.5	$ 16.0	$ 16.4
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
A. Annual GRC Pension Expense Only	$ 16.4	$ (4.2)	$ (6.5)	$ (8.7)	$ (11.1)	$ (13.8)	$ (14.9)	$ (16.0)	$ (17.1)	$ (18.1)
B. Annual GRC Expense and Return On	$ 22.93	$ 9.41	$ 8.67	$ 7.82	$ 6.24	$ 4.62	$ 4.87	$ 5.33	$ 5.90	$ 6.70
C. 3yr GRC Expense Only	$ 16.4	$ 16.4	$ 16.4	$ (8.7)	$ (8.7)	$ (8.7)	$ (14.9)	$ (14.9)	$ (14.9)	$ (18.1)
D. 3yr GRC Expense and Return On	$ 22.93	$ 22.93	$ 22.93	$ 7.82	$ 7.82	$ 7.82	$ 4.87	$ 4.87	$ 4.87	$ 6.70
3 year tracker amount	$ -	$ -	$ -	$ (10.81)	$ (11.98)	$ (13.29)	$ (1.83)	$ (2.02)	$ (2.25)	$ 1.70
E. 3 yr Expense and Return On w/ Tracker	$ 22.93	$ 22.93	$ 22.93	$ (2.99)	$ (4.17)	$ (5.47)	$ 3.05	$ 2.85	$ 2.63	$ 8.41

Grossed up COC
0.108763

Response to Data Requests

Question 7g - Contributions at 5 x ERISA Minimum Levels ($198m contribution on 1/1/2013)

Note: Some numbers may not add exactly due to rounding.

(in millions)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Accounting Information										
Funded Status Summary										
Projected Benefit Obligation	$ (800.0)	$ (811.9)	$ (823.8)	$ (835.4)	$ (846.9)	$ (858.2)	$ (869.3)	$ (880.1)	$ (890.6)	$ (900.8)
Fair Value of Assets	650.0	874.1	901.0	928.9	957.6	987.3	1,017.9	1,049.5	1,082.2	1,115.9
Funded Status	$ (150.0)	$ 62.1	$ 77.3	$ 93.5	$ 110.7	$ 129.1	$ 148.6	$ 169.4	$ 191.5	$ 215.1
Unrecognized (Gains)/Losses	270.0	254.2	240.4	228.0	216.8	206.8	197.9	190.0	183.0	176.8
(Accrued)/Prepaid Pension Asset	**$ 120.0**	**$ 316.3**	**$ 317.7**	**$ 321.5**	**$ 327.5**	**$ 335.9**	**$ 346.5**	**$ 359.4**	**$ 374.5**	**$ 391.9**
Calculation of Smoothed Asset Value										
Fair Value of Assets	$ 650.0	$ 874.1	$ 901.0	$ 928.9	$ 957.6	$ 987.3	$ 1,017.9	$ 1,049.5	$ 1,082.2	$ 1,115.9
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	-	-	-	-	-	-	-	-	-
- 2 years prior	-	-	-	-	-	-	-	-	-	-
- 3 years prior	-	-	-	-	-	-	-	-	-	-
- 4 years prior	-	-	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 874.1	$ 901.0	$ 928.9	$ 957.6	$ 987.3	$ 1,017.9	$ 1,049.5	$ 1,082.2	$ 1,115.9
Calculation of (Gain)/Loss Amortization										
Unrecognized (Gains)/Losses	$ 270.0	$ 254.2	$ 240.4	$ 228.0	$ 216.8	$ 206.8	$ 197.9	$ 190.0	$ 183.0	$ 176.8
Amortization Corridor (10%)	80.0	87.4	90.1	92.9	95.8	98.7	101.8	105.0	108.2	111.6
Amount Subject to Amortization	$ 190.0	$ 166.8	$ 150.3	$ 135.1	$ 121.0	$ 108.1	$ 96.1	$ 85.0	$ 74.7	$ 65.2
Amortization Period (AFS)	12	12	12	12	12	12	12	12	12	12
Amortization Amount	$ 15.8	$ 13.9	$ 12.5	$ 11.3	$ 10.1	$ 9.0	$ 8.0	$ 7.1	$ 6.2	$ 5.4
Calculation of FAS 87 Accounting Cost										
Service Cost	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Interest Cost	32.0	32.5	33.0	33.4	33.9	34.3	34.8	35.2	35.6	36.0
Expected Return on Assets	(66.2)	(68.3)	(70.4)	(72.6)	(74.8)	(77.2)	(79.6)	(82.0)	(84.6)	(87.2)
Amortization of (Gain)/Loss	15.8	13.9	12.5	11.3	10.1	9.0	8.0	7.1	6.2	5.4
Total FAS 87 Accounting Cost	**$ 1.6**	**$ (1.3)**	**$ (3.7)**	**$ (6.1)**	**$ (8.4)**	**$ (10.6)**	**$ (12.9)**	**$ (15.1)**	**$ (17.4)**	**$ (19.6)**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Actual Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Average Future Service (AFS)	12	12	12	12	12	12	12	12	12	12
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 20.0	$ 20.6	$ 21.2	$ 21.9	$ 22.5	$ 23.2	$ 23.9	$ 24.6	$ 25.3	$ 26.1
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
PPA Funding Information										
Funded Status Summary										
PPA Funding Liability	$ (760.0)	$ (772.4)	$ (784.8)	$ (797.1)	$ (809.3)	$ (821.5)	$ (833.5)	$ (845.4)	$ (857.1)	$ (868.6)
Market Value of Assets	650.0	874.1	901.0	928.9	957.6	987.3	1,017.9	1,049.5	1,082.2	1,115.9
Funded Status	$ (110.0)	$ 101.7	$ 116.2	$ 131.8	$ 148.3	$ 165.8	$ 184.4	$ 204.1	$ 225.1	$ 247.3
Calculation of Smoothed Asset Value										
Market Value of Assets	$ 650.0	$ 874.1	$ 901.0	$ 928.9	$ 957.6	$ 987.3	$ 1,017.9	$ 1,049.5	$ 1,082.2	$ 1,115.9
Unrecognized Asset (Gains)/Losses										
- 1 year prior	-	(22.0)	(22.7)	(23.4)	(24.1)	(24.9)	(25.7)	(26.5)	(27.3)	(28.1)
- 2 years prior	-	-	(11.0)	(11.4)	(11.7)	(12.1)	(12.4)	(12.8)	(13.2)	(13.6)
Impact of 90%-110% Asset Corridor	-	-	-	-	-	-	-	-	-	-
Smoothed Value of Assets	$ 650.0	$ 852.1	$ 867.3	$ 894.1	$ 921.7	$ 950.3	$ 979.8	$ 1,010.2	$ 1,041.7	$ 1,074.1
Calculation of Shortfall Amortization										
Shortfall Amount	$ 110.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Value of Previous Shortfall Bases	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Value of New Shortfall Base	$ 110.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Previous Shortfall Base Amortization	$ -	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Shortfall Base Amortization	17.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Shortfall Amortization	$ 17.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Calculation of PPA Cash Cost										
Normal Cost	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Amortization of Shortfall	17.6	-	-	-	-	-	-	-	-	-
Credit for Excess Assets	-	(22.7)	(23.3)	(24.0)	(24.8)	(25.5)	(26.3)	(27.1)	(27.9)	(28.7)
Total Minimum Required Contribution	**$ 39.6**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Assumptions										
Discount Rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Expected Return on Assets	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Actual Return on Assets	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
Asset Smoothing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Annual Benefits Earned	$ 22.0	$ 22.7	$ 23.3	$ 24.0	$ 24.8	$ 25.5	$ 26.3	$ 27.1	$ 27.9	$ 28.7
Annual Benefit Payments	$ 40.0	$ 41.2	$ 42.4	$ 43.7	$ 45.0	$ 46.4	$ 47.8	$ 49.2	$ 50.7	$ 52.2
A. Annual GRC Pension Expense Only	$ 1.6	$ (1.3)	$ (3.7)	$ (6.1)	$ (8.4)	$ (10.6)	$ (12.9)	$ (15.1)	$ (17.4)	$ (19.6)
B. Annual GRC Expense and Return On	$ 8.13	$ 22.43	$ 30.78	$ 28.66	$ 26.89	$ 25.48	$ 24.21	$ 23.29	$ 22.51	$ 22.08
C. 3yr GRC Expense Only	$ 1.6	$ 1.6	$ 1.6	$ (6.1)	$ (6.1)	$ (6.1)	$ (12.9)	$ (12.9)	$ (12.9)	$ (19.6)
D. 3yr GRC Expense and Return On	$ 8.13	$ 8.13	$ 8.13	$ 28.66	$ 28.66	$ 28.66	$ 24.21	$ 24.21	$ 24.21	$ 22.08
3 year tracker amount	$ -	$ -	$ -	$ 14.23	$ 15.78	$ 17.50	$ (1.90)	$ (2.11)	$ (2.34)	$ (3.02)
E. 3 yr Expense and Return On w/ Tracker	$ 8.13	$ 8.13	$ 8.13	$ 42.89	$ 44.44	$ 46.16	$ 22.31	$ 22.10	$ 21.87	$ 19.06

Grossed up COC
0.108763

UM 1633/PacifiCorp
December 10, 2013
CUB Data Request 34

CUB Data Request 34

In response to CUB DR 2, footnote three in spreadsheet 2a,b,c,d,e,f,j,n,l states that "The special termination benefits were deferred and amortized into rates in other O&M expenses, rather than pension expense". Please explain. In particular, please explain what the 'special termination benefits' were, if they included any expenses that were previously written off, and the protocol which the Company follows that allows it to amortize rates in other O&M expenses, rather than pension expense.

Response to CUB Data Request 34

"Special termination benefits" noted in Attachment CUB 2 represents one-time charges associated with early retirement programs and similar transactions accounted for under FAS 88 and do not represent amounts previously written-off. In the earlier years (as indicated in CUB 2), these charges were deferred as a regulatory asset and subsequently amortized to operations and maintenance accounts outside of pension expense. These amounts were recovered in rates. In more recent years, similar one-time events have occurred such as the Company's offer in 2008 of a one-time election for non-union participants to elect enhanced 401(k) benefits instead of continued benefit accruals in the pension plan. In this instance, a curtailment gain was triggered. This amount was also deferred and included in rates; however, rather than amortize the amount to other operations and maintenance accounts, it was amortized to pension expense. PacifiCorp has consistently taken this approach in recent years where any special or one-time charges or credits are deferred for collection from or return to customers over future periods and with the associated amounts flowing through pension expense. This is because, absent deferral, these amounts would have been reflected in pension expense (other than the 2008 adjustment related to the measurement date change that would have otherwise been charged to retained earnings). Information is not readily available to determine why similar costs or credits in earlier years were charged to other operations and maintenance accounts. Whether or not these amounts are charged to pension expense or other accounts does not impact the prepaid pension asset as it will always include the cumulative FAS 87 and FAS 88 expense and contributions.

OCTOBER 12, 2011

MOODY'S
INVESTORS SERVICE

SPECIAL COMMENT

Rise in Utility Unfunded Pensions Are Credit Negative

Increased Debt Eliminates a Portion of Bonus Depreciation Benefit

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Summary

U.S. utility holding companies are losing ground with their pension obligations, as significant increases in the fixed income portion of a pension's portfolio have largely been offset by a sharp decline in equities. Moreover, discount rates have steadily decreased since previous capital market low's in 2008. The combined effect of these market movements is a sizeable decline in the funded status of utility pension plans – we estimate that today's funding level is approximately 73%, down from 2010 year end's 81%.

Our own examination of some 36 large utility parent holding companies confirms that the increase in unfunded pension obligations will have a direct impact on projected utility debt balances, a credit negative. We see the sector's $423 billion debt load for year-end 2010 increasing by approximately $14 billion solely due to rising pension underfunding, and unfunded pension obligations as a percentage of total consolidated debt rising to roughly 8.3% from 5.4%. Other conclusions from our study and ongoing analysis of the sector include:

» On the positive side, utility pension plans reduced under-funded balances at a faster pace than the average corporate industrial peer, mainly due to proportionately higher annual contributions. We expect this trend to continue.

» Many utilities have regulatory tracking mechanisms to recover their pension expense, which could help alleviate potential liquidity stress related to funding requirements.

» The increase in debt attributable to rising pension underfunding is offsetting a portion of the cash flow benefit expected to result from bonus depreciation. For some issuers, negative rating pressure could build going into 2012 if the financial metrics fall below the thresholds necessary to maintain a given rating category.

Illustrating the Pension Problem

The U.S. utility sector is losing ground with the funding status of its sizeable pension plans, a fact that is borne out by our examination of the debt and pension plans of a peer group of 36 large, well known utility parent companies.[1] For the year ended 2010, our 36-member peer group had approximately $423 billion in debt and generated CFO of approximately $75 billion. We found that weak returns associated with the equity components of pension portfolios and falling discount rates have combined to eliminate the effects of above-average annual contributions over the past few years.

From a credit perspective, we view unfunded pension obligations as debt, despite numerous utility rate-trackers that allow for specific recovery.[2] So rising unfunded balances will have a direct impact on rising debt levels, which, in turn, depress several of our key financial credit metrics, including our various cash flow from operations (CFO) to debt ratios[3], a credit negative.

Assuming the sector's debt increased by $14 billion, to $436 billion, as a result of the increase in unfunded pension liabilities, the CFO-to-debt ratio would fall to roughly 17% from 18%. These ratios exclude the positive effects on CFO associated with bonus depreciation. With respect to our illustration, we would expect the CFO-to-debt ratios to be roughly 200 – 300 basis points higher due to bonus depreciation, all else being equal. As a result, we will look for the sector to **report** CFO-to-debt ratios in the 19% - 20% range, but for credit analysis purposes, we would exclude the effects of bonus depreciation[4].

In the table below, we illustrate the potential changes to the sector's CFO-to-debt ratio. We use the 2010 year-end financials and create simple pro-forma adjustments to show the effects of the negative drag associated with higher under-funded pension obligations. This pro-forma illustrations highlight the potential credit risk associated with slippage in key financial credit metrics.

[1] See Appendix A for a list of issuers.

[2] Technically, debt service also enjoys regulatory recovery – through base rates, but we still count debt as debt at this time.

[3] In addition to cash flow from operations (CFO), we examine CFO before the effects of working capital adjustments (CFO pre-w/c), funds from operations (FFO) and retained cash flow (RCF).

[4] See "U.S. Investor-Owned Utilities: Bonus Depreciation Provides Material Near-Term Benefit For The Sector But Raises Longer-Term Questions" published in February 2011

FIGURE 1

($ billions)	2010
Debt (unadjusted for pensions)	$399.9
Unfunded Pension adjustment	$ 22.7
Debt	$422.7
CFO	$75.1
CFO / Debt	18%
Debt increase due to estimated 2011 pension under funding	$13.6
Implied 2011E debt (i.e., 2010 pro-forma adjusted)	$436.3
2011E CFO / debt (i.e., 2010 pro-forma adjusted excluding bonus depreciation)	17%

Funding Levels

Lower Discount Rates Biggest Driver of Increased Underfunding

Pension assets generally move in tandem with the broad capital markets. The S&P 500 index returned an impressive 12.5% in 2010, while a broad-based fixed income portfolio returned approximately 8%, with alternative investments remaining largely flat. But for the nine months ended September 30, the numbers were not nearly as impressive. As of that date, the S&P returns were negative 8.5% while a broad-based fixed income portfolio returned approximately 10%. We assume alternative investments lost approximately 5%. Assuming a typical asset mix of 60% equities, 30% fixed income and 10% alternative or "other," we would expect these returns to translate into an overall 2.5% reduction in assets due to market returns.

Although lower interest rates lifted bond portfolio asset values, they also led to rising pension obligations due to lower resulting discount rates. A general rule of thumb is that a 100 bps change in the discount rate would result in an 8%-12% increase in the obligation. Using the Moody's Aa bond index as a rough proxy, we estimate discount rates contracted by approximately 75 bps for the nine months ended September 30. This decrease (in the discount rate) would result in an approximate 7.5% increase in pension obligations, all else equal.

However, what must also be noted is that there has been significant volatility in both discount rates and capital markets since 2009. For example we estimate discount rates contracted by 40-50 bps in September alone. Given this volatility, viewing a snapshot as of a certain date may be misleading to the actual underlying economic position of an issuers pension plan. We will be monitoring this volatility on an ongoing basis and publishing our estimates of funding levels as warranted.

If we assume service cost, benefits paid and contributions remain constant, on a pro-rata basis, these asset and liability movements should contribute to a decline of approximately 9% in the funding levels for the utility industry. For our US utility peer group, this translates to an increase of nearly $14 billion in unfunded pension obligations, which we view as debt.

FIGURE 2
($ billions)

	2010	2010 pro-forma adjusted
Pension Benefit Obligation	$122.4	$133.9
Fair Value of Plan Assets	$99.7	$97.6
% funded status	81%	73%
Unfunded obligation	$22.7	$36.3
Pension as a % debt	5.4%	8.3%

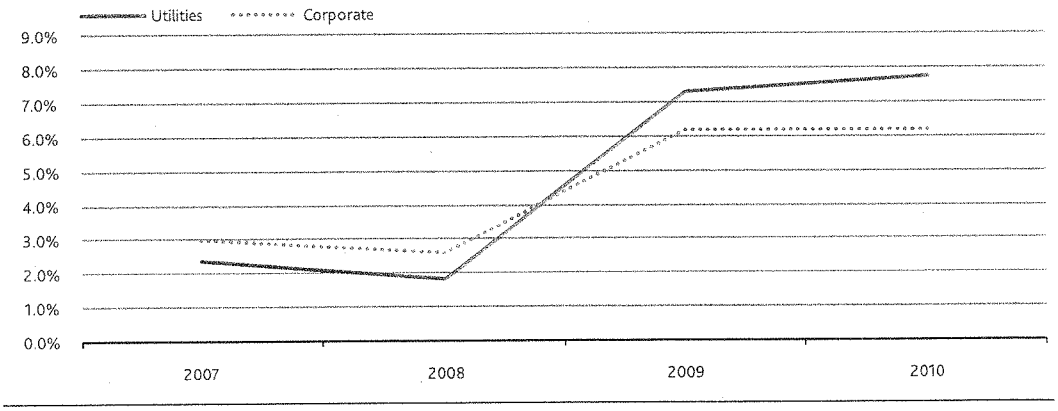
Higher Annual Contributions Expected to Continue

The Sisyphean nature of increasing pension contributions only to see the unfunded obligation rise due to weak asset returns has been a consistent pattern over the past three years. Average discount rates have contracted from 6.5% in 2008 to 5.5% in 2010 to an estimated 4.75% by September 2011. Increases in obligations due solely to discount rate contractions would amount to over $18 billion during this time frame. During the same timeframe we estimate the same issuers experienced a $23 billion increase in asset values.

Despite these problems, by the end of 2010, the utility industry was digging out of its pension funding hole at a faster pace than other US corporate rated issuers.[5] That said, the industry had a weaker starting position. At the end of 2008, the utility industry's funding level was 73% compared to 77% for all other corporate issuers. By the end of 2010, these numbers both stood at 81%.

The apparent driving force behind this catch up is that utilities made proportionately larger contributions, when taken as a percentage of assets. Total contributions have increased during this period from $2.4 billion in 2007 to nearly $7 billion in 2010. By comparison, the broad corporate industrial peers increased contributions from $35 billion in 2007 to $68 billion in 2010. In the table below, we illustrate the annual pension plan contribution as a percentage of the prior year's plan assets for both the utility sector and for the broader US corporate sector.

FIGURE 3



[5] Moody's estimate based on a broad, diversified group of corporate and industrial issuers.

These comparatively higher contribution rates appear to be continuing into 2011 and we expect the relationship to continue over the next several years as several companies announced 2011 contributions in excess of 2010 levels. For example, Energy Future Holdings Corp. (Caa2 CFR) announced an expected contribution of $144 million in 2011 compared to $45 million in 2010. Exelon Corporation (Baa1 Under Review for Possible Downgrade) also announced contributions of $2.1 billion to its plans in January of 2011 compared to $766 million in 2010. Exelon stated that part of the $2.1 billion would be funded using $850 million from the benefits of bonus depreciation and $750 million tax benefit as a result of making the contribution.

Another bright side for plan sponsors is that Moody's central scenario in our global macro outlook[6] predicts a rising interest rate environment in the near to medium term. If this comes to pass, rising interest rates should translate into higher discount rates thus reducing pension obligations. If discount rates were to revert back to 2008 levels, the approximately $23 billion underfunding reported by the industry for the year ended December 2010 would be reduced to approximately $7-8 billion.

Required Pension Contributions to Increase

To help alleviate funding pressures caused by the 2008 market collapse, the U.S. Internal Revenue Service in March 2009 relaxed some of its rules for calculating discount rates used to calculate 2010 required contributions. This rule change effectively allowed companies to cherry-pick the best rates from September, October, November or December, 2008. This one-time allowance significantly reduced required contributions for 2010.

Now that the temporary relief has expired, sponsors must now fund plans using the full scope of the Pension Protection Act of 2006. The rules for calculating a plan's funded status are different for funding purposes than for financial reporting purposes.[7] While a simplification, at the heart of the rules is the concept that a company must have a fully-funded plan within seven years. For example, Great Plains Energy Inc. announced it would contribute over $100 million in 2011 to comply with ERISA requirements, compared to a contribution of $64 million in 2010.

6 See "Global Macro-Risk Scenarios 2011-2012: Strong Headwinds Ahead" published September 2011

7 For a more in-depth analysis of those rules see our special comment "Managing Ratings With Increased Pension Liability" published March 2009.

Appendix A

				2010 Year End ($ 000's)								
	Issuer	Rating	Debt	Service Cost	Interest Cost	Projected Benefit Obligation	Fair Value of Plan Assets	Benefits Paid	Regulatory Recovery	Employer Contribution	2010 Funding Levels	2010 CFO / Debt
1	Ameren Corporation	Baa3	8,718,794	68,000	185,000	3,451,000	2,722,000	(182,000)	Yes	81,000	79%	21%
2	American Electric Power Company	Baa2	21,164,000	111,000	253,000	4,807,000	3,858,000	(480,000)	Yes	515,000	80%	15%
3	CenterPoint Energy, Inc.	Baa3	10,226,000	31,000	102,000	1,969,000	1,501,000	(115,000)	Yes	8,000	76%	14%
4	Cleco Corporation	Baa3	1,680,828	7,451	17,145	330,342	242,513	(12,060)	No	5,000	73%	12%
5	CMS Energy Corporation	Ba1	8,236,933	45,000	104,000	2,014,000	1,401,000	(119,000)	No	381,000	70%	16%
6	Consolidated Edison, Inc.	Baa1	13,521,000	168,000	556,000	10,307,000	7,721,000	(459,000)	Yes	443,000	75%	20%
7	Constellation Energy Group, Inc.	Baa3	5,276,100	37,900	84,700	1,626,100	1,408,100	(82,700)	No	289,100	87%	11%
8	Dominion Resources Inc.	Baa2	18,650,750	102,000	266,000	4,490,000	5,106,000	(211,000)	No	665,000	114%	13%
9	DTE Energy Company	Baa2	9,360,000	64,000	202,000	3,785,000	2,913,000	(215,000)	Yes	206,000	77%	21%
10	Duke Energy Corporation	Baa2	19,323,000	97,000	257,000	5,028,000	4,797,000	(401,000)	Yes	418,000	95%	24%
11	Edison International	Baa2	20,510,000	149,000	210,000	4,080,000	3,235,000	(183,000)	No	127,000	79%	19%
12	Energy Future Holdings Corp.	Caa2	37,537,000	42,000	160,000	3,072,000	2,185,000	(125,000)	Yes	45,000	71%	3%
13	Entergy Corporation	Baa3	13,845,094	104,956	231,200	4,301,200	3,216,300	(166,800)	Yes	454,354	75%	31%
14	Exelon Corporation	Baa1	17,130,500	190,000	660,000	12,524,000	8,859,000	(639,000)	Yes	766,000	71%	34%
15	FirstEnergy Corp.	Baa3	18,462,553	99,000	314,000	5,858,000	4,544,000	(306,000)	No	11,000	78%	17%
16	Great Plains Energy Incorporated	Baa3	4,153,297	30,300	49,300	911,400	557,600	(57,800)	Yes	64,500	61%	16%
17	Mid-American Energy	Baa1	20,829,000	17,000	39,000	738,000	546,000	(37,000)	Yes	24,000	74%	14%
18	NextEra Energy, Inc.	Baa1	19,428,000	59,000	102,000	1,994,000	3,233,000	(149,000)	No	3,000	162%	20%
19	NiSource Inc.	Ba2	8,271,400	39,200	125,700	2,478,400	1,900,000	(187,400)	Yes	161,800	77%	11%
20	Northeast Utilities	Baa2	6,091,660	51,000	152,600	2,820,900	1,977,600	(130,200)	Yes	45,000	70%	18%
21	NRG Energy, Inc.	Ba3	10,456,000	14,000	21,000	404,000	297,000	(12,000)	No	16,000	74%	16%
22	OGE Energy Corp.	Baa1	2,642,000	16,700	31,800	640,900	574,000	(34,400)	Yes	50,000	90%	31%
23	Pepco Holdings, Inc.	Baa3	5,372,917	35,000	110,000	1,970,000	1,632,000	(146,000)	Yes	105,000	83%	17%
24	PG&E Corporation	Baa1	15,561,724	279,000	645,000	12,071,000	10,250,000	(477,000)	Yes	162,000	85%	20%
25	Pinnacle West Capital Corporation	Baa3	4,401,737	59,064	122,700	2,345,100	1,775,600	(76,600)	Yes	200,000	76%	23%
26	PNM Resources, Inc.	Ba2	2,277,472	0	38,199	665,717	453,175	(43,357)	Yes	17,951	68%	17%
27	PPL Corporation	Baa3	15,021,818	64,000	159,000	4,007,000	2,819,000	(127,000)	Yes	148,000	70%	16%
28	Progress Energy, Inc.	Baa2	14,357,860	48,000	140,000	2,609,000	1,891,000	(129,000)	Yes	139,000	72%	18%

				2010 Year End ($ 000's)								
	Issuer	Rating	Debt	Service Cost	Interest Cost	Projected Benefit Obligation	Fair Value of Plan Assets	Benefits Paid	Regulatory Recovery	Employer Contribution	2010 Funding Levels	2010 CFO / Debt
29	Public Service Enterprise Group	Baa2	9,871,000	87,000	231,000	4,353,000	3,555,000	(224,000)	Yes	424,000	82%	23%
30	SCANA Corporation	Baa3	4,917,400	17,900	44,000	811,800	817,200	(38,400)	Yes	1,000	101%	17%
31	Sempra Energy	Baa1	10,938,459	83,000	167,000	3,124,000	2,354,000	(210,000)	Yes	159,000	75%	20%
32	Southern Company (The)	Baa1	22,269,000	172,000	391,000	7,223,000	6,834,000	(296,000)	Yes	644,000	95%	20%
33	TECO Energy, Inc.	Baa3	3,438,000	16,200	33,200	610,300	479,700	(34,200)	No	87,600	79%	22%
34	Westar Energy, Inc.	Baa3	3,496,848	13,926	39,391	747,460	432,233	(27,769)	Yes	22,400	58%	18%
35	Wisconsin Energy Corporation	A3	4,872,573	23,700	68,400	1,222,800	1,059,500	(83,400)	Yes	6,800	87%	20%
36	Xcel Energy Inc.	Baa1	10,367,423	73,147	165,000	3,030,300	2,540,700	(225,400)	Yes	34,132	84%	19%
			422,678,141	2,515,444	6,477,335	122,420,719	99,687,221	(6,442,486)		6,929,637	81%	

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Funding Shortfall Of U.S. Utility Pension And Postretirement Benefits Adds To Industry's Cost Pressure Woes

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Funding Shortfall Of U.S. Utility Pension And Postretirement Benefits Adds To Industry's Cost Pressure Woes

The U.S. utility industry is experiencing the same rapid drop in its funding of pension and other postretirement benefit (OPEB) obligations as the rest of the U.S. industrial universe, but at a much quicker pace. The funding shortfall among electric, gas, and water utilities, and diversified energy companies that Standard & Poor's Ratings Services rates almost quadrupled by year-end 2008 to $59.7 billion from $15.9 billion the prior year, while companies in the S&P 500 had about a 160% increase. Yet, because of the historical support of state regulators for the recovery of these costs in customer rates, the influence of rapidly growing pension and OPEB obligations on how we evaluate companies' credit quality is considerably less for utility companies than it is for nonregulated industries.

Standard & Poor's views shortfalls in funding levels as debt-like because of their fixed nature--and we adjust various financial ratios accordingly (see page 71 of "Corporate Ratings Criteria Book – Postretirement Obligations," published April 15, 2008, on RatingsDirect). However, given the history of regulatory support for related costs, we have always viewed pension commitments as a generally benign credit factor. We have not cited the funded status of pensions and OPEBs in any rating action for any U.S. regulated utility or utility holding company.

Yet, the need to satisfy the exceptionally large shortfalls in funding levels could begin to hamper a utility's financial flexibility and could ultimately contribute to a downgrade or negative outlook. We expect utilities to make an increasing number of rate filings over the next several years related to normal business operations and environmental mandates. The need to also fund pension and OPEB obligations simply adds to this burden on ratepayers, and at some point state commissioners could become reluctant to grant further rate requests, especially during periods of economic stress.

The federal government's Worker, Retiree & Employer Recovery Act (WRERA) of 2008 sought to address the financial effects of poor asset performance, temporarily easing some of the stricter and more accelerated funding regulations that took effect in 2008 under The Pension Protection Act of 2006 (PPA). We believe the WRERA will provide several forms of pension relief. It clarifies provisions that allow companies to smooth out investment gains and losses over 24 months, which should defer, although clearly not eliminate, cash contribution requirements.

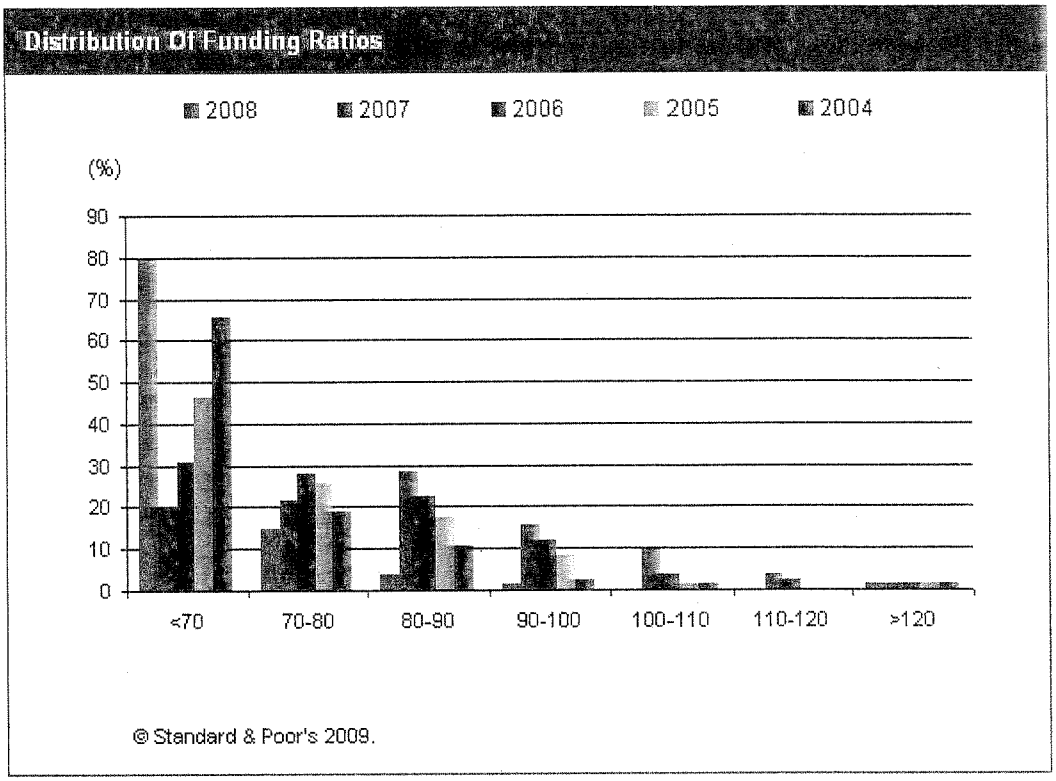
Gauging The Pension-Funded Status

Standard & Poor's uses certain key metrics in evaluating pension and OPEB funding status, specifically, the fair value of a pension plan's assets divided by the projected benefit obligation (PBO; the aggregate funding ratio), and total pension and OPEB shortfall to asset size (see Effects on Individual Companies section below). For rated utilities (see the lists of companies in the appendices at the end of this article), the aggregate funding ratio deteriorated markedly to about 65% at year-end 2008 from the much stronger 90% and 84% in 2007 and 2006, respectively. Chart 1 displays the aggregate funding ratio for utilities and diversified energy companies in the Standard & Poor's U.S. Utilities & Infrastructure practice by business type.

The relatively even dispersion of utilities' aggregate funding ratios in 2006 and 2007 has shifted heavily into the under-70% category in 2008, where 79% of companies now reside. As displayed in chart 1, 16% of companies

were fully funded in 2007, but only 4% reached that level in 2008.

Chart 1



Effects On Individual Companies

Unlike industrial companies that operate in a competitive market, utilities benefit from a regulatory framework that almost always supports full recovery of pension and OPEB costs in the rates they charge their customers. The method of recovery differs, although the most typical form is as part of periodic general rate filings that include many unrelated items.

However, some jurisdictions, like Maine and Michigan, have granted cost-recovery trackers for pension and OPEB costs in which the difference between pension and OPEB expenses that companies include in current rates is compared with the actual expenses incurred in that year. If the actual expense is greater than the expense incorporated into existing rates, regulators recognize the difference as an amount that utilities can recover from customers through higher rates. If the actual expense is less than the expense utilities recover in the rate base, the utilities refund the difference to customers. The advantage to credit quality of such a structure is the tighter timing between the incurred expense and generation of revenues associated with the expense.

To fund the cash contributions, companies may be compelled to divert cash flow away from other corporate purposes or issue debt that will be repaid with future operating cash flows. To highlight companies for which such shortfalls may become an issue, Standard & Poor's examined funding ratios, pension and OPEB shortfalls, and shortfalls as a percentage of total debt.

Companies' pension and OPEB shortfalls in this analysis totaled about $61.3 billion at year-end 2008, up from $17.3 billion in 2007. Notably, five companies alone account for 30% of the total pension and OPEB funding shortfall, or $18 billion, while 10 companies account for about 47%, or $28.3 billion.

Exelon Corp. and Consolidated Edison Inc. stand out regarding the size of their total shortfall ($6.4 billion and $4.2 billion, respectively). Exelon notes that of its expected contribution in 2009 of $329 million, $218 million is mandatory to meet minimum funding requirements and $111 million is discretionary. Con Edison says it has no contribution requirement under funding regulations. Still, the company indicates it will make a discretionary contribution in 2009 of $290 million to its pension plan and $85 million to its OPEB plan.

More indicative of a company's financial vulnerability than the absolute dollar amount of its unfunded pension and OPEB status is a comparison of the shortfall to a company's asset size. There is almost no overlap among the 10 utilities with the lowest funding ratio and the 10 utilities with the highest percentage of unfunded assets relative to asset size. CMS Energy Corp. is the one exception that appears on both lists: its pension funding ratio is among the lowest at 48%, and the shortfall represents a meaningful 10.1% of total assets.

Among gas utilities, Southwest Gas Corp. is the most underfunded, with its funded status representing less than 7% of its total assets. Likewise, underfunding for the diversified energy companies all represent dollar amounts that are under 8% of total assets, except Exelon, whose shortfall equals 13.3%.

The aggregate total pension and OPEB shortfall as a percentage of total assets increased significantly to 4.9% from 1.5% in 2007.

Making Pension Assumptions

Pension assumptions can indicate how aggressive managements are in accounting for pension and OPEB obligations, and they can be a key dynamic in pension funding calculations. As a rule, a 10-basis-point change in the discount rate results in a 1% change in the pension benefit obligation's size.

From an accounting perspective, the discount rate should generally reflect the rate at which companies could effectively settle benefits. Discount rates have an inverse relationship to the PBO. The higher the discount rate, the lower the present value of the projected benefit obligation, and vice versa. The average discount rate for the utility group remained almost unchanged in 2008 at about 6.45%. We would view companies with discount rates at or below 6% as less aggressive in their approach to accounting for pension and OPEB obligations. These companies include:

- Ameren Corp., Consolidated Edison Inc., and Reliant Energy Inc. at 5.75%;
- ITC Holdings at 5.95%; and
- American Electric Power Co. Inc., Constellation Energy Group Inc., and York Water Co. at 6%.

Conversely, we consider companies with high discount rates to be more aggressive. Companies using the highest discount rates include Piedmont Natural Gas Co. (8.15%), New Jersey Natural Gas Co. (7.75%), WGL Holdings Inc. (7.5%), and PNM Resources Inc (7.25%). Standard & Poor's recognizes, however, that there may be factors that could offset the level of those rates, such as company demographics and the yield curve.

Expected return assumptions generally ranged from 7% to 9% over the past few years, with a median rate of 8.5%.

Given the reduction of equities as a percentage of total plan assets, we would have expected the median return to fall. Companies with more conservative estimates on expected returns include American States Water and York Water Co. (7%), ITC Holdings Corp. (7.25%), Pacific Gas and Electric Co. (7.4%), and Edison International and Reliant Energy Co. (both 7.5%). AGL Resources Inc., ALLETE Inc., FirstEnergy Corp., New Jersey Natural Gas Co., NSTAR, and Pinnacle West Capital Corp. have all projected returns of 9% and are those with the least conservative return estimates. Two of these companies include a significant portion of pension assets to be invested in "other" assets, which is usually private equity or hedge fund investments, which could be the riskiest investment.

We also incorporate the investment strategy and asset mix of postretirement obligation funding into our analysis. This evaluation is largely qualitative--and is part of the larger issues of enterprise risk management and risk tolerance. In general, we consider a cautious and duration-matched approach to be a positive credit factor, recognizing, however, there are trade-offs between risk and return that pertain to any investment strategy. In any event, given an issuer's portfolio mix, we consider the likelihood of significant swings in asset values in the future, and management's strategies for dealing with such variability.

Table 1

Utilities With Aggressive Investment Allocations

(%)

Pension assets	Equity	Fixed income	Real estate	Other
Madison Gas & Electric Co	72	15	13	0
Alliant Energy Corp.	70	30	0	0
Nicor Inc.	70	30	0	0
American Water Works Co. Inc.	70	30	0	0

Source: Capital IQ; company reports.

Table 2

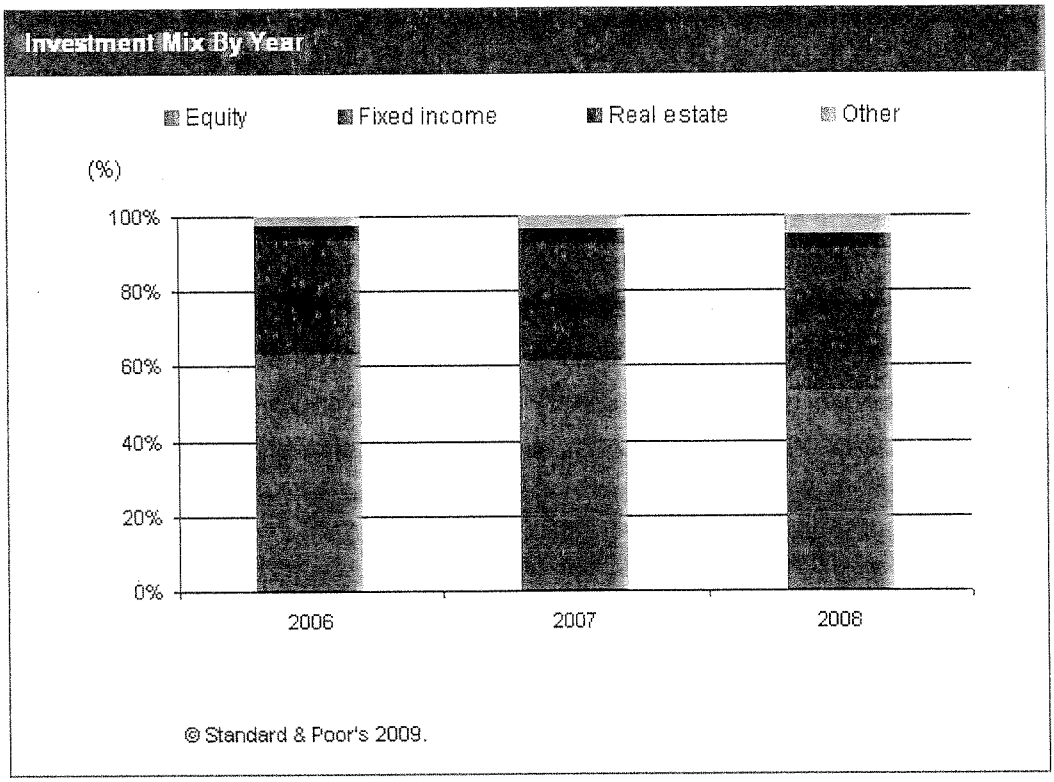
Utilities With Less Aggressive Investment Allocations

(%)

Pension assets	Equity	Fixed income	Real estate	Other
NSTAR	29	28	20	23
El Paso Electric Co.	32	59	0	9
Ameren Corp.	36	56	6	2
Allegheny Energy Inc.	37	59	2	2
Dominion Resources Inc.	37	29	10	24
FPL Group Inc.	37	63	0	0

Source: Capital IQ; company reports.

Chart 2



Recovering Pension Expense In Rates

The overall pension and OPEB funding status for utility and diversified energy companies deteriorated significantly in 2008 because of the declining stock market and very weak economic conditions. Significant cash funding may be necessary to bring these plans back to historical levels. Such increased funding compounds upward pricing pressures on utilities from operating and maintenance costs and rising capital budgets generally, and could have implications for a company's cost of capital. However, the history of pension and OPEB cost recovery through rates remains excellent, and Standard & Poor's sees no evidence currently that this precedent will weaken.

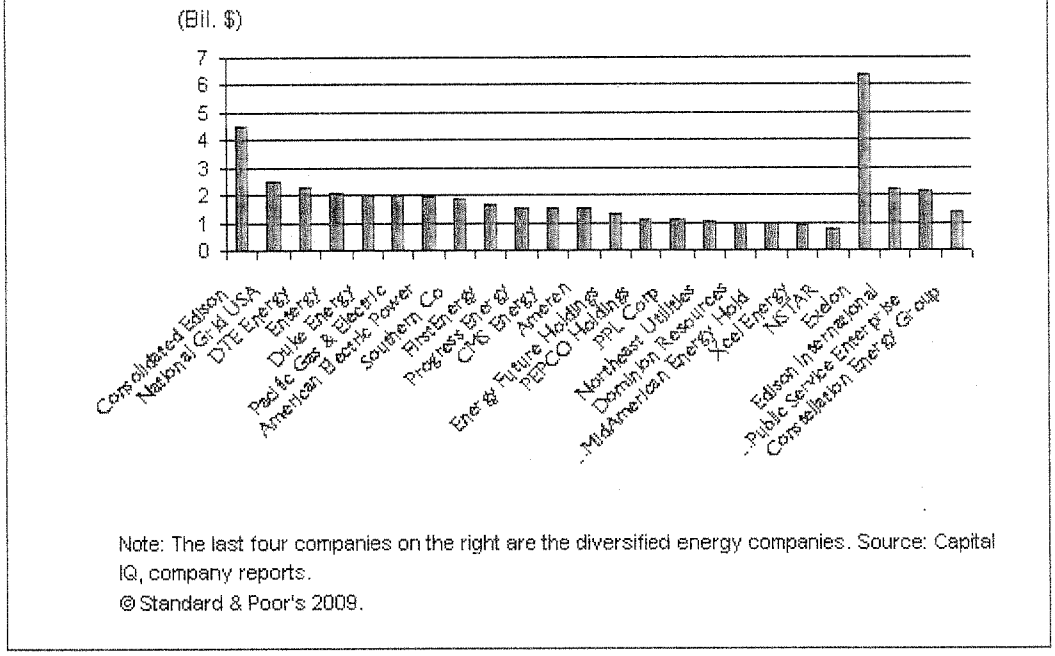
Appendices

Appendix A: U.S. electric utilities

Funding Shortfall Of U.S. Utility Pension And Postretirement Benefits Adds To Industry's Cost Pressure Woes

Chart 3

Electric Utilities And Diversified Energy Companies - Largest Underfunded Pension And OPEB Obligations



Note: The last four companies on the right are the diversified energy companies. Source: Capital IQ, company reports.

Table 3

Electric Utilities And Diversified Energy Companies - Highest And Lowest Funded Status*

	2008				2007		
(Mil. $)	Total funded status	Total balance sheet assets	Funded status to assets (%)	Planned contributions¶	Total funded status	Total balance sheet assets	Funded status to assets (%)
Lowest funded status							
Central Hudson Gas & Electric Corp.	(214.8)	1,492.2	85.6	25	(67.3)	1,252.7	94.6
Consolidated Edison Inc.	(4,512.0)	33,498.0	86.5	375	(938.0)	28,262.0	96.7
ALLETE Inc.	(255.0)	2,134.8	88.1	46	(79.1)	1,644.2	95.2
Madison Gas & Electric Co.	(138.1)	1,268.3	89.1	17	(74.6)	1,111.6	93.3
CMS Energy Corp.	(1,499.0)	14,901.0	89.9	343	(866.0)	14,192.0	93.9
DTE Energy Co.	(2,311.0)	24,590.0	90.6	420	(1,157.0)	23,742.0	95.1
NSTAR	(752.3)	8,269.5	90.9	55	(243.6)	7,759.5	96.9
Central Vermont Public Service Corp.	(46.4)	626.1	92.6	7	(15.0)	540.3	97.2
Northeast Utilities	(1,015.5)	13,988.5	92.7	41	(11.1)	11,581.8	99.9
Otter Tail Corp.	(113.5)	1,692.6	93.3	N.A.	(69.9)	1,454.8	95.2

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Funding Shortfall Of U.S. Utility Pension And Postretirement Benefits Adds To Industry's Cost Pressure Woes

Table 3

Electric Utilities And Diversified Energy Companies - Highest And Lowest Funded Status* (cont.)

Highest funded status							
Portland General Electric Co.	(181.0)	5,023.0	96.4	N.A.	3.0	4,108.0	100.1
NV Energy Inc.	(287.5)	11,346.0	97.5	72	(75.9)	9,464.8	99.2
DPL Inc.	(88.2)	3,675.1	97.6	3	(13.9)	3,566.6	99.6
SCANA Corp.	(272.6)	11,502.0	97.6	N.A.	27.9	10,165.0	100.3
MidAmerican Energy Holdings Co.	(938.0)	41,441.0	97.7	18	(280.0)	39,216.0	99.3
Dominion Resources Inc.	(943.0)	42,053.0	97.8	62	901.0	39,139.0	102.3
Energy Future Holdings Corp.	(1,322.0)	59,263.0	97.8	103	(895.0)	64,804.0	98.6
Puget Energy Inc.	(116.7)	8,368.4	98.6	4	91.0	7,598.7	101.2
ITC Holdings Corp.	(24.3)	3,714.6	99.3	5	(12.4)	3,213.3	99.6
FPL Group Inc.	561.0	44,821.0	101.3	N.A.	1,568.0	40,123.0	103.9
Diversified energy companies							
Exelon Corp.	(6,380.0)	47,817.0	86.7	329.0	(2,512.0)	45,361.0	94.5
Public Service Enterprise Group Inc.	(2,180.0)	29,049.0	92.5	286.0	(1,214.0)	28,299.0	95.7
Constellation Energy Group Inc.	(1,352.1)	22,284.1	93.9	269.0	(807.2)	21,742.3	96.3
Edison International	(2,238.0)	44,615.0	95.0	179.0	(213.0)	37,523.0	99.4

*Data may represent unrated parent's financials where applicable. ¶Maximum amount if a range was indicated. N.A.--Not available. Source: Capital IQ, company reports.

Table 4

Electric Utilities And Diversified Energy Companies - Highest And Lowest Funding Ratios*

	2008			2007			
(Mil. $)	Total pension and OPEB assets	PBO	Funding ratio (%)	Total pension and OPEB assets	PBO	Funding ratio (%)	Decline in pension and OPEB assets (%)
Lowest funding ratios							
ITC Holdings Corp.	15.3	39.6	38.6	15.6	28.0	55.8	(0.0)
Tucson Electric Power Co.	130.0	289.0	45.0	188.0	270.0	69.6	(0.3)
Madison Gas & Electric Co.	116.5	254.6	45.8	161.7	236.3	68.4	(0.3)
Westar Energy Inc.	408.5	871.5	46.9	584.6	810.8	72.1	(0.3)
Black Hills Corp.	141.8	302.3	46.9	75.1	112.7	66.7	0.9
Progress Energy Inc.	1,337.0	2,842.0	47.0	2,071.0	2,683.0	77.2	(0.4)
CMS Energy Corp.	1,386.0	2,885.0	48.0	1,930.0	2,796.0	69.0	(0.3)
TECO Energy Inc.	360.7	744.3	48.5	492.7	752.9	65.4	(0.3)
Great Plains Energy Inc.	457.6	907.9	50.4	414.1	586.6	70.6	0.1
Avista Corp.	206.7	392.5	52.7	265.3	357.4	74.2	(0.2)
Highest funding ratios							
FPL Group Inc.	2,532.0	1,971.0	128.5	3,626.0	2,058.0	176.2	(0.3)

Funding Shortfall Of U.S. Utility Pension And Postretirement Benefits Adds To Industry's Cost Pressure Woes

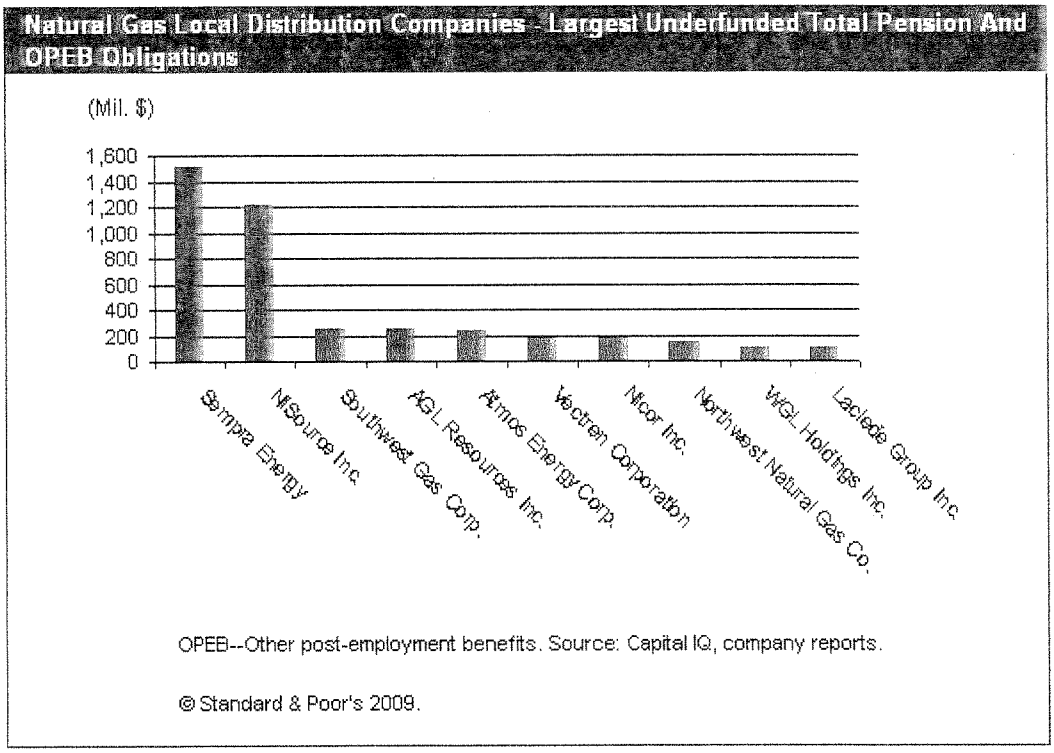
Table 4

Electric Utilities And Diversified Energy Companies - Highest And Lowest Funding Ratios* (cont.)							
Dominion Resources Inc.	4,504.0	5,447.0	82.7	6,058.0	5,157.0	117.5	(0.3)
Pacific Gas & Electric Co.	9,056.0	11,099.0	81.6	10,871.0	10,347.0	105.1	(0.2)
PPL Corp.	3,746.0	4,834.0	77.5	5,891.0	6,025.0	97.8	(0.4)
Puget Energy Inc.	401.3	518.0	77.5	573.2	482.2	118.9	(0.3)
Southern Co.	5,724.0	7,612.0	75.2	8,444.0	7,457.0	113.2	(0.3)
MidAmerican Energy Holdings Co.	2,775.0	3,713.0	74.7	4,146.0	4,426.0	93.7	(0.3)
Xcel Energy Inc.	2,484.8	3,392.6	73.2	3,613.7	3,493.1	103.5	(0.3)
Pinnacle West Capital Corp.	1,859.7	2,539.9	73.2	1,818.7	2,326.0	78.2	0.0
DPL Inc.	231.6	319.8	72.4	297.5	311.4	95.5	(0.2)
Diversified energy companies							
Constellation Energy Group Inc.	867.6	2,219.7	39.1	1,258.5	2,065.7	60.9	(0.3)
Public Service Enterprise Group Inc.	2,493.0	4,673.0	53.3	3,553.0	4,767.0	74.5	(0.3)
Exelon Corp.	7,888.0	14,268.0	55.3	11,250.0	13,762.0	81.7	(0.3)
Edison International	3,552.0	5,790.0	61.3	5,413.0	5,626.0	96.2	(0.3)

*Data may represent unrated parent's financials where applicable. OPEB--Other post-employment benefits. PBO--Projected benefit obligation. Source: Capital IQ, company reports.

Appendix B: U.S. natural gas local distribution companies

Chart 4



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Funding Shortfall Of U.S. Utility Pension And Postretirement Benefits Adds To Industry's Cost Pressure Woes

Table 5

Natural Gas Local Distribution Companies - Funded Status*

(Mil. $)	2008				2007		
	Total funded status	Total balance sheet assets	Funded status to assets	Planned contributions¶	Total funded status	Total balance sheet assets	Funded status to assets (%)
Southwest Gas Corp.	(247.8)	3,820.4	93.5	23.0	(137.2)	3,670.2	96.3
NiSource Inc.	(1,215.3)	20,032.2	93.9	157.0	(376.3)	18,010.3	97.9
Northwest Natural Gas Co.	(141.9)	2,378.2	94.0	40.0	(41.3)	2,014.1	97.9
Laclede Group Inc. (The)	(104.0)	1,772.7	94.1	10.1	(68.1)	1,641.2	95.9
Sempra Energy	(1,512.0)	26,400.0	94.3	211.0	(391.0)	28,717.0	98.6
South Jersey Gas Co.	(82.4)	1,793.4	95.4	4.6	(28.0)	1,529.4	98.2
Vectren Corporation	(177.7)	4,632.9	96.2	30.7	(101.2)	4,296.4	97.6
Atmos Energy Corp.	(234.2)	6,386.7	96.3	12.7	(159.1)	5,895.2	97.3
AGL Resources Inc.	(246.0)	6,710.0	96.3	68.0	(68.0)	6,258.0	98.9
Nicor Inc.	(171.3)	4,784.0	96.4	12.5	18.6	4,271.3	100.4

*Data may represent unrated parent's financials where applicable. ¶Maximum amount if a range was indicated. Source: Capital IQ, company reports.

Table 6

Natural Gas Local Distribution Companies - Funding Ratios*

(Mil. $)	2008			2007			
	Total pension and OPEB assets	PBO	Funding ratio (%)	Total pension and OPEB assets	PBO	Funding ratio (%)	Decline in pension and OPEB assets (%)
Vectren Corporation	155.2	332.9	46.6	218.6	319.8	68.36	(29.0)
Northwest Natural Gas Co.	163.1	305.0	53.5	241.4	282.7	85.38	(32.4)
AGL Resources Inc.	291.0	537.0	54.2	453.0	521.0	86.95	(35.8)
South Jersey Gas Co.	111.1	193.5	57.4	151.7	179.7	84.41	(26.8)
NiSource Inc.	1,651.3	2,866.6	57.6	2,543.2	2,919.5	87.11	(35.1)
Southwest Gas Corp.	342.9	590.7	58.0	441.7	579.0	76.30	(22.4)
Sempra Energy	2,287.0	3,799.0	60.2	3,271.0	3,662.0	89.32	(30.1)
Atmos Energy Corp.	389.5	623.6	62.4	444.4	603.5	73.64	(12.4)
Nicor Inc.	306.6	477.9	64.2	478.7	460.1	104.04	(36.0)
New Jersey Natural Gas Co.	83.5	117.9	70.8	109.4	121.9	89.77	(23.7)

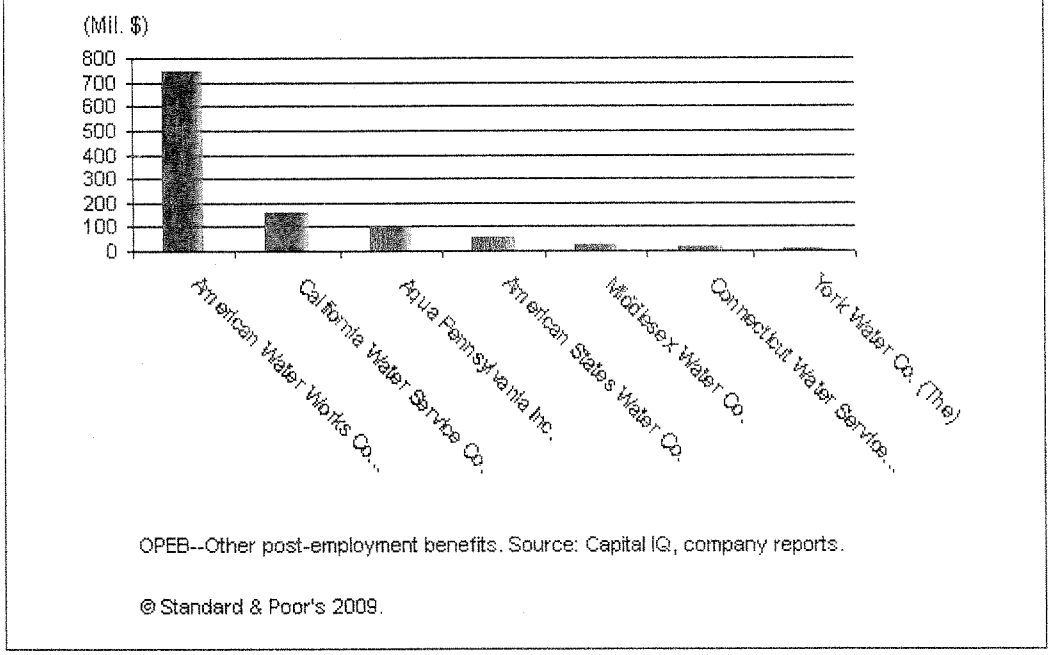
*Data may represent unrated parent's financials where applicable. OPEB--Other post-employment benefits. PBO--Projected benefit obligation. Source: Capital IQ, company reports.

Appendix C: U.S. investor-owned water utilities

Funding Shortfall Of U.S. Utility Pension And Postretirement Benefits Adds To Industry's Cost Pressure Woes

Chart 5

Investor-Owned Water Utilities - Largest Underfunded Pension And OPEBs



OPEB--Other post-employment benefits. Source: Capital IQ, company reports.

Table 7

Investor-Owned Water Companies - Funded Status*

	2008				2007		
	Total funded status	Total balance sheet assets	Funded status to assets (%)	Planned contributions¶	Total funded status	Total balance sheet assets	Funded status to assets (%)
California Water Service Co.	(155.8)	1,418.1	89.0	36.4	(39.8)	1,184.5	96.6
Middlesex Water Co.	(25.8)	440.0	94.1	5.6	(13.6)	392.7	96.5
American Water Works Co. Inc.	(744.8)	13,231.8	94.4	125.8	(449.3)	12,951.3	96.5
American States Water Co.	(52.2)	1,061.3	95.1	9.2	(20.9)	963.9	97.8
Connecticut Water Service Inc.	(12.9)	372.4	96.5	4.1	(8.6)	360.8	97.6
York Water Co. (The)	(7.6)	240.4	96.8	1.2	(2.1)	211.0	99.0
Aqua Pennsylvania Inc.	(105.5)	3,485.0	97.0	14.3	(56.7)	3,226.9	98.2

*Data may represent unrated parent's financials where applicable. ¶Maximum amount if a range was indicated. Source: Capital IQ, company reports.

Funding Shortfall Of U.S. Utility Pension And Postretirement Benefits Adds To Industry's Cost Pressure Woes

Table 8

Investor-Owned Water Utilities - Funding Ratios*

(Mil. $)	2008			2007			
	Total pension and OPEB assets	PBO	Funding ratio (%)	Total pension and OPEB assets	PBO	Funding ratio (%)	Decline in pension and OPEB assets
California Water Service Co.	73.2	229.1	32.0	93.6	133.4	70.2	(21.7)
American Water Works Co. Inc.	747.8	1,492.6	50.1	919.7	1,368.9	67.2	(18.7)
Middlesex Water Co.	27.3	53.1	51.3	31.6	45.2	69.8	(13.7)
American States Water Co.	59.1	111.3	53.1	76.8	97.7	78.7	(23.0)
Aqua Pennsylvania Inc.	136.2	241.7	56.4	172.2	228.9	75.2	(20.9)
York Water Co. (The)	13.7	21.3	64.4	17.1	19.2	88.9	(19.8)
Connecticut Water Service Inc.	28.0	40.9	68.4	34.1	42.7	79.8	(18.0)

*Data may represent unrated parent's financials where applicable. OPEB--Other post-employment benefit. PBO--Projected benefit obligation. Source: Capital IQ, company reports.

Appendix D: Pension database

Table 9

Companies Included In The Pension Database

Electric utilities

		Corporate credit rating*			Corporate credit rating*
1	Allegheny Energy Inc.	BBB-/Stable/--	29	IDACORP Inc.	BBB/Stable/A-2
2	ALLETE Inc.	BBB+/Negative/A-2	30	Integrys Energy Group Inc.	BBB+/Negative/A-2
3	Alliant Energy Corp.	BBB+/Stable/A-2	31	ITC Holdings Corp.	BBB/Stable/--
4	Ameren Corp.	BBB-/Stable/A-3	32	Madison Gas & Electric Co.	AA-/Stable/A-1+
5	American Electric Power Co. Inc.	BBB/Stable/A-2	33	MidAmerican Energy Holdings Co.	BBB+/Stable/--
6	Avista Corp.	BBB-/Stable/A-3	34	National Grid USA	A-/Stable/A-2
7	Black Hills Corp.	BBB-/Stable/--	35	Northeast Utilities	BBB/Stable/--
8	CenterPoint Energy Inc.	BBB/Negative/A-3	36	NorthWestern Corp.	BBB/Stable/--
9	Central Hudson Gas & Electric Corp.	A/Stable/--	37	NSTAR	A+/Stable/A-1
10	Central Vermont Public Service Corp.	BB+/Stable/--	38	NV Energy Inc.	BB/Stable/B-2
11	Cleco Corp.	BBB/Stable/--	39	OGE Energy Corp.	BBB+/Stable/A-2
12	CMS Energy Corp.	BBB-/Stable/A-3	40	Otter Tail Corp.	BBB-/Stable/--
13	Consolidated Edison Inc.	A-/Stable/A-2	41	Pacific Gas & Electric Co.	BBB+/Stable/A-2
14	Dominion Resources Inc.	A-/Stable/A-2	42	PEPCO Holdings Inc.	BBB/Stable/A-2
15	DPL Inc.	A-/Stable/--	43	Pinnacle West Capital Corp.	BBB-/Stable/A-3
16	DTE Energy Co.	BBB/Stable/A-2	44	PNM Resources Inc.	BB-/Negative/B-2
17	Duke Energy Corp.	A-/Positive/A-2	45	Portland General Electric Co.	BBB+/Negative/A-2
18	Duquesne Light Holdings Inc.	BBB-/Negative/--	46	PPL Corp.	BBB/Negative/--
19	El Paso Electric Co.	BBB/Stable/--	47	Progress Energy Inc.	BBB+/Stable/A-2
20	Empire District Electric Co.	BBB-/Stable/A-3	48	Puget Energy Inc.	BB+/Stable/--

Table 9

Companies Included In The Pension Database (cont.)

21	Energy East Corp.	A-/Stable/A-2	49	SCANA Corp.	BBB+/Stable/--
22	Energy Future Holdings Corp.	B-/Stable/--	50	Southern Co.	A/Stable/A-1
23	Entergy Corp.	BBB/Negative/--	51	TECO Energy Inc.	BBB/Stable/--
24	FirstEnergy Corp.	BBB/Stable/--	52	Tucson Electric Power Co.	BB+/Stable/B-2
25	FPL Group Inc.	A/Stable/--	53	Westar Energy Inc.	BBB-/Positive/--
26	Great Plains Energy Inc.	BBB/Negative/--	54	Wisconsin Energy Corp.	BBB+/Positive/A-2
27	Green Mountain Power Corp.	BBB/Stable/--	55	Xcel Energy Inc.	BBB+/Stable/A-2
28	Hawaiian Electric Industries Inc.	BBB/Stable/A-2			
Natural gas local distribution companies					
1	AGL Resources Inc.	A-/Stable/A-2	9	Piedmont Natural Gas Co. Inc.	A/Stable/--
2	Atmos Energy Corp.	BBB+/Stable/A-2	10	Sempra Energy	BBB+/Negative/A-2
3	Laclede Group Inc. (The)	A/Stable/--	11	SourceGas LLC	BB+/Stable/--
4	MXEnergy Holdings Inc.	CC/Watch Neg/--	12	South Jersey Gas Co.	BBB+/Stable/--
5	New Jersey Natural Gas Co.	A/Stable/A-1	13	Southwest Gas Corp.	BBB/Stable/--
6	Nicor Inc.	AA/Stable/A-1+	14	Vectren Corp.	A-/Stable/--
7	NiSource Inc.	BBB-/Stable/--	15	WGL Holdings Inc.	AA-/Stable/A-1
8	Northwest Natural Gas Co.	AA-/Negative/A-1+			
Investor-owned water utilities					
1	American States Water Co.	A/Stable/--	5	Connecticut Water Service Inc.	A/Stable/--
2	American Water Works Co. Inc.	BBB+/Stable/A-2	6	Middlesex Water Co.	A-/Stable/--
3	Aqua Pennsylvania Inc.	A+/Stable/--	7	York Water Co. (The)	A-/Stable/--
4	California Water Service Co.	A+/Stable/--			
Diversified energy companies					
1	Constellation Energy Group Inc.	BBB/Watch Neg/A-2	3	Exelon Corp.	BBB/Watch Neg/A-2
2	Edison International	BBB-/Stable/--	4	Public Service Enterprise Group Inc.	BBB/Stable/A-2

*Ratings as of May 12, 2009.

Appendix E: Contact information

Table 10

Contact Information

U.S. Utilities & Infrastructure Practice - Team Leaders and Sector Specialists

	Team	Phone	E-mail
Team leaders			
Michael Messer	Integrated Gas	(1) 212-438-1618	michael_messer@sandp.com
Arthur Simonson	Infrastructure & Project Finance	(1) 212-438-2094	arthur_simonson@sandp.com
John W. Whitlock	Electric Utilities	(1) 212-438-7678	john_whitlock@sandp.com
Sector specialists			
William Ferara	Integrated Gas	(1) 212-438-1776	bill_ferara@sandp.com
Jodi Hecht	Infrastructure & Project Finance	(1) 212-438-2019	jodi_hecht@sandp.com

Table 10

Contact Information (cont.)			
Terry A. Pratt	Infrastructure & Project Finance	(1) 212-438-2080	terry_pratt@sandp.com
Todd Shipman, CFA	Electric Utilities	(1) 212-438-7676	todd_shipman@sandp.com

Related Research

- "Financial Adjustments Give A Clearer Picture Of Credit Quality For U.S. Utility And Infrastructure Companies" published on RatingsDirect on Aug. 13, 2008.
- "Are Corporate Pension Plan Assets In Rough Waters? It's Difficult To Tell" published on RatingsDirect on May 16, 2008.
- "Criteria: Standard & Poor's Encyclopedia Of Analytical Adjustments For Corporate Entities" published on RatingsDirect on July 9, 2007.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF NEW MEXICO FOR REVISION OF ITS RETAIL ELECTRIC RATES PURSUANT TO ADVICE NOTICE NOS. 397 AND 32 (FORMER TNMP SERVICES),	)	**Case No. 10-00086-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant	)	

DIRECT TESTIMONY AND EXHIBITS

OF

C. KENNETH VOGL

JUNE 1, 2010

NMPRC CASE NO. 10-00086-UT
INDEX TO THE DIRECT TESTIMONY OF C. KENNETH VOGL
WITNESS FOR
PUBLIC SERVICE COMPANY OF NEW MEXICO

DIRECT TESTIMONY OF
C. KENNETH VOGL
NMPRC CASE NO. 10-00086-UT

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is C. Kenneth Vogl. I am a Consulting Actuary employed by Towers Watson. Towers Watson serves as the actuary for Public Service Company of New Mexico ("PNM" or the "Company"). My business address is 120 South Central Avenue, Suite 1400, St. Louis, Missouri 63105.

Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS A CONSULTING ACTUARY.

A. As a Consulting Actuary I am responsible for certifying the funded status of pension plans, determining required contributions for pension plans, and calculating the annual accounting cost for pension and postretirement welfare plans. In addition, I have significant experience relative to the treatment of pension and postretirement welfare plans for regulated utilities.

Q. HAVE YOU PREVIOUSLY TESTIFIED IN UTILITY REGULATION PROCEEDINGS?

A. Yes. I have submitted testimony in several Missouri and Illinois rate cases on behalf of utility companies operating in those states. Please see PNM Exhibit CKV-1 for a listing of those cases.

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Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?

A. I am testifying on behalf of the Company.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to present PNM's requested rate treatment for pension costs in its future test period rate case filing. Specifically, in the sections that follow, I will discuss:

- How pension costs are currently being recovered in PNM's rates
- Recent changes to the pension environment that warrant revisiting the rate recovery method being used for PNM
- Potential consequences for continuing the current rate recovery method
- The rate recovery method PNM is proposing in this rate case and the key advantages of this method over the current method
- Identification of other regulated utilities currently using the proposed methodology

Q. HOW DOES YOUR TESTIMONY RELATE TO THE TESTIMONY PRESENTED BY OTHER COMPANY WITNESSES?

A. My testimony addresses the limited issue of pension plan cost recovery. Pension cost recovery is one element of the cost of service in PNM's rate case. PNM Witness James

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Mayhew presents the cost of service analysis for the Company in this case, including the costs for pension benefits.

II. SUMMARY OF KEY CONCLUSIONS

Q. WHAT ARE YOUR KEY CONCLUSIONS?

A. Overall, I have concluded that a new method for recovering the cost of pension benefits in electric rates is necessary for PNM. I am proposing a procedure for the regulatory treatment of pension cost ensuring that customers are not overcharged or undercharged for these benefits. This is done by creating a mechanism that continually reflects the mismatch between the cost of pension benefits and the cost collected in rates for these benefits (i.e., regulatory asset or liability). This regulatory asset or liability is then built into subsequent rate cases. As a result, over time, the amounts collected in rates will equal the amounts funded to the plan.

Q. HAVE YOU REACHED OTHER CONCLUSIONS?

A. Yes. I have reached a number of other conclusions, including:

- The pension plan environment has had significant changes over the past few years. These changes warrant revisiting the method being used by PNM to recover the cost of pension benefits in rates.

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- Due in large part to the changes referenced above, PNM's current method for pension rate recovery is no longer appropriate to use. There is projected to be a substantial difference between the amounts collected in rates (under the current rate recovery method) and the amounts required to be funded to the plan.
- The method being proposed for pension rate recovery better aligns the annual cost of pension benefits being recognized for regulatory purposes with the recovery of cash amounts needed to fund the plan.

III. CURRENT METHOD FOR PENSION RATE RECOVERY

Q. WHAT TOPICS WILL YOU ADDRESS IN THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my direct testimony, I will address how the cost of the pension plan is currently being recovered in PNM's rates.

Q. PLEASE PROVIDE SOME BACKGROUND ON HOW ORGANIZATIONS TYPICALLY ACCOUNT FOR PENSION COSTS.

A. Pension costs are typically accounted for in accordance with the Statement of Financial Accounting Standards No. 87 ("FAS 87"). FAS 87 is an accounting standard issued by the Financial Accounting Standards Board ("FASB") in December 1985 relating to employers' accounting for pensions.

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FAS 87 requires employers to recognize the cost of their pension plan(s) on an accrual basis rather than a cash basis. In other words, pension cost is recognized over the period during which benefits are earned, i.e., during the working years of the employees who will receive the pension benefit. The standard also contains detailed rules and other guidance that govern the determination of the accrual costs. Pension expense is also referred to as pension cost.

The FAS 87 pension expense is equal to the sum of the following components:

- Service cost – The value of the benefits earned, or accrued, during the current year based on the applicable benefit formula for each participant.
- Interest cost – The interest on the pension plan liability for the year. This amount increases pension expense.
- Return on assets – The expected return on assets for the year. This amount reduces pension expense. Note that the difference between the actual return on assets and the expected return on assets is a gain or loss that will be recognized in future pension expense.
- Amortization – The change in liability due to plan changes, changes in actuarial assumptions used to value plan liabilities, and/or experienced gains or losses may be subject to amortization. The amortization period is not to exceed the average future lifetime of plan participants.

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In summary, the FAS 87 pension expense can be described as: (1) the value of benefits earned during the year (i.e., service cost), plus (2) a charge or credit depending on the funded status of the plan (i.e., interest cost less return on assets), plus (3) a charge or credit to recognize special asset and liability changes (i.e., amortization).

Q. WHAT METHODOLOGY DOES PNM CURRENTLY USE TO RECOVER THE COST OF PROVIDING PENSION BENEFITS TO ITS EMPLOYEES?

A. PNM currently recovers its FAS 87 pension expense that is used for financial reporting purposes in rates ("FAS 87 financial reporting expense"). The amount to be recovered is determined in a rate case and is based on the FAS 87 financial reporting expense incurred during a test year. The test year FAS 87 financial reporting expense is then recovered annually in rates until another rate case occurs. At that point, a new level of pension rate recovery is established based on the FAS 87 financial reporting expense calculated in the new test year.

In addition, PNM has been allowed to include an adjustment to its rate base to reflect voluntary prepayments made to the pension plan (Case No. 07-00077-UT). In other words, voluntary contributions to the pension plan made in excess of FAS 87 financial reporting expense (known as a "prepaid pension asset") are included as an adjustment to

rate base. PNM continues to bear the burden of proof in future rate cases that this adjustment is necessary.

IV. CHANGES TO PENSION ENVIRONMENT

Q. WHAT TOPICS WILL YOU ADDRESS IN THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my direct testimony, I will address the changes that have recently taken place in the pension environment and how these changes have affected PNM and warrant revisiting the rate recovery for pension benefits.

Q. HOW HAS THE PENSION ENVIRONMENT CHANGED OVER THE PAST FEW YEARS?

A. From a compliance perspective, the Pension Protection Act of 2006 ("PPA") modified how pension plans are required to be funded each year. Plans are still generally required to annually fund the amount of benefits being earned for the year plus a portion of the unfunded liability. However, the portion of unfunded liability that is required to be funded has been changed by PPA. Historically, the unfunded liability would generally be amortized over a 10-15 year period, meaning that a typical plan would be fully funded after 10-15 years on an expected basis (i.e., assuming no change to interest rates, reasonable investment return, logical demographic experience, etc.). PPA decreased the

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period for amortizing the unfunded liability to 7 years, which has significantly accelerated and front-loaded required contributions in order to meet the funding obligation.

The resulting impact on companies subject to the PPA is that more cash will be required to fund the plan sooner than under previous regulations. Since no similar changes have taken place relative to accounting for the cost of the pension plan (the current FAS 87 method generally spreads the recognition of the unfunded liability over 15-20 years), the amount received in rates will be unaffected by PPA. Therefore, it is highly likely that PNM will be required to use significant cash in excess of what is being received in rates to fund the pension plan. See the projections below comparing PNM's expected minimum required contributions for the plan to the expected FAS 87 financial reporting expense for the plan over the next eight years.

Projected PNM Cash and Accounting Cost
(in millions)

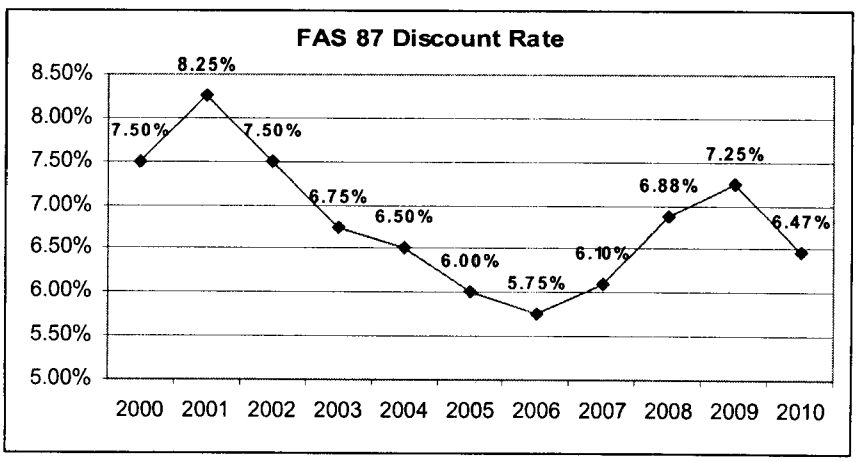
	2011	2012	2013	2014	2015	2016	2017	2018	Total
Minimum Required Contributions	62.7	60.0	63.0	61.2	42.7	17.2	3.0	-	309.8
FAS 87 Financial Reporting Expense	9.6	10.7	10.5	5.6	0.6	(2.2)	(4.2)	(5.3)	25.3
Annual Difference	53.1	49.3	52.5	55.6	42.1	19.4	7.2	5.3	284.5
Cumulative Difference	53.1	102.4	154.9	210.5	252.6	272.0	279.2	284.5	

Because the required contributions are expected to exceed the FAS 87 financial reporting expense by such a large margin, there is concern that the excess cash needed to fund the plan will never be recovered in rates. This would occur due to the large required

contributions quickly improving the funded status of the plan, which would then decrease the FAS 87 financial reporting expense and the corresponding amounts received in rates. While the true cost of the plan would have increased sharply for a few years, it would not be recovered in rates due to the timing mismatch between required contributions and FAS 87 financial reporting expense. It should also be noted that the prepaid pension asset that is currently being included in rate base is projected to increase significantly due to the contributions exceeding the FAS 87 financial reporting expense.

Q. ARE THERE ANY OTHER CHANGES THAT HAVE IMPACTED THE PENSION ENVIRONMENT?

A. Yes. From an economic perspective there has been significant volatility in interest rates and investment performance over the last several years. The following charts show how interest rates and investment returns have changed since 2000 for PNM.



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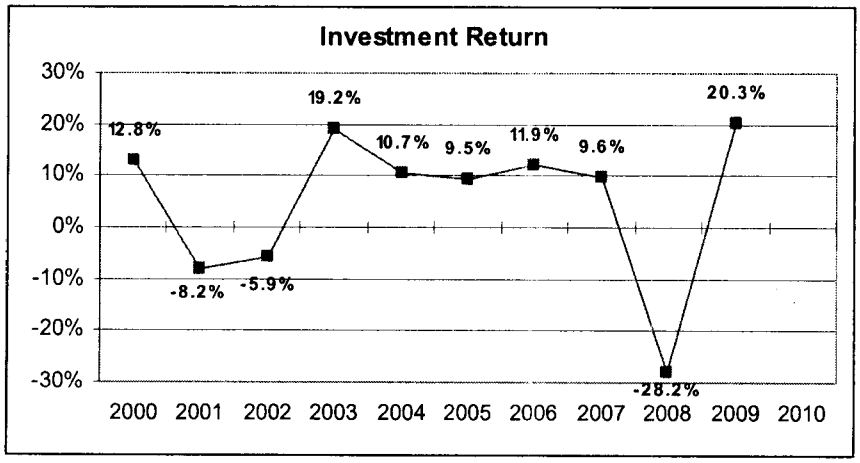

This volatility leads to large swings in the plan's unfunded liability, which then leads to large swings in both required contributions and FAS 87 expense. As discussed above, since the recognition period (i.e., amortization period) for unfunded liability is much shorter when determining required contributions, the cash requirements for the plan will be even more volatile than under previous regulations.

V. POTENTIAL CONSEQUENCES FOR CONTINUING WITH CURRENT METHOD FOR PENSION RATE RECOVERY

Q. WHAT TOPICS WILL YOU ADDRESS IN THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my direct testimony, I will address the potential problems that exist if no changes are made to the current method for pension rate recovery.

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Q. WHAT ARE THE POTENTIAL ISSUES PNM COULD ENCOUNTER IF CONTINUING WITH THE CURRENT METHOD FOR RATE RECOVERY?

A. As described above, the recent changes to the pension environment have significantly altered how pension plans are required to be funded. Since the current method for pension rate recovery is based on the FAS 87 financial reporting expense for the plan, there will likely be a major discrepancy between the cash needed to fund the plan and the amount received in rates. The projections shown above indicate $309.8 million of cash will be required to fund the plan over the next eight years. Comparing this to the amounts that PNM expects to receive in rates over the same time period results in substantial additional cash beyond what is collected in rates that PNM will be required to contribute to the plan. This mismatch is a significant concern to PNM. It is essential that a new method for rate recovery be established to ensure the cost of funding the pension plan is received in rates.

VI. PROPOSED METHOD FOR PENSION RATE RECOVERY

Q. WHAT TOPICS WILL YOU ADDRESS IN THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my direct testimony, I will address the method being proposed to recover pension costs in rates and explain why a change to a new FAS 87 regulatory reporting rate recovery method is beneficial.

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Q. PLEASE EXPLAIN HOW THE PROPOSED FAS 87 REGULATORY RATE RECOVERY METHOD WILL BE BENEFICIAL TO BOTH PNM AND CUSTOMERS.

A. As described above, the amount that PNM collects in rates for pension costs is determined based on its FAS 87 financial reporting expense in a test year. These rates are effective until there is another rate filing, when costs are adjusted based on then-current levels. However, any increases or decreases in PNM's costs that occurred in the interim years are not reflected in the new rates. Therefore, PNM may have collected too little in rates to cover its actual pension costs, or the customers may have paid more than necessary to cover PNM's actual pension costs. This mismatch between actual cost and the cost collected in rates can be very large and is primarily driven by factors outside the Company's control, such as changes in interest rates and volatile investment experience.

The proposed rate recovery method has two primary benefits:

(1) It accelerates the recognition of costs that the FAS 87 financial reporting method currently spreads over many years into the future. Since costs are now recognized much quicker under PPA in determining funding requirements, the proposed method allows for recognition over a more reasonable period (i.e., between PPA and the FAS 87 financial reporting method).

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(2) It establishes a procedure that will ensure increases or decreases in PNM's costs will be included in rates (as either a charge or a credit) at the time of the next rate filing. Over time, the amounts collected in rates will then equal the true pension cost and neither PNM nor the customers will have overpaid or underpaid for the cost of providing these benefits.

Q. PLEASE EXPLAIN HOW THE PROPOSED RATE RECOVERY METHOD WILL OPERATE.

A. In summary, the proposed rate recovery method will (1) ensure that the amount collected in rates for pension will adequately and timely fund the pension trust, and (2) ensure that all amounts contributed by PNM to the pension trust will be recovered in rates.

The proposed rate recovery method is fully described in PNM Exhibit CKV-2. Below is an example illustrating how the method will operate.

Example – Assume the following:

a. Total pension costs included in the rates set in this case are $25 million per year. These costs are based on PNM's projected costs for year 3, since a future test period is being used.

b. The actual pension costs incurred are $30 million per year for years 1 through 4, and $20 million for year 5.

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c. PNM files for a rate case increase to be effective in year 6.

Proposed Rate Recovery Method Treatment – Under the proposed rate recovery method, PNM is required to annually contribute the amount of FAS 87 regulatory expense. Therefore, PNM would accumulate the deficit amount collected in rates of $5 million (i.e., $30 million actual cost minus $25 million collected in rates) per year for the first four years, offset by $5 million in year five, for a total of $15 million. This amount would be included in a regulatory asset to be amortized beginning at the time of the next rate case. If the subsequent future test year cost was projected to be $20 million, the net cost of service included in rates beginning in year six would be $23 million, determined by (1) the new test year cost of $20 million, plus (2) amortization of the $15 million regulatory asset over five years, or $3 million per year.

Therefore, at the end of five years, PNM would have collected $125 million in rates (i.e., $25 million in rates times five years), funded $140 million to the trust (i.e., the actual FAS 87 regulatory expense each year), and accumulated a $15 million regulatory asset representing the amount to be collected from ratepayers in the future for costs that have already been incurred but not reimbursed. In addition, the $15 million regulatory asset will increase the rate base since it is a cash item that the Company has already incurred. The table below summarizes the year-by-year accumulation of the regulatory asset.

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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Collected in Rates	25	25	25	25	25	125
FAS 87 Regulatory Expense	30	30	30	30	20	140
Contributions to Trust	30	30	30	30	20	140
Total Regulatory Asset	5	10	15	20	15	15

Q. ARE THERE ANY SPECIFIC ADJUSTMENTS TO THE PROPOSED RATE RECOVERY METHOD THAT NEED TO BE MADE FOR PNM?

A. Yes. The requirement to fund the annual FAS 87 regulatory expense (see item 2 in PNM Exhibit CKV-2) can be satisfied in one of two ways:

(1) Decrease the prepaid pension asset established in the prior rate case since this amount represents prior cash contributions that PNM has not yet recovered in rates, or

(2) Contribute actual cash to the trust.

Where possible, PNM will first decrease the prepaid pension asset as described in (1). To the extent decreasing the prepaid pension asset is not possible (i.e., required contributions exceed FAS 87 regulatory expense), actual cash contributions to the trust will be made. The prepaid pension asset, as long as it exists, will continue to be included in rate base (consistent with Case No. 07-00077-UT).

Q. HOW DOES THE PROJECTED COST UNDER THE PROPOSED RATE RECOVERY METHOD COMPARE TO THE CURRENT METHOD.

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A. As shown below, the projected FAS 87 regulatory expense determined under the proposed method still falls short of the projected contribution requirements, but the changes made in methodology accelerate the costs to a more reasonable level (i.e., between the current approach and what is required under PPA). In addition, the recovery mechanism ensures the remaining difference between the required contributions and the FAS 87 regulatory expense is still recovered in rates.

Projected PNM Cash and Proposed Regulatory Cost
(in millions)

	2011	2012	2013	2014	2015	2016	2017	2018	Total
Minimum Required Contributions	62.7	60.0	63.0	61.2	42.7	17.2	3.0	-	309.8
FAS 87 Regulatory Expense	27.1	28.2	27.4	20.1	12.3	7.3	3.1	0.1	125.6
Annual Difference	35.6	31.8	35.6	41.1	30.4	9.9	(0.1)	(0.1)	184.2
Cumulative Difference	35.6	67.4	103.0	144.1	174.5	184.4	184.3	184.2	

Since a key objective of any rate recovery method is to fairly spread the cost of the pension plan across generations of customers, it would be inappropriate to front-load the costs to the same extreme as has been done under PPA. In other words, it would be unreasonable to suggest changing the rate recovery method to be consistent with PPA required contributions.

Q. ARE THERE ANY OTHER EXTERNAL FACTORS THAT WOULD MAKE THE USE OF A RECOVERY MECHANISM DESIRABLE FOR RATEMAKING OVER THE LONG TERM?

DIRECT TESTIMONY OF
C. KENNETH VOGL
NMPRC CASE NO. 10-00086-UT

A. Yes. The FASB has been reviewing the recognition of pension costs over the past several years. Changes have already been made to the balance sheet treatment, and additional changes are likely with respect to determining the annual cost for a pension plan. It appears the changes being considered would result in increased volatility of costs. PNM would like to adopt a specific, long-term procedure for pension rate recovery that will mitigate the impact on rates and earnings volatility due to the expected changes in the FASB rules.

VII. OTHER REGULATED ENTITIES USING PROPOSED METHOD FOR PENSION RATE RECOVERY

Q. WHAT TOPICS WILL YOU ADDRESS IN THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section of my direct testimony, I will address other regulated organizations that are also using the method being proposed for pension rate recovery.

Q. ARE YOU AWARE OF OTHER ORGANIZATIONS USING THE PROPOSED METHOD FOR PENSION RATE RECOVERY?

A. Yes. I have been directly involved in rate cases for several organizations that ultimately adopted the method being proposed here for PNM. Since each organization had unique circumstances entering their respective rate cases, they may have included specific transition adjustments (e.g., consistent treatment of the prepaid pension asset) to ensure

customers would not be required to pay more or less as a result of moving to the method being proposed. The basic recovery mechanism I have proposed in this case is being used by the following organizations:

- Empire District Electric Company
- Great Plains Energy
- Ameren Corporation

VIII. CONCLUSION

Q. DO YOU HAVE ANY CONCLUDING OBSERVATIONS?

A. Yes. Due to various changes that have had an impact on how pension plans are funded and managed, it is necessary for PNM to modify the method being used to recover its pension costs in rates. Without a change in method, the largely uncontrollable and volatile increases or decreases in PNM's costs that occur between rate cases will not be appropriately reflected in rates. For example, required contributions of $309.8 million are expected over the next eight years. This is significantly higher than the amounts PNM is projected to receive in rates over the same time period and will create a substantial financial burden on PNM for costs that the Company will have incurred, but for which it will not have been reimbursed. The current recovery method increases the likelihood that a large portion of these contributions will never be reflected in rates and never recovered from customers. As a result, PNM is proposing to establish a procedure

that will ensure that over time the amounts collected from customers for pension benefits are the same as the amounts funded to the plan. The proposed procedure will accomplish this, and customers will neither be undercharged nor overcharged for these costs.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

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PNM EXHIBIT CKV-1
RESUME OF C. KENNETH VOGL

Education

- University of Missouri, Columbia – B.S. in Mathematics (1988)
- Washington University – PhD in Mathematics (1994)

Professional Credentials

- Enrolled Actuary under ERISA (1998)
- Fellow of the Society of Actuaries (2000)

Work Experience

- William Mercer – St. Louis, Missouri (1994-1995)
- Towers Perrin – St. Louis, Missouri (1995-2007)
- Watson Wyatt Worldwide / Towers Watson – St. Louis, Missouri (2007-present)

Rate Case Experience

- Ameren Corporation (Missouri and Illinois) – Verbal and written testimony
  - Missouri Public Service Commission Case No. ER-2007-0002
- Empire District Electric Company (Missouri) – Written testimony
  - Missouri Public Service Commission Case No. ER-2008-0093

PNM EXHIBIT CKV-2
DESCRIPTION OF PENSION RATE RECOVERY MECHANISM

INTENT:

The provisions described in this exhibit are intended to accomplish the following:

- To ensure that the amounts collected in rates for pension costs are based on the FAS 87 accounting requirements cost for regulatory purposes ("FAS 87 regulatory expense") that more closely matches the cash funding pension benefits costs required under PPA; and
- To ensure PNM timely recovers in rates the contributions it makes to its pension trust; and
- To ensure PNM contributes the amounts collected from customers to cover pension costs to the pension trust; and
- To clarify, for ratemaking purposes, the accounting treatment of future charges PNM would be required to record pursuant to FAS 87, FAS 158 or any other FASB statement or procedure relative to the recognition of pension costs and/or liabilities.

PROCEDURE:

1. The FAS 87 regulatory expense shall be reflected in rates. The calculation of this expense shall be based on current FASB accounting standards, where the Market Related Value of Assets reflects gains and losses over a 5 year period and Unrecognized Net Gains/Losses are amortized over a ten-year period. This calculation will not use the 10% corridor.

2. Each year PNM shall contribute to its pension trust the amount of its FAS 87 regulatory expense for that year.

3. PNM shall be allowed rate recovery for contributions made to its pension trust that exceed its FAS 87 regulatory expense for any of the following reasons: the minimum required contribution is greater than the FAS 87 regulatory expense, avoidance or reduction of Pension Benefit Guaranty Corporation (PBGC) variable premiums, and avoidance of benefit restrictions that would be enforced under PPA. To accumulate any such excess contributions, a regulatory asset will be established and will be included in rate base.

4. The difference between the level of pension expense (FAS 87 and FAS 88) PNM incurs and the level of those costs built into rates shall be accumulated by means of regulatory assets or liabilities described in the following paragraphs.

5. Regulatory assets or liabilities shall be established on PNM's books to accumulate the difference between the level of FAS 87 regulatory expense PNM incurs during the period between rate cases and the level of FAS 87 regulatory expense recovered in rates for that period. If the FAS 87 regulatory expense incurred during the period is more than the FAS 87 regulatory expense recovered in rates for the period, PNM shall establish a regulatory asset which has been reduced by any existing regulatory liability for pension maintained pursuant to the following paragraph. If the FAS 87 regulatory expense incurred during the period, adjusted for any amount of such cost used to reduce a regulatory liability maintained pursuant to the following paragraph, is less than the cost recovered in rates for the period, PNM shall establish a regulatory liability. Since this is a cash item, the

regulatory asset or liability will be included in rate base for purposes of setting new rates in the subsequent rate case, and amortized over five years beginning with the effective date of the new rates.

6. If PNM incurs negative FAS 87 regulatory expense, PNM shall set up a regulatory liability to offset the negative cost. The regulatory liability will increase by the amount of negative cost, or decrease by the amount of positive cost, in each subsequent year. Positive cost in each subsequent year will be used to reduce this regulatory liability before being used to establish a regulatory asset pursuant to the preceding paragraph. Any existing regulatory liability related to prior negative FAS 87 regulatory expense will reduce the FAS 87 regulatory expense included in cost of service in PNM's next rate case. This regulatory liability is a noncash item that PNM shall exclude from its rate base in subsequent rate cases.

7. This method is designed so that PNM will receive reimbursement of its FAS 87 regulatory expense through rates. Therefore, PNM shall set up a regulatory asset to offset any charges that would otherwise be recorded caused by applying the provisions of FAS 87, FAS 158 or any other FASB statement or procedure that requires accounting adjustments due to the funded status or other attributes of PNM's pension plan. This regulatory asset shall not be amortized into rates or included in rate base because PNM will recover the amounts of this regulatory asset in rates through FAS 87 regulatory expense in future years.

8. If PNM has a curtailment, settlement, or special termination cost or credit due to requirements of applicable accounting rules according to FAS 88, the following procedure will be used to address the recovery for pension cost:

A. If the special event triggers a charge, then PNM will establish an offsetting regulatory asset. This regulatory asset will not be added to rate base (since it is not a cash item), and it will be amortized over five years beginning when new rates are implemented as a result of PNM's next rate case. PNM shall make additional contributions to the pension trust equal to the amount of the amortization.

B. If the special event triggers a credit, then PNM will establish an offsetting regulatory liability. This regulatory liability will not be added to rate base (since it is not a cash item), and it will be amortized over five years beginning when new rates are implemented as a result of PNM's next rate case. Generally, PNM will contribute to the pension trust an amount equal to the FAS 87 regulatory cost for the year less the amortization amount, subject to the following condition:

C. If pension expense becomes negative as a result of a FAS 87 and/or FAS 88 credit, PNM will set up an offsetting regulatory liability. This regulatory liability is a noncash item which will not require rate base treatment. When FAS 87 regulatory expense becomes positive again, the regulatory liability will be amortized over five years, or longer, if necessary to avoid the net of the FAS 87 regulatory expense and the

offsetting amortized regulatory liability yielding a result which is less than $0 in any year.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF NEW MEXICO FOR REVISION OF ITS RETAIL ELECTRIC RATES PURSUANT TO ADVICE NOTICE NOS. 397 AND 32 (FORMER TNMP SERVICES),	)	**Case No. 10-00086-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant.	)	

AFFIDAVIT OF C. KENNETH VOGL

STATE OF MISSOURI)
) ss
COUNTY OF ST. LOUIS)

C. Kenneth Vogl, Consulting Actuary for Towers Watson, upon being duly sworn according to law, under oath, deposes and states: I have read the foregoing Direct Testimony, including Exhibits, and it is true and accurate based on my own personal knowledge and belief.

SIGNED this 26 day of May, 2010.

C. KENNETH VOGL

SUBSCRIBED AND SWORN to before me this 26th day of May, 2010.

NOTARY PUBLIC IN AND FOR
THE STATE OF MISSOURI
Diana M Niemeyer

My Commission Expires:

April 25, 2013

GCG # 503044

DIANA M. NIEMEYER
Notary Public-Notary Seal
State of Missouri, Saint Louis City
Commission # 09701672
My Commission Expires Apr 25, 2013