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December 19, 2013

***Via Electronic Mail and Federal Express***

Public Utility Commission of Oregon
Attn: Filing Center
3930 Fairview Industrial Drive SE
Salem OR 97302

Re: In the Matter of The Public Utility Commission of Oregon Investigation into Treatment of Pension Costs in Utility Rates
**Docket No. UM 1633**

Dear Filing Center:

Enclosed for filing in the above-referenced docket, please find the original and five (5) copies of the Reply Testimony of Ralph C. Smith on behalf of the Northwest Industrial Gas Users and the Industrial Customers of Northwest Utilities.

Thank you for your assistance, and please do not hesitate to contact our office with any questions.

Sincerely,

*/s/ Jesse Gorsuch*
Jesse Gorsuch

Enclosures
cc: Service List

## CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day served the attached Reply Testimony of Ralph C. Smith upon all parties of record in this proceeding by causing a copy thereof to be sent via electronic mail to each party's last known e-mail address, as shown below.

Dated at Portland, Oregon, this 19th day of December, 2013.

*/s/ Jesse Gorsuch*
Jesse Gorsuch

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**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

**UM 1633**

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

**REPLY TESTIMONY OF RALPH SMITH**

**ON BEHALF OF**

**THE NORTHWEST INDUSTRIAL GAS USERS**

**AND**

**THE INDUSTRIAL CUSTOMERS OF NORTHWEST UTILITIES**

**December 19, 2013**

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# I. INTRODUCTION

**Q. Please state your name and business address.**

A. Ralph C. Smith. I am a Senior Regulatory Consultant at Larkin & Associates, PLLC, 15728 Farmington Road, Livonia, Michigan 48154.

**Q. Please describe the firm Larkin & Associates, PLLC.**

A. Larkin & Associates, PLLC, is a Certified Public Accounting and Regulatory Consulting Firm. The firm performs independent regulatory consulting primarily for public service/utility commission staffs and consumer interest groups (public counsels, public advocates, consumer counsels, attorney general, etc.). Larkin & Associates, PLLC, has extensive experience in the utility regulatory field as expert witnesses in more than 800 regulatory proceedings including numerous gas, electric, water and sewer, and telephone utilities.

**Q. Mr. Smith, please summarize your educational background.**

A. I received a Bachelor of Science degree in Business Administration (Accounting Major) with distinction from the University of Michigan - Dearborn, in April 1979. I passed all parts of the Certified Public Accountant ("CPA") examination in my first sitting in 1979, received my CPA license in 1981, and received a certified financial planning certificate in 1983. I also earned a Master of Science in Taxation from Walsh College in 1981, and a law degree (J.D.) *cum laude* from Wayne State University in 1986. In addition, I have attended a variety of continuing education courses in conjunction with maintaining my accountancy license. I am a licensed CPA and attorney in the State of Michigan. I am also a Certified Financial Planner professional and a Certified Rate of Return Analyst

("CRRA"). Since 1981, I have been a member of the Michigan Association of Certified Public Accountants. I am also a member of the Michigan Bar Association and the Society of Utility and Regulatory Financial Analysts ("SURFA"). I have also been a member of the American Bar Association ("ABA"), and the ABA sections on Public Utility Law and Taxation.

**Q. Please summarize your professional experience.**

A. Subsequent to graduation from the University of Michigan, and after a short period of installing a computerized accounting system for a Southfield, Michigan realty management firm, I accepted a position as an auditor with the predecessor CPA firm to Larkin & Associates in July 1979. Before becoming involved in utility regulation where the majority of my time for the past 34 years has been spent, I performed audit, accounting, and tax work for a wide variety of businesses that were clients of the firm.

During my service in the regulatory section of our firm, I have been involved in rate cases and other regulatory matters concerning electric, gas, telephone, water, and sewer utility companies. My present work consists primarily of analyzing rate case and regulatory filings of public utility companies before various regulatory commissions, and, where appropriate, preparing testimony and schedules relating to the issues for presentation before these regulatory agencies.

I have performed work in the field of utility regulation on behalf of industry, state attorneys general, consumer groups, municipalities, and public service commission staffs concerning regulatory matters before regulatory agencies in Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New Mexico, New York, Nevada, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, Washington, Washington D.C., West Virginia and Canada, as well as the Federal Energy Regulatory Commission and various state and federal courts of law.

**Q. Have you prepared an exhibit which describes your qualifications and experience?**

A. Yes. I have attached Exhibit NWIGU-ICNU/101 which provides details concerning my regulatory experience and qualifications.

**Q. Have you addressed issues related to the ratemaking treatment of utility defined benefit pension plans in other proceedings?**

A. Yes. I have addressed issues related to the ratemaking treatment of utility defined benefit pension plans in a number of other utility regulatory proceedings, including utility rate cases where aspects of a utility's defined benefit pension plan cost were at issue.

**Q. Have you prepared an exhibit of responses to discovery requests and other documents that you reference in your direct testimony?**

A. Yes. I have attached Exhibit NWIGU-ICNU/102 which provides copies of responses to discovery requests. Exhibit NWIGU-ICNU/103 includes other documents that are referenced in my testimony.

## I. PURPOSE OF TESTIMONY

**Q. What is the scope of your testimony in this proceeding?**

A. Oregon Public Utility Commission ("OPUC" or "Commission") Order No. 12-408 opened an investigation to "review the treatment of pension expense on a general, non-utility specific basis."[1/] I am advised by counsel that the purpose of this docket is to

[1/] Re: Northwest Natural Gas Company, Request for a General Rate Revision, Docket No. UG 221, Order No. 12-408 at 4 (October 26, 2012).

complete that investigation and to establish an appropriate policy for ratemaking treatment of pension costs on a prospective basis. The purpose of my testimony is to address how pension costs should be treated when setting rates on a prospective basis on a general, non-utility specific basis. My primary recommendation is that the Commission should not modify how it treats pension costs in rates. My testimony also provides recommended guidelines for a framework of analysis for evaluating whether a prepaid pension asset claimed by a particular utility in a particular rate case has actually been funded by investors. As I describe in my testimony, however, the specific treatment of pension costs in each utility's subsequent rate cases should ultimately be based on the fact-specific analysis of that utility's particular situation. Because of factual differences between companies in terms of how costs for their defined benefit pension plans have been funded, accounted for, and reflected in rates, a "one size fits all" approach should not be used, but rather some useful general guidelines can be established and then the specific facts and circumstances related to each utility's individual situation can be evaluated in each utility's rate case.

## II. SUMMARY OF TESTIMONY

**Q. Please summarize your testimony.**

A. As noted above, my testimony addresses how costs related to defined benefit pension plans are accounted for and funded and presents recommendations concerning how utility costs related to pensions should be evaluated and treated for ratemaking purposes prospectively.

In Section III, I explain that there are two general types of pension plans: (1) defined benefit pension plans and (2) defined contribution pension plans. Under defined benefit pension plans, employees accrue benefits during their years of service and receive specified benefits in the form of an annuity or lump sum, after they retire, where the employer bears the risk of investment market fluctuations and assuring that there are sufficient funds available to pay the pensioners at the specified level. Under defined contribution plans, such as 401(k) savings plans or money purchase pension plans, employees and employers make contributions at a predefined level and employees bear the risk of investment market fluctuations in the value of their investments. Accounting for the costs of defined benefit pensions can entail recording a pension asset or liability on a company's balance sheet. The issues relating to utility pension costs in this case therefore pertain to defined benefit pension plans. I also discuss the risks of significantly fluctuating pension costs resulting from providing retirement benefits in the form of defined benefit pensions. In Section III, I also reference and discuss documentation showing a general trend away from defined benefit pension plans.

In Section IV, I present an overview of Statement of Financial Accounting Standards No. 87 ("FAS 87") and its components. In Section IV, I also address how fluctuations in some of the key FAS 87 components can affect Net Periodic Pension Cost ("NPPC") and how the interaction of defined benefit pension plan accounting under FAS 87 and pension funding contributions can lead to a company recording a pension asset or a liability on its balance sheet. I also address how FAS 87 accounting for defined benefit pensions can result in a company recording pension income in some periods and a net pension cost in other periods.

In Section V, I present an overview of defined benefit pension plan funding considerations, including the concepts of minimum required funding and maximum tax-deductible funding. I also discuss how different levels of funding beyond the minimum required contributions are discretionary with utility management. Between (1) the minimum funding requirement and (2) the maximum tax-deductible contribution, the range of defined benefit pension plan funding options available to management's discretion can vary widely in a given year. I also discuss in general terms the relationship between increased defined benefit pension plan funding contributions and the subsequent level of NPPC produced by FAS 87 accounting for defined benefit pensions.

In Section VI, I address the ratemaking proposal made by the Joint Utilities related to inclusion in rate base or pension assets and present rebuttal to a number of aspects of their proposal.

In Section VII, I discuss ratemaking considerations that may come into play if a utility's defined benefit pension plan is curtailed or settled, and Statement of Financial Accounting Standards No. 88 ("FAS 88").

Finally, in Section VIII, I present my conclusions and recommendations.

**Q. Please briefly summarize your findings and recommendations.**

A. To determine utility operating expense in a rate case, I recommend that the FAS 87 approach continue to be utilized for ratemaking purposes for utility defined benefit pension costs. My understanding is that in Oregon historically, the FAS 87 approach has been applied to expenses and has not included recognition of pension liabilities as a reduction to utility rate base or pension assets as an addition to utility rate base. The FAS 87 approach has functioned well and fairly over the years and should therefore be continued unless the utilities can make and document a compelling case for an alternative. In this case, they have not.

The Joint Utilities' recommendation that pension assets should now be presumptively includable in rate base should be rejected for several reasons including, but not necessarily limited to, the following:

- Accrued pension liabilities have not routinely been reflected as rate base deductions in the past, thus the timing of the Joint Utilities' proposal to implement presumptive pension asset recognition is unfair.

- Pension assets can occur on a utility's books under various circumstances, including when there is pension income, which has not generally been recognized for ratemaking purposes in Oregon.

- Pension assets are not tangible assets (similar to plant or fuel inventories) that are used to provide utility service.

- Just because many utilities have recently been showing pension assets on their books does not mean that the utility's investors have financed such assets. Generally, a fact-specific, utility-by-utility analysis of historical information including a year-by-year analysis of information is needed in order to make such an evaluation for ratemaking purposes. This information should include (a) FAS 87 recorded amounts, (b) defined benefit plan funding amounts, and (c) amounts included in utility revenue requirements and thus presumptively funded by ratepayers. Although such information has been requested in this docket,[2/] such information contains interpretations, is incomplete, and does not appear to be sufficiently reliable to make conclusions. In the current case, I conclude that the Joint Utilities have failed to meet their burden of proving that any pension assets currently recorded on their books have actually been funded by investors, and thus have failed to demonstrate that such assets deserve rate base recognition. If the Commission abandons the FAS 87 approach, then the detailed fact-specific analysis will need to be conducted in each utility's subsequent rate case that includes a utility request for a pension asset. Fact-specific analysis may be extremely difficult, if not impossible, given that many cases have been resolved by settlement that did not contemplate that the utilities would seek to include any future pension assets in rate base.

- Because prior rate case pension cost review has apparently focused on O&M expenses (i.e., on income statement impacts), there are concerns that the prudence of utility management's discretionary funding of defined benefit pension plans has generally not been reviewed rigorously for prudence in prior rate cases. If balance sheet impacts (e.g., pension assets or pension liabilities) are going to be

2/ *See*, *e.g.*, OPUC Staff DR No. 23 to Avista, OPUC Staff DR No. 24 to Cascade Natural Gas, OPUC Staff DR No. 23 to NW Natural, OPUC Staff DR No. 28 to PacifiCorp, and OPUC Staff DR No. 23 to Portland General Electric.

considered for future potential rate base treatment, the pension funding decisions, the source of such funding, and the prudence and economic consequences of such funding, as well as the prudence of utility decisions to continue providing retirement benefits in the form of defined benefit pensions (as opposed to some other, less risky form) will become much more important considerations to be evaluated in future utility rate cases that include a request by a utility for rate base treatment of pension related costs. Again, given that many past rate cases have been resolved by settlements, it may be very difficult to unwind and review the prudence of these past utility decisions.

If utility pension assets or pension liabilities are to be considered for rate base treatment in future rate cases, rather than continuing the income statement focused approach that has apparently been applied in Oregon since FAS 87 began to be utilized, an analytical framework should be established that would require the utility to prove a number of elements, including but not necessarily limited to the following:

- the specific source of funding for pension assets and a demonstration that those assets to be included in rate base have actually been funded by investors;
- that the decisions by utility management concerning the funding of the utility's defined benefit pension plan have been prudent and result in the least-cost results;
- that utility management has taken reasonable and appropriate measures to control the defined benefit pension costs that it is seeking to recover from ratepayers; and
- that appropriate corresponding adjustments to pension expense have been reflected.

Unless the utility can sufficiently prove these elements in its subsequent rate case, the utility's request for rate base recognition of a pension asset should be presumptively rejected.

## III. DEFINED BENEFIT PENSION PLANS

**Q. What is a defined benefit pension plan?**

A. There are two general types of pension plans: (1) defined benefit pension plans and (2) defined contribution plans. In a defined benefit pension plan employees accrue benefits during their years of service and receive specified benefits in the form of an annuity or lump sum, after they retire, and the employer bears the risk of investment market fluctuations and assuring that there are sufficient funds available to pay the pensioners at the specified level. In contrast, in defined contribution pension plans, such as 401(k) savings plans or money purchase pension plans, employees and employers make contributions at a predefined level and employees bear the risk of investment market fluctuations in the value of their investments.

**Q. What are some of the risks of having a defined benefit pension plan?**

A. Risks of having a defined benefit pension plan include potential high volatility in costs from year to year, and potentially large funding requirements which can become a cash flow drain on the company. Cash used to make pension funding contributions, including minimum required contributions, is not available for use in the business for other purposes. Generally, once cash is contributed into a defined benefit pension trust, it cannot be withdrawn or utilized for purposes other than for paying the specified pensions.

**Q. Has the number of defined benefit pension plans offered by employers decreased significantly?**

A. Yes. Various studies show that the number of companies providing retirement benefits in the form of defined benefit pension plans has been decreasing significantly. Moreover, the decrease in the provision of defined benefit pension plans appears to be a long-term trend that is continuing.

**Q. What evidence do you have that indicates a trend away from defined benefit plans?**

A. In March 2009, the U.S. Government Accountability Office issued a report (GAO-09-291, dated March 30, 2009),[3/] which concluded that:

> **The number of private defined benefit (DB) pension plans,** an important source of retirement income for millions of Americans, **has declined substantially over the past two decades. For example, about 92,000 single-employer DB plans existed in 1990, compared to just under 29,000 single-employer plans today.** Although this decline has been concentrated among smaller plans, **there is a widespread concern that large DB plans covering many participants have modified, reduced, or otherwise frozen plan benefits in recent years.** GAO was asked to examine (1) what changes employers have made to their pension and benefit offerings, including to their defined contribution (DC) plans and health offerings over the last 10 years or so, and (2) what changes employers might make with respect to their pensions in the future, and how these changes might be influenced by changes in pension law and other factors. To gather information about overall changes in pension and health benefit offerings, GAO asked 94 of the nation's largest DB plan sponsors to participate in a survey; 44 of these sponsors responded. These respondents represent about one-quarter of the total liabilities in the nation's single-employer insured DB plan system as of 2004. The survey was largely completed prior to the current financial market difficulties of late 2008.
>
> GAO's survey of the largest sponsors of DB pension plans revealed that **respondents have made a number of revisions to their retirement benefit offerings over the last 10 years or so. Generally speaking, they have changed benefit formulas; converted to hybrid plans (such plans are legally DB plans, but they contain certain features that resemble DC plans); or frozen some of their plans.** Eighty-one percent of responding sponsors reported that they modified the formula for computing benefits for one or more of their DB plans. Among all plans reported by respondents, 28 percent of these (or 47 of 169) plans were under a plan freeze--an amendment to the plan to limit some or all future pension accruals for some or all plan participants. The vast majority of respondents (90 percent, or 38 of 42 respondents) reported on their 401(k)-type DC plans. Regarding these DC plans, a majority of respondents reported either an increase or no change to the employer or employee contribution rates, with roughly equal responses to both categories. About 67 percent of (or 28 of 42) responding firms

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[3/] A copy of the complete GAO study can be obtained online at: http://www.gao.gov/new.items/d09291.pdf (emphasis added); a copy is included in Exhibit NWIGU-ICNU/103 at 8 for ease of reference.

> plan to implement or have already implemented an automatic enrollment feature to one or more of their DC plans. With respect to health care offerings, all of the (42) responding firms offered health care to their current workers. Eighty percent (or 33 of 41 respondents) offered a retiree health care plan to at least some current workers, although 20 percent of (or 8 of 41) respondents reported that retiree health benefits were to be fully paid by retirees. Further, 46 percent of (or 19 of 41) responding firms reported that it is no longer offered to employees hired after a certain date. At the time of the survey, most sponsors reported no plans to revise plan formulas, freeze or terminate plans, or convert to hybrid plans before 2012. When asked about the influence of recent legislation or changes to the rules for pension accounting and reporting, responding firms generally indicated these were not significant factors in their benefit decisions. Finally, a minority of sponsors said they would consider forming a new DB plan. Those sponsors that would consider forming a new plan might do so if there were reduced unpredictability or volatility in DB plan funding requirements and greater scope in accounting for DB plans on corporate balance sheets. **The survey results suggest that the long-time stability of larger DB plans is now vulnerable to the broader trends of eroding retirement security. The current market turmoil appears likely to exacerbate this trend.**

Additionally, see Exhibit NWIGU-ICNU/103 for the following other related articles and studies:

- Dow Jones Newswire article – "Pension-Plan Freezes Likely to Ramp Up Next Year" (By Lynn Cowan, March 20, 2009).
- Pension Rights Center: Pension Publications listing – Companies That Have Changed Their Defined Benefit Pension Plans (As of April 2, 2009).
- GAO Defined Benefit Pensions – Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges (A copy of the complete GAO report can be obtained online at: http://www.gao.gov/new.items/d08817.pdf).
- GAO Defined Benefit Pensions: Survey of Sponsors of Large Defined Benefit Pension Plans (July 2008).
- A CNN-Money "Ultimate Guide to Retirement" that answers the questions "Just how common are defined benefit plans?" with the answer:

> Not very. The percentage of workers in the private sector whose only retirement account is a defined benefit pension plan is now 10%, down from 60% in the early 1980s. About 30% of companies offer a combination of both types.

> Meanwhile, the few employers that still offer traditional pensions - typically industries with a strong union presence, such as the airline and auto sectors - are working overtime to cut deals to either reduce or eliminate their plans.

- A September 2011 Towers Watson article showing the decline of defined benefit pension plans at *Fortune* 100 companies: "What Happens to Executive Retirement Benefits When Companies Close or Freeze Their Broad-Based Pension Plans?"
- An October 2012 Towers Watson article showing the decline of defined benefit pension plans among the *Fortune* 100 from 1985 through 2012: "Retirement Plan Types of *Fortune* 100 Companies in 2012".

I am also aware that a number of companies, including some utilities such as PacifiCorp, have closed, frozen, significantly modified, or discontinued their defined benefit pension plans. Additionally, United Illuminating Company, Vermont Electric Cooperative (union employees), Connecticut Natural Gas, Southern Connecticut Gas, and Northeast Utilities are among other utilities that no longer offer defined benefit pension plans to new hires or only allow for the cash balance plan for new hires.

**Q. Have some of the Oregon utilities closed their defined benefit plans?**

A. Yes. According to information provided in discovery, such as the responses cited below,[4/] some of the Oregon utilities have closed their defined benefit pension plans.

- Cascade Natural Gas ("Cascade") has closed its defined benefit pension plan and Supplemental Executive Retirement Plan ("SERP") according to the response to OPUC Staff data request ("DR") No. 2 to Cascade. Cascade's response to Staff DR No. 21 states that: "The Defined Benefit Plan closed to new salaried employees hired after 9/30/2003 and all employees hired after 12/31/2006."
- Avista Utility's ("Avista") Qualified and Non Qualified (SERP and Supplemental Manager Retirement Plan ("SMRP") are open according the response to OPUC Staff DR No. 02 to Avista. The Company's supplement to this response, however, also states that:

> In October 2013 the Company announced that effective January 1, 2014 Avista is implementing several new employee retirement income changes for non-union new hires. In effect, the Company's existing

4/ Copies of these responses are included in Exhibit NWIGU-ICNU/102.

pension plan will be closed to non-union new hires effective January 1, 2014. New hires will receive benefits through a revised defined-contribution plan only.

- NW Natural Gas ("NW Natural") maintains two qualified non-contributory defined benefit plans for non-union and union employees, which were closed on December 31, 2006 and December 31, 2009, respectively. NW Natural's response to OPUC Staff DR No. 02 to NW Natural.
- According to the response to OPUC Staff DR No. 002 to Portland General Electric ("PGE"), PGE has two defined benefit pension plans. The first plan is the PGE Pension Plan, covering both bargaining and non-bargaining active, retired, and terminated vested employees. This pension plan closed to all new bargaining unit employees effective January 1, 1999 and closed to all new non-bargaining employees effective February 1, 2009. The second plan is the SERP. The SERP has no participants currently accruing benefits and SERP costs are excluded from rates and removed from any regulatory financials.
- The PacifiCorp Retirement Plan is closed to new participants, which the Company's response to OPUC Staff DR No. 02 states is the only pension plan that is relevant to this docket because annual contributions and expenses for this plan are determined by different accounting and legal requirements, which results in variances between amounts contributed and amounts expensed. The SERP is not included in rates in Oregon.

**Q. Could changing Oregon regulatory policy for pensions to include pension assets in utility rate base remove or decrease existing incentives on utility management to control pension costs?**

A. Yes. Factors such as worker mobility, the Employee Retirement Income Security Act of 1974 ("ERISA"), the Pension Protection Act of 2006, and other compliance and reporting requirements, and the increased costs and funding requirements in recent years have hastened the decline of defined benefit pension plans, and there is a discernible trend away from such plans. Providing for a new opportunity for utility shareholder returns by prospectively including pension assets for defined benefit pension plans in utility rate base could encourage the retention by utilities of this risky form of retirement benefits and could deter the utilities from making additional reforms that would curtail or eliminate the risks of cost increases and increased cash funding requirements associated with their legacy defined benefit pension plans.

## IV. COMPONENTS OF NET PERIODIC PENSION COST FOR A DEFINED BENEFIT PENSION PLAN UNDER FAS 87

**Q. What is FAS 87?**

A. FAS 87 is an accounting standard promulgated by the Financial Accounting Standards Board ("FASB") in December 1985 relating to employers' accounting for pensions. It has been codified in the Accounting Standards Codification ("ASC") as ASC 715. For purposes of this testimony, I will generally refer to this as FAS 87 rather than ASC 715, consistent with how the Joint Utilities have presented their discussion.

**Q. What is net periodic pension cost?**

A. As it pertains to a defined benefit pension plan, NPPC is the amount recognized in an employer's financial statement as the cost of the pension plan for the period. Put another way, the NPPC is the annual accounting expense or income a company must recognize in their income statement, and direct adjustments to the plan sponsor's balance sheet, if applicable.

**Q. What are the components of net periodic pension cost under FAS 87?**

A. Under FAS 87, the NPPC is the sum of the following components:

- **Service cost**, which is the value of the benefits earned, or accrued, during the current year based on the applicable benefit formula for each participant.
- **Interest cost**, which represents the interest on the pension plan liability (i.e., Projected Benefit Obligation, or "PBO") for the year. This amount increases pension cost and reflects the passage of time or the time value of money on the PBO.
- **Expected return on assets for the year**, which reduces pension cost and is based on applying an expected rate of return to pension trust assets. Differences between the actual return on assets and the expected return on

assets represent an actuarial gain or loss that will be recognized in future pension cost.

- **Amortizations of unrecognized costs and gains**, which can include amortizations related to changes in liability due to plan changes, changes in actuarial assumptions used to value plan liabilities, differences between expected and actual asset returns, and/or experienced gains or losses to be recognized over time and subject to amortization. The amortization period is not to exceed the average future lifetime of plan participants. Prior Service Cost amortization is generally the cost of retroactive benefits granted in a plan amendment. Retroactively increasing benefits increases the PBO and prior service cost at the date of amendment and vice-versa. The increased (or decreased) cost is amortized as a component of net periodic pension cost. Amortization can be done on a straight line basis that amortizes cost over the average remaining service life of the active employees. Actuarial gains and losses occur due to changes in actuarial assumptions. Gains decrease and losses increase the pension cost. There are two components of gains/losses: (1) the current period difference which is the difference between actual and expected return (expected rate of return on plan assets times the market related value of plan assets) and (2) the amortization of the unrecognized gain/loss for previous periods. In amortizing unrecognized gains or losses, a 10% corridor is allowed to be used in which only those gains or losses in excess of the greater of 10% of the PBO or the market-related value of assets are subject to amortization.

**Q. When FAS 87 was initially adopted for financial reporting purposes, was there also a transitional component of the NPPC?**

A. Yes. When FAS 87 was promulgated by the FASB in December 1985, it also included a component of NPPC for Amortization of Transition Benefit Asset (decrease) or Obligation/Liability (increase) to pension cost. The Transition Benefit (or Obligation) amount was based on the funded status of the defined benefit pension plan when FAS 87 was initially adopted for financial reporting purposes. The employer recorded the amortization of the Transition Benefit Obligation ("TBO") over average remaining service of plan employees, or over a 15-year period if the service period was less than 15 years. Most companies, and it is believed that all of the Oregon utilities participating in the current case, are now beyond the TBO amortization periods, so TBO amortization would generally no longer be a component of a utility's NPPC.

**Q. Please describe the events or circumstances that can result in a company recording a pension asset.**

A. As noted above, in December 1985, the FASB issued FAS 87. FAS 87 provided guidance as to how companies would recognize costs associated with defined benefit pension plans for financial statement reporting purposes, effective for fiscal years beginning after December 15, 1986. Prior to the issuance of FAS 87, the amount of pension costs recorded by a company for financial statement purposes was generally equal to the level of contributions actually made into the pension trust fund.[5/] As a result of FAS 87, the FASB determined that pension costs reported for financial statements purposes would not automatically be equal to the pension trust fund contribution, breaking the historical linkage between financial reporting of net periodic pension costs (expense and capital)[6/] and pension funding contributions.

If the pension funding contributions exceeded the pension costs recorded for financial statement purposes,[7/] FAS 87 required the difference to be recorded in a balance sheet account as a pension asset. If the contribution to the pension fund was less than the recorded pension cost, the company would record a pension obligation or liability. In a period when a company had pension income (i.e., a negative NPPC), and made no pension trust funding contributions, this type of situation could also lead to the company

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5/ The pension fund is **separate** from the utility's financial statements. The monies in the pension fund are held by the pension trustee. The utility's contributions (i.e., monies deposited) to the pension fund are invested by the pension trustee to ensure that the fund balances are sufficient to pay future pension obligations to the utility's employees.

6/ The full amount of NPPC determined by the company's actuary is initially recorded in expense Account No. 926, Employee Pensions and Benefits. The portion of NPPC that is capitalized to plant or billed to others is recorded in a contra-expense to Account No. 926, Employee Benefits Transfer. This latter account recognizes that a pro-rata portion of employee benefits are attributable to the labor costs that are charged to capitalized construction projects and eventually to utility plant in service.

7/ Pension costs recorded for financial statement purposes pursuant to FAS 87 are also referred to as Net Periodic Pension Cost or NPPC.

recording a pension asset. In sum, FAS 87 required companies to record either a pension asset or pension liability for the difference between accrual basis pension costs that are recorded for financial statement purposes and the amount of any contributions to the pension fund. As indicated previously, this accounting is commonly referred to as accrual accounting for NPPC.

It should be noted that the prepaid pension asset that a utility proposes to include in rate base does <u>**not**</u> represent the cumulative contributions to the pension fund. Rather, the prepaid pension asset represents the cumulative difference between the actual contributions and the FAS 87 determined NPPC accruals recorded by the company. In essence, the prepaid pension asset merely represents a financial accounting difference that is not, and should not be, equated with any ratepayer benefit.

**Q. Is it typical for a portion of the annual NPPC to be capitalized?**

A. Yes. The NPPC for the year would typically be allocated between expense (an income statement impact) and a capitalized amount (a balance sheet impact, e.g., for pension costs attributable to construction). A portion of all NPPC, whether positive or negative in amount or whether higher or lower than the amount recognized in setting rates, would generally be capitalized in the normal course of business. Furthermore, the capitalized element of the negative NPPC would not be translated into an immediate ratepayer benefit, as the reduced plant in service amount only impacts revenue requirements through the return on rate base and return of investment (i.e., depreciation) over many years.

**Q. Is the capitalized portion of pension costs that is charged to construction the same thing as a pension asset that is being addressed in the current case?**

A. No. Capitalized pension costs (or pension income) would be charged or credited to construction work in progress (account 107) and eventually closed to plant in service (account 101). The prepaid pension assets that the utilities are requesting for rate base inclusion are not recorded in either of those accounts, but rather, are recorded in a prepaid or deferred debit account. When the opposite situation has occurred, a net pension liability would be recorded in the accrual liabilities section of the utility's balance sheet.

**Q. Does FAS 87 dictate a particular ratemaking treatment?**

A. No. FAS 87 provides accounting guidance with respect to the financial accounting disclosure of pension costs, related assets and liabilities. FAS 87 neither prescribes nor imposes any regulatory guidance or authoritative ratemaking treatment for the NPPC or for the prepaid pension asset or pension liability. FAS 87 sets forth the required framework for all publicly traded companies to quantify and record net periodic pension costs. Neither the actual FAS 87 NPPC accruals nor actual pension contributions should be interpreted as costs recovered from, or benefits provided to ratepayers, particularly without any evidence to substantiate such claims.

**Q. How do pension assets differ from other assets that have been recognized in utility rate base?**

A. While a prepaid pension asset can be recorded on a company's books pursuant to FAS 87, this asset is not directly analogous to other types of assets included on the utility's balance sheet that have traditionally been recognized in Oregon for rate base purposes. A prepaid pension asset is not a tangible asset like a coal pile or fuel inventory or utility plant that is providing utility service. Moreover, unlike a utility's investment in other assets (e.g., fuel inventory, prepaid insurance, electric poles, generating plants, overhead lines, gas distribution plant, gas stored underground, etc.), the utility did not expend any funds to purchase or acquire the prepaid pension asset, which merely represents the cumulative difference between FAS 87 based NPPC and actual contributions to the pension trust fund.

**Q. Can you explain how a prepaid pension asset is dissimilar from other types of prepayments that may be included in rate base?**

A. Yes. In Docket No. UG 221, NW Natural acknowledged that the prepaid asset is not "tangible" like pipes, etc. Instead, they focused on the fact that non-tangible assets are allowed in rate base, such as the prepaid insurance premium. However, the pension asset can be distinguished from other prepaid assets, such as prepaid insurance. Prepaid insurance is different because the cost corresponds with a relatively short-term future time period, such as one year or part of a year depending on the period of insurance coverage. In contrast, the prepaid pension asset does not correlate to a one-year or less future time period and could remain indefinitely with its level being dependent upon a number of factors, some of which could result in significant changes to the level of pension asset. Moreover, the prepaid pension asset could disappear and turn into an accrued pension liability, based on a number of factors, including impacts from fund earnings and changes in the discount rate. Additionally, the Joint Utilities have failed to demonstrate that their past funding decisions have been prudent, or that it would be prudent to continue prospectively to provide retirement benefits in the form of a defined benefit pension plan, when other less risky forms of providing retirement benefits are available and have been accepted in the marketplace.

**Q. Can you provide an illustrative example of when rate base recognition of a utility pension asset in rate base could be appropriate?**

A. Yes. Rate base inclusion of the recorded balance of the prepaid pension asset may be appropriate only if it can be reasonably demonstrated that reduced FAS 87 pension costs, in a cumulative amount at least equal to the prepaid pension asset sought to be included in rate base, have been flowed through to the benefit of utility ratepayers, and where it can be conclusively demonstrated that the prior history of ratemaking treatment since the adoption of FAS 87 accrual accounting has been accurately accounted for and shows that the current levels of prepaid pension assets have actually been funded by investors.

Second, while the potential for ratepayer benefit does exist, particularly when negative NPPC is involved, whether said benefits have actually been enjoyed by ratepayers is unique to each regulated utility and can change over time. The fact that a utility may have recorded negative NPPC or that NPPC was less than fund contributions in some years does not automatically translate into ratepayer benefits in the form of decreased costs. It is believed that for most, if not all, of the Joint Utilities, the negative NPPC (or pension income) in the past has <u>not</u> been fully reflected as reductions to utility operating expenses consistently in prior rate cases. In some instances, if a utility has negative NPPC, instead of reflecting the pension income as a reduction to operating expenses, the pension expense in a rate case was set to zero. A subsequent section of my testimony addresses other safeguards and analysis that should be required prior to authorizing rate base inclusion of a utility-claimed pension asset.

**Q. What is the usual source for the amounts recorded by a company on its books for its NPPC for a defined benefit pension plan?**

A. It is typically an actuarial report. Each year, with assistance from its actuarial consultants, the employer providing the defined benefit pension plan would record a journal entry in its accounting records in order to accrue the NPPC pursuant to FAS 87. The actuarial consultants may also provide assistance in quantifying the range in pension contributions that are required or permitted under existing regulations.[8/]

**Q. Does recording a pension asset in a utility's books mean that it has been funded by investors or that it is a benefit to ratepayers?**

A. No. The mere act of recording a transaction (i.e., whether negative NPPC or positive software development costs) does not mean that ratepayers symmetrically funded the cost increases and benefited from decreases in expense.

While negative NPPC has been periodically recorded by utilities since the late 1980's, the rate base question should, among other considerations, focus on whether and to what extent utility ratepayers have tangibly benefited from the reduced pension costs. If ratepayers have not benefited from the reduced level of pension costs, as compared to the contributions to the pension fund, then the company and its investors are the only remaining parties that could have benefited from the reduced costs (i.e., through higher earnings than would have otherwise been achieved).

**Q. Do you believe that a pension asset recorded on a utility's books necessarily represents a prudent investment funded by investors?**

A. No. In its simplest terms, the pension asset is merely the cumulative difference between total NPPC accrued by the Company for financial statement purposes and the actual

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8/ This information may include minimum required funding contributions and the maximum tax-deductible contributions.

amount of contributions to the pension trust fund. While the pension contributions do represent a disbursement of cash (i.e., a check or wire transfer of funds to the pension trust), the cumulative "difference" between the contributions and NPPC accruals that the utility seeks to include in rate base does not necessarily represent a cash transaction, much less any investment funded by investors.

**Q. Can you please provide an example to illustrate some of these concerns?**

A. Yes. Although the following table represents a hypothetical example, it can be representative of the annual valuation fluctuations experienced by a utility and serves to illustrate the interaction between NPPC accruals and pension contributions underlying the cumulative pension asset balance:

| Year | NPPC Accrual | Contribution | Difference | Pension Asset |
|---|---|---|---|---|
| | (a) | (b) | (c) | (d) |
| 1 | $ - | $ 5,000,000 | $ 5,000,000 | $ 5,000,000 |
| 2 | (5,000,000) | $ - | 5,000,000 | $ 10,000,000 |
| 3 | 10,000,000 | $ - | (10,000,000) | $ - |
| Totals | $ 5,000,000 | $ 5,000,000 | $ - | |

- Year 1: The $5 million pension fund contribution exceeds the $0 NPPC accrual, resulting in a $5 million pension asset. The contribution represents a cash disbursement.
- Year 2: Because the company recorded negative NPPC of $5 million and made no contribution to the pension fund, the pension asset increased by the difference, reaching $10 million by year end. The company neither received cash in the amount of the negative expense from the pension fund nor disbursed cash to the pension fund.
- Year 3: NPPC accrual is a positive $10 million. With no pension contribution, the pension asset balance is reduced to "zero" by the amount of the difference. No cash is disbursed.

Although $5 million was contributed to the pension fund in this hypothetical example, the utility's proposed rate base treatment would also attribute the negative NPPC as an "investment" by its investors and would include the following amounts in rate base, using an average rate base concept:

Year 1 -- $2.5 million (average of $0 & $5 million)

Year 2 - $7.5 million (average of $5 million & $10 million)

Year 3 -- $5 million (average of $10 million & $0)

**Q. Do you believe that the negative NPPC in the above example should be considered an "investment" by the utility's investors that merits rate base inclusion?**

A. No. Outside of the context of a rate case, there is no required use of cash funded by investors regardless of whether the NPPC accrual recorded by the company is: (a) positive, (b) negative or (c) zero in amount. Moreover, unless the $5 million of negative NPPC in Year 2 was explicitly recognized in setting utility rates or specifically flowed through to the benefit of customers, it is my opinion that the positive financial benefits of <u>recording</u> the negative expense accrual would be retained by the utility. In other words, the negative NPPC would increase Year 2 earnings in relation to the earnings that would have been reported in the absence of the negative NPPC accrual. As such, no rate base treatment of the negative NPPC accrual would be warranted.

**Q. Do you believe that ratepayers receive the benefit of pension credits, or reduced pension costs, merely as a result of a utility having recorded the negative, or reduced, pension costs?**

A. No. The mere recording of NPPC, whether positive or negative in amount, at levels lower than pension contributions does not conclusively demonstrate "who" (ratepayers or investors) may have funded, or benefited from, the lower recorded pension costs. Since the Joint Utilities have sought rate base treatment of their pension asset, they should bear a substantial burden to demonstrate that such inclusion is proper.

**Q. Could you explain why you believe the mere fact that a utility <u>recorded</u> these pension credits does not result in automatic and substantial benefits to ratepayers in the form of decreased costs?**

A. Under traditional regulation, utility rates are based on a test year cost of service, theoretically designed to balance the various components of the ratemaking equation. Once determined, those rates are generally considered just and reasonable until rates are subsequently revised in a formal proceeding. In general terms, the utility is considered to have recovered all costs incurred between rate cases and achieved a reasonable return on its rate base investment.

**Q. Can changes in funding or in pension trust earnings or change to key factors, such as the discount rate, have substantial impacts on NPPC?**

A. Yes. One illustration of this is provided in the Joint Utilities' response to Staff DR No. 7, where actuarially forecasted minimum funding contributions and FAS 87 expense amounts are shown for changes to the variables listed in that response.[9/]

**Q. How do a utility's costs and revenues change between rate cases?**

A. All components of the ratemaking equation change over time – revenues, expenses and investment. As each component changes, a utility should have a reasonable opportunity to achieve its authorized return (i.e., not materially over or under earn), so long as the components remain in relative balance or changes to one component are mitigated or offset by changes in other components. I generally agree that the prohibition against retroactive ratemaking presumes that recorded costs are assumed to be recovered, regardless of explicit inclusion in cost of service. This presumption holds the utility

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9/ A copy of the Joint Utilities' response to Staff DR No. 7 is included in Exhibit NWIGU-ICNU/102.

accountable for incurred costs and prevents a potentially abusive process of collecting past earnings deficiencies from current and future ratepayers.

Since adoption of FAS 87, the amount of pension costs and pension credits recorded by most utilities has varied significantly from year to year. In the absence of rate case activity or some mechanism to flow the reduced NPPC, or pension credits, through to benefit ratepayers, FAS 87 pension accounting has resulted in the reduced NPPC increasing utility income and investor returns.

Contrary to any implications otherwise, the evaluation of this issue is <u>not</u> designed for or intended for a retrospective inquiry of past earnings to impose a surcharge for past under-recoveries or a refund for past over-recoveries. Instead, this approach is designed to evaluate, based on available information, whether it is reasonable to assume that ratepayers have sufficiently enjoyed the benefits of the ever fluctuating NPPC (supporting rate base inclusion of some portion of the pension asset) or whether the resulting earnings benefits have been retained by investors (supporting the rate base exclusion).

**Q. Do you believe that all elements of the cost of service included in past rates should be reconciled with current cost levels to determine prospective rate treatment for each item?**

A. No. As a matter of ratemaking policy, I do not recommend that the Commission rely solely on or otherwise reconcile past decisions in establishing cost of service for future periods. However, the consideration of past rate orders is indeed relevant in assessing whether the Joint Utilities have proven in the investigatory proceeding that their investors have actually funded their pension assets and thus can provide reliable support for inclusion of their pension assets in rate base. After all, the pension asset represents a "non-cash" asset recorded on the Company's balance sheet in that no funds have been expended nor have any checks been written for the amount the utility seeks to include in rate base. As discussed herein, I recommend that the Commission continue a presumption that utility pension assets should be excluded from rate base. The Joint Utilities in the current docket have failed to adequately account for the extensive past history of prior ratemaking treatment of pension cost or to prove that their pension assets have actually been funded by investors.

**Q. Have you reviewed the Oregon utilities' (1) FAS 87 NPPC, (2) funding contributions, and (3) pension costs that the utilities have identified as being included in rates?**

A. I have reviewed utility responses to discovery by the OPUC Staff and other parties requesting such information, including but not limited to OPUC Staff Data Request No. 23 to Avista, OPUC Staff DR No. 24 to Cascade, OPUC Staff DR No. 23 to NW Natural, OPUC Staff DR No. 28 to PacifiCorp, and OPUC Staff DR No. 23 to Portland General Electric.

**Q. Does it appear that historical utility recoveries from ratepayers can be reliably quantified?**

A. No. It is not possible to precisely quantify the "exact" amount of cumulative net pension recoveries from or benefits provided to ratepayers, particularly over the decades following the adoption of FAS 87 for financial accounting purposes and for purposes of determining the pension expense amounts that have been included in the Joint Utilities' rates. However, it would be reasonable to require any utility that is claiming a pension asset in rate base to provide relevant, available information to assess regulatory intent. The utility should also be required to estimate the amount of cumulative pension costs or credits that might have been reasonably recovered from or otherwise flowed through to the benefit of ratepayers, in the context of a utility's stated theoretical basis for including the pension asset in rate base.

**Q. Can differences in amounts of pension cost included in rates and recorded pension costs result in a utility having increased earnings?**

A. Yes. Pension credits, or pension costs below contributions, can result in higher utility earnings, other things being equal. Under FAS 87, regulated utilities record pension costs in an amount equal to NPPC, unless ordered otherwise by regulators. If reduced or even negative levels of NPPC are not automatically flowed through to the benefit of customers via bill credits or rate reduction, the resulting decrease to operating expense would increase a utility's net operating income above levels that would have been realized in the absence of the FAS 87 pension credits.

**Q. By attempting to assess ratepayer participation in the reduced pension costs recorded by each utility over the years, and by comparing the recorded FAS 87 expense with the funding and ratemaking amounts, are you suggesting that the Commission engage in retroactive ratemaking?**

A. No, absolutely not. I neither propose nor suggest that a utility should pay back past excessive profits or recoup past operating losses, as implied by that concept. Instead, the retrospective analysis or review that I propose would solely be used as a required element in the burden of proof that should be placed on any utility that is prospectively requesting rate base inclusion of a pension asset, to gauge the extent of benefits received by ratepayers or retained by investors in determining whether the pension asset balance should be included in rate base. On advice of counsel, I am not providing an opinion regarding whether compensating utilities for their past funding of pensions constitutes retroactive ratemaking under Oregon law. If an analysis of who benefited from past fluctuating NPPC is considered retroactive ratemaking under Oregon law, then the utilities would be barred from recovering the cost of financing pension assets incurred in the past.

**Q. To your knowledge, has this approach been used for any other element of rate base?**

A. No, it has not. However, such a criticism fails to address the key points of concern relative to this issue, which involves a drastic prospective change in Oregon regulatory policy to allow utility pension assets to prospectively be recognized in rate base:

- Since the adoption of FAS 87 accrual accounting for pension costs (for accounting and ratemaking purposes), have ratepayers benefited from the pension credits or recorded NPPC amounts that have been less than pension funding contribution levels?
- If so, by how much?
- Is the cumulative extent of any benefits enjoyed by ratepayers sufficient to include the utility's requested pension asset in rate base?
- Has the utility provided a detailed and reliable historical analysis of its pension (1) funding, (2) accounting, and (3) ratemaking sufficient to demonstrate that its claimed pension asset has been funded by investors?

The implementation of FAS 87 resulted in a significant shift in accounting method for pension costs from the cash basis to an accrual basis. Because this shift caused a utility to record pension costs at levels significantly less than pension contributions, including pension credits, I believe that it is responsible and reasonable for regulators to question the extent to which ratepayers, not the utility and its investors, have enjoyed the benefits of pension credits and to review how pension costs recorded on the utility's book and pension funding contributions have compared with amounts of pension costs included in rates – before allowing any utility in this jurisdiction to include a pension asset in rate base.

## V. DEFINED BENEFIT PENSION PLAN FUNDING

**Q. How have the minimum funding levels for a defined benefit pension plan generally been determined?**

A. Prior to 2008, the minimum required funding requirements were specified in ERISA.[10] ERISA is a federal law that established minimum standards for pension plans in private industry and provides for extensive rules on the federal income tax effects of transactions associated with employee benefit plans. ERISA was enacted to protect the interests of employee benefit plan participants and their beneficiaries by:

- Requiring the disclosure of financial and other information concerning the plan to beneficiaries;
- Establishing standards of conduct for plan fiduciaries;
- Providing for appropriate remedies and access to the federal courts.

**Q. Does ERISA require that pensions be provided in a defined benefit plan?**

A. No. ERISA does not require employers to establish pension plans. Likewise, as a general rule, ERISA does not require that plans provide a minimum level of benefits. Instead, ERISA regulates the operation of a pension plan once it has been established. Under ERISA, pension plans must provide for vesting of employees' pension benefits after a specified minimum number of years. ERISA requires that the employers who sponsor plans satisfy certain minimum funding requirements. ERISA also regulates the manner in which a pension plan may pay benefits. For example, a defined benefit plan must pay a married participant's pension as a "joint-and-survivor annuity" that provides continuing benefits to the surviving spouse unless both the participant and the spouse waive the survivor coverage.

[10] Pub.L. 93–406, 88 Stat. 829, enacted September 2, 1974, codified in part at 29 U.S.C. ch. 18.

**Q. How has ERISA helped assume that defined benefit pension plans would have sufficient assets from which to pay benefits?**

A. Among other things, ERISA established the Pension Benefit Guaranty Corporation to provide coverage in the event that a terminated defined benefit pension plan does not have sufficient assets to provide the benefits earned by participants. Later amendments to ERISA require an employer who withdraws from participation in a multi-employer pension plan with insufficient assets to pay all participants' vested benefits to contribute the pro rata share of the plan's unfunded vested benefits liability.

Under ERISA, minimum funding requirements were also established for defined benefit plans.[11/] Under ERISA, a defined benefit pension plan maintained a "funding standard account," which was charged annually for the cost of benefits earned during the year and credited for employer contributions. Increases in the plan's liabilities due to benefit improvements, changes in actuarial assumptions, and any other reasons were amortized and charged to the account. Decreases in the plan's liabilities were amortized and credited to the account. Every year, the employer was required to contribute the amount necessary to keep the funding standard account from falling below zero at year-end. Minimum annual funding requirements are therefore sometimes referred to as the ERISA funding requirement or the ERISA minimum.

**Q. Are the minimum funding requirements for a defined benefit pension plan now also impacted by another act?**

A. Yes. The Pension Protection Act of 2006 ("PPA") included additional funding requirements to improve the benefit security provided by defined benefit pension plans.

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11/ By their nature, defined contribution plans are always fully funded, even if the employee has not yet become vested in the employer contributions.

The PPA redefined minimum required cash funding requirements for defined benefit pension plans for 2008 and beyond.

**Q. Please describe the general funding requirements for a defined benefit pension plan under the PPA.**

A. In 2008, when the PPA funding rules went into effect, single-employer defined benefit pension plans no longer maintain funding standard accounts. The funding requirement under PPA is basically that a plan must stay fully funded (that is, its assets must equal or exceed its liabilities). If a plan is fully funded, the minimum required contribution is the cost of benefits earned during the year. If a plan is not fully funded, the contribution also includes the amount necessary to amortize over seven years the difference between its liabilities and its assets. Stricter rules apply to severely underfunded plans (called "at-risk status").

The PPA has different funding requirements for multi-employer pension plans, which preserve most of the pre-PPA funding rules including the funding standard account. Under the PPA, increases and decreases in the plan's liabilities will be amortized, but the amortization period for benefit improvements adopted after 2007 will be shortened. As with single-employer plans, multi-employer pension plans that are significantly underfunded are subject to restrictions. The restrictions, which may limit the plan's ability to improve benefits or require the plan to reduce employees' benefits, vary depending whether a pension plan's funding status is termed "endangered", "seriously endangered", or "critical". The restrictions accompanying each deficient funding status are progressively more severe as funding status worsens.

In general, the PPA requires a sponsor of a defined benefit pension plan to contribute into the plan annually an amount equal to: (1) the benefits being earned for the year, plus (2) a seven-year amortization of the amount the plan is underfunded. The seven-year amortization base is established each year based on the difference between the funded status of the plan and the value of the previous seven-year amortization bases that still exist. Once the plan becomes fully funded, all amortization bases are eliminated and the required contribution simply becomes the benefits being earned for the year. This is sometimes referred to as the "normal cost." If the plan becomes overfunded by more than the benefits being earned for the year, no new funding contribution is required for that year. Contributions are typically to be made on a quarterly basis. More frequent funding (e.g., monthly) is not prohibited. A final contribution for the year is generally allowed to be made up to eight and one-half months after the end of the plan year.

**Q. Please explain the concept of the maximum tax deductible contribution for funding of a defined benefit pension plan.**

A. The Internal Revenue Code contains provisions limiting the maximum tax deduction for contributions made to fund various types of retirement benefits, including defined benefit pension plans.

**Q. Can you provide an explanation of how the maximum tax deductible contribution for a defined benefit pension plan is generally determined?**

A. Generally, an actuary will provide the plan sponsor with information on both (1) the minimum funding obligation (representing the lowest amount needed to meet the minimum funding obligation, as discussed above) and (2) the maximum tax-deductible funding contribution. The latter generally involves actuarial calculations, which can be quite complex, to derive a "full funding limitation."

Basically, two provisions determine the maximum amount an employer can contribute and take as a deduction to a qualified pension plan in any one taxable year.

The first of these rules permits a deduction for a contribution that will provide, for all employees participating in the plan, the unfunded cost of their past and current service credits distributed as a level amount or as a level percentage of compensation over the remaining future service of each such employee. If this rule is followed, and if the remaining unfunded cost for any three individuals is more than 50 percent of the total unfunded cost, the unfunded cost attributable to such individuals must be distributed over a period of at least five taxable years. Contributions under individual policy pension plans are typically claimed under this rule.

The second rule, while occasionally used with individual policy plans, is used primarily in group pension and trust fund plans. This rule permits the employer to deduct the normal cost of the plan plus the amount necessary to amortize any past service or other supplementary pension or annuity credits in equal annual installments over a 10-year period. However, the maximum tax-deductible limit cannot exceed the amount needed to bring the plan to its full-funding limit. The full-funding limit is defined as the lesser of 100 percent of the plan's actuarial accrued liability (including normal cost) or 150 percent of the plan's current liability, reduced by the lesser of the market value of plan assets on their actuarial value. If the plan's actuarial cost method does not generate an accrued liability, the value that would be generated by the entry age normal method is used. The plan's funding standard account credit balance is subtracted from the asset value before determining the full-funding limitation.

**Q. Do other income tax considerations also apply?**

A. Yes. If amounts contributed in any taxable year are in excess of the amounts allowed as a deduction for that year, the excess may be carried forward and deducted in succeeding taxable years, in orders of time, to the extent that the amount carried forward to any such succeeding taxable year does not exceed the deductible limit for such succeeding taxable year. However, a 10 percent excise tax is imposed on nondeductible contributions by an employer to a qualified plan. For purposes of the excise tax, nondeductible contributions are defined as the sum of (1) the amount of the employer's contribution that exceeds the amount deductible under Internal Revenue Code section 404 and (2) any excess amount contributed in the preceding tax year that has not been returned to the employer or applied as a deductible contribution in the current year.

Additionally, obtaining benefit from taking an income tax deduction for pension funding contributions can also be impacted by other deductions and whether the company has taxable income against which to take a deduction.

**Q. Can you provide an example of this interaction?**

A. Yes. In recent years, many companies, including utilities, have reported net operating losses ("NOLs") for income tax purposes where deductions (including large deductions that have been available from bonus tax depreciation) have exceeded taxable income. Generally, for federal income tax purposes, tax losses can be carried forward and applied to reduce income taxes in future years. The NOL carry-forward period is 20 years. If a utility is in a situation where it has a large tax NOL carry-forward, that may have an impact on the utility's pension funding decisions since it could limit or defer the tax-savings benefit of the tax deduction for pension funding contributions.

**Q. Does utility management generally have a wide range of discretion as to how much to contribute to funding a defined benefit pension plan in a given year?**

A. Yes. Utility management's discretion as to how much funding to contribute into the defined benefit pension plan trust for a given year is generally confined by (1) the minimum funding obligation (representing the lowest amount needed to meet the minimum funding obligation, as discussed above) and (2) the maximum tax-deductible funding contribution (which can represent the maximum amount to be considered for the pension funding contribution). Contributions above the minimum funding obligation and up to the maximum tax deductible amount for the year are sometimes referred to as discretionary contributions. For larger pension plans, this range of potential discretionary contributions can amount to hundreds of millions of dollars.

**Q. Can management's decisions on how much to contribute into a defined benefit pension plan also impact the amount of net periodic pension cost in a year?**

A. Yes, it can. Generally, the most directly impacted component of NPPC is the expected return on assets for the year. As I discussed above, the expected return on plan assets is derived by applying an expected rate of return to pension trust assets. The expected return on plan assets reduces the net periodic pension cost.

**Q. Can management's decisions on how much to contribute into a defined benefit pension plan impact whether the utility has a pension asset or pension liability on its balance sheet?**

A. Yes. The level of funding contributions into the defined benefit pension plan trust can also have balance sheet impacts, and can impact the amount of pension asset that is recorded on the books of the utility.

**Q. If rate base amounts for utility pension assets are going to be considered for inclusion in rate base, does reviewing the utility's funding decisions become more important than in a situation where the ratemaking allowance for utility pension costs focus only on the expense (income statement) amounts?**

A. Yes. The pension funding decisions, which, as noted above, have a wide range of discretion with utility management, can have substantial impacts on the amount of pension asset (or liability) that is recorded on a utility's balance sheet. I am advised that historically, in Oregon, balance sheet impacts from defined benefit pension plans (such as pension assets or liabilities) have generally <u>not</u> been recognized in the derivation of utility rate base. If these previously unrecognized balance sheet impacts are going to be eligible for potential inclusion in utility rate base prospectively, e.g., if the policy regarding rate recognition of utility pension costs were to be changed to allow for that, it will become increasingly important to review the utility's balance sheet impacts from pensions, including funding decisions and, as I have discussed, an analysis will be needed for an extended historical period (ideally back to the utility's inception of using FAS 87 for accounting and ratemaking purposes) to evaluate whether the utility's pension assets being claimed for rate base inclusion have actually been funded by investors. I address the analysis that should be conducted in another section of my direct testimony.

## VI. <u>THE JOINT UTILITIES' PROPOSAL</u>

**Q. What have the utilities proposed in this proceeding?**

A. The Joint Direct Testimony filed on September 30, 2013 by PGE, PacifiCorp, Avista, Cascade and NW Natural (collectively, "Joint Utilities"), at pages 2-3 presents the Joint Utilities' proposal that the Commission continue to allow the utilities to recover their "FAS 87" expense. They also request that the Commission begin allowing the utilities to include a prepaid pension asset in rate base. As stated in that testimony:

> The Joint Utilities are requesting that the Commission continue to allow them to recover their FAS 87 expense. We are also requesting that the Commission allow for the recovery in rates the financing costs that the Joint Utilities incur as a result of timing differences between cash contributions to their pension plans and the recognition of expense. As discussed later in our testimony, a prepaid pension asset or accrued liability is generated as a result of these timing differences. The Joint Utilities are requesting that the ongoing financing costs of the prepaid asset be recovered on a prospective basis only. Finally, the

> Joint Utilities raise the topic of the recoverability of expenses that may occur in the future if a utility prudently chooses to freeze or exit a pension plan.

The Joint Utilities' proposal thus has two components: (1) continued recovery of their FAS 87 expense and (2) prospective inclusion of recorded pension asset amounts in rate base.

**Q. Do you agree with the Joint Utilities' proposal to expand the ratemaking treatment employed in Oregon to include presumptive rate base inclusion of recorded pension assets?**

A. No. There are significant issues and concerns with respect to this part of the Joint Utilities' proposal. The Joint Utilities have not justified their proposed change in ratemaking treatment of pension costs to include balance sheet accounts (such as their pension assets), or that the timing of their requested change is fair. While the Joint Utilities have proposed to presumptively include their pension assets in rate base prospectively, the Joint Utilities' Direct Testimony has provided no factual support to quantify the extent of any ratepayer benefits to the detriment of the utility's investors. Rate base inclusion may be appropriate only if it can be reasonably demonstrated that reduced FAS 87 pension costs, including the pension credits, on a cumulative basis have been flowed through to the benefit of the utility's ratepayers in an amount at least equal to the prepaid pension asset to be included in rate base. It is therefore necessary in each utility's rate case to carefully evaluate the factual support for the Company's request to include the pension asset in rate base.

**Q. Please summarize your reasons for disagreeing with the Joint Utilities' proposal to expand the ratemaking treatment employed in Oregon to presumptively include rate base inclusion of recorded pension assets.**

A. I disagree with this part of the proposal by the Joint Utilities for several reasons.

Accrued pension liabilities (the flip side of having a recorded pension asset) have not routinely been reflected as rate base deductions in the past, thus the timing of the Joint Utilities' proposal to implement presumptive recognition of pension assets that have been recorded in recent years is unfair and unbalanced.

Pension assets can occur on a utility's books under various circumstances, including when there is pension income, which has not generally been recognized for ratemaking purposes in Oregon. Presumptively including pension assets in rate base without a detailed historical analysis of how those assets have been funded is therefore inappropriate and unbalanced.

Pension assets are not tangible assets (such as plant materials or fuel inventories) that are used to provide utility service. The Joint Utilities' testimony at page 13 compares a prepaid pension asset with fuel stock and materials and supplies, and at lines 18-20 claims that: "The prepaid pension asset balance represents pre-payments of FAS 87 expense that are analogous to the stock of coal." This Joint Utilities' position should be rejected because a stock of coal is a physical asset and the coal will be burned to provide electricity. Moreover, inclusion in rate base of physical assets such as coal inventory and materials and supplies has apparently been done in Oregon for decades, and is commonly done in other jurisdictions. In contrast, the prepaid pension asset is not a physical asset that is used to provide electricity. The inclusion of utility claimed pension assets in rate base can also be a very controversial issue, and, as explained elsewhere in my testimony, pension assets (or liabilities, which are the flip-side of the balance sheet impacts) have not historically been recognized in Oregon (and appear to only be recognized as rate base impacts in a minority of other jurisdictions).

Pension assets are distinguishable from other types of prepayments, e.g., prepaid insurance, which is for specific insurance coverages for typically short-term periods of one year or less (depending on the insurance policy). In contrast, a prepaid pension asset has no particular form and could change substantially or turn into a pension liability depending on a variety of factors, including plan earnings and changes in key assumptions, such as the discount rate. Moreover, as explained above, the Joint Utilities have failed to prove that their pension assets have been funded by investors.

Just because many utilities have recently been showing pension assets on their books does not mean that the utilities' investors have financed such assets. Generally, a fact-specific, utility-by-utility analysis of historical information including a year-by-year analysis of information including (a) FAS 87 recorded amounts, (b) defined benefit plan funding amounts, and (c) amounts included in utility revenue requirements and thus presumptively funded by ratepayers, is needed in order to make such an evaluation for ratemaking purposes. The Joint Utilities have failed to make such a presentation in their Direct Testimony in this case, and they have not demonstrated that it is possible to make a determination that these past costs should be recovered from future ratepayers.

Because the focus of prior Oregon rate case pension cost review has focused on O&M expenses (i.e., income statement impacts), the decisions made by utility management concerning discretionary funding of defined benefit pension plans has generally not been reviewed rigorously for prudence in prior rate cases. If balance sheet impacts (e.g., for pension assets or pension liabilities) are going to be considered for future potential rate base treatment, the pension funding decisions, the source of such funding, and the prudence of such funding, will become much more important considerations to be evaluated in future utility rate cases that include a request by a utility for rate base treatment of pension related costs. It is preferable that this analysis occur on a going-forward basis so that costs that have been caused by the past pension funding decisions of utility management are not passed onto future ratepayers.

Drastically changing the regulatory treatment of pension costs in Oregon to now presumptively include utility pension assets in utility rate base could lessen incentives for utility control of the costs of their defined benefit pension plans, which can fluctuate significantly from period to period. Allowing a new ratemaking treatment that provides for additional shareholder profits on defined benefit pension plan related prepaid pension assets by including them in rate base could lessen incentives on utilities to control costs by changing or terminating such plans. As I have described in my testimony, there is a notable trend away from defined benefit pension plans to provide retirement benefits. Also, alternative forms of retirement benefits (such as defined contribution plans) do not typically entail the creation of pension assets, and do not have the same risk or cost volatility to the employer providing them that defined benefit pension plans have. Keeping the same ratemaking treatment for utility defined benefit pension plan costs that has applied in the past (i.e., providing for recovery of FAS 87 based pension expenses but not increasing shareholder return by including pension assets in utility rate base) will maintain existing incentives on utility management to control costs. In contrast, opening up a new rate base category for utility prepaid pension assets and increasing shareholder rate base return could eliminate or reduce such incentives to curtail or eliminate a costly and risky defined benefit pension plan as the form of providing retirement benefits, or could result in utilities attempting to maximize shareholder return by increasing their pension assets. As I have described, utility management has a wide degree of discretion concerning how defined benefit pension plans are funded, and the level of pension assets can be significantly influenced by management's discretion on funding.

There are also issues concerning the timing of the utility's request for drastically changed ratemaking treatment. FAS 87 has provided guidance on accrual accounting for pension costs since it was promulgated in December 1985. As far as I can tell, the ratepayers of Oregon utilities have not generally received the benefit of (1) having utility revenue requirements reduced by pension income in prior test years (i.e., when the FAS 87 results produced pension income, rather than a net cost, the pension expense was set to zero, rather than a negative amount), or (2) having rate base reduced when the utility had a pension liability or where the utility received amounts for pensions in rates that exceeded the utility's cash funding contributions. After the 2008 worldwide financial crisis and decline in many investments, many defined benefit pension plans experienced investment losses. During this period minimum funding requirements have also increased for many such plans. These developments have led recently to some utilities recording large amounts for pension assets. However, this recent experience is only one swing of the pendulum. The Joint Utilities want to change Oregon ratemaking by inclusion of pension assets in rate base (which will earn additional shareholder returns) starting at a point when the pension assets they have recorded are very large by historical standards. The timing proposed for this ratemaking change is thus favorable to the utilities and their shareholders but disadvantageous to ratepayers. Such timing for this change could also be viewed as being fundamentally unfair in this jurisdiction because since FAS 87 was first used for pension cost for accounting and ratemaking purposes in the 1980s, and the other side of a balanced regulatory treatment of pension costs, i.e., the reduction to utility rate base for pension liabilities and the reduction of operating expenses from pension income, has generally not occurred.

**Q. The Joint Utilities also have stated at page 3, lines 2-4, of their Direct Testimony that they "raise the topic of the recoverability of expenses that may occur in the future if a utility prudently chooses to freeze or exit a pension plan." Are you also addressing that?**

A. Yes. I address the subject of FAS 88 and defined benefit pension plan curtailments in Section VIII of my Direct Testimony, below.

## VII. FAS 88 AND DEFINED BENEFIT PENSION PLAN CURTAILMENTS

**Q. What is FAS 88?**

A. FAS 88 is an accounting standard promulgated by the FASB in December 1985 that addresses settlements and curtailments of pension plans.[12/] A settlement or a curtailment of a defined benefit pension plan can require recognition in the current accounting period of costs that would have otherwise been recognized in future periods.

**Q. What is a curtailment?**

A. A curtailment is an event that either (a) significantly reduces the expected years of future service of present employees or (b) eliminates for a significant number of employees the accrual of defined benefits for some or all of their future services (e.g., a plan freeze).

**Q. What is a settlement?**

A. A settlement is an event that encompasses all three of the following characteristics: (1) it is an irrevocable action, (2) it relieves the employer (or the plan) of primary responsibility for a pension benefit obligation, and (3) it eliminates significant risks

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12/ FAS 88 has been incorporated into ASC 715.

related to the obligation and the assets used to effect the settlement (an annuity purchase to pay the pension would be example of this third aspect).

**Q. Can the curtailment or settlement of a defined benefit pension plan result in either a cost or a gain being recognized?**

A. Yes. Depending on the particular facts and circumstances of a company's defined benefit pension plan when the settlement or curtailment occurs, either a gain or a net cost could result. A curtailment can generate an immediate income statement impact by (1) recognizing all or a portion of the unrecognized costs (or credits) due to previous plan changes, and (2) recognizing all or a portion of the decrease (or increase) in PBO if the plan is in an unrecognized gain (or loss) position. A settlement can generate an immediate income statement impact by recognizing all or a portion of the unrecognized costs (or credits).

**Q. What have the Joint Utilities recommended for ratemaking treatment for defined benefit costs or gains that are recorded pursuant to FAS 88?**

A. The Joint Utilities' Testimony/200, Vogl/17-18, in addressing what type of pension cost should be used for rate reimbursement concerning costs recorded pursuant to FAS 88, states their proposal that FAS 88 accounting costs should be used for rate reimbursement. Mr. Vogl specifically states that: "Including FAS 88 costs or credits is necessary in order to ensure that cumulative contributions will equal cumulative accounting costs over the life of the plan." Id. at 18, lines 6-8.

**Q. What is your recommendation concerning how FAS 88 costs or gains related to utility settlements or curtailments of defined benefit pension plans should be evaluated in future Oregon rate cases?**

A. My recommendation is that FAS 88 costs or gains related to utility settlements or curtailments of defined benefit pension plans should be evaluated in future rate cases based on the particular facts and circumstances of each utility in each future rate case in which a FAS 88 cost or gain has occurred. Amortization of a cost or gain that has been recorded by a utility pursuant to FAS 88 may be appropriate in a future utility rate case subject to normal safeguards and ratemaking considerations such as whether the curtailment or settlement was prudent, whether the amount of cost or gain recognized is reflective of normal experience and, if not, what alternative normalized amount should be reflected in rates.

## VIII. FINDINGS AND RECOMMENDATIONS

**Q. Please summarize your findings and recommendations.**

A. The Joint Utilities' proposal for continued recovery of their FAS 87 expense is not objectionable, as long as it includes recognition of pension income under FAS 87 (i.e., fully recognizes the FAS 87 income statement effects). This method of ratemaking treatment for utility NPPC pursuant to FAS 87 that is charged to expense has served well for years and should be continued. I do note that for some of the Oregon utilities, negative pension cost (i.e., pension income) recorded under FAS 87 has not been reflected for ratemaking purposes. Rather, if a utility had pension income under FAS 87, the ratemaking allowance for pension cost would be set at zero. This resulted in utility rates being set using a higher cost for pensions that was produced by the straightforward application of FAS 87. Prospective use of FAS 87 income statement impacts should include the recognition of pension income as a reduction to utility operating expenses for ratemaking purposes.

The Joint Utilities' recommendation that Oregon ratemaking be drastically changed so that utility pension assets should now be presumptively includable in rate base should be rejected for several reasons including, but not necessarily limited to, the following:

Accrued pension liabilities have not routinely been reflected as rate base deductions in the past, thus the timing of the Joint Utilities' proposal to implement presumptive pension asset recognition is unfair.

Pension assets can occur on a utility's books under various circumstances, including when there is pension income, which has not generally been recognized for ratemaking purposes in Oregon.

Pension assets are not tangible assets (similar to plant or fuel inventories) that are used to provide utility service.

Just because many utilities have recently been showing pension assets on their books, it does not mean that the utilities' investors have financed such assets. Generally, a fact-specific, utility-by-utility analysis of historical information including a year-by-year analysis of information including (a) FAS 87 recorded amounts, (b) defined benefit plan funding amounts, and (c) amounts included in utility revenue requirements and thus presumptively funded by ratepayers, is needed in order to make such an evaluation for ratemaking purposes. Although such information has been requested in this docket[13/], such information contains interpretations, is incomplete, and does not appear to be sufficiently reliable to make conclusions. Consequently, the detailed fact-specific analysis would need to be conducted in each utility's subsequent rate case that includes a utility request for a pension asset.

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13/ *See*, *e.g.*, OPUC Staff DR No. 23 to Avista, OPUC Staff DR No. 24 to Cascade Natural Gas, OPUC Staff DR No. 23 to NW Natural, OPUC Staff DR No. 28 to PacifiCorp, and OPUC Staff DR No. 23 to Portland General Electric.

Because the focus of prior rate case pension cost review has apparently been focused on O&M expenses (i.e., on income statement impacts), there are concerns that the prudence of utility management's discretionary funding of defined benefit pension plans has generally not been reviewed rigorously for prudence in prior rate cases. If balance sheet impacts (e.g., pension assets or pension liabilities) are going to be considered for future potential rate base treatment, the pension funding decisions, the source of such funding, and the prudence and economic consequences of such funding, will become much more important considerations to be evaluated in future utility rate cases that include a request by a utility for rate base treatment of pension related costs.

If utility pension assets or pension liabilities are to be considered for rate base treatment in future rate cases, rather than continuing the income statement-focused approach that has apparently been applied in Oregon since FAS 87 began to be utilized, an analytical framework should be established that would require the utility to prove a number of elements, including but not necessarily limited to the following:

- that the amounts for pension assets it is requesting be included in rate base have actually been funded by investors;
- that the utility has appropriately identified the sources of funding for any claimed pension asset;
- that the decisions by utility management concerning the funding of the utility's defined benefit pension plan have been prudent and result in the least-cost results;
- that utility management has taken reasonable and appropriate measures to control the defined benefit pension costs that it is seeking be recovered from ratepayers; and
- that appropriate corresponding adjustments to pension expense have been reflected.

Unless the utility can sufficiently prove these elements in its subsequent rate case, the utility's request for rate base recognition of a pension asset should be presumptively rejected.

FAS 88 costs or gains related to utility settlements or curtailments of defined benefit pension plans should be evaluated in future rate cases based on the particular facts and circumstances of each utility. Amortization of a cost or gain that has been recorded by a utility pursuant to FAS 88 may be appropriate in a future utility rate case subject to normal safeguards and ratemaking considerations such as whether the curtailment or settlement was prudent, whether the amount of cost or gain recognized is reflective of normal experience and, if not, what alternative normalized amount should be reflected in rates.

**Q. Does this conclude your direct testimony?**

A. Yes.

**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

**UM 1633**

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

**EXHIBIT NWIGU-ICNU/101**

**QUALIFICATION STATEMENT OF RALPH C. SMITH**

**December 19, 2013**

# QUALIFICATION STATEMENT OF RALPH C. SMITH

## Accomplishments

Mr. Smith's professional credentials include being a Certified Financial Planner™ professional, a Certified Rate of Return Analyst, a licensed Certified Public Accountant and attorney. He functions as project manager on consulting projects involving utility regulation, regulatory policy and ratemaking and utility management. His involvement in public utility regulation has included project management and in-depth analyses of numerous issues involving telephone, electric, gas, and water and sewer utilities.

Mr. Smith has performed work in the field of utility regulation on behalf of industry, public service commission staffs, state attorney generals, municipalities, and consumer groups concerning regulatory matters before regulatory agencies in Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New Mexico, New York, Nevada, North Carolina, North Dakota, Ohio, Pennsylvania, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, Washington, Washington DC, West Virginia, Canada, Federal Energy Regulatory Commission and various state and federal courts of law. He has presented expert testimony in regulatory hearings on behalf of utility commission staffs and intervenors on several occasions.

Project manager in Larkin & Associates' review, on behalf of the Georgia Commission Staff, of the budget and planning activities of Georgia Power Company; supervised 13 professionals; coordinated over 200 interviews with Company budget center managers and executives; organized and edited voluminous audit report; presented testimony before the Commission. Functional areas covered included fossil plant O&M, headquarters and district operations, internal audit, legal, affiliated transactions, and responsibility reporting. All of our findings and recommendations were accepted by the Commission.

Key team member in the firm's management audit of the Anchorage Water and Wastewater Utility on behalf of the Alaska Commission Staff, which assessed the effectiveness of the Utility's operations in several areas; responsible for in-depth investigation and report writing in areas involving information systems, finance and accounting, affiliated relationships and transactions, and use of outside contractors. Testified before the Alaska Commission concerning certain areas of the audit report. AWWU concurred with each of Mr. Smith's 40 plus recommendations for improvement.

Co-consultant in the analysis of the issues surrounding gas transportation performed for the law firm of Cravath, Swaine & Moore in conjunction with the case of Reynolds Metals Co. vs. the Columbia Gas System, Inc.; drafted in-depth report concerning the regulatory treatment at both state and federal levels of issues such as flexible pricing and mandatory gas transportation.

Lead consultant and expert witness in the analysis of the rate increase request of the City of Austin - Electric Utility on behalf of the residential consumers. Among the numerous ratemaking issues addressed were the economies of the Utility's employment of outside services; provided both written and oral testimony outlining recommendations and their bases. Most of Mr. Smith's recommendations were adopted by the City Council and Utility in a settlement.

Key team member performing an analysis of the rate stabilization plan submitted by the Southern Bell Telephone & Telegraph Company to the Florida PSC; performed comprehensive analysis of the Company's projections and budgets which were used as the basis for establishing rates.

Lead consultant in analyzing Southwestern Bell Telephone separations in Missouri; sponsored the complex technical analysis and calculations upon which the firm's testimony in that case was based. He has also assisted in analyzing changes in depreciation methodology for setting telephone rates.

Lead consultant in the review of gas cost recovery reconciliation applications of Michigan Gas Utilities Company, Michigan Consolidated Gas Company, and Consumers Power Company. Drafted recommendations regarding the appropriate rate of interest to be applied to any over or under collections and the proper procedures and allocation methodology to be used to distribute any refunds to customer classes.

Lead consultant in the review of Consumers Power Company's gas cost recovery refund plan. Addressed appropriate interest rate and compounding procedures and proper allocation methodology.

Project manager in the review of the request by Central Maine Power Company for an increase in rates. The major area addressed was the propriety of the Company's ratemaking attrition adjustment in relation to its corporate budgets and projections.

Project manager in an engagement designed to address the impacts of the Tax Reform Act of 1986 on gas distribution utility operations of the Northern States Power Company. Analyzed the reduction in the corporate tax rate, uncollectibles reserve, ACRS, unbilled revenues, customer advances, CIAC, and timing of TRA-related impacts associated with the Company's tax liability.

Project manager and expert witness in the determination of the impacts of the Tax Reform Act of 1986 on the operations of Connecticut Natural Gas Company on behalf of the Connecticut Department of Public Utility Control - Prosecutorial Division, Connecticut Attorney General, and Connecticut Department of Consumer Counsel.

Lead Consultant for The Minnesota Department of Public Service ("DPS") to review the Minnesota Incentive Plan ("Incentive Plan") proposal presented by Northwestern Bell Telephone Company ("NWB") doing business as U S West Communications ("USWC"). Objective was to express an opinion as to whether current rates addressed by the plan were appropriate from a Minnesota intrastate revenue requirements and accounting perspective, and to assist in developing recommended modifications to NWB's proposed Plan.

Performed a variety of analytical and review tasks related to our work effort on this project. Obtained and reviewed data and performed other procedures as necessary (1) to obtain an understanding of the Company's Incentive Plan filing package as it relates to rate base, operating income, revenue requirements, and plan operation, and (2) to formulate an opinion concerning the reasonableness of current rates and of amounts included within the Company's Incentive Plan filing. These procedures included requesting and reviewing extensive discovery, visiting the Company's offices to review data, issuing follow-up information requests in many instances, telephone and on-site discussions with Company representatives, and frequent discussions with counsel and DPS Staff assigned to the project.

Lead Consultant in the regulatory analysis of Jersey Central Power & Light Company for the Department of the Public Advocate, Division of Rate Counsel. Tasks performed included on-site review and audit of Company, identification and analysis of specific issues, preparation of data requests, testimony, and cross examination questions. Testified in Hearings.

Assisted the NARUC Committee on Management Analysis with drafting the Consultant Standards for Management Audits.

Presented training seminars covering public utility accounting, tax reform, ratemaking, affiliated transaction auditing, rate case management, and regulatory policy in Maine, Georgia, Kentucky, and Pennsylvania. Seminars were presented to commission staffs and consumer interest groups.

## Previous Positions

With Larkin, Chapski and Co., the predecessor firm to Larkin & Associates, was involved primarily in utility regulatory consulting, and also in tax planning and tax research for businesses and individuals, tax return preparation and review, and independent audit, review and preparation of financial statements.

Installed computerized accounting system for a realty management firm.

### Education

Bachelor of Science in Administration in Accounting, with distinction, University of Michigan, Dearborn, 1979.

Master of Science in Taxation, Walsh College, Michigan, 1981. Master's thesis dealt with investment tax credit and property tax on various assets.

Juris Doctor, cum laude, Wayne State University Law School, Detroit, Michigan, 1986. Recipient of American Jurisprudence Award for academic excellence.

Continuing education required to maintain CPA license and CFP® certificate.

Passed all parts of CPA examination in first sitting, 1979. Received CPA certificate in 1981 and Certified Financial Planning certificate in 1983. Admitted to Michigan and Federal bars in 1986.

Michigan Bar Association.

American Bar Association, sections on public utility law and taxation.

Partial list of utility cases participated in:

| | |
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| 79-228-EL-FAC | Cincinnati Gas & Electric Company (Ohio PUC) |
| 79-231-EL-FAC | Cleveland Electric Illuminating Company (Ohio PUC) |
| 79-535-EL-AIR | East Ohio Gas Company (Ohio PUC) |
| 80-235-EL-FAC | Ohio Edison Company (Ohio PUC) |
| 80-240-EL-FAC | Cleveland Electric Illuminating Company (Ohio PUC) |
| U-1933* | Tucson Electric Power Company (Arizona Corp. Commission) |
| U-6794 | Michigan Consolidated Gas Co. --16 Refunds (Michigan PSC) |
| 81-0035TP | Southern Bell Telephone Company (Florida PSC) |
| 81-0095TP | General Telephone Company of Florida (Florida PSC) |
| 81-308-EL-EFC | Dayton Power & Light Co.- Fuel Adjustment Clause (Ohio PUC) |
| 810136-EU | Gulf Power Company (Florida PSC) |
| GR-81-342 | Northern States Power Co. -- E-002/Minnesota (Minnesota PUC) |
| Tr-81-208 | Southwestern Bell Telephone Company (Missouri PSC)) |
| U-6949 | Detroit Edison Company (Michigan PSC) |
| 8400 | East Kentucky Power Cooperative, Inc. (Kentucky PSC) |
| 18328 | Alabama Gas Corporation (Alabama PSC) |
| 18416 | Alabama Power Company (Alabama PSC) |
| 820100-EU | Florida Power Corporation (Florida PSC) |
| 8624 | Kentucky Utilities (Kentucky PSC) |
| 8648 | East Kentucky Power Cooperative, Inc. (Kentucky PSC) |
| U-7236 | Detroit Edison - Burlington Northern Refund (Michigan PSC) |
| U6633-R | Detroit Edison - MRCS Program (Michigan PSC) |
| U-6797-R | Consumers Power Company -MRCS Program (Michigan PSC) |
| U-5510-R | Consumers Power Company - Energy conservation Finance Program (Michigan PSC) |
| 82-240E | South Carolina Electric & Gas Company (South Carolina PSC) |
| 7350 | Generic Working Capital Hearing (Michigan PSC) |
| RH-1-83 | Westcoast Transmission Co., (National Energy Board of Canada) |
| 820294-TP | Southern Bell Telephone & Telegraph Co. (Florida PSC) |
| 82-165-EL-EFC (Subfile A) | Toledo Edison Company(Ohio PUC) |
| 82-168-EL-EFC | Cleveland Electric Illuminating Company (Ohio PUC) |
| 830012-EU | Tampa Electric Company (Florida PSC) |
| U-7065 | The Detroit Edison Company - Fermi II (Michigan PSC) |
| 8738 | Columbia Gas of Kentucky, Inc. (Kentucky PSC) |
| ER-83-206 | Arkansas Power & Light Company (Missouri PSC) |
| U-4758 | The Detroit Edison Company – Refunds (Michigan PSC) |
| 8836 | Kentucky American Water Company (Kentucky PSC) |
| 8839 | Western Kentucky Gas Company (Kentucky PSC) |
| 83-07-15 | Connecticut Light & Power Co. (Connecticut DPU) |
| 81-0485-WS | Palm Coast Utility Corporation (Florida PSC) |
| U-7650 | Consumers Power Co. (Michigan PSC) |
| 83-662 | Continental Telephone Company of California, (Nevada PSC) |
| U-6488-R | Detroit Edison Co., FAC & PIPAC Reconciliation (Michigan PSC) |
| U-15684 | Louisiana Power & Light Company (Louisiana PSC) |
| 7395 & U-7397 | Campaign Ballot Proposals (Michigan PSC) |
| 820013-WS | Seacoast Utilities (Florida PSC) |
| U-7660 | Detroit Edison Company (Michigan PSC) |
| 83-1039 | CP National Corporation (Nevada PSC) |
| U-7802 | Michigan Gas Utilities Company (Michigan PSC) |
| 83-1226 | Sierra Pacific Power Company (Nevada PSC) |
| 830465-EI | Florida Power & Light Company (Florida PSC) |
| U-7777 | Michigan Consolidated Gas Company (Michigan PSC) |

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| U-7779 | Consumers Power Company (Michigan PSC) |
| U-7480-R | Michigan Consolidated Gas Company (Michigan PSC) |
| U-7488-R | Consumers Power Company – Gas (Michigan PSC) |
| U-7484-R | Michigan Gas Utilities Company (Michigan PSC) |
| U-7550-R | Detroit Edison Company (Michigan PSC) |
| U-7477-R** | Indiana & Michigan Electric Company (Michigan PSC) |
| 18978 | Continental Telephone Co. of the South Alabama (Alabama PSC) |
| R-842583 | Duquesne Light Company (Pennsylvania PUC) |
| R-842740 | Pennsylvania Power Company (Pennsylvania PUC) |
| 850050-EI | Tampa Electric Company (Florida PSC) |
| 16091 | Louisiana Power & Light Company (Louisiana PSC) |
| 19297 | Continental Telephone Co. of the South Alabama (Alabama PSC) |
| 76-18788AA &76-18793AA | Detroit Edison - Refund - Appeal of U-4807 (Ingham County, Michigan Circuit Court) |
| 85-53476AA & 85-534785AA | Detroit Edison Refund - Appeal of U-4758 (Ingham County, Michigan Circuit Court) |
| U-8091/U-8239 | Consumers Power Company - Gas Refunds (Michigan PSC) |
| TR-85-179** | United Telephone Company of Missouri (Missouri PSC) |
| 85-212 | Central Maine Power Company (Maine PSC) |
| ER-85646001 & ER-85647001 | New England Power Company (FERC) |
| 850782-EI & 850783-EI | Florida Power & Light Company (Florida PSC) |
| R-860378 | Duquesne Light Company (Pennsylvania PUC) |
| R-850267 | Pennsylvania Power Company (Pennsylvania PUC) |
| 851007-WU & 840419-SU | Florida Cities Water Company (Florida PSC) |
| G-002/GR-86-160 | Northern States Power Company (Minnesota PSC) |
| 7195 (Interim) | Gulf States Utilities Company (Texas PUC) |
| 87-01-03 | Connecticut Natural Gas Company (Connecticut PUC)) |
| 87-01-02 | Southern New England Telephone Company (Connecticut Department of Public Utility Control) |
| 3673- | Georgia Power Company (Georgia PSC) |
| 29484 | Long Island Lighting Co. (New York Dept. of Public Service) |
| U-8924 | Consumers Power Company – Gas (Michigan PSC) |
| Docket No. 1 | Austin Electric Utility (City of Austin, Texas) |
| Docket E-2, Sub 527 | Carolina Power & Light Company (North Carolina PUC) |
| 870853 | Pennsylvania Gas and Water Company (Pennsylvania PUC) |
| 880069** | Southern Bell Telephone Company (Florida PSC) |
| U-1954-88-102 T E-1032-88-102 | Citizens Utilities Rural Company, Inc. & Citizens Utilities Company, Kingman Telephone Division (Arizona CC) |
| 89-0033 | Illinois Bell Telephone Company (Illinois CC) |
| U-89-2688-T | Puget Sound Power & Light Company (Washington UTC)) |
| R-891364 | Philadelphia Electric Company (Pennsylvania PUC) |
| F.C. 889 | Potomac Electric Power Company (District of Columbia PSC) |
| Case No. 88/546* | Niagara Mohawk Power Corporation, et al Plaintiffs, v. Gulf+Western, Inc. et al, defendants (Supreme Court County of Onondaga, State of New York) |
| 87-11628* | Duquesne Light Company, et al, plaintiffs, against Gulf+ Western, Inc. et al, defendants (Court of the Common Pleas of Allegheny County, Pennsylvania Civil Division) |
| 890319-EI | Florida Power & Light Company (Florida PSC) |
| 891345-EI | Gulf Power Company (Florida PSC) |

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| ER 8811 0912J | Jersey Central Power & Light Company (BPU) |
| 6531 | Hawaiian Electric Company (Hawaii PUCs) |
| R0901595 | Equitable Gas Company (Pennsylvania Consumer Counsel) |
| 90-10 | Artesian Water Company (Delaware PSC) |
| 89-12-05 | Southern New England Telephone Company (Connecticut PUC) |
| 900329-WS | Southern States Utilities, Inc. (Florida PSC) |
| 90-12-018 | Southern California Edison Company (California PUC) |
| 90-E-1185 | Long Island Lighting Company (New York DPS) |
| R-911966 | Pennsylvania Gas & Water Company (Pennsylvania PUC) |
| I.90-07-037, Phase II | (Investigation of OPEBs) Department of the Navy and all Other Federal Executive Agencies (California PUC) |
| U-1551-90-322 | Southwest Gas Corporation (Arizona CC) |
| U-1656-91-134 | Sun City Water Company (Arizona RUCO) |
| U-2013-91-133 | Havasu Water Company (Arizona RUCO) |
| 91-174*** | Central Maine Power Company (Department of the Navy and all Other Federal Executive Agencies) |
| U-1551-89-102 & U-1551-89-103 | Southwest Gas Corporation - Rebuttal and PGA Audit (Arizona Corporation Commission) |
| Docket No. 6998 | Hawaiian Electric Company (Hawaii PUC) |
| TC-91-040A and TC-91-040B | Intrastate Access Charge Methodology, Pool and Rates Local Exchange Carriers Association and South Dakota Independent Telephone Coalition |
| 9911030-WS & 911-67-WS | General Development Utilities - Port Malabar and West Coast Divisions (Florida PSC) |
| 922180 | The Peoples Natural Gas Company (Pennsylvania PUC) |
| 7233 and 7243 | Hawaiian Nonpension Postretirement Benefits (Hawaiian PUC) |
| R-00922314 & M-920313C006 | Metropolitan Edison Company (Pennsylvania PUC) |
| R00922428 | Pennsylvania American Water Company (Pennsylvania PUC) |
| E-1032-92-083 & U-1656-92-183 | Citizens Utilities Company, Agua Fria Water Division (Arizona Corporation Commission) |
| 92-09-19 | Southern New England Telephone Company (Connecticut PUC) |
| E-1032-92-073 | Citizens Utilities Company (Electric Division), (Arizona CC) |
| UE-92-1262 | Puget Sound Power and Light Company (Washington UTC)) |
| 92-345 | Central Maine Power Company (Maine PUC) |
| R-932667 | Pennsylvania Gas & Water Company (Pennsylvania PUC) |
| U-93-60** | Matanuska Telephone Association, Inc. (Alaska PUC) |
| U-93-50** | Anchorage Telephone Utility (Alaska PUC) |
| U-93-64 | PTI Communications (Alaska PUC) |
| 7700 | Hawaiian Electric Company, Inc. (Hawaii PUC) |
| E-1032-93-111 & U-1032-93-193 | Citizens Utilities Company - Gas Division (Arizona Corporation Commission) |
| R-00932670 | Pennsylvania American Water Company (Pennsylvania PUC) |
| U-1514-93-169/ E-1032-93-169 | Sale of Assets CC&N from Contel of the West, Inc. to Citizens Utilities Company (Arizona Corporation Commission) |
| 7766 | Hawaiian Electric Company, Inc. (Hawaii PUC) |
| 93-2006- GA-AIR* | The East Ohio Gas Company (Ohio PUC) |
| 94-E-0334 | Consolidated Edison Company (New York DPS) |
| 94-0270 | Inter-State Water Company (Illinois Commerce Commission) |
| 94-0097 | Citizens Utilities Company, Kauai Electric Division (Hawaii PUC) |
| PU-314-94-688 | Application for Transfer of Local Exchanges (North Dakota PSC) |
| 94-12-005-Phase I | Pacific Gas & Electric Company (California PUC) |
| R-953297 | UGI Utilities, Inc. - Gas Division (Pennsylvania PUC) |
| 95-03-01 | Southern New England Telephone Company (Connecticut PUC) |

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| 95-0342 | Consumer Illinois Water, Kankakee Water District (Illinois CC) |
| 94-996-EL-AIR | Ohio Power Company (Ohio PUC) |
| 95-1000-E | South Carolina Electric & Gas Company (South Carolina PSC) |
| Non-Docketed Staff Investigation | Citizens Utility Company - Arizona Telephone Operations (Arizona Corporation Commission) |
| E-1032-95-473 | Citizens Utility Co. - Northern Arizona Gas Division (Arizona CC) |
| E-1032-95-433 | Citizens Utility Co. - Arizona Electric Division (Arizona CC) |
| | Collaborative Ratemaking Process Columbia Gas of Pennsylvania (Pennsylvania PUC) |
| GR-96-285 | Missouri Gas Energy (Missouri PSC) |
| 94-10-45 | Southern New England Telephone Company (Connecticut PUC) |
| A.96-08-001 et al. | California Utilities' Applications to Identify Sunk Costs of Non-Nuclear Generation Assets, & Transition Costs for Electric Utility Restructuring, & Consolidated Proceedings (California PUC) |
| 96-324 | Bell Atlantic - Delaware, Inc. (Delaware PSC) |
| 96-08-070, et al. | Pacific Gas & Electric Co., Southern California Edison Co. and San Diego Gas & Electric Company (California PUC) |
| 97-05-12 | Connecticut Light & Power (Connecticut PUC) |
| R-00973953 | Application of PECO Energy Company for Approval of its Restructuring Plan Under Section 2806 of the Public Utility Code (Pennsylvania PUC) |
| 97-65 | Application of Delmarva Power &Light Co. for Application of a Cost Accounting Manual and a Code of Conduct (Delaware PSC) |
| 16705 | Entergy Gulf States, Inc. (Cities Steering Committee) |
| E-1072-97-067 | Southwestern Telephone Co. (Arizona Corporation Commission) |
| Non-Docketed Staff Investigation | Delaware - Estimate Impact of Universal Services Issues (Delaware PSC) |
| PU-314-97-12 | US West Communications, Inc. Cost Studies (North Dakota PSC) |
| 97-0351 | Consumer Illinois Water Company (Illinois CC) |
| 97-8001 | Investigation of Issues to be Considered as a Result of Restructuring of Electric Industry (Nevada PSC) |
| U-0000-94-165 | Generic Docket to Consider Competition in the Provision of Retail Electric Service (Arizona Corporation Commission) |
| 98-05-006-Phase I | San Diego Gas & Electric Co., Section 386 costs (California PUC) |
| 9355-U | Georgia Power Company Rate Case (Georgia PUC) |
| 97-12-020 - Phase I | Pacific Gas & Electric Company (California PUC) |
| U-98-56, U-98-60, U-98-65, U-98-67 | Investigation of 1998 Intrastate Access charge filings (Alaska PUC) |
| (U-99-66, U-99-65, U-99-56, U-99-52) | Investigation of 1999 Intrastate Access Charge filing (Alaska PUC) |
| Phase II of 97-SCCC-149-GIT | Southwestern Bell Telephone Company Cost Studies (Kansas CC) |
| PU-314-97-465 | US West Universal Service Cost Model (North Dakota PSC) |
| Non-docketed Assistance | Bell Atlantic - Delaware, Inc., Review of New Telecomm. and Tariff Filings (Delaware PSC) |
| Contract Dispute | City of Zeeland, MI - Water Contract with the City of Holland, MI (Before an arbitration panel) |
| Non-docketed Project | City of Danville, IL - Valuation of Water System (Danville, IL) |
| Non-docketed Project | Village of University Park, IL - Valuation of Water and Sewer System (Village of University Park, Illinois) |

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| E-1032-95-417 | Citizens Utility Co., Maricopa Water/Wastewater Companies et al. (Arizona Corporation Commission) |
| T-1051B-99-0497 | Proposed Merger of the Parent Corporation of Qwest Communications Corporation, LCI International Telecom Corp., and US West Communications, Inc. (Arizona CC) |
| T-01051B-99-0105 | US West Communications, Inc. Rate Case (Arizona CC) |
| A00-07-043 | Pacific Gas & Electric - 2001 Attrition (California PUC) |
| T-01051B-99-0499 | US West/Quest Broadband Asset Transfer (Arizona CC) |
| 99-419/420 | US West, Inc. Toll and Access Rebalancing (North Dakota PSC) |
| PU314-99-119 | US West, Inc. Residential Rate Increase and Cost Study Review (North Dakota PSC |
| 98-0252 | Ameritech - Illinois, Review of Alternative Regulation Plan (Illinois CUB) |
| 00-108 | Delmarva Billing System Investigation (Delaware PSC) |
| U-00-28 | Matanuska Telephone Association (Alaska PUC) |
| Non-Docketed | Management Audit and Market Power Mitigation Analysis of the Merged Gas System Operation of Pacific Enterprises and Enova Corporation (California PUC) |
| 00-11-038 | Southern California Edison (California PUC) |
| 00-11-056 | Pacific Gas & Electric (California PUC) |
| 00-10-028 | The Utility Reform Network for Modification of Resolution E-3527 (California PUC) |
| 98-479 | Delmarva Power & Light Application for Approval of its Electric and Fuel Adjustments Costs (Delaware PSC) |
| 99-457 | Delaware Electric Cooperative Restructuring Filing (Delaware PSC) |
| 99-582 | Delmarva Power & Light dba Conectiv Power Delivery Analysis of Code of Conduct and Cost Accounting Manual (Delaware PSC) |
| 99-03-04 | United Illuminating Company Recovery of Stranded Costs (Connecticut OCC) |
| 99-03-36 | Connecticut Light & Power (Connecticut OCC) |
| Civil Action No. 98-1117 | West Penn Power Company vs. PA PUC (Pennsylvania PSC) |
| Case No. 12604 | Upper Peninsula Power Company (Michigan AG) |
| Case No. 12613 | Wisconsin Public Service Commission (Michigan AG) |
| 41651 | Northern Indiana Public Service Co Overearnings investigation (Indiana UCC) |
| 13605-U | Savannah Electric & Power Company – FCR (Georgia PSC) |
| 14000-U | Georgia Power Company Rate Case/M&S Review (Georgia PSC) |
| 13196-U | Savannah Electric & Power Company Natural Gas Procurement and Risk Management/Hedging Proposal, Docket No. 13196-U (Georgia PSC) |
| Non-Docketed | Georgia Power Company & Savannah Electric & Power FPR Company Fuel Procurement Audit (Georgia PSC) |
| Non-Docketed | Transition Costs of Nevada Vertically Integrated Utilities (US Department of Navy) |
| Application No. 99-01-016, Phase I | Post-Transition Ratemaking Mechanisms for the Electric Industry Restructuring (US Department of Navy) |
| 99-02-05 | Connecticut Light & Power (Connecticut OCC) |
| 01-05-19-RE03 | Yankee Gas Service Application for a Rate Increase, Phase I-2002-IERM (Connecticut OCC) |
| G-01551A-00-0309 | Southwest Gas Corporation, Application to amend its rate Schedules (Arizona CC) |
| 00-07-043 | Pacific Gas & Electric Company Attrition & Application for a rate increase (California PUC) |

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| 97-12-020<br>Phase II | Pacific Gas & Electric Company Rate Case (California PUC) |
| 01-10-10 | United Illuminating Company (Connecticut OCC) |
| 13711-U | Georgia Power FCR (Georgia PSC) |
| 02-001 | Verizon Delaware § 271(Delaware DPA) |
| 02-BLVT-377-AUD | Blue Valley Telephone Company Audit/General Rate Investigation (Kansas CC) |
| 02-S&TT-390-AUD | S&T Telephone Cooperative Audit/General Rate Investigation (Kansas CC) |
| 01-SFLT-879-AUD | Sunflower Telephone Company Inc., Audit/General Rate Investigation (Kansas CC) |
| 01-BSTT-878-AUD | Bluestem Telephone Company, Inc. Audit/General Rate Investigation (Kansas CC) |
| P404, 407, 520, 413<br>426, 427, 430, 421/<br>CI-00-712 | Sherburne County Rural Telephone Company, dba as Connections, Etc. (Minnesota DOC) |
| U-01-85 | ACS of Alaska, dba as Alaska Communications Systems (ACS), Rate Case (Alaska Regulatory Commission PAS) |
| U-01-34 | ACS of Anchorage, dba as Alaska Communications Systems (ACS), Rate Case (Alaska Regulatory Commission PAS) |
| U-01-83 | ACS of Fairbanks, dba as Alaska Communications Systems (ACS), Rate Case (Alaska Regulatory Commission PAS) |
| U-01-87 | ACS of the Northland, dba as Alaska Communications Systems (ACS), Rate Case (Alaska Regulatory Commission PAS) |
| 96-324, Phase II | Verizon Delaware, Inc. UNE Rate Filing (Delaware PSC) |
| 03-WHST-503-AUD | Wheat State Telephone Company (Kansas CC) |
| 04-GNBT-130-AUD | Golden Belt Telephone Association (Kansas CC) |
| Docket 6914 | Shoreham Telephone Company, Inc. (Vermont BPU) |
| Docket No.<br>E-01345A-06-009 | Arizona Public Service Company (Arizona Corporation Commission) |
| Case No.<br>05-1278-E-PC-PW-42T | Appalachian Power Company and Wheeling Power Company both d/b/a American Electric Power (West Virginia PSC) |
| Docket No. 04-0113 | Hawaiian Electric Company (Hawaii PUC) |
| Case No. U-14347 | Consumers Energy Company (Michigan PSC) |
| Case No. 05-725-EL-UNC | Cincinnati Gas & Electric Company (PUC of Ohio) |
| Docket No. 21229-U | Savannah Electric & Power Company (Georgia PSC) |
| Docket No. 19142-U | Georgia Power Company (Georgia PSC) |
| Docket No.<br>03-07-01RE01 | Connecticut Light & Power Company (CT DPUC) |
| Docket No. 19042-U | Savannah Electric & Power Company (Georgia PSC) |
| Docket No. 2004-178-E | South Carolina Electric & Gas Company (South Carolina PSC) |
| Docket No. 03-07-02 | Connecticut Light & Power Company (CT DPUC) |
| Docket No. EX02060363,<br>Phases I&II | Rockland Electric Company (NJ BPU) |
| Docket No. U-00-88 | ENSTAR Natural Gas Company and Alaska Pipeline Company (Regulatory Commission of Alaska) |
| Phase 1-2002 IERM,<br>Docket No. U-02-075 | Interior Telephone Company, Inc. (Regulatory Commission of Alaska) |
| Docket No. 05-SCNT-<br>1048-AUD | South Central Telephone Company (Kansas CC) |
| Docket No. 05-TRCT-<br>607-KSF | Tri-County Telephone Company (Kansas CC) |
| Docket No. 05-KOKT-<br>060-AUD | Kan Okla Telephone Company (Kansas CC) |
| Docket No. 2002-747 | Northland Telephone Company of Maine (Maine PUC) |

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| Docket No. 2003-34 | Sidney Telephone Company (Maine PUC) |
| Docket No. 2003-35 | Maine Telephone Company (Maine PUC) |
| Docket No. 2003-36 | China Telephone Company (Maine PUC) |
| Docket No. 2003-37 | Standish Telephone Company (Maine PUC) |
| Docket Nos. U-04-022, U-04-023 | Anchorage Water and Wastewater Utility (Regulatory Commission of Alaska) |
| Case 05-116-U/06-055-U | Entergy Arkansas, Inc. EFC (Arkansas Public Service Commission) |
| Case 04-137-U | Southwest Power Pool RTO (Arkansas Public Service Commission) |
| Case No. 7109/7160 | Vermont Gas Systems (Department of Public Service) |
| Case No. ER-2006-0315 | Empire District Electric Company (Missouri PSC) |
| Case No. ER-2006-0314 | Kansas City Power & Light Company (Missouri PSC) |
| Docket No. U-05-043,44 | Golden Heart Utilities/College Park Utilities (Regulatory Commission of Alaska) |
| A-122250F5000 | Equitable Resources, Inc. and The Peoples Natural Gas Company, d/b/a Dominion Peoples (Pennsylvania PUC) |
| E-01345A-05-0816 | Arizona Public Service Company (Arizona CC) |
| Docket No. 05-304 | Delmarva Power & Light Company (Delaware PSC) |
| 05-806-EL-UNC | Cincinnati Gas & Electric Company (Ohio PUC) |
| U-06-45 | Anchorage Water Utility (Regulatory Commission of Alaska) |
| 03-93-EL-ATA, 06-1068-EL-UNC | Duke Energy Ohio (Ohio PUC) |
| PUE-2006-00065 | Appalachian Power Company (Virginia Corporation Commission) |
| G-04204A-06-0463 et. al | UNS Gas, Inc. (Arizona CC) |
| U-06-134 | Chugach Electric Association, Inc. (Regulatory Commission of Alaska) |
| Docket No. 2006-0386 | Hawaiian Electric Company, Inc (Hawaii PUC) |
| E-01933A-07-0402 | Tucson Electric Power Company (Arizona CC) |
| G-01551A-07-0504 | Southwest Gas Corporation (Arizona CC) |
| Docket No.UE-072300 | Puget Sound Energy, Inc. (Washington UTC) |
| PUE-2008-00009 | Virginia-American Water Company (Virginia SCC) |
| PUE-2008-00046 | Appalachian Power Company (Virginia SCC) |
| E-01345A-08-0172 | Arizona Public Service Company (Arizona CC) |
| A-2008-2063737 | Babcock & Brown Infrastructure Fund North America, LP. and The Peoples Natural Gas Company, d/b/a Dominion Peoples (Pennsylvania PUC) |
| 08-1783-G-42T | Hope Gas, Inc., dba Dominion Hope (West Virginia PSC) |
| 08-1761-G-PC | Hope Gas, Inc., dba Dominion Hope, Dominion Resources, Inc., and Peoples Hope Gas Companies (West Virginia PSC) |
| Docket No. 2008-0085 | Hawaiian Electric Company, Inc. (Hawaii PUC) |
| Docket No. 2008-0266 | Young Brothers, Limited (Hawaii PUC) |
| G-04024A-08-0571 | UNS Gas, Inc. (Arizona CC) |
| Docket No. 09-29 | Tidewater Utilities, Inc. (Delaware PSC) |
| Docket No. UE-090704 | Puget Sound Energy, Inc. (Washington UTC) |
| 09-0878-G-42T | Mountaineer Gas Company (West Virginia PSC) |
| 2009-UA-0014 | Mississippi Power Company (Mississippi PSC) |
| Docket No. 09-0319 | Illinois-American Water Company (Illinois CC) |
| Docket No. 09-414 | Delmarva Power & Light Company (Delaware PSC) |
| R-2009-2132019 | Aqua Pennsylvania, Inc. (Pennsylvania PUC) |
| Docket Nos. U-09-069, U-09-070 | ENSTAR Natural Gas Company (Regulatory Commission of Alaska) |
| Docket Nos. U-04-023, U-04-024 | Anchorage Water and Wastewater Utility - Remand (Regulatory Commission of Alaska) |
| W-01303A-09-0343 & SW-01303A-09-0343 | Arizona-American Water Company (Arizona CC) |
| 09-872-EL-FAC & 09-873-EL-FAC | Financial Audits of the FAC of the Columbus Southern Power Company and the Ohio Power Company - Audit I (Ohio PUC) |

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| 2010-00036 | Kentucky-American Water Company (Kentucky PSC) |
| E-04100A-09-0496 | Southwest Transmission Cooperative, Inc. (Arizona CC) |
| E-01773A-09-0496 | Arizona Electric Power Cooperative, Inc. (Arizona CC) |
| R-2010-2166208, R-2010-2166210, R-2010-2166212, & R-2010-2166214 | Pennsylvania-American Water Company (Pennsylvania PUC) |
| PSC Docket No. 09-0602 | Central Illinois Light Company D/B/A AmerenCILCO; Central Illinois Public Service Company D/B/A AmerenCIPS; Illinois Power Company D/B/A AmerenIP (Illinois CC) |
| 10-0713-E-PC | Allegheny Power and FirstEnergy Corp. (West Virginia PSC) |
| Docket No. 31958 | Georgia Power Company (Georgia PSC) |
| Docket No. 10-0467 | Commonwealth Edison Company (Illinois CC) |
| PSC Docket No. 10-237 | Delmarva Power & Light Company (Delaware PSC) |
| U-10-51 | Cook Inlet Natural Gas Storage Alaska, LLC (Regulatory Commission of Alaska) |
| 10-0699-E-42T | Appalachian Power Company and Wheeling Power Company (West Virginia PSC) |
| 10-0920-W-42T | West Virginia-American Water Company (West Virginia PSC) |
| A.10-07-007 | California-American Water Company (California PUC) |
| A-2010-2210326 | TWP Acquisition (Pennsylvania PUC) |
| 09-1012-EL-FAC | Financial, Management, and Performance Audit of the FAC for Dayton Power and Light – Audit 1 (Ohio PUC) |
| 10-268-EL FAC et al. | Financial Audit of the FAC of the Columbus Southern Power Company and the Ohio Power Company – Audit II (Ohio PUC) |
| Docket No. 2010-0080 | Hawaiian Electric Company, Inc. (Hawaii PUC) |
| G-01551A-10-0458 | Southwest Gas Corporation (Arizona CC) |
| 10-KCPE-415-RTS | Kansas City Power & Light Company – Remand (Kansas CC) |
| PUE-2011-00037 | Virginia Appalachian Power Company (Commonwealth of Virginia SCC) |
| R-2011-2232243 | Pennsylvania-American Water (Pennsylvania PUC) |
| U-11-100 | Power Purchase Agreement between Chugach Association, Inc. and Fire Island Wind, LLC (Regulatory Commission of Alaska) |
| A.10-12-005 | San Diego Gas & Electric Company (California PUC) |
| PSC Docket No. 11-207 | Artesian Water Company, Inc. (Delaware PSC) |
| Cause No. 44022 | Indiana-American Water Company, Inc. (Indiana Utility Regulatory Commission) |
| PSC Docket No. 10-247 | Management Audit of Tidewater Utilities, Inc. Affiliate Transactions (Delaware Public Service Commission) |
| G-04204A-11-0158 | UNS Gas, Inc. (Arizona Corporation Commission) |
| E-01345A-11-0224 | Arizona Public Service Company (Arizona CC) |
| UE-111048 & UE-11049 | Puget Sound Energy, Inc. (Washington Utilities and Transportation Commission) |
| Docket No. 11-0721 | Commonwealth Edison Company (Illinois CC) |
| 11AL-947E | Public Service Company of Colorado (Colorado PSC) |
| U-11-77 & U-11-78 | Golden Heart Utilities, Inc. and College Utilities Corporation (The Regulatory Commission of Alaska) |
| Docket No. 11-0767 | Illinois-American Water Company (Illinois CC) |
| PSC Docket No. 11-397 | Tidewater Utilities, Inc. (Delaware PSC) |
| Cause No. 44075 | Indiana Michigan Power Company (Indiana Utility Regulatory Commission) |
| Docket No. 12-0001 | Ameren Illinois Company (Illinois CC) |
| 10-2929-EL-FAC | Ohio Power Company and Columbus Southern Power Company (Ohio PUC) |
| 11-5730-EL-FAC | Financial, Management, and Performance Audit of the FAC for Dayton Power and Light – Audit 2 (Ohio PUC) |
| PSC Docket No. 11-528 | Delmarva Power & Light Company (Delaware PSC) |

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| 11-281-EL FAC et al. | Financial Audit of the FAC of the Columbus Southern Power Company and the Ohio Power Company – Audit III (Ohio PUC) |
| Cause No. 43114-IGCC-4S1 | Duke Energy Indiana, Inc. (Indiana Utility Regulatory Commission) |
| Docket No. 12-0293 | Ameren Illinois Company (Illinois CC) |
| Docket No. 12-0321 | Commonwealth Edison Company (Illinois CC) |
| 12-02019 & 12-04005 | Southwest Gas Corporation (Public Utilities Commission of Nevada) |
| Docket No. 2012-218-E | South Carolina Electric & Gas (South Carolina PSC) |
| Docket No. E-72, Sub 479 | Dominion North Carolina Power (North Carolina Utilities Commission) |
| 12-0511 & 12-0512 | North Shore Gas Company and The Peoples Gas Light and Coke Company (Illinois CC) |
| E-01933A-12-0291 | Tucson Electric Power Company (Arizona CC) |
| Case No. 9311 | Potomac Electric Power Company (Maryland PSC) |
| Cause No. 43114-IGCC-10 | Duke Energy Indiana, Inc. (Indiana Utility Regulatory Commission) |
| Docket No. 36498 | Georgia Power Company (Georgia PSC) |
| Case No. 9316 | Columbia Gas of Maryland, Inc. (Maryland PSC) |
| Docket No. 13-0192 | Ameren Illinois Company (Illinois CC) |
| 12-1649-W-42T | West Virginia-American Water Company (West Virginia PSC) |
| E-04204A-12-0504 | UNS Electric, Inc. (Arizona CC) |
| PUE-2013-00020 | Virginia and Electric Power Company (Virginia SCC) |
| R-2013-2355276 | Pennsylvania-American Water Company (Pennsylvania PUC) |
| Formal Case No. 1103 | Potomac Electric Power Company (District of Columbia PSC) |
| U-13-007 | Chugach Electrical Association, Inc. (The Regulatory Commission of Alaska) |
| 12-2881-EL-FAC | Financial, Management, and Performance Audit of the FAC for Dayton Power and Light – Audit 3 (Ohio PUC) |
| Docket No. 36989 | Georgia Power Company (Georgia PSC) |
| Cause No. 43114-IGCC-11 | Duke Energy Indiana, Inc. (Indiana Utility Regulatory Commission) |

**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

**UM 1633**

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

**EXHIBIT NWIGU-ICNU/102**

**RESPONSES TO DATA REQUESTS**

**December 19, 2013**

**INDEX**

# AVISTA CORP.
# RESPONSE TO REQUEST FOR INFORMATION

| | | | |
|---|---|---|---|
| JURISDICTION: | Oregon | DATE PREPARED: | 11/11/2013 |
| CASE NO: | UM 1633 | WITNESS: | |
| REQUESTER: | OPUC Staff | RESPONDER: | Liz Andrews |
| TYPE: | Data Request | DEPT: | State & Federal Regulation |
| REQUEST NO.: | Staff - 23 | TELEPHONE: | (509) 495-8601 |
| | | EMAIL: | liz.andrews@avistacorp.com |

**REQUEST:**
Please provide the information requested in the following table for all years from the present back through the inception of FAS 87. Note that all amounts should be Oregon-allocated and should exclude amounts related to non-utility and to SERP. Please explain assumptions and methodology used to allocate amounts to Oregon and to utility. For information requested regarding amounts included in rates, please note if a test year begins mid-year, and pro-rate amounts to reflect the implementation date of rates. Please provide the response in Excel format with cell formulae intact.

| Line No. | | 1985 | 1986 | … | 2012 |
|---|---|---|---|---|---|
| a | Contributions | | | | |
| b | Actual FAS 87 expense | | | | |
| c | Prepaid Pension Asset (Liability) Balance | | | | |
| | | | | | |
| d | FAS 87 included in rates | | | | |
| e | FAS 87 included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| f | Actual accumulated deferred tax benefit (associated with prepaid pension asset) | | | | |
| g | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates | | | | |
| h | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| i | Annual Oregon load | | | | |

**RESPONSE:**
Please see attachment Staff_DR_23-Attachment A.

Please note, for purposes of preparing the table in Attachment A as requested, the following assumptions were used to estimate Oregon's share of all amounts:
Oregon % Share based on: 96%Utility*60% O&M*8% Oregon Share

Annually a portion of the FAS 87 expense to be recorded in the current year is first directly charged between Utility and Non-Utility. The portion to be charged to the Utility is further split between amounts capitalized and expensed. Finally, the amount expensed is allocated between service and jurisdiction.

Annually, each of the splits or allocations noted above are based on the current allocation percentages appropriate for the given year, and will vary year-to-year. However, for simplistic and conservative purposes of illustrating the long-term effect (1991-forward) of FAS 87, contributions and excess contributions on a total Company, Utility and Oregon basis, the Company used consistent conservative percentages due to the variability + or - of these percentages over time.

## Avista Corporation

| Line # | DR23 Line No. | Defined Benefit Plan | (a) Cumulative prior to 1992 | (b) 1992 | (c) 1993 | (d) 1994 | (e) 1995 | (f) 1996 | (g) 1997 | (h) 1998 | (i) 1999 | (j) 2000 | (k) 2001 | (l) Actual 2002 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | |
| 2 | | $ in 000's | | | | | | | | | | | | |
| 3 | a | **Contributions** | (0.3) | - | - | - | - | - | 3.3 | - | - | 3.3 | - | 12.0 |
| 4 | a.1 | *Utility Only Contributions* | *(0.3)* | - | - | - | - | - | *3.2* | - | - | *3.2* | - | *11.5* |
| 5 | a.2 | *Oregon Share Contributions* | *(0.0)* | - | - | - | - | - | *0.3* | - | - | *0.3* | - | *0.9* |
| 6 | b | **Pension Cost (FASB 87)** | 0.9 | (0.6) | (0.1) | 1.8 | 2.0 | 2.4 | 2.2 | 1.5 | 2.4 | 0.8 | 3.8 | 9.3 |
| 7 | b.1 | *Utility Only FAS 87* | *0.9* | *(0.6)* | *(0.1)* | *1.7* | *1.9* | *2.3* | *2.1* | *1.4* | *2.3* | *0.8* | *3.6* | *8.9* |
| 8 | b.2 | *Oregon Share FAS 87* | *0.0* | *(0.0)* | *(0.0)* | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | *0.1* | *0.0* | *0.2* | *0.4* |
| 9 | (a-b) | **Annual Difference - System** | (1.2) | 0.6 | 0.1 | (1.8) | (2.0) | (2.4) | 1.1 | (1.5) | (2.4) | 2.5 | (3.8) | 2.7 |
| 10 | c | **Cumulative Difference (Prepaid Pension Asset / (Accrued Pension Liability) )** | (1.2) | (0.6) | (0.5) | (2.3) | (4.3) | (6.6) | (5.5) | (7.0) | (9.5) | (7.0) | (10.8) | (8.1) |
| 11 | c.1 | *Utility Only Prepaid Asst/Accrd Liab* | *(1.2)* | *(0.6)* | *(0.5)* | *(2.2)* | *(4.1)* | *(6.4)* | *(5.3)* | *(6.7)* | *(9.1)* | *(6.7)* | *(10.3)* | *(7.8)* |
| 12 | c.2 | *Oregon Share Prepaid Asst/Accrd Liab* | *(0.1)* | *(0.0)* | *(0.0)* | *(0.2)* | *(0.3)* | *(0.5)* | *(0.4)* | *(0.5)* | *(0.7)* | *(0.5)* | *(0.8)* | *(0.6)* |
| 13 | | | | | | | | | | | | | | |
| 14 | | **System amount used to calculate amount Included in Oregon Rates** | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 |
| 15 | * | ***Staff_DR_21* - Estimated Actual Oregon Allocated Pension Cost (FAS 87) (1)** | 0.0 | (0.0) | (0.0) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.4 |
| 16 | d | **Estimated Amount included in Oregon Rates - Oregon Share (1)** | | - | - | - | - | - | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 17 | | (1)Oregon % Share based on: 96%Utility*60% O&M*8% Oregon Share | | | | | | | (Eff 12/1/1997, based on 1996 TP) | | | | | |
| 18 | e | **FAS 87 included in rates adjusted for annual Oregon Load Growth** | The company did not track pension FAS 87 expense seperately from other amounts included in rates. Not available. | | | | | | | | | | | |
| 19 | f | **Estimated accumulated deferred tax benefit (associated with prepaid pension asset)** | (0.3) | (0.1) | (0.1) | (0.5) | (0.9) | (1.4) | (1.2) | (1.5) | (2.0) | (1.5) | (2.3) | (1.7) |
| 20 | f.1 | *Utility Only ADFIT* | *(0.2)* | *(0.1)* | *(0.1)* | *(0.5)* | *(0.9)* | *(1.3)* | *(1.1)* | *(1.4)* | *(1.9)* | *(1.4)* | *(2.2)* | *(1.6)* |
| 21 | f.2 | *Oregon Share ADFIT* | *(0.0)* | *(0.0)* | *(0.0)* | *(0.0)* | *(0.1)* | *(0.1)* | *(0.1)* | *(0.1)* | *(0.2)* | *(0.1)* | *(0.2)* | *(0.1)* |
| 22 | g | **Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 23 | h | **Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual OR load growth** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 24 | i | **Annual Oregon Load (actual, not weather normalized, includes variability/volatility of transportation schedules.** | Not Available | | 115,098,405 | 118,990,115 | 128,474,139 | 137,531,418 | 142,344,974 | 148,813,535 | 151,089,059 | 150,487,231 | 129,400,722 | 137,081,828 |
| 25 | | | | | | | | | | | | | | |

26 **Pension Expense Notes:**

27

| Line # | | System Pension Amt (FAS 87) | | | Docket# | Pension Amt (FAS 87) estimated in Rates |
|---|---|---|---|---|---|---|
| 28 | 1995 - rate change based on changes in amortization of deferrals, etc. | $ - | Estimate assumes pension expense excluded prior to 1997 | Effective 12/1/1995 | UG-121 | $ - |
| 29 | 1997 - test period: 12ME Feb 1997 earnings results | $ 2.4 | Based on 12ME 2/1997 actual test period expense | Effective - 12/1/1997 | UM-862 | $ 0.1 |
| 30 | 2003 - test period-ending 12/2002 (Actual) | $ 9.3 | Based on 2002 actual test period expense | Effective - 12/1/2003 | UG-153 | $ 0.4 |
| 31 | 2007 - test period-ending 12/2006 (Actual) | $ 12.8 | Based on 2006 actual test period expense | Effective - 4/1/2008 | UG-181 | $ 0.6 |
| 32 | 2009 - test period-ending 12/2010 (Forecast) | $ 19.3 | Based on 2010 Forecast amount | Effective - 11/1/2009 | UG-186 | $ 0.9 |
| 33 | 2010 - test period-ending 12/2011 (Forecast) | $ 23.3 | Based on 2011 Forecast amount | Effective - 3/15/2011 | UG-201 | $ 1.0 |

34

35 The Company's Oregon properties were acquired in 1991 from a company known at that time as CP National. Effective with its official date of operation in 1991, the Company (then Water Power Natural Gas or WPNG) was authorized to implement a general rate reduction of 0.5%. A four and one half-year rate freeze period followed until a second general rate reduction of 2.94% was implemented effective December 1, 1995. In 1997, pursuant to Order No. 97-395, the Company implemented another general rate reduction of 2.1% on December 1, 1997. Since that time, the Company has had 3 base rate increases effective: December 1, 2003, April 1, 2008, November 1, 2009 and March 15, 2011.

| (m) | (n) | (o) | (p) | (q) | (r) | (s) | (t) | (u) | (v) | (w) | (x) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | *Cumulative* |
| 12.0 | 15.0 | 15.0 | 15.0 | 15.0 | 28.0 | 48.0 | 21.0 | 26.0 | 44.0 | 44.0 | 301.3 |
| *11.5* | *14.4* | *14.4* | *14.4* | *14.4* | *26.9* | *46.1* | *20.2* | *25.0* | *42.2* | *42.2* | *289.3* |
| *0.9* | *1.2* | *1.2* | *1.2* | *1.2* | *2.2* | *3.7* | *1.6* | *2.0* | *3.4* | *3.4* | *23.1* |
| 14.9 | 13.6 | 11.9 | 12.8 | 12.3 | 12.0 | 24.0 | 19.3 | 21.4 | 25.8 | 26.5 | 220.9 |
| *14.3* | *13.1* | *11.4* | *12.3* | *11.8* | *11.5* | *23.1* | *18.5* | *20.5* | *24.8* | *25.4* | *212.1* |
| *0.7* | *0.6* | *0.5* | *0.6* | *0.6* | *0.6* | *1.1* | *0.9* | *1.0* | *1.2* | *1.2* | *10.2* |
| (2.9) | 1.4 | 3.1 | 2.2 | 2.7 | 16.0 | 24.0 | 1.7 | 4.6 | 18.2 | 17.5 | 80.4 |
| (11.0) | (9.6) | (6.5) | (4.3) | (1.6) | 14.4 | 38.4 | 40.1 | 44.7 | 62.9 | 80.4 | 80.4 |
| *(10.6)* | *(9.2)* | *(6.2)* | *(4.1)* | *(1.6)* | *13.9* | *36.9* | *38.5* | *42.9* | *60.4* | *77.2* | *77.2* |
| *(0.8)* | *(0.7)* | *(0.5)* | *(0.3)* | *(0.1)* | *1.1* | *3.0* | *3.1* | *3.4* | *4.8* | *6.2* | *6.2* |
| 2.9 | 9.3 | 9.3 | 9.3 | 9.3 | 12.0 | 14.1 | 20.5 | 22.7 | 23.3 | 23.3 | *167.9* |
| 0.7 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 1.1 | 0.9 | 1.0 | 1.2 | 1.2 | 10.2 |
| 0.1 | 0.4 | 0.4 | 0.4 | 0.4 | 0.6 | 0.7 | 0.9 | 1.0 | 1.1 | 1.1 | 7.7 |
| | (Eff 12/1/2003, 2002 TP) | | | (Eff 4/1/2008, 2006 TP) | | (Eff: 11/1/2009, 2010 FTP) | | | Eff: 3/15/2011, 2011 FTP) | | 2.4 |
| | | | | | | | | | | | (Net estimated under recovery of FAS 87 due to rate lag) |
| (2.3) | (2.0) | (1.4) | (0.9) | (0.3) | 3.0 | 8.1 | 8.4 | 9.4 | 13.2 | 16.9 | 16.9 |
| *(2.2)* | *(1.9)* | *(1.3)* | *(0.9)* | *(0.3)* | *2.9* | *7.7* | *8.1* | *9.0* | *12.7* | *16.2* | *16.2* |
| *(0.2)* | *(0.2)* | *(0.1)* | *(0.1)* | *(0.0)* | *0.2* | *0.6* | *0.6* | *0.7* | *1.0* | *1.3* | *1.3* |
| 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 |
| 130,689,663 | 134,834,305 | 135,824,545 | 125,019,406 | 119,109,996 | 118,337,977 | 111,402,154 | 112,054,015 | 118,473,384 | 116,540,749 | 115,638,606* | N/A |

*Forecasted, weather normalized-6mo Actual/6mo Forecasted)

| OR Recap: Collections versus Actual FAS 87 and Prepaid Pension Asset | Totals | System (Based on OR Rate Activity) | Approx. Utility Portion % | Approx. O&M Exp % | Approx OR % Share | |
|---|---|---|---|---|---|---|
| | | | 96% | 60% | 8% | |
| Collections from Customers (OR LTD) | $ 167.9 | $ 161.2 | $ 96.7 | $ 7.7 | | OR Customer Collections (Excludes portion capitalized) |
| Actual FAS 87 Expense LTD | $ 220.9 | $ 212.1 | $ 127.2 | $ 10.2 | | OR share of FAS 87 expense (excludes portion capitalized) |
| Net difference b/w FAS 87 & customer collections | | | | $ (2.4) | | Regulatory lag (undercollected) |
| Contributions | $ 301.3 | $ 289.3 | | $ 23.1 | | OR share of contributions |
| Contributions in excess of Total FAS 87 Exp (Prepaid Pension Asset) | $ 80.4 | $ 77.2 | | $ 6.2 | | OR Share of Prepaid Pension Asset @ 8% (current OR share) prior to DFIT |

Although the Company believes the average Oregon allocated share is closer to 8% and is more representative of the historical Oregon basis of the prepaid pension asset over time, to be conservative the Company used the Oregon allocated percentage for 2012 of approximately 7.4% equal to the percentage of FAS 87 pension expense recorded to Oregon in 2012. However, although the actual Utility percentage for calendar year 2012 was 98.35% (Non-Utility 1.65%), to be conservative the Company used 96% Utility (Non-utility 4%) to represent the Utility's portion of the prepaid asset over time.

# CASCADE NATURAL GAS CORPORATION
## Oregon Public Utility Commission
## Investigation into Treatment of Pension Costs in Utility Rates
## UM 1633

**Request No. 24**

Date prepared: November 13, 2013

Preparer: Michael Parvinen

Contact: Michael Parvinen

Telephone: 509-734-4593

A24. Please provide the information requested in the following table for all years from the present back through the inception of FAS 87. Note that all amounts should be Oregon-allocated and should exclude amounts related to non-utility and to SERP. Please explain assumptions and methodology used to allocate amounts to Oregon and to utility. For information requested regarding amounts included in rates, please note if a test year begins mid-year, and pro-rate amounts to reflect the implementation date of rates. Please provide the response in Excel format with cell formulae intact.

| Line No. | | 1985 | 1986 | ... | 2012 |
|---|---|---|---|---|---|
| a | Contributions | | | | |
| b | Actual FAS 87 expense | | | | |
| c | Prepaid Pension Asset (Liability) Balance | | | | |
| | | | | | |
| d | FAS 87 included in rates | | | | |
| e | FAS 87 included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| f | Actual accumulated deferred tax benefit (associated with prepaid pension asset) | | | | |
| g | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates | | | | |
| h | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| i | Annual Oregon load | | | | |

# CASCADE NATURAL GAS CORPORATION
# Oregon Public Utility Commission
# Investigation into Treatment of Pension Costs in Utility Rates
# UM 1633

**Response:**

See attached spreadsheet. The standard three factor formula was applied to balances to obtain Oregon's allocation. There is no assignment to non-utility as Cascade has no employees participating in the plan that perform non-utility work.

The highlighted columns 1988 and 2005 represent the base year used in Cascade's most recent rate cases.

There is no deferred tax recorded as taxes associated with pensions as the tax effects have been flowed through.

| Line No. | | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a (sys) | Contributions | *1 | 700,000 | 517,684 | 1,000,000 | *1 | *1 | *1 | 2,377,000 | 267,000 | 2,513,000 | 2,373,109 | 2,249,323 | 2,162,219 | 3,690,188 | 3,500,000 | 3,478,899 | 3,687,333 | 3,470,000 | 2,770,000 | 3,150,000 | 485,000 | 0 | 110,706 | 7,244,210 | 5,802,458 |
| b(sys) | Actual FAS 87 expense | *1 | 556,524 | 763,740 | 810,757 | *1 | *1 | 1,399,000 | 1,779,000 | 1,542,000 | 1,856,000 | 1,721,496 | 1,947,874 | 1,676,425 | 1,755,110 | 1,882,925 | 4,089,930 | 2,295,960 | 2,332,070 | 2,239,199 | 1,457,519 | 93,269 | 1,631,199 | 2,161,731 | 3,296,961 | 2,618,841 |
| c(sys) | Prepaid Pension Asset (Liability) Balance | (561,050) | (417,574) | (663,630) | (474,387) | | | (1,873,387) | (1,275,387) | (2,550,387) | (1,893,387) | (1,241,774) | (940,325) | (454,531) | 1,480,547 | 3,097,622 | 2,486,591 | 3,877,964 | 5,015,894 | 5,546,695 | 7,239,176 | 7,630,907 | 5,999,708 | 3,948,683 | 7,895,932 | 11,079,549 |
| | Oregon Allocation Percentage (*2) | 22.13% | 22.08% | 21.95% | 21.69% | 21.69% | 21.43% | 21.10% | 21.07% | 21.09% | 21.56% | 21.56% | 22.03% | 22.03% | 22.46% | 22.70% | 22.94% | 22.70% | 22.94% | 23.76% | 23.88% | 24.26% | 24.65% | 24.35% | 24.31% | 24.53% |
| a(OR) | Contributions | | 154,560 | 113,632 | 216,900 | | | | 500,834 | 56,310 | 541,803 | 511,642 | 495,526 | 476,337 | 828,816 | 794,500 | 798,059 | 837,025 | 796,018 | 658,152 | 752,220 | 117,661 | 0 | 26,957 | 1,761,067 | 1,423,343 |
| b(OR) | Actual FAS 87 expense | | 122,880 | 167,641 | 175,853 | | | 295,189 | 374,835 | 325,208 | 400,154 | 371,155 | 429,117 | 369,316 | 394,198 | 427,424 | 938,230 | 521,183 | 534,977 | 532,034 | 348,056 | 22,627 | 402,091 | 526,381 | 801,491 | 642,402 |
| c(OR) | Prepaid Pension Asset (Liability) Balance | (124,160) | (92,200) | (145,667) | (102,895) | | | (395,285) | (268,724) | (537,877) | (408,214) | (267,726) | (207,154) | (100,133) | 332,531 | 703,160 | 570,424 | 880,298 | 1,150,646 | 1,317,895 | 1,728,715 | 1,851,258 | 1,478,928 | 961,504 | 1,919,501 | 2,717,813 |
| d | FAS 87 included in rates | Actual booked FAS 87 expense is the amount recovered in rates. See row b(OR). | | | | | | | | | | | | | | | | | | | | | | | | |
| e | FAS 87 in rates adjusted for annual Oregon load growth | | | | | | | | | | | | | | | | | | | | | | | | | |
| f | Actual accumulated deferred tax benefit (associated with prepaid pension asset) | | | | | | | | | | | | | | | | | | | | | | | | | |
| g | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates | | | | | | | | | | | | | | | | | | | | | | | | | |
| h | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual Oregon load growth | | | | | | | | | | | | | | | | | | | | | | | | | |
| i | Annual Oregon load *3 | | | | | | 87,056,422 | 89,300,098 | 93,750,521 | 246,055,055 | 244,490,453 | 357,962,620 | 387,593,422 | 399,723,684 | 392,240,591 | 327,498,275 | 365,630,662 | 388,031,840 | 385,558,146 | 343,900,821 | 371,376,060 | 395,669,860 | 356,937,643 | 362,360,148 | 311,067,471 | 307,067,905 |
| j | Market Value Plan Asset | | | | | | | 13,842,000 | 19,376,000 | 21,432,000 | 29,158,000 | 30,768,000 | 35,675,000 | 41,485,000 | 33,913,000 | 31,523,000 | 38,267,000 | 43,300,399 | 50,220,311 | 55,803,474 | 60,703,423 | 43,660,936 | 48,610,279 | 52,664,784 | 55,011,241 | 62,714,019 |
| k | Expected Return on Plan Assets | | | | | | | 9.00% | 9.00% | 9.00% | 9.00% | 9.00% | 9.00% | 9.00% | 9.00% | 8.25% | 8.25% | 8.25% | 8.25% | 7.75% | 7.75% | 8.50% | 8.50% | 8.25% | 7.75% | 7.75% |

Notes:

*1 - No detail was found for these yeasrs so assumed zero for calculation of Prepaid Asset purposes.

*2 - No detail on the Oregon allocation factor was found for 1991, 1992, 1997, 1998, and 2002, so used the average of year before and year after.

*3 - Could not locate records containing loads for 1988 - 1992.

NW Natural

Rates & Regulatory Affairs

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

Data Request Response

**Request No.** UM 1633-OPUC-DR 23**:**
Please provide the information requested in the following table for all years from the present back through the inception of FAS 87. Note that all amounts should be Oregon-allocated and should exclude amounts related to non-utility and to SERP. Please explain assumptions and methodology used to allocate amounts to Oregon and to utility. For information requested regarding amounts included in rates, please note if a test year begins mid-year, and pro-rate amounts to reflect the implementation date of rates. Please provide the response in Excel format with cell formulae intact.

| Line No. | | 1985 | 1986 | … | 2012 |
|---|---|---|---|---|---|
| a | Contributions | | | | |
| b | Actual FAS 87 expense | | | | |
| c | Prepaid Pension Asset (Liability) Balance | | | | |
| | | | | | |
| d | FAS 87 included in rates | | | | |
| e | FAS 87 included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| f | Actual accumulated deferred tax benefit (associated with prepaid pension asset) | | | | |
| g | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates | | | | |
| h | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| i | Annual Oregon load | | | | |

**Response**:

Please refer to UM 1633 OPUC DR 23 Attachment-1. Please note that the Company adopted FAS 87 effective in 1986, thus amounts are shown (as available) from 1986 forward. Below are notes related to inputs, assumptions, etc.:

Lines A through C: FAS 87 expense is allocated to Oregon based on the annual split of total Operations and Maintenance between Oregon and Washington. This factor is also used to calculate Oregon's portion of the prepaid pension balance. Please note that while the Company does not allocate contributions to jurisdictions, the total O&M factor was applied in this case to be consistent with the FAS 87 expense and prepaid pension asset balances shown.

Line D: Please note that amounts for years 2003 through 2012 includes the $3.8 million in O&M expense established in UG 152 plus additions for annual capitalized pension costs going forward. The capitalized portions will not be collected from customers until the following rate case when included in plant at the depreciated cost. For purposes of understanding what the approximate collections will be going forward, the Company presented the capitalized additions as if they had been included in rates in the year incurred.

Also, 2011 and 2012 include the pension balancing account for the differences between the $3.8 million in O&M and actual FAS 87 expense in O&M.

Lines E and H: The Company objects to calculating this information as it would be overly burdensome and not relevant to this docket.

First, it appears Staff is requesting information as to what was actually collected in rates. We assume that in providing the annual Oregon load (Line I), that Staff is requesting the annual total growth rate to be applied in calculating "rates adjusted for annual Oregon load growth". This would not provide an accurate depiction of what was collected in rates. When setting rates in the context of a general rate case, revenue requirement is spread unevenly among the rate classes. To calculate an "adjusted" rate would require significant analysis of determining amounts included in each rate class's rate and then inflate or deflate that amount by annual changes in each rate class's load.

Second, it appears that the purpose of this request is to verify whether a Company had historically over- or under-collected its pension expense in a year. On this point, it should be noted that the purpose of the annual Earnings Review is to ensure that amounts actually collected in rates are appropriately shared with customers

Line H: Information on accumulated deferred tax balances prior to 1995 is unavailable.

Line G: The Company removed all deferred taxes related to the prepaid pension asset from rate base in its 2012 rate case (UG 221) as the Commission denied inclusion of the asset in rate base at that time. The Company, however, inadvertently did not remove the deferred taxes related to prepaid pension assets in the 2003 rate case (UG 152). Information on deferred taxes prior to 2003 is unavailable.

**NW Natural**
**UM 1633 OPUC DR 23 Attachment-1**
**Historical Pension Data - 1986 - 2012**
***(in thousands)***

***Please refer to the Company's response in the word document for additional notes on the data below.***

| **Line No.** | | **1986** | **1987** | **1988** | **1989** | **1990** | **1991** | **1992** | **1993** | **1994** | **1995** | **1996** | **1997** | **1998** | **1999** | **2000** | **2001** | **2002** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | Contributions | 761 | - | - | - | 156 | 762 | 1,409 | 545 | 9 | - | - | - | - | - | - | - | - |
| B | Actual FAS 87 expense | 563 | 214 | 6 | (142) | (190) | (79) | 597 | 353 | 440 | 280 | (716) | (759) | (2,445) | (1,682) | (5,009) | (3,744) | (117) |
| C | Prepaid Pension Asset (Liability) Balance | 198 | (20) | (26) | 116 | 463 | 1,303 | 2,117 | 2,309 | 1,873 | 1,592 | 2,306 | 3,055 | 5,487 | 7,156 | 12,111 | 15,868 | 15,848 |
| D | FAS 87 included in rates | 326 | 326 | 326 | 165 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | (271) | (546) | (546) | (546) |
| E | FAS 87 included in rates adjusted for annual Oregon load growth | 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 |
| F | Actual accumulated deferred tax benefit (associated with prepaid pension asset) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 627 | 281 | 299 | 963 | 663 | 1,973 | 1,475 | 59 |
| G | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates | 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 |
| H | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual Oregon load growth | 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 Oregon load (in thousands of therms) | 672,500 | 734,300 | 798,800 | 1,001,527 | 1,009,731 | 1,075,381 | 1,065,343 | 1,043,629 | 990,332 | 1,004,378 | 1,099,629 | 1,114,124 | 1,138,416 | 1,214,146 | 1,179,773 | 1,123,287 | 1,126,084 |

**NW Natural**
**UM 1633 OPUC DR 23 Attachment-1**
**Historical Pension Data - 1986 - 2012**
***(in thousands)***

***Please refer to the Company's response in the word document for add***

| Line No. | | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | Contributions | - | 7,509 | 28,117 | - | - | - | 22,400 | 9,030 | 18,281 | 21,268 |
| B | Actual FAS 87 expense | 5,659 | 6,026 | 6,271 | 7,356 | 6,006 | 3,859 | 13,063 | 10,298 | 14,715 | 17,324 |
| C | Prepaid Pension Asset (Liability) Balance | 10,102 | 11,585 | 33,405 | 25,792 | 19,729 | 15,891 | 25,175 | 24,104 | 27,671 | 31,675 |
| D | FAS 87 included in rates | 1,600 | 5,984 | 6,059 | 6,454 | 5,998 | 5,202 | 8,209 | 7,388 | 14,666 | 17,229 |
| E | FAS 87 included in rates adjusted for annual Oregon load growth | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| F | Actual accumulated deferred tax benefit (associated with prepaid pension asset) | (1,184) | 6,094 | 2,051 | (2,897) | (2,365) | 7,332 | (3,416) | 4,603 | 2,918 | (5,647) |
| G | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates | 583 | 1,165 | 1,165 | 1,165 | 1,165 | 1,165 | 1,165 | 1,165 | 1,165 | 1,165 |
| H | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual Oregon load growth | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| I | Annual Oregon load (in thousands of therms) | 1,013,121 | 1,061,917 | 1,073,181 | 1,107,151 | 1,128,852 | 1,168,122 | 1,041,775 | 980,569 | 1,060,625 | 1,024,711 |

**NW Natural**
**UM 1633 OPUC DR 23 Attachment-1 WORKPAPER**
**Historical Pension Data - 1986 - 2012**
***($ in thousands)***

| | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SYSTEM** | | | | | | | | | | | | | | | | | |
| Contributions | 816 | - | - | - | 166 | 810 | 1,496 | 579 | 10 | - | - | - | - | - | - | - | - |
| Actual FAS 87 expense | 604 | 234 | 6 | (151) | (202) | (84) | 634 | 375 | 468 | 298 | (763) | (813) | (2,629) | (1,812) | (5,438) | (4,061) | (128) |
| Prepaid Pension Asset (Liability) Balance | 212 | (22) | (28) | 123 | 491 | 1,385 | 2,247 | 2,451 | 1,993 | 1,695 | 2,458 | 3,271 | 5,900 | 7,712 | 13,150 | 17,211 | 17,339 |
| | | | | | | | | | | | | | | | | | |
| *Calculation of Prepaid Pension Asset:* | | | | | | | | | | | | | | | | | |
| Cumulative Contributions | 816 | 816 | 816 | 816 | 982 | 1,792 | 3,288 | 3,867 | 3,877 | 3,877 | 3,877 | 3,877 | 3,877 | 3,877 | 3,877 | 3,877 | 3,877 |
| Cumulative FAS 87 Expense | 604 | 838 | 844 | 693 | 491 | 407 | 1,041 | 1,416 | 1,884 | 2,182 | 1,419 | 606 | (2,023) | (3,835) | (9,273) | (13,334) | (13,462) |
| Prepaid Pension Asset | 212 | (22) | (28) | 123 | 491 | 1,385 | 2,247 | 2,451 | 1,993 | 1,695 | 2,458 | 3,271 | 5,900 | 7,712 | 13,150 | 17,211 | 17,339 |

**NW Natural**
**UM 1633 OPUC DR 23 Attachment-1 WORKPAPER**
**Historical Pension Data - 1986 - 2012**
***($ in thousands)***

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| **SYSTEM** | | | | | | | | | | |
| Contributions | - | 8,261 | 31,000 | - | - | - | 25,000 | 10,000 | 20,245 | 23,500 |
| Actual FAS 87 expense | 6,226 | 6,629 | 6,914 | 8,173 | 6,688 | 4,293 | 14,579 | 11,404 | 16,295 | 19,143 |
| Prepaid Pension Asset (Liability) Balance | 11,113 | 12,745 | 36,830 | 28,657 | 21,969 | 17,676 | 28,097 | 26,693 | 30,643 | 35,000 |
| | | | | | | | | | | |
| *Calculation of Prepaid Pension Asset:* | | | | | | | | | | |
| Cumulative Contributions | 3,877 | 12,138 | 43,138 | 43,138 | 43,138 | 43,138 | 68,138 | 78,138 | 98,383 | 121,883 |
| Cumulative FAS 87 Expense | (7,236) | (607) | 6,307 | 14,480 | 21,168 | 25,461 | 40,040 | 51,444 | 67,740 | 86,883 |
| Prepaid Pension Asset | 11,113 | 12,745 | 36,830 | 28,657 | 21,969 | 17,676 | 28,097 | 26,693 | 30,643 | 35,000 |

UM 1633/PacifiCorp
November 13, 2013
OPUC Data Request 26

**OPUC Data Request 26**

Please provide in Excel format with cell formulae intact the calculation of the Company's actual annual Oregon-allocated FAS 87 expense from the present back through the inception of FAS 87.

**Response to OPUC Data Request 26**

Please refer to Attachment OPUC 26 (tab "OPUC 26"). Please note that the Company has only provided information since 1998 because actuarial reports before 1998 are not readily available. This timing also aligns with the change in the Company's method of recovering pension expenses in rates. In 1998, the Company changed from recovery based on cash contributions to recovery based on FAS 87 pension expense

Oregon-allocated amounts are based upon the System Overhead (SO) allocation factor. Because some general rate cases were resolved through "black box" settlements during this time period, the resulting amounts are estimates of the amounts in Oregon customer rates.

UM 1633/PacifiCorp
November 13, 2013
Data Request 26 - Related to qualified defined benefit pension plans, FAS 87 expense.

| Fiscal Year (amount in millions) | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Company** | | | | | | | | | | | | | | | |
| Service Cost | 22.3 | 28.9 | 15.7 | 14.1 | 16.0 | 19.3 | 24.9 | 29.7 | 22.2 | 28.6 | 26.9 | 16.2 | 12.0 | 9.7 | 7.3 |
| Interest Cost | 75.8 | 95.7 | 78.3 | 77.3 | 73.8 | 71.1 | 70.9 | 71.5 | 54.2 | 68.4 | 63.5 | 67.4 | 63.0 | 60.7 | 58.1 |
| Expected return on plan assets | (84.2) | (112.5) | (103.5) | (99.8) | (92.8) | (80.7) | (77.7) | (76.8) | (54.3) | (69.4) | (71.1) | (70.2) | (74.4) | (75.0) | (74.4) |
| Amortization | 8.9 | 12.4 | (2.0) | (2.6) | 5.2 | 9.3 | 17.7 | 30.7 | 22.6 | 23.9 | 7.1 | 1.7 | 12.7 | 19.2 | 33.5 |
| FAS 87 expense | 22.69 | 24.47 | (11.6) | (11.0) | 2.12 | 18.9 | 35.8 | 55.0 | 44.7 | 51.5 | 26.4 | 15.1 | 13.3 | 14.6 | 24.4 |
| FAS 88 expense, special charges and transfers[1] | 110.9 | (4.1) | 74.8 | 0.0 | (4.1) | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | (1.4) | 0.0 | (0.2) | 0.0 | 0.0 |
| Net pension expense | 133.6 | 20.40 | 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 |
| Oregon Percentage (SO Factor)[2] | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% |
| **Oregon Allocated** | | | | | | | | | | | | | | | |
| Service Cost | 6.1 | 7.9 | 4.3 | 3.9 | 4.4 | 5.3 | 6.8 | 8.1 | 6.1 | 7.8 | 7.4 | 4.4 | 3.3 | 2.7 | 2.0 |
| Interest Cost | 20.8 | 26.2 | 21.4 | 21.2 | 20.2 | 19.5 | 19.4 | 19.6 | 14.8 | 18.7 | 17.4 | 18.5 | 17.3 | 16.6 | 15.9 |
| Expected return on plan assets | (23.1) | (30.8) | (28.4) | (27.3) | (25.4) | (22.1) | (21.3) | (21.0) | (14.9) | (19.0) | (19.5) | (19.2) | (20.4) | (20.5) | (20.4) |
| Amortization | 2.4 | 3.4 | (0.6) | (0.7) | 1.4 | 2.5 | 4.8 | 8.4 | 6.2 | 6.5 | 1.9 | 0.5 | 3.5 | 5.3 | 9.2 |
| FAS 87 expense | 6.2 | 6.7 | (3.2) | (3.0) | 0.6 | 5.2 | 9.8 | 15.1 | 12.2 | 14.1 | 7.2 | 4.1 | 3.6 | 4.0 | 6.7 |
| FAS 88 expense, special charges and transfers[1] | 30.4 | (1.1) | 20.5 | 0.0 | (1.1) | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | (0.4) | 0.0 | (0.0) | 0.0 | 0.0 |
| Net pension expense | 36.6 | 5.6 | 17.3 | (3.0) | (0.5) | 5.2 | 9.8 | 16.6 | 12.2 | 14.1 | 6.9 | 4.1 | 3.6 | 4.0 | 6.7 |

UM 1633/PacifiCorp
November 13, 2013
Data Request 27 - Related to qualified defined benefit pension plans, change in plan assets.

| Fiscal Year (amount in millions) | 1998 [1] | 3/31/2000 [1] | 3/31/2001 [1] | 03/31/02 | 03/31/03 | 03/31/04 | 03/31/05 | 03/31/06 | 2006 [5] | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Company** | | | | | | | | | | | | | | | |
| Beginning Asset Value | 929.8 | 983.5 | 1192.1 | 1152.6 | 826.2 | 681.2 | 733.2 | 806.5 | 824.9 | 883.9 | 962.6 | 692.1 | 824.9 | 960.0 | 930.7 |
| Contributions | 94.0 | 68.0 | 19.4 | 4.2 | 26.4 | 33.4 | 61.6 | 60.0 | 76.4 | 75.8 | 65.6 | 49.6 | 112.8 | 66.5 | 44.9 |
| Asset returns | 154.5 | 279.4 | 55.3 | (147.7) | (60.0) | 128.3 | 87.5 | 72.6 | 55.4 | 118.0 | (224.0) | 159.8 | 101.9 | (12.7) | 119.9 |
| Benefits paid | (194.8) | (138.8) | (114.3) | (126.5) | (111.4) | (109.3) | (75.7) | (80.4) | (72.8) | (115.0) | (112.1) | (76.6) | (79.5) | (83.2) | (83.5) |
| Transfers to other plans [2] | | | | (56.4) | | (0.5) | (0.1) | (33.9) | | (0.1) | | | | | |
| Change in asset value | 53.7 | 208.7 | (39.6) | (326.4) | (145.0) | 52.0 | 73.3 | 18.4 | 59.0 | 78.6 | (270.4) | 132.7 | 135.2 | (29.4) | 81.3 |
| Ending Asset Value | 983.5 | 1192.1 | 1152.6 | 826.2 | 681.2 | 733.2 | 806.5 | 824.9 | 883.9 | 962.6 | 692.1 | 824.9 | 960.0 | 930.7 | 1012.0 |
| Oregon Percentage (2012 SO factor) [3] | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% |
| **Oregon Allocated** [4] | | | | | | | | | | | | | | | |
| Beginning Asset Value | 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 |
| Contributions | 25.7 | 18.6 | 5.3 | 1.2 | 7.2 | 9.2 | 16.9 | 16.4 | 20.9 | 20.8 | 18.0 | 13.6 | 30.9 | 18.2 | 12.3 |
| Asset returns | 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 |
| Benefits paid | 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 |
| Spinoff/Transfer | 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 |
| Change in asset value | 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 |
| Ending Asset Value | 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] Changes in asset values based on best available information.

UM 1633/PacifiCorp
November 13, 2013
Data Request 28 - Related to qualified defined benefit pension plans

| Fiscal Year | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Company** | | | | | | | | | | | | | | | |
| Contributions | 94.0 | 68.0 | 19.4 | 4.2 | 26.4 | 33.4 | 61.6 | 60.0 | 76.4 | 75.8 | 65.6 | 49.6 | 112.8 | 66.5 | 44.9 |
| Actual FAS 87 Expense (and FAS 88 Expense) | (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) |
| Prepaid Pension Asset (Liability) Balance | (108.0) | (60.4) | (104.2) | (89.0) | (60.6) | (46.1) | (20.3) | (20.9) | 10.9 | 35.2 | 75.8 | 110.3 | 210.0 | 261.8 | 282.4 |
| Actual accumulated deferred tax benefit (associated with prepaid pension asset) [1] | 41.0 | 22.9 | 39.5 | 33.8 | 23.0 | 17.5 | 7.7 | 7.9 | (31.5) | (36.9) | (32.1) | (70.5) | (103.5) | (115.0) | (128.2) |
| FAS 87 included in rates [2] | 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 |
| Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates [2] | 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 |
| Oregon allocation factor (2012 SO factor) [3] | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% | 27.38% |
| **Oregon Allocated** | | | | | | | | | | | | | | | |
| Contributions | 25.7 | 18.6 | 5.3 | 1.2 | 7.2 | 9.2 | 16.9 | 16.4 | 20.9 | 20.8 | 18.0 | 13.6 | 30.9 | 18.2 | 12.3 |
| Actual FAS 87 expense | (36.6) | (5.6) | (17.3) | 3.0 | 0.5 | (5.2) | (9.8) | (16.6) | (12.2) | (14.1) | (6.9) | (4.1) | (3.6) | (4.0) | (6.7) |
| Prepaid Pension Asset (Liability Balance) | (29.6) | (16.5) | (28.5) | (24.4) | (16.6) | (12.6) | (5.6) | (5.7) | 3.0 | 9.6 | 20.8 | 30.2 | 57.5 | 71.7 | 77.3 |
| FAS 87 included in rates [2] | 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 |
| FAS 87 included in rates adjusted for annual Oregon load growth [2] | 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 |
| Actual accumulated deferred tax benefit (associated with prepaid pension asset) | 11.2 | 6.3 | 10.8 | 9.2 | 6.3 | 4.8 | 2.1 | 2.2 | (8.6) | (10.1) | (8.8) | (19.3) | (28.3) | (31.5) | (35.1) |
| Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates [2] | 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 |
| Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual load growth [2] | 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 |
| Annual Oregon load | 15,456,783 | 15,603,612 | 15,472,849 | 14,786,649 | 14,061,312 | 14,382,406 | 14,301,374 | 14,845,811 | 11,218,403 | 15,573,692 | 15,668,507 | 15,034,812 | 14,378,617 | 14,456,243 | 14,304,338 |

[1] For certain years, the current income tax (benefit) reflects an current income tax deduction for pension contributions for the prior plan year paid within 8 1/2 months of the year end. The table below provides a breakout of the plan year that the fiscal year contribution were applied to.

| Fiscal year | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PacifiCorp contribution by 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 |
| Prior plan year contribution | - | - | 19.4 | 4.2 | 26.4 | 33.4 | 61.6 | 60.0 | 72.7 | 75.8 | 65.6 | 12.5 | 79.3 | 66.5 | 44.9 | 59.2 |
| Current plan year contribution | 94.0 | 68.0 | - | - | - | - | - | 3.7 | - | - | - | 37.1 | 33.5 | - | - | |

[2] Since 1998, all of PacifiCorp's general rate cases have been established based on settlements, and PacifiCorp is not aware of any specific pension related disallowances. Thus, PacifiCorp believes it is reasonable to assume that its actual FAS 87 costs and associated tax benefit/expense have been included in rates. For informational purposes in the table below, PacifiCorp has provided the pension expense included in rate case filings over the period.

| Docket number | UE - 94 | UE-111 | UE-116 | UE-147 | UE - 170 | UE - 179 | UE - 210 | UE - 217 |
|---|---|---|---|---|---|---|---|---|
| Effective date | 7/15/1996 | 10/1/2000 | 10/1/2001 | 9/1/2003 | 10/4/2005 | 1/1/2007 | 2/2/2010 | 1/1/2011 |
| Test Period | CY 1994 | CY 1998 | CY 2001 | FY 2004 | CY 2006 | CY 2007 | CY 2010 | CY 2011 |
| Amount of pension costs included in filing | (46.1) | (27.8) | 11.3 | (34.2) | (47.1) | (54.6) | (23.9) | (31.2) |

[3] For infomational purposes we have included the Oregon SO factor by year.

| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oregon SO Factor | 31.92% | 32.49% | 32.38% | 30.45% | 29.80% | 29.86% | 29.61% | 29.74% | 29.86% | 29.04% | 29.32% | 28.71% | 27.72% | 27.72% | 27.38% |

| Inputs | |
|---|---|
| Prepaid (accrued) balance as of 12/31/1997 | (68.4) |
| Tax Rate | 37.951% |

**OPUC Data Request 28**

Please provide the information requested in the following table for all years from the present back through the inception of FAS 87. Note that all amounts should be Oregon-allocated and should exclude amounts related to non-utility and to SERP. Please explain assumptions and methodology used to allocate amounts to Oregon and to utility. For information requested regarding amounts included in rates, please note if a test year begins mid-year, and pro-rate amounts to reflect the implementation date of rates. Please provide the response in Excel format with cell formulae intact.

| Line No. | | 1985 | 1986 | ... | 2012 |
|---|---|---|---|---|---|
| a | Contributions | | | | |
| b | Actual FAS 87 expense | | | | |
| c | Prepaid Pension Asset (Liability) Balance | | | | |
| | | | | | |
| d | FAS 87 included in rates | | | | |
| e | FAS 87 included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| F | Actual accumulated deferred tax benefit (associated with prepaid pension asset) | | | | |
| G | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates | | | | |
| H | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| I | Annual Oregon load | | | | |

**Response to OPUC Data Request 28**

Please refer to Attachment OPUC 26 (tab "OPUC 28"). Please note that the Company has only provided information since 1998 because actuarial reports before 1998 are not readily available. This timing also aligns with the change in the Company's method of recovering pension expenses in rates. In 1998, the Company changed from recovery based on cash contributions to recovery based on FAS 87 pension expense. Oregon-allocated amounts are based upon the System Overhead ("SO") allocation factor. Because some general rate cases were resolved through "black box" settlements during this time period, the resulting amounts are estimates of the amounts in Oregon customer rates. As a result of the transfer out of non-utility activity described below, the historical non-utility activity has no impact on today's prepaid pension asset balance. As a result, PacifiCorp did not make any allocation to non-utility activity in the attachment.

Before March 2006, non-utility employees associated with the Company's former affiliates (PacifiCorp Group Holdings, PacifiCorp Financial Services, PacifiCorp Power Marketing, and PERCo) in non-regulated businesses participated in the Company's pension plan. Effective with the acquisition of the Company by MEHC in March 2006, these participants were separated from the Company's plan and transferred to a plan formed under the ScottishPower group. As a result, the benefit obligation associated with these participants, a portion of plan assets, and a portion of unrecognized losses were transferred to the ScottishPower successor plan. The amount of assets transferred was determined based on ERISA requirements. The amount of unrecognized losses transferred was determined in accordance with the applicable accounting guidance. Therefore any non-utility activity was removed from the prepaid asset at that time.

Since the March 2006 acquisition by MEHC, all employees have supported the utility with the exception of a few PacifiCorp Environmental Remediation Company (PERCo) employees who remained through 2007.

November 13, 2013

TO: Kay Barnes
Oregon Public Utility Commission

FROM: Patrick Hager
Manager, Regulatory Affairs

**PORTLAND GENERAL ELECTRIC**
**UM 1633**
**PGE Response to OPUC Data Request No. 023**
**Dated October 30, 2013**

**Request:**

**Please provide the information requested in the following table for all years from the present back through the inception of FAS 87. Note that all amounts should be Oregon-allocated and should exclude amounts related to non-utility and to SERP. Please explain assumptions and methodology used to allocate amounts to Oregon and to utility. For information requested regarding amounts included in rates, please note if a test year begins mid-year, and pro-rate amounts to reflect the implementation date of rates. Please provide the response in Excel format with cell formulae intact.**

| Line No. | | 1985 | 1986 | ... | 2012 |
|---|---|---|---|---|---|
| a | Contributions | | | | |
| b | Actual FAS 87 expense | | | | |
| c | Prepaid Pension Asset (Liability) Balance | | | | |
| | | | | | |
| d | FAS 87 included in rates | | | | |
| e | FAS 87 included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| f | Actual accumulated deferred tax benefit (associated with prepaid pension asset) | | | | |
| g | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates | | | | |
| h | Accumulated deferred tax benefit (associated with prepaid pension asset) included in rates adjusted for annual Oregon load growth | | | | |
| | | | | | |
| i | Annual Oregon load | | | | |

*<u>Response</u>***:**

PGE objects to the request on the basis that it is overly broad and unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence in this docket. Notwithstanding this objection, PGE respond as follows:

Please see Attachment 023-A for the requested detail. Line five of Attachment 23-A demonstrates the relationship between the three pension elements listed above. While variances for most years are attributable to rounding, there are certain years (most notably 1998 and 2000) that yield larger variances. Financial information related to PGE's pension plan was restated the following year for 1998 and 2000. This likely contributed to the variance for these years, as PGE uses the most current data in the event of restated data. Despite these aberrations, the "simple calculation" referenced in OPUC Data Request No. 24 (which is derived from cumulative prepaid pension asset amounts) does work and has been working since the years in question.

# UM 1633

# Attachment 023-A

PGE Annual Pension and Load Data (1987-2012)

| (in millions) | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A. Contributions | - | 6.8 | 5.8 | 0.8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10.0 | - | - | - | - | 30.0 | 26.0 | - |
| B. Net periodic pension expense (benefit) | (1.3) | 2.9 | 3.2 | 1.6 | 3.6 | 3.1 | 2.0 | 0.9 | (2.3) | (1.1) | (5.0) | (7.0) | (12.0) | (13.2) | (15.5) | (13.1) | (6.7) | (4.4) | - | 3.9 | 2.3 | (2.4) | 0.4 | 3.7 | 8.2 | 21.0 |
| C. Prepaid | (2.7) | 1.2 | 3.7 | 2.9 | 0.2 | (2.9) | (4.3) | (5.4) | (2.9) | (0.9) | 4.0 | - | 14.0 | 39.0 | 55.0 | 68.0 | 73.0 | 78.0 | 88.0 | 84.0 | 82.0 | 84.0 | 85.0 | 111.0 | 129.0 | 108.0 |
| Match using line 10 | | 1.2 | 3.8 | 2.9 | (0.7) | (2.9) | (4.9) | (5.2) | (3.1) | (1.8) | 4.1 | 11.0 | 12.0 | 27.2 | 54.5 | 68.1 | 74.7 | 77.4 | 88.0 | 84.1 | 81.7 | 84.4 | 83.6 | 111.3 | 128.8 | 108.0 |
| Variance | | 0.0 | (0.1) | (0.0) | 0.9 | (0.0) | 0.6 | (0.2) | 0.2 | 0.9 | (0.1) | (11.0) | 2.0 | 11.8 | 0.5 | (0.1) | (1.7) | 0.6 | - | (0.1) | 0.3 | (0.4) | 1.4 | (0.3) | 0.2 | - |
| D. FAS 87 expense included in PGE's revenue requirement | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) | (1) | 0.8* | 0.8* | 0.8* | 0.8* | 0.8* | - | - | - | - | - | 1.1 | 1.1 | - | - | 5.1 | 5.1 |
| E. See written response | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F. Net deferred tax benefit (asssociated with prepaid pension asset) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (20.1) | (22.5) | (24.3) | (26.8) | (25.3) | (24.2) | (25.3) | (25.2) | (37.5) | (46.4) | (38.6) |
| G. Net deferred tax benefit (asssociated with prepaid pension asset) included in rates | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (2) | (20.1) | (20.1) | (20.1) | (20.1) | (20.1) | (24.2) | (24.2) | (25.2) | (25.2) | (46.4) | (46.4) |
| H. See written response | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I. Annual Oregon load (3) | 13.5 | 14.2 | 14.9 | 15.4 | 15.9 | 15.6 | 16.6 | 16.8 | 17.1 | 17.5 | 18.3 | 18.7 | 19.2 | 19.8 | 19.1 | 18.7 | 18.4 | 18.5 | 18.8 | 19.4 | 19.6 | 19.8 | 19.4 | 18.8 | 19.3 | 19.2 |

*this amount is approximate as PGE agreed to an overall reduction to its rate case request of approximately 5%
(1) Records for amounts used to set rates not available
(2) Electronic data prior to 2002 do not exist in PGE’s system creating difficulties in accurately separating the prepaid pension asset related portion of the accumulated deferred tax benefit.
(3) Annual load numbers reflect PGE's full system (non-weather adjusted) load in MWH

November 27, 2013

TO: Kay Barnes
Oregon Public Utility Commission

FROM: Patrick Hager on Behalf of the Joint Utilities
Manager, Regulatory Affairs

**PORTLAND GENERAL ELECTRIC**
**UM 1633**
**Joint Utilities Response to OPUC Data Request No. 007**
**Dated November 14, 2013**

**Request:**

**Please provide the actuarially forecasted annual ERISA required minimum contribution amounts as well as the actual FAS 87 expense amounts over the life of a hypothetical defined benefit pension plan given the following variables (assume only a change to the variable mentioned; all else remaining equal):**

a. **Annual discount rate of 4%;**
b. **Annual discount rate of 6.5%;**
c. **Investment return in year 1 of -10% (followed by investment returns as expected);**
d. **Investment return in year 1 of 25% (followed by investment returns as expected);**
e. **Annual discount rate of 6.5% and investment return in year 1 of 25% (followed by investment returns as expected); and**
f. **Contributions to the pension plan by the Company at ERISA minimum levels;**
g. **Contributions to the pension plan by the Company at five times ERISA minimum levels.**

**Please assume the use of a smoothing mechanism, and identify and explain all assumptions used in the calculations of the above scenarios.**

*Response:*

PGE objects to this request on the basis that it is unduly burdensome and not reasonably calculated to lead to the discovery of admissible evidence and not commensurate with the needs of the case. Subject to and without waiving its objection, PGE responds as follows:

Please see Attachment 007-A for the Joint Utilities response to parts A. through G.

Listed below are the assumptions used for this analysis:

1. Testimony Amounts - Though not specifically requested, this tab summarizes the information used to produce the amounts shown in Mr. Vogl's testimony.
2. Part a (4% discount rate) - This scenario is similar to what was shown in the testimony, but introduces asset smoothing as requested. Note the asset smoothing affects the PPA asset value due to the specific rules regarding how it is calculated.
3. Part b (6.5% discount rate) - This scenario is similar to question 7a, but the interest rates are changed to be 6.5% in Year 2 and beyond. Mr. Vogl adjusted the Year 2 liabilities and annual benefits earned to be consistent with a 250 basis point increase in interest rate for both accounting and funding purposes.
4. Part c (Year 1 return of -10%) - This shows how poor asset returns for one year would flow through the projection and provides a better sense of how asset smoothing can affect the results.
5. Part d (Year 1 return of 25%) - This is similar to question 7c, but shows a good news return scenario.
6. Part e (Year 1 return of 25% and 6.5% discount rate) - This combines the changes from 7b with 7d.
7. Part f (Contributions at ERISA minimum levels) - Not included separately (this scenario is the same as is shown in part a).
8. Part g (Contributions at 5 times ERISA minimum levels) - Since the Year 1 minimum required contribution is $39.6 million, we have assumed that a $198 million contribution is made on the first day of Year 1. No other contributions are required or assumed throughout the projection period.

# UM 1633

# Attachment 007-A

# Provided in Electronic Format only

Pension Scenarios

**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** | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| *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 |

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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.*

## Accounting Information

| *(in millions)* | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| *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

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| *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 |

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 |

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| **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 |

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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

# CASCADE NATURAL GAS CORPORATION
## Oregon Public Utility Commission
## Investigation into Treatment of Pension Costs in Utility Rates
## UM 1633

**Request No. 2**

Date prepared: May 2, 2013

Preparer: Michael Parvinen

Contact: Michael Parvinen

Telephone: 509-734-4593

A2. Please provide a listing of the Company's pension plans and whether each pension plan is open or closed.

**Response:** Defined Benefit Plan – Closed
401 – K plan – Open
SERP - Closed

# CASCADE NATURAL GAS CORPORATION
## Oregon Public Utility Commission
## Investigation into Treatment of Pension Costs in Utility Rates
## UM 1633

**Request No. 21**

Date prepared: July 24, 2013

Preparer: Michael Parvinen

Contact: Michael Parvinen

Telephone: 509-734-4593

A21. Regarding the Company's response to Staff Data Request No. 2, please provide the date that the Company's Defined Benefit Plan was closed.

**Response:**

The Defined Benefit Plan closed to new salaried employees hired after 9/30/2003 and all employees hired after 12/31/2006.

**AVISTA CORP.**
**RESPONSE TO REQUEST FOR INFORMATION**

| | | | |
|---|---|---|---|
| JURISDICTION: | Oregon | DATE PREPARED: | 04/23/2013 |
| CASE NO: | UM 1633 | WITNESS: | |
| REQUESTER: | OPUC Staff | RESPONDER: | Mary Prince |
| TYPE: | Data Request | DEPT: | Human Resources |
| REQUEST NO.: | Staff – 02 | TELEPHONE: | (509) 495-4730 |
| | | EMAIL: | mary.prince@avistacorp.com |

**REQUEST:**

Please provide a listing of the Company's pension plans and whether each pension plan is open or closed.

**RESPONSE:**

The following are plans sponsored by Avista Corporation:

**Qualified Pension Plan:**
The Retirement Plan for Employees of Avista Corporation - Open

**Non-Qualified Pension Plans:**
Avista Corporation Supplemental Executive Retirement Plan (SERP) – Open
Avista Corporation Supplemental Manager Retirement Plan (SMRP) – Open

Note:
The intent of the Non-Qualified Plans is to restore the benefit which would otherwise be payable under the Qualified Pension Plan due to the limitations under Internal Revenue Code Sections 401(a)(17) and 415 and to restore the benefit which would otherwise be lost thereunder as a result of the employee's participation in the non-qualified deferred compensation plan.

There are different eligibility requirements for each non-qualified pension plan. The SERP is for an employee of the Company who is an elected officer and who is a member in the Qualified Pension Plan. The SERP plan for officers of the Company elected prior to February 3, 2011 provides an increased benefit from the plan existing today for officers elected after February 3, 2011. The SMRP is for an employee of the Company deemed to be within a select group of management, designated by the Board or its designee, and who is a member of the Qualified Pension Plan who participated in the non-qualified deferred compensation plan.

# AVISTA CORP.
# RESPONSE TO REQUEST FOR INFORMATION

| | | | |
|---|---|---|---|
| JURISDICTION: | Oregon | DATE PREPARED: | 11/04/2013 |
| CASE NO: | UM 1633 | WITNESS: | |
| REQUESTER: | OPUC Staff | RESPONDER: | Mary Prince |
| TYPE: | Data Request | DEPT: | Human Resources |
| REQUEST NO.: | Staff – 02-Supplemental | TELEPHONE: | (509) 495-4730 |
| | | EMAIL: | mary.prince@avistacorp.com |

**REQUEST:**

Please provide a listing of the Company's pension plans and whether each pension plan is open or closed.

**RESPONSE:**

The following are plans sponsored by Avista Corporation:

**Qualified Pension Plan:**
The Retirement Plan for Employees of Avista Corporation - Open

**Non-Qualified Pension Plans:**
Avista Corporation Supplemental Executive Retirement Plan (SERP) – Open
Avista Corporation Supplemental Manager Retirement Plan (SMRP) – Open

Note:
The intent of the Non-Qualified Plans is to restore the benefit which would otherwise be payable under the Qualified Pension Plan due to the limitations under Internal Revenue Code Sections 401(a)(17) and 415 and to restore the benefit which would otherwise be lost thereunder as a result of the employee's participation in the non-qualified deferred compensation plan.

There are different eligibility requirements for each non-qualified pension plan. The SERP is for an employee of the Company who is an elected officer and who is a member in the Qualified Pension Plan. The SERP plan for officers of the Company elected prior to February 3, 2011 provides an increased benefit from the plan existing today for officers elected after February 3, 2011. The SMRP is for an employee of the Company deemed to be within a select group of management, designated by the Board or its designee, and who is a member of the Qualified Pension Plan who participated in the non-qualified deferred compensation plan.

**Supplemental November 4, 2013**
In October 2013 the Company announced that effective January 1, 2014 Avista is implementing several new employee retirement income changes for non-union new hires. In effect, the Company's existing pension plan will be closed to non-union new hires effective January 1, 2014. New hires will receive benefits through a revised defined-contribution plan only.

NW Natural

Rates & Regulatory Affairs

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

Data Request Response

**Request No.** UM 1633-OPUC-DR 2**:**
Please provide a listing of the Company's pension plans and whether each pension plan is open or closed.

**Response:**

We maintain two qualified non-contributory defined benefit plans, one for non-union employees and one for union employees. These plans were merged effective December 31, 2012 into one qualified non-contributory defined benefit plan. The non-union plan was closed to new participants on December 31, 2006 and the union plan was closed on December 31, 2009. Both plans continue to accrue benefits for existing employees that were enrolled prior to being closed.

The Company also contributes to a multi-employer plan for bargaining unit employees only. This plan is currently open.

April 25, 2013

TO: Kay Barnes
Oregon Public Utility Commission

FROM: Patrick Hager
Manager, Regulatory Affairs

**PORTLAND GENERAL ELECTRIC**
**UM 1633**
**PGE Response to OPUC Data Request No. 002**
**Dated April 11, 2013**

**Request:**

**Please provide a listing of the Company's pension plans and whether each pension plan is open or closed.**

*Response:*

PGE has two defined benefit pension plans. The first plan is the Portland General Electric Pension Plan, covering both bargaining and non-bargaining active, retired, and terminated vested employees. This pension plan closed to all new bargaining unit employees effective January 1, 1999 and closed to all new non-bargaining employees effective February 1, 2009. The second plan is the Supplemental Executive Retirement Plan (SERP). SERP has no participants currently accruing benefits and SERP costs are excluded from rates and removed from any regulatory financials.

UM 1633/PacifiCorp
April 25, 2013
OPUC Data Request 2

**OPUC Data Request 2**

Please provide a listing of the Company's pension plans and whether each pension plan is open or closed.

**Response to OPUC Data Request 2**

The PacifiCorp Retirement Plan, closed to new participants, is the only pension plan that is relevant to this docket because annual contributions and expenses for this plan are determined by different accounting and legal requirements, which results in variances between amounts contributed and amounts expensed. The Supplement Executive Retirement Plan is not relevant to this docket as it is not included in rates in Oregon. The following retirement plans, which are open to new participants, are not relevant to this docket as annual plan expense equals Company contributions, which results in no prepaid or accrued pension balance:

- PacifiCorp K Plus Employee Savings Plan (401(k) plan)
- PacifiCorp/IBEW Local 57 Retirement Trust Fund, and
- United Mine Workers of America 1974 Pension Plan.

**BEFORE THE PUBLIC UTILITY COMMISSION**

**OF OREGON**

**UM 1633**

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

**EXHIBIT NWIGU-ICNU/103**

**SUPPORTING DOCUMENTS**

**December 19, 2013**

# INDEX

NWIGU-ICNU/103
Smith/2

United States Government Accountability Office

GAO

Report to Congressional Addressees

July 2008

# DEFINED BENEFIT PENSIONS

# Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges

GAO

Accountability * Integrity * Reliability

GAO-08-817

July 2008

GAO
Accountability · Integrity · Reliability

# Highlights

Highlights of GAO-08-817, a report to congressional addressees

# DEFINED BENEFIT PENSIONS

## Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges

### Why GAO Did This Study

Private defined benefit (DB) pension plans are an important source of retirement income for millions of Americans. However, from 1990 to 2006, plan sponsors have voluntarily terminated over 61,000 sufficiently funded single-employer DB plans. An event preceding at least some of these terminations was a so-called plan "freeze"—an amendment to the plan to limit some or all future pension accruals for some or all plan participants. Available information that the government collects about frozen plans is limited in scope and may not be recent. GAO conducted a stratified probability sample survey of 471 single-employer DB plan sponsors out of a population of 7,804 (with 100 or more total plan participants) to gather more timely and detailed information about frozen plans.
We have prepared this report under the Comptroller General's authority as part of our ongoing reassessment of risks associated with the Pension Benefit Guaranty Corporation's (PBGC) single-employer pension insurance program, which, in 2003, we placed on our high-risk list of programs that need broad-based transformations and warrant the attention of Congress and the executive branch. Frozen DB plans have possible implications for PBGC's long-term financial position. This report examines (1) the extent to which DB pension plans are frozen and the characteristics of frozen plans; and (2) the implications of these freezes for plan participants, plan sponsors, and the PBGC.

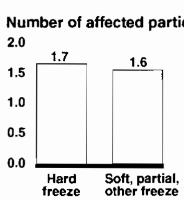
To view the full product, including the scope and methodology, click on GAO-08-817. To view the survey results click on GAO 08-818SP. For more information, contact Barbara Bovbjerg, at (202) 512-7215 or bovbjergb@gao.gov.

### What GAO Found

Frozen plans are fairly common today, with about half of all sponsors in our study population having one or more frozen DB plans. Overall, about 3.3 million active participants in our study population, who represent about 21 percent of all active participants in the single-employer DB system, are affected by a freeze. The most common type of freeze is a hard freeze—a freeze in which all future benefit accruals cease—which accounts for 23 percent of plans in our study population; however, an additional 22 percent of plans are frozen in some other way. Larger sponsors (i.e. those with 10,000 or more total participants) are significantly less likely than smaller sponsors to have implemented a hard freeze, with only 9 percent of plans under a hard freeze among larger sponsors compared with 25 percent of plans under a hard freeze among smaller sponsors. The vast majority of sponsors with frozen plans in our study population, 83 percent, have alternative retirement savings arrangements for these affected participants, but 11 percent of sponsors do not. (An additional 6 percent of sponsors froze plans under circumstances that preclude a replacement plan.) Plan sponsors cited many reasons for freezing their largest plans but most often noted two: the impact of annual contributions on their firm's cash flows and the unpredictability of plan funding. Sponsors of frozen plans generally expressed a degree of uncertainty about the anticipated outcome for their largest plan, but sponsors whose largest plan was hard frozen were significantly more likely to anticipate plan termination as the likely plan outcome.

The implications of a freeze vary for sponsors, participants, and PBGC. For plan sponsors, while hard freezes appear to indicate an increased likelihood of plan termination, a rise in plan terminations has yet to materialize. For participants, a freeze generally implies a reduction in anticipated future retirement benefits, though this may be somewhat or entirely offset by increases in other benefits or a replacement retirement-savings plan. However, because the replacement plans offered to affected participants most frequently are defined contribution, the investment risk and responsibility for saving are shifted to employees. Finally, plan freezes may potentially improve PBGC's net financial position, but the degree to which it is accompanied by sponsor efforts to improve plan funding is unclear. In any event, the shrinking of the single-employer pension insurance program plan base seems likely to continue.

**Estimated Number of Active Participants Affected by Sponsors' Largest Plan Freeze, by Freeze Type**




Source GAO analysis of survey of DB pension plan sponsors regarding frozen plans

## Frozen Plans Affect about One-Fifth of Active DB Plan Participants

Overall, an estimated 3.3 million active participants[6] in our study population—or 21 percent of all active participants in the private, single-employer DB system—are affected by reported freezes. (See app. I, slide 9 and slide 10.) Active participants are employees that are or may become eligible to accrue or receive additional benefits under a plan; if all participants in the DB system (that is, active participants, retirees, and separated vested participants) are considered, the proportion represented by active participants who are affected by plan freezes falls to 10 percent.[7] (See app. I, Slide 9.) We considered only those participants who are currently accruing benefits (that is, active participants) at the time of freeze implementation to be affected by a freeze. The above calculations, therefore, do not include sponsors whose largest frozen plans are under a new-employee-only soft freeze, where the plan is closed to new entrants and benefit accruals for active participants remain unchanged. The extent to which active participants are affected by a freeze depends on the type of freeze in place. Under hard freezes, future benefit accruals cease for active participants. In contrast, soft freezes may reduce future benefit accruals for some or all active participants. Soft freezes are distinct from hard freezes in that the restrictions on participants' future benefit accruals are less comprehensive than the total cessation of future accruals under hard freezes.[8]

Our survey shows that about half the sponsors in the study population have one or more frozen plans. (See app. I, slide 11.) Overall, about

[6]All estimates based on our sample are subject to sampling error. For example the 95 percent confidence interval of the total participant estimate ranges from 2.25 million to 4.34 million participants. Unless otherwise noted, all percentage estimates based on this survey have 95 percent confidence intervals of within +/- 11 percentage points of the estimate itself. Of the 3.3 million estimated participants affected by a freeze, 1.7 million are affected by a hard freeze, and 1.8 million are affected by a soft, partial, or other freeze. The 95 percent confidence interval for participants affected by hard freeze is from 1.1 million to 2.3 million. The 95 percent confidence interval for participants affected by soft, partial, or other freezes is from 0.7 million to 2.5 million. See appendix II for additional information on sampling error of estimates.

[7]Active participants may continue to accrue benefits because they are currently employed by the sponsoring firm. Retirees are no longer employed by the firm and are collecting their retirement benefits. Separated vested participants are no longer employed by the sponsoring firm and no longer accrue benefits, but they are not yet collecting their retirement benefits.

[8]See appendix I, slide 5 for general freeze type definitions. Exact definitions used in the survey may be found in the special product supplement. See GAO, *Defined Benefit Pensions: Survey of Sponsors of Large Defined Benefit Pension Plans*, GAO-08-818SP (Washington, D.C.: July 21, 2008).

51 percent of plans in the study population were reported as closed to new entrants, the basic requirement of a plan freeze. Nearly half of plans with a reported freeze, or 23 percent of all plans in the study population, were under a hard freeze. (See app. I, slide 12.)[9] In addition, 12 percent reported some type of soft freeze. About 6 percent reported a partial plan freeze, while 4 percent reported an "other" freeze, which include situations where plan participants are separated into plan tiers,[10] or freezes brought on by bankruptcy, plant closure, or plan merger.

The survey results suggest that two factors may influence the likelihood that sponsors will implement a hard freeze: sponsor size and the extent to which a sponsor's plans are subject to collective bargaining (CB) agreements. Larger sponsors, those with 10,000 or more total participants, are significantly less likely than smaller sponsors to have implemented a hard freeze, with only 9.4 percent of plans under a hard freeze among larger sponsors compared with 25.4 percent of plans under a hard freeze among smaller sponsors. (See app. I, slide 13.) Similarly, firms with some or all plans subject to CB are significantly less likely to implement hard freezes than sponsors with no plans subject to CB.[11] (See app. I, Slide 14.) However, these two factors may be related, as larger sponsors in our

[9]Closed and unclassified plans are only included for this analysis (see app. I, slide 12). In other analyses, only those plans reporting a specific freeze type will be included in calculations of frozen plans. Of the 51 percent of all plans reported as closed to new entrants, 44 percent reported a specific freeze type. Another roughly 9 percent of plans were closed to new entrants but were not classified by their sponsors as being frozen. Those plans defining a freeze plus those that reported the plan as closed to new hires, but not defined as frozen, may not sum to the total number of closed plans. This occurs because, in certain instances, a partial freeze may not be closed to all new entrants. For example, a subset of new entrants may be part of the group unaffected by the partial freeze.

[10]An example of a tier might be if an employer were to offer certain participants the option to freeze certain accruals in one DB plan as a condition of participation and accruals in another, alternative plan (either DB or DC).

[11]The statistical significance of this finding applies only to hard frozen plans. Sponsors with some or all plans that were subject to CB did not freeze their plans overall at a statistically different rate from the general population of sponsors. Estimated percentages for sponsors with no CB or some CB have 95 percent confidence intervals of within +/- 11 percentage points of the estimates themselves. For sponsors with all plans subject to CB, the confidence intervals are within +/- 15 percentage points of the estimates themselves.

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# Background: What Is a Plan Freeze?

- A plan freeze is a plan amendment that closes the plan to new entrants and may limit future benefit accruals for some or all active plan participants
- General types include:
  - -Hard Freeze – the plan is closed to new entrants and participants no longer accrue additional benefits
  - -Soft Freeze – at a minimum the plan is closed to new entrants. The plan's prospective benefit formula may or may not be changed in such a way as to limit future benefit accruals for participants.
  - -Partial Freeze – the plan is closed to new entrants and, for only a subset of active participants, the plan's prospective benefit formula is changed to limit or cease future benefit accruals.

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# Background: Freeze Data

- Most reports of pre-2003 freezes were based on:
  - limited data obtained from restricted/proprietary client bases of consulting firms and
  - survey questions on freezes that were often indirect or could be misconstrued
- The Pension Benefit Guaranty Corporation (PBGC) began analyzing generalizable information on single-employer, "hard frozen" plans in 2005 (using plan year 2003 data)
- Most recent PBGC data shows that:
  - 14 percent of plans were hard frozen as of 2005
  - There has been a nearly 50 percent increase in frozen plans since 2003
  - Hard freezes are generally more prevalent among smaller plans

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United States Government Accountability Office

GAO

Report to Congressional Requesters

March 2009

# DEFINED BENEFIT PENSIONS

# Survey Results of the Nation's Largest Private Defined Benefit Plan Sponsors

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GAO-09-291

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# Highlights

Highlights of GAO-09-291, a report to congressional requesters

March 2009

# DEFINED BENEFIT PENSIONS

## Survey Results of the Nation's Largest Private Defined Benefit Plan Sponsors

### Why GAO Did This Study

The number of private defined benefit (DB) pension plans, an important source of retirement income for millions of Americans, has declined substantially over the past two decades. For example, about 92,000 single-employer DB plans existed in 1990, compared to just under 29,000 single-employer plans today. Although this decline has been concentrated among smaller plans, there is a widespread concern that large DB plans covering many participants have modified, reduced, or otherwise frozen plan benefits in recent years. GAO was asked to examine (1) what changes employers have made to their pension and benefit offerings, including to their defined contribution (DC) plans and health offerings over the last 10 years or so, and (2) what changes employers might make with respect to their pensions in the future, and how these changes might be influenced by changes in pension law and other factors.

To gather information about overall changes in pension and health benefit offerings, GAO asked 94 of the nation's largest DB plan sponsors to participate in a survey; 44 of these sponsors responded. These respondents represent about one-quarter of the total liabilities in the nation's single-employer insured DB plan system as of 2004. The survey was largely completed prior to the current financial market difficulties of late 2008.

View GAO-09-291 or key components.
For more information, contact Barbara Bovbjerg at (202) 512-7215 or bovbjergb@gao.gov.

### What GAO Found

GAO's survey of the largest sponsors of DB pension plans revealed that respondents have made a number of revisions to their retirement benefit offerings over the last 10 years or so. Generally speaking, they have changed benefit formulas; converted to hybrid plans (such plans are legally DB plans, but they contain certain features that resemble DC plans); or frozen some of their plans. Eighty-one percent of responding sponsors reported that they modified the formula for computing benefits for one or more of their DB plans. Among all plans reported by respondents, 28 percent of these (or 47 of 169) plans were under a plan freeze—an amendment to the plan to limit some or all future pension accruals for some or all plan participants. The vast majority of respondents (90 percent, or 38 of 42 respondents) reported on their 401(k)-type DC plans. Regarding these DC plans, a majority of respondents reported either an increase or no change to the employer or employee contribution rates, with roughly equal responses to both categories. About 67 percent of (or 28 of 42) responding firms plan to implement or have already implemented an automatic enrollment feature to one or more of their DC plans. With respect to health care offerings, all of the (42) responding firms offered health care to their current workers. Eighty percent (or 33 of 41 respondents) offered a retiree health care plan to at least some current workers, although 20 percent of (or 8 of 41) respondents reported that retiree health benefits were to be fully paid by retirees. Further, 46 percent of (or 19 of 41) responding firms reported that it is no longer offered to employees hired after a certain date.

At the time of the survey, most sponsors reported no plans to revise plan formulas, freeze or terminate plans, or convert to hybrid plans before 2012. When asked about the influence of recent legislation or changes to the rules for pension accounting and reporting, responding firms generally indicated these were not significant factors in their benefit decisions. Finally, a minority of sponsors said they would consider forming a new DB plan. Those sponsors that would consider forming a new plan might do so if there were reduced unpredictability or volatility in DB plan funding requirements and greater scope in accounting for DB plans on corporate balance sheets. The survey results suggest that the long-time stability of larger DB plans is now vulnerable to the broader trends of eroding retirement security. The current market turmoil appears likely to exacerbate this trend.

# Contents

**Abbreviations**

| | |
|---|---|
| DB | defined benefit |
| DC | defined contribution |
| CUSIP | Committee on Uniform Securities Identification Procedures |
| ERISA | Employee Retirement Income Security Act of 1974 |
| EIN | Employee Identification Number |
| FAS | Financial Accounting Standard |
| FASB | Financial Accounting Standards Board |
| HRA | health reimbursement arrangement |
| HSA | health savings account |
| MMA | Medicare Prescription Drug, Improvement, and Modernization Act of 2003 |
| PBGC | Pension Benefit Guaranty Corporation |
| PPA | Pension Protection Act of 2006 |

**United States Government Accountability Office**
**Washington, DC 20548**

March 30, 2009

The Honorable Charles E. Schumer
Vice Chairman
Joint Economic Committee
United States Senate

The Honorable Robert P. Casey, Jr.
United States Senate

The number of private defined-benefit (DB) pension plans, an important source of retirement income for millions of Americans, has declined substantially over the past two decades.[1] For example, about 92,000 single-employer DB plans existed in 1990 compared to just under 29,000 single-employer plans today. At the same time, the number of defined-contribution (DC) pension plans, such as 401(k)-type plans, has grown dramatically and resulted in a shift from DB plans to DC plans. For example, as of 2006, the Department of Labor estimates that there are 2.3 participants in a single-employer DC plan for each participant in a single-employer DB plan. One consequence of this shift from DB to DC plans is a shift of risk and responsibility to individual employees and away from the plan sponsors. In contrast to this overall trend, more large DB plans, or plans with more than 5,000 participants, exist today than did in 1990.[2] Despite the relative resilience of these large plans, there is widespread concern that sponsors of these plans have frozen or otherwise modified plan benefits.[3] Additionally, over the last few years, these plan sponsors have had to deal with a very dynamic environment for pensions—especially with respect to pension legislation, changes to pension-related accounting rules, and a now rapidly worsening financial environment.

[1]Employers may sponsor defined benefit (DB) or defined contribution (DC) plans for their employees. DB plans promise to provide a benefit that is generally based on an employee's salary and years of service. 29 U.S.C. § 1002(35). DB plans use a formula to determine the ultimate pension benefit participants are entitled to receive. Under a DC plan, such as a 401(k) plan, employees have individual accounts to which the employee, employer, or both make contributions, and benefits are based on contributions, along with investment returns (gains and losses) on the accounts. 29 U.S.C. § 1002(34).

[2]See Pension Benefit Guaranty Corporation, *Pension Insurance Data Book 2007*, Number 12 (Washington, D.C.,Winter 2008), page 70.

[3]See GAO, *Defined Benefit Pensions: Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges*, GAO-08-817 (Washington, D.C.: July 21, 2008).

Employers have also been wrestling with higher health care costs and making a number of changes to health benefit offerings. For example, many employers that offer health benefits have required workers to pay a higher share of out-of-pocket costs, and some have recently introduced consumer-directed health plans, which trade lower premiums for significantly higher deductibles.[4] Similar to coverage for active workers, an increasing share of retiree health benefits costs is being shifted to retirees and many employers have terminated benefits for future retirees—a trend that experts believe will continue.

Plan sponsors have also had to react to changes in the legislation governing plan funding and sponsorship and in accounting rules determining how pension assets and liabilities should be publicly reported. The current financial market turmoil has also led to additional stress on many plan sponsors. For example, a benefit consulting group recently estimated that the recent stock downturn has left DB pension plans at the nation's largest companies underfunded by $409 billion—erasing an estimated $60 billion pension surplus at year-end 2007. On average, these large firms' pension assets were only able to cover 75 percent of their obligations, down from the estimated 104 percent a year prior.

To better understand what has happened in the last decade or so, and what may happen in the future to pension plans as indicated by the actions of large DB sponsors, you asked us to address

(1) what changes employers have made to their pension and benefit offerings, including to their DC plans and health offerings, over the last 10 years or so, and

(2) what changes employers might make with respect to their pensions in the future, and how these changes might be influenced by changes in pension law and other factors.

[4]The most common tax-advantaged savings arrangements that enrollees can use to pay for a portion of their health expenses are health reimbursement arrangements (HRA) or health savings accounts (HSA). These accounts allow funds to accrue over time. HRA accounts are owned by the employer, and only the employer may contribute to them. HSAs are owned by the enrollee and, therefore, are portable when workers change jobs. Both employers and enrollees can make contributions to HSAs. See GAO, *Employer Sponsored Health and Retirement Benefits: Efforts to Control Employer Costs and the Implication for Workers*, GAO-07-355 (Washington, D.C.: Mar. 30, 2007).

To determine the status of sponsors' current benefit offerings, as well as possible prospective changes to pension offerings in the context of the current legal and regulatory environment, we developed, pretested, and administered an original survey of large DB plan sponsors. Additionally we analyzed and reviewed other employer studies and reviewed related literature. Appendix I contains revised slides that update the preliminary briefing information that we provided to your staff, as well as to officials from the Pension Benefit Guaranty Corporation (PBGC), the Department of Labor, and the Department of the Treasury in February 2009.

To achieve our survey objectives, we developed and pretested a questionnaire that we sent to the largest DB pension sponsors from PBGC's 2004 Form 5500 Research Database. We further limited our study population to those sponsors that were also listed on either the Fortune 500 or Global 500 lists. We administered the survey to the 94 largest sponsors (by total participants in all sponsored plans) for which we were able to obtain information for the firm representative who would be most knowledgeable on pension and benefits issues. While 94 firms we identified for the survey do not represent a statistically generalizable sample of the roughly 23,500 total DB plan sponsors we identified in the Form 5500 Research Database, we estimate that these 94 sponsors represented 50 percent of the total liabilities and 39 percent of the total participants (active, retired, and separated-vested) in the PBGC insured single-employer DB system as of 2004. Given their relative significance, the 94 sponsors, by themselves, represent an important share of the DB system. Among the 44 plan sponsors that ultimately responded to the survey, we estimate that these sponsors represent 25 percent of the total liabilities and 19 percent in the single-employer DB system as of 2004 (see app. I, slide 5). Further, the responding sponsors represented a diversity of industries such as manufacturing; information; finance or insurance; and other various industries (see app. I, slide 7). Additionally, responding firms reported employing, on average, 75,000 employees in their U.S. operations in 2006.

The survey was administered as a Web-based survey that was available for access from December 17, 2007, to October 31, 2008. The vast majority of respondents completed the survey at least a few months prior to the recent financial downturn. Our analysis is unlikely to capture any related trends.

We initiated our audit work in April 2006. We issued results from our survey regarding frozen plans in July 2008.[5] We completed our audit work for this report in March 2009 in accordance with all sections of GAO's Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings and conclusions.

See appendix II for a more detailed discussion about our methodology.

## From January 1997 to the Time of the Survey Response, Large Sponsors of DB Plans Have Revised Their Benefit Offerings in Various Ways

Our survey of the largest sponsors of DB pension plans reveals that they have made a number of revisions to their benefit offerings over approximately the last 10 years or so. Generally, respondents reported that they revised benefit formulas, converted some plans to hybrid plans (such as cash balance plans),[6] or froze some of their plans. For example, 81 percent[7] of responding sponsors reported that they modified the formulas of one or more of their DB plans.

Respondents were asked to report changes for plans or benefits that covered only nonbargaining employees, as well as to report on plans or benefits that covered bargaining unit employees. Fifty-eight percent[8] of respondents who reported on plans for collective- bargaining employees

[5]We previously used a portion of this survey to analyze frozen plan tendencies, which used a stratified random probability sample of 471 DB pension sponsors from PBGC's 2004 Form 5500 Research Database. See GAO-08-817.

[6]Cash balance plans are referred to as hybrid plans because, legally, they are DB plans but contain certain features that resemble DC plans. Similar to traditional DB plans, cash balance plans use a formula to determine pension benefits. However, unlike traditional final average pay plans that pay retirement benefits on the basis of an annuity amount calculated using years of service and earnings, cash balance plans express benefits as a hypothetical individual account balance that is based on pay credits (percentage of salary or compensation) and interest credits, rather than an annuity.

[7]Or 34 of 42 respondents that answered this question for either their plans covering nonbargaining employees only or their plans covering collectively bargained employees. All results in this report are unweighted. For example, results reported on a respondent basis are not additionally weighted by another factor such as plan liabilities or the number of participants in the responding sponsors' plans.

[8]Or 14 of 24 respondents that answered the question for their plans covering collectively collective-bargaining employees.

indicated they had generally increased the generosity of their DB plan formulas between January 1997 and the time of their response (see app. I, slide 12). In contrast, 48 percent[9] of respondents reporting on plans for their nonbargaining employees had generally decreased the generosity of their DB plan formulas since 1997.[10] "Unpredictability or volatility of DB plan funding requirements" was the key reason cited for having changed the benefit formulas of plans covering nonbargaining employees (see app. I, slide 14).[11] "Global or domestic competitive pressures" in their industry was the key reason cited for the changes to the plans covering collectively bargained employees (see app. I, slide 13).[12] With regard to plans for bargaining employees, however, a number of the sponsors who offered reasons for changes to bargaining unit plans also volunteered an additional reason for having modified their plans covering bargaining employees. Specifically, these sponsors wrote that inflation or a cost-of-living adjustment was a key reason for their increase to the formula. This suggests that such plans were flat-benefit plans[13] that may have a benefit structure that was increased annually as part of a bargaining agreement.

Meanwhile, sponsors were far more likely to report that they had converted a DB plan covering nonbargaining unit employees to a hybrid plan design than to have converted DB plans covering collectively

[9]Or 19 of 40 respondents that answered the question for their plans covering nonbargaining employees only.

[10]Respondents may be responding for both questions relating to plans covering nonbargaining unit employees only and questions relating to plans covering bargaining unit employees. For the question relating to DB formula changes, 24 respondents answered both questions.

[11]This reason was most common, both among those reporting a change and among only those respondents reporting a formula decrease.

[12]See appendix II for an explanation of the difference between collectively bargained plans and collectively bargained employees.

[13]A flat-benefit plan uses a formula multiplying a beneficiary's months of service by a predetermined, flat, monthly rate. This contrasts with the more typical unit credit plan, which typically uses a formula multiplying a beneficiary's years of service by a percentage of his or her salary. Flat-benefit plans are more common in collectively bargained plans where the range of monthly wages between employees is comparatively small. Because, typically, an employee's wages often increase over time, flat-benefit plans are amended, usually in conjunction with a new collective-bargaining agreement, by raising the monthly rate. As such, a cost-of-living adjustment for an employee with a pension using a flat-benefit formula may be thought of as analogous to a wage increases that may be witnessed by an employee with a pension using a unit credit formula.

bargained employees. For example, 52 percent[14] of respondents who reported on plans for nonbargaining unit employees had converted one or more of their traditional plans to a cash balance or other hybrid arrangement (see app. I, slide 15). Many cited "trends in employee demographics" as the top reason for doing so (see app. I, slide 16). Among respondents who answered the cash balance conversion question for their collectively bargained plans, 21 percent[15] reported converting one or more of their traditional plans to a cash balance plan.

Regarding plan freezes, 62 percent[16] of the responding firms reported a freeze, or a plan amendment to limit some or all future pension accruals for some or all plan participants, for one or more of their plans (see app. I, slide 18). Looking at the respondent's plans in total, 8 percent of the plans[17] were described as hard frozen, meaning that all current employees who participate in the plan receive no additional benefit accruals after the effective date of the freeze, and that employees hired after the freeze are ineligible to participate in the plan. Twenty percent[18] of respondents' plans were described as being under a soft freeze, partial freeze, or "other" freeze.[19] Although not statistically generalizable, the prevalence of freezes among the large sponsor plans in this survey is generally consistent with the prevalence of plan freezes found among large sponsors through a previous GAO survey that was statistically representative.[20]

[14]Or 21 of 40 respondents that answered the question for their plans covering non-bargaining employees only.

[15]Or 5 of 24 respondents that answered the question for their plans covering collective-bargaining employees.

[16]Or 26 of 42 respondents that answered the question.

[17]Or 14 plans as hard frozen, among the 169 total plans reported by 42 respondents.

[18]Or 33 plans as soft, partial, or other freeze, among the 169 total plans reported by 42 respondents.

[19]A soft freeze is a freeze that limits future benefit accruals based on a component of the benefit accrual formula (that is, the service or salary component), and at a minimum, closes the plan to new participants. A partial freeze is a freeze that closes the plan to new entrants and, for only a subset of active participants, the plan's prospective benefit formula is changed to limit or cease future benefit accruals.

[20]See GAO 08-817. Many of the large sponsors in the GAO Survey of Large Defined Benefit Sponsors were included as a subset of sponsors in the Survey of Plan Freezes.

The vast majority of respondents (90 percent)[21] to our most recent survey also reported on their 401(k)-type DC plans. At the time of this survey, very few respondents reported having reduced employer or employee contribution rates for these plans. The vast majority reported either an increase or no change to the employer or employee contribution rates, with generally as many reporting increases to contributions as reporting no change (see app. I, slide 21). The differences reported in contributions by bargaining status of the covered employees were not pronounced. Many (67 percent)[22] of responding firms plan to implement or have already implemented an automatic enrollment feature to one or more of their DC plans.

According to an analysis by the Congressional Research Service, many DC plans require that workers voluntarily enroll and elect contribution levels, but a growing number of DC plans automatically enroll workers. Additionally, certain DC plans with an automatic enrollment feature may gradually escalate the amount of the workers' contributions on a recurring basis. However, the Pension Protection Act of 2006 (PPA) provided incentives to initiate automatic enrollment for those plan sponsors that may not have already adopted an automatic enrollment feature.[23] Seventy-two percent[24] of respondents reported that they were using or planning to use automatic enrollment for their 401(k) plans covering nonbargaining

[21]Or 38 of 42 respondents that answered 401(k)-related questions for either their plans covering nonbargaining employees only or their plans covering collectively bargained employees.

[22]Or 28 of 42 respondents that answered the automatic enrollment question for either their plans covering only nonbargaining employees or their plans covering collectively bargained employees.

[23]See Congressional Research Service, *Automatic Enrollment in 401(k) Plans*, RS21954 (Washington, D.C., Jan. 16, 2007). The PPA amended the Employee Retirement Income Security Act of 1974 (ERISA) to provide that under default investment arrangements that provide participants with required notice, employers and other plan fiduciaries will not be held liable for losses to the same extent as if a participant had exercised control of the investment. PPA § 624, 120 Stat. 980. The law also provided that automatic contribution arrangements that provide automatic deferral of pay, matching or nonelective contributions, and notice to employees will be deemed to meet the nondiscrimination requirements of the Internal Revenue Code. PPA §§ 902(a), 120 Stat. 1033-35. It also provided that plans consisting solely of contributions made through automatic enrollment will not be considered top-heavy plans. PPA § 902(c), 120 Stat. 1036.

[24]Or 28 of 39 respondents that answered the question for their plans covering non-bargaining employees only.

employees, while 46 percent[25] indicated that they were currently doing so or planning to do so for their plans covering collective-bargaining employees (see app. I, slide 22). The difference in automatic enrollment adoption by bargaining status may be due to the fact that nonbargaining employees may have greater dependence on DC benefits. That is, a few sponsors noted they currently automatically enroll employees who may no longer receive a DB plan. Alternatively, automatic enrollment policies for plans covering collective-bargaining employees may not yet have been adopted, as that plan feature may be subject to later bargaining.

Health benefits are a large component of employer offered benefits. As changes to the employee benefits package may not be limited to pensions, we examined the provision of health benefits to active workers, as well as to current and future retirees. We asked firms to report selected nonwage compensation costs or postemployment benefit expenses for the year 2006 as a percentage of base pay. Averaging these costs among all those respondents reporting such costs, we found that health care comprised the single largest benefit cost. Active employee health plans and retiree health plans combined to represent 15 percent of base pay[26] (see app. I, slide 24). DB and DC pension costs were also significant, representing about 14 percent of base pay.[27] All of the respondents[28] reporting on health benefits offered a health care plan to active employees and contributed to at least a portion of the cost. Additionally, all of these respondents provided health benefits to some current retirees, and nearly all were providing health benefits to retirees under the age of 65 and to retirees aged 65 and older. Eighty percent[29] of respondents offered retiree health benefits to at least some future retirees (current employees who could eventually become eligible for retiree benefits), although 20 percent[30] of respondents offered

[25]Or 11 of 24 respondents that answered the question for their plans covering collective-bargaining employees.

[26]Twenty-five respondents reported their firm's percent of base pay devoted to active employee health plans, and 25 respondents reported their firm's percent of base pay devoted to retiree health plans.

[27]Twenty-five respondents reported their firm's percent of base pay devoted to DB plans, and 25 respondents reported their firm's percent of base pay devoted to DC plans.

[28]Or 42 of the 42 respondents that answered the questions.

[29]Or 33 of the 41 respondents that offered a retiree health benefit to at least some current employees.

[30]Or 8 of the 41 respondents that offered a retiree health benefit to at least some current employees.

retiree health benefits that were fully paid by the retiree.[31] Further, it appears that, for new employees among the firms in our survey, a retiree health benefit may be an increasingly unlikely offering in the future, as 46 percent[32] of responding firms reported that retiree health care was no longer to be offered to employees hired after a certain date (see app. I, slide 25).

We asked respondents to report on how an employer's share of providing retiree health benefits had changed over the last 10 years or so for current retirees. Results among respondents generally did not vary by the bargaining status of the covered employees (app. I, slide 27). However, 27 percent[33] of respondents reporting on their retiree health benefits for plans covering nonbargaining retirees reported increasing an employer's share of costs, while only 13 percent[34] of respondents reporting on their retiree health benefits for retirees from collective-bargaining units indicated such an increase. Among those respondents with health benefits covering nonbargained retirees, they listed "large increases in the cost of health insurance coverage for retirees" as a major reason for increasing an employer's share—not surprisingly. This top reason was the same for all of these respondents, as well as just those respondents reporting a decrease in the cost of an employer's share.[35] Additionally, a number of respondents who mentioned "other" reasons for the decrease in costs for employers cited the implementation of predefined cost caps.[36]

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[31]These figures are not necessarily mutually exclusive. The very same respondents could answer multiple questions about features of their current retiree health offering or offerings.

[32]Or 19 of the 41 respondents that offered a retiree health benefit to at least some current employees.

[33]Or 11 of 40 respondents that answered the question for their plans covering nonbargaining employees only.

[34]Or 3 of 23 respondents that answered the question for their plans covering collective-bargaining employees.

[35]We do not report selected reasons for respondents reporting for their collectively bargained employees, as the response rate for the question was not robust.

[36]A cost cap is a limitation placed on an employer's share of costs. A few firms specifically cited Financial Accounting Standard (FAS) 106 as the impetus for the cap. FAS 106 outlines accounting practices for postretirement benefits other than pensions, which includes health plans.

Our survey also asked respondents to report on their changes to retiree health offerings for future retirees or current workers who may eventually qualify for postretirement health benefits. As noted earlier, 46 percent of respondents reported they currently offered no retiree health benefits to active employees (i.e., current workers) hired after a certain date. Reporting on changes for the last decade, 54 percent[37] of respondents describing their health plans for nonbargaining future retirees indicated that they had decreased or eliminated the firm's share of the cost of providing health benefits (see app. I, slide 30).[38] A smaller percentage (41 percent)[39] of respondents reporting on their health benefits for collectively bargained future retirees indicated a decrease or elimination of benefits. The need to "match or maintain parity with competitor's benefits package" was the key reason for making the retiree health benefit change for future retirees among respondents reporting on their collective-bargaining employees (app. I, slide 32).

We asked respondents to report their total, future liability (i.e., present value in dollars) for retiree health as of 2004.[40] As of the end of the 2004 plan year, 29 respondents reported a total retiree health liability of $68 billion. The retiree health liability reported by our survey respondents represents 40 percent of the $174 billion in DB liabilities that we estimate for these respondents' DB plans as of 2004. According to our estimates, the DB liabilities for respondents reporting a retiree health liability were

[37]Or 21 of 39 respondents that answered the question for their plans covering nonbargaining employees only.

[38]These respondents indicated that "large cost increases in health insurance for retirees" and "large cost increases in health insurance for active employees" were the major reasons for the change to benefits (app. I, slide 31). Interestingly, these reasons were ranked as top reasons for respondents that specifically reported an increase in an employer's share of the cost, as well as those that specifically reported a decrease.

[39]Or 9 of 22 respondents that answered the question for their plans covering collective-bargaining employees.

[40]We asked for this somewhat older information for two reasons: (1) we used 2004 Form 5500 information to construct the survey sample, and we could use this information to compare the reported retiree health liabilities to the DB liabilities of the responding plan sponsors; and (2) changes occurred with respect to the accounting treatment of health care liabilities with the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) (Pub. L. No. 108-173, 117 Stat. 2006), which could potentially make consistent comparisons of liabilities in later years difficult. For more information on MMA and its effect on accounting, see GAO, *Retiree Health Benefits: Options for Employment-Based Prescription Drug Benefits under the Medicare Modernization Act*, GAO-05-205 (Washington, D.C.: Feb. 5, 2005).

supported with $180 billion in assets as of 2004. We did not ask respondents about the assets underlying the reported $68 billion in retiree health liabilities. Nevertheless, these liabilities are unlikely to have much in the way of prefunding or supporting assets, due in large part to certain tax consequences.[41] Although we did not ask sponsors about the relative sustainability of retiree health plans given the possible difference in the funding of these plans relative to DB plans, we did ask respondents to report the importance of offering a retiree health plan for purposes of firm recruitment and retention. Specifically, we asked about the importance of making a retiree health plan available relative to making a DB or DC pension plan available. Only a few respondents reported that offering DB or DC plans was less (or much less) important than offering a retiree health plan.

## At the Time of the Survey, Large DB Sponsors Anticipated Making Few Additional Changes to DB Plans

Responding before October 2008—before the increasingly severe downturns in the national economy—most survey respondents reported they had no plan to revise benefit formulas or freeze or terminate plans, or had any intention to convert to hybrid plans before 2012. Survey respondents were asked to consider how their firms might change specific employee benefit actions between 2007 and 2012 for all employees. The specific benefit actions they were asked about were a change in the formula for calculating the rates of benefit accrual provided by their DB plan, a freeze of at least one DB plan, the conversion of traditional DB plans to cash balance or other hybrid designs, and the termination of at least one DB plan. For each possibility, between 60 percent and 80

[41] The tax treatment of such funding is extremely unfavorable, especially when compared to the treatment accorded the funding of pensions. Contributions in excess of those needed for retiree health benefits currently payable are not deductible from a corporation's income for tax purposes. Further, to the extent that excess funds are contributed, any investment earnings on those accumulations are considered to be income to the plan sponsor. On the other hand, when the health benefits are paid, they become an expense of the plan sponsor. This is exactly the reverse of the treatment of pensions. For pensions, the contributions to tax-qualified plans are, within limits, an ordinary business expense and, hence, are deductible from the sponsor's income; investment earnings on the accumulations are deferred; and benefit payments do not reduce the sponsor's income but are considered income to the recipient.

percent[42] of respondents said their firm was not planning to make the prospective change (see app I, slide 34).

When asked about how much they had been or were likely to be influenced by recent legislation or account rule changes, such as PPA or the adoption of Financial Accounting Standards Board (FASB) requirements to fully recognize obligations for postretirement plans in financial statements, responding firms generally indicated these were not significant factors in their decisions on benefit offerings. Despite these legislative and regulatory changes to the pension environment, most survey respondents indicated that it was unlikely or very unlikely that their firms would use assets from DB plans to fund qualified health plans; increase their employer match for DC plans; terminate at least one DB plan; amend at least one DB plan to change (either increase or decrease) rates of future benefit accruals; convert a DB plan to a cash balance or hybrid design plan, or replace a DB plan with a 401(k)-style DC plan.

Additionally, most respondents indicated “no role” when asked whether PPA, FASB, or pension law and regulation prior to PPA had been a factor in their decision (see app 1, slide 35). Though the majority of these responses indicated a trend of limited action related to PPA and FASB, it is interesting to note that, among the minority of firms that reported they were likely to freeze at least one DB plan for new participants only, most indicated that PPA played a role in this decision.[43] Similarly, while only a few firms indicated that it was likely they would replace a DB plan with a 401(k)-style DC plan, most of these firms also indicated that both PPA and FASB played a role in that decision.[44]

There were two prospective changes that a significant number of respondents believed would be likely or very likely implemented in the

[42]More than 60 percent (or 27 of 42) of respondents planned no change to formula for calculating the rates of benefit accrual provided by DB plan; more than 60 percent (or 27 of 42) of respondents believed their firm will probably not or definitely not freeze at least one DB plan; 80 percent (or 34 of 42) of respondents believed their firm will probably not or definitely not convert DB plans to cash balance or other hybrid plans; and 79 percent (or 33 of 42) of respondents believed their firm will probably not or definitely not terminate DB plans.

[43]Of the 11 firms that indicated a freeze for new participants was likely, 8 firms said that PPA played a role in the decision—4 of which selected “major role.”

[44]Of the 5 firms that indicated replacing a DB plan with a 401(k)-style DC plan was likely, 4 indicated that both PPA and FASB played a role—2 of which selected “major role” for each.

future. Fifty percent[45] of respondents indicated that adding or expanding automatic enrollment features to 401(k)-type DC plans was likely or very likely, and 43 percent[46] indicated that PPA played a major role in this decision.[47] This is not surprising, as PPA includes provisions aimed at encouraging automatic enrollment and was expected to increase the use of this feature. Forty-five percent[48] of respondents indicated that changing the investment policy for at least one DB plan to increase the portion of the plan's portfolio invested in fixed income assets was likely or very likely—with 21 percent[49] indicating that PPA and 29 percent[50] indicating that FASB played a major or moderate role in this decision[51] (see app 1, slide 36). Our survey did not ask about the timing of this portfolio change, so we cannot determine the extent of any reallocation that may have occurred prior to the decline in the financial markets in the last quarter of 2008.

Finally, responding sponsors did not appear to be optimistic about the future of the DB system, as the majority stated there were no conditions under which they would consider forming a new DB plan. For the 26 percent[52] of respondents that said they would consider forming a new DB plan, some indicated they could be induced by such changes as a greater scope in accounting for DB plans on corporate balance sheets and reduced unpredictability or volatility of plan funding requirements (see app I, slides

[45]Or 21 of 42 respondents that answered this question for their plans covering nonbargaining employees and/or their plans covering collectively bargained employees.

[46]Or 18 of 42 respondents that answered this question for their plans covering nonbargaining employees and/or their plans covering collectively bargained employees.

[47]The role of PPA is more pronounced among the 50 percent that indicated this change was likely; of these, 71 percent (15 out of 21) indicated that PPA played a "major role."

[48]Or 19 of 42 respondents that answered this question for their plans covering nonbargaining employees and/or their plans covering collectively bargained employees.

[49]Or 9 of 42 respondents that answered this question for their plans covering nonbargaining employees and/or their plans covering collectively bargained employees.

[50]Or 12 of 42 respondents that answered this question for their plans covering nonbargaining employees and/or their plans covering collectively bargained employees.

[51]The role of PPA and FASB is more pronounced among the 45 percent of respondents that indicated this change was likely; of these, 47 percent (9 out of 19) indicated PPA played a role, and 63 percent (12 out of 19) indicated FASB played a role.

[52]Or 11 of 42 respondents that answered this question for their plans covering nonbargaining employees and/or their plans covering collectively bargained employees.

38). Conditions less likely to cause respondents to consider a new DB plan included increased regulatory requirements of DC plans and reduced PBGC premiums (see app I, slide 39).

## Conclusions

Until recently, DB pension plans administered by large sponsors appeared to have largely avoided the general decline evident elsewhere in the system since the 1980s. Their relative stability has been important, as these plans represent retirement income for more than three-quarters of all participants in single-employer plans. Today, these large plans no longer appear immune to the broader trends that are eroding retirement security. While few plans have been terminated, survey results suggest that modifications in benefit formulas and plan freezes are now common among these large sponsors. This trend is most pronounced among nonbargained plans but is also apparent among bargained plans. Yet, this survey was conducted before the current economic downturn, with its accompanying market turmoil. The fall in asset values and the ensuing challenge to fund these plans places even greater stress on them today.

Meanwhile, the survey findings, while predating the latest economic news, add to the mounting evidence of increasing weaknesses throughout the existing private pension system that include low contribution rates for DC plans, high account fees that eat into returns, and market losses that significantly erode the account balances of those workers near retirement. Moreover, the entire pension system still only covers about 50 percent of the workforce, and coverage rates are very modest for low-wage workers. Given these serious weaknesses in the current tax-qualified system, it may be time for policymakers to consider alternative models for retirement security.

## Agency Comments

We provided a draft of this report to the Department of Labor, the Department of the Treasury, and PBGC. The Department of the Treasury and PBGC provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the Secretary of Labor, the Secretary of the Treasury, and the Director of the PBGC, appropriate congressional committees, and other interested parties. In addition, the report will be available at no charge on GAO's Web site at http://www.gao.gov.

If you have or your staffs any questions about this report, please contact me at (202) 512-7215 or bovbjergb@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions are listed in appendix III.

Barbara D. Bovbjerg

Barbara D. Bovbjerg, Director
Education, Workforce, and Income Security Issues

# Appendix I: Survey Results of the Nation's Largest Private DB Plan Sponsors

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## Defined Benefit (DB) Pensions: Survey Results of the Nation's Largest Private DB Plan Sponsors

**Preliminary Findings**

**February 24, 2009**

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## Survey Objectives

- Assess the impact of recent developments facing sponsors of the nation's largest private sector DB plans:

1) What recent changes have employers made to their pension and benefit offerings?

2) What changes might employers make with respect to their pensions in the future, and how might these changes be influenced by changes in pension law and other factors?

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## GAO Survey of the Largest DB Sponsors: Overview of Survey and Topics

- The survey consisted of 105 questions and covered a broad range of areas including:
  - the status of current DB plans
  - the status of frozen plans (if any) and largest frozen plan (if applicable)
  - health care information (for active employees and retirees)
  - non-wage compensation targets and priorities
  - pension and other benefit practices/changes over the last ten years or so and reasons for those changes
    - these questions were separated into two sections: one for plans covering non-bargaining unit employees and one for plans covering bargaining units
  - prospective benefit plan changes and the influence of laws and accounting rules on those prospective changes
  - opinions about the possible formation of a new DB plan

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# GAO Survey of the Largest DB Sponsors: Sampling/Summary Statistics

- Target group - A selection sample of the largest 100 private sector sponsors of DB plans that were also listed on the Fortune 500 or Global 500
- Of the originally targeted 100 sponsors, we were able to obtain contact information—typically the firm's Director of Benefits—for 94 sponsors
  - Sponsors received a web based survey administered from November 2007 to October 2008; the vast majority of respondents completed the survey prior to July 2008
- 44 of the 94 sponsors responded
- Responding firms often had multiple plans—a median of 2 plans and an average of about 4 plans

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## GAO Survey of the Largest DB Sponsors: Significance and Interpretation

- As a selection sample of the largest plans, results are not generalizable to all DB plan sponsors.
- However, the sample can serve as an important indicator of the health of the private DB system and the sample's possible importance to the Pension Benefit Guaranty Corporation (PBGC)
- The 44 sponsoring firms that responded represent an estimated:
  - 25 percent (or $370 billion) of total DB system liabilities as of 2004
  - 19 percent (or 6 million) of the system's DB participants (active, separated-vested, retired as of 2004)

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## GAO Survey of the Largest DB Sponsors: Significance and Interpretation

- Among the responding firms, the largest individual self-reported business line was manufacturing, with other key areas being finance and information. (Figure 1)
- These firms reported employing on average 75,000 employees in their U.S. operations in 2006.

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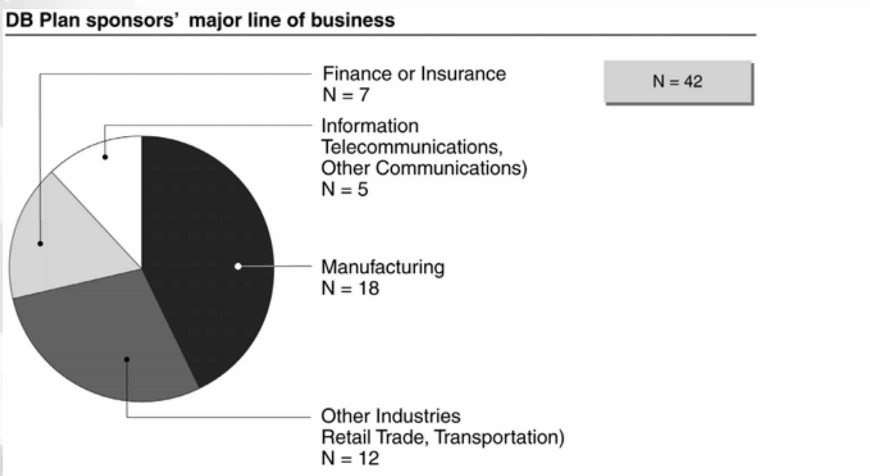
## Figure 1: Large DB Plan Sponsors Most Common In Manufacturing Industries




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

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## GAO Survey of the Largest DB Sponsors: Context

- The DB system has been in decline:
  - Long term decline in number of private DB plans and percentage of system participants who are active workers
  - Large net accumulated deficit ($11 billion) for Pension Benefit Guaranty Corporation (PBGC) which insures private DB plans
- Developments affecting DB plans and sponsors:
  - Pension Protection Act of 2006 and related legislation, which tightened funding rules and raised PBGC premiums
  - New accounting rules, such as FAS 158, which highlighted importance of plan underfunding on corporate balance sheets
  - Rising cost pressures from health insurance for active workers and retirees

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## GAO Survey of the Largest DB Sponsors: Context

- Survey conducted prior to:
  - Financial market turmoil of 2008
  - Detroit automakers, who have DB plans, seeking federal assistance
  - Rising unemployment
  - Recently legislated pension funding relief, the Worker, Retiree, and Employer Recovery Act of 2008

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## Overview: Survey Findings

- Between 1997 and October 2008:
    - Revisions to DB plan features (e.g. benefit formulas, plan freezes, hybrid plan conversions) were common, especially among sponsors' non-bargained (NB) plans
    - Revisions to defined contribution (DC) plan features were most common among sponsors' NB plans
        - Many respondents reported having already implemented or planning to implement auto-enrollment
    - Health insurance benefits to current retirees were still common, but 20 percent placed full costs on retirees; over 46 percent did not offer benefit to some future retirees, or employees hired after a certain date
- Most DB plan sponsors planned few changes before 2012

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## Large DB Plan Sponsor Survey: Trends in DB Plan Sponsorship and Design

Between 1997 and October 2008:

- Collectively bargained (CB) plans were more likely to report a benefit formula improvement in generosity while NB plans were more likely to report a decline in benefit formula generosity (Figure 2)
  - For CB plans key reasons cited for changes were competitive economic pressures and employee demographics (Figure 3)
  - For NB plans key reasons cited for changes were funding unpredictability, competitive economic pressures and employee demographics (Figure 4)
- Respondents reported more conversions to hybrid designs among NB plans (Figure 5)
  - Top reasons for non-bargaining unit conversions: employee demographics and unpredictable funding requirements (Figure 6)

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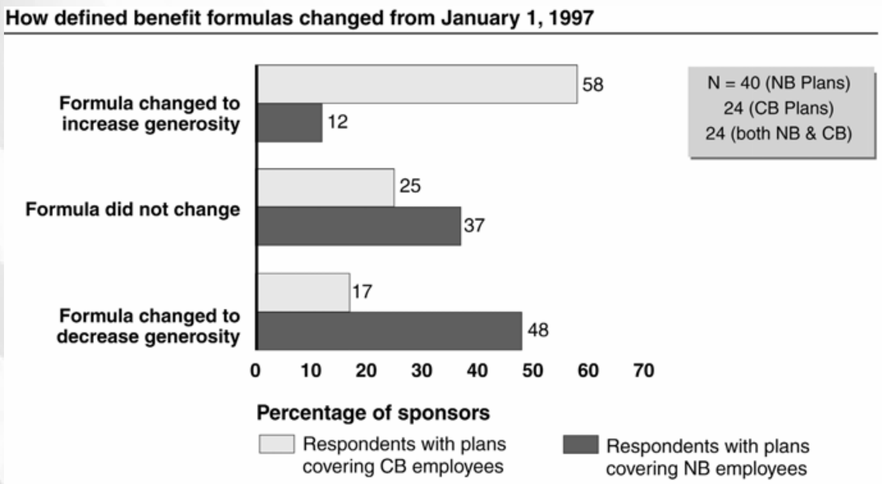
## Figure 2: Sponsors Reported DB Formula Changes as Generally More Generous for Plans that are CB




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: Nearly 40 percent of respondents did not respond to questions regarding collectively bargained plans.

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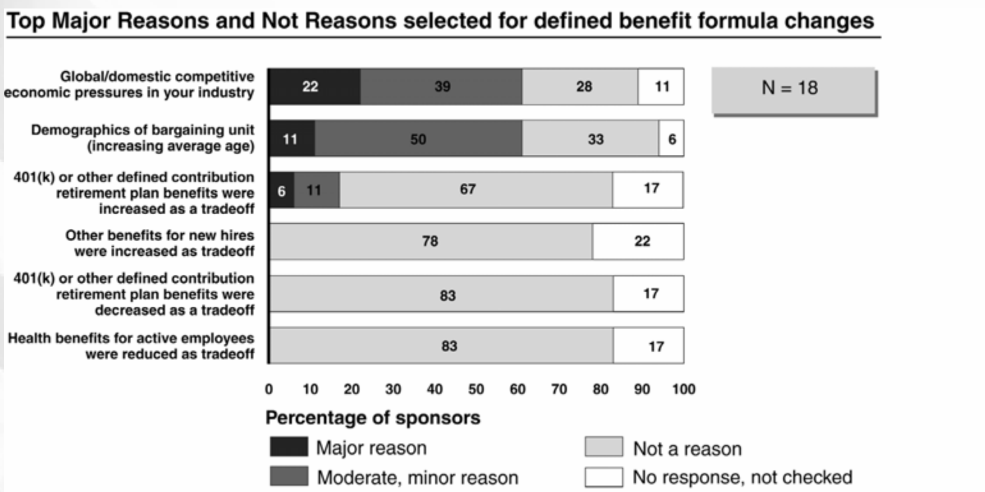
## **Figure 3:** Reasons for Formula Changes Varied by Bargaining Status of the Plan: Plans Covering CB Employees




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: The top three key reasons are ranked in declining order of the percentage of firms listing a 'major reason,' while the bottom three reasons are listed in declining order of firms listing 'not a reason.' 33 percent of respondents selected Other as a Major Reason; 3 out of 6 respondents mention inflation or increased cost of living as the other reason.

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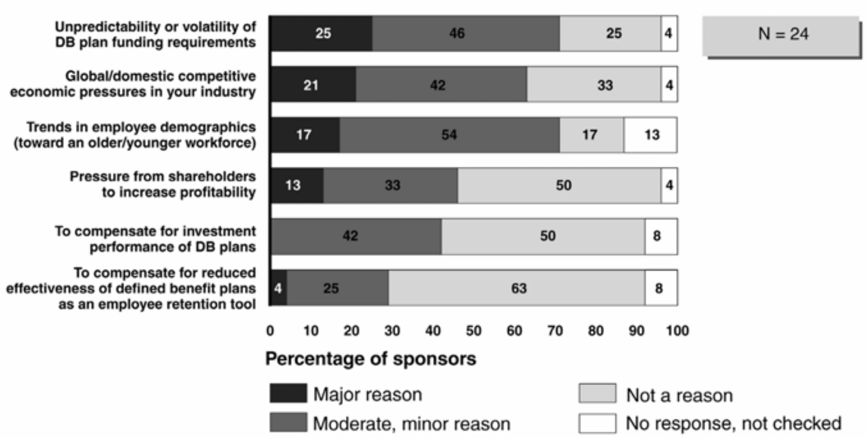
## Figure 4: Reasons for Formula Changes Vary by Bargaining Status of the Plan: Plans Covering NB Employees

### Top Major Reasons and Not Reasons selected for defined benefit formula changes




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: The top three key reasons are ranked in declining order of the percentage of firms listing a 'major reason,' while the bottom three reasons are listed in declining order of firms listing 'not a reason.' 17 percent of respondents selected Other as a 'major reason;' 3 out of 5 respondents mention mergers or acquisitions as the other reason .

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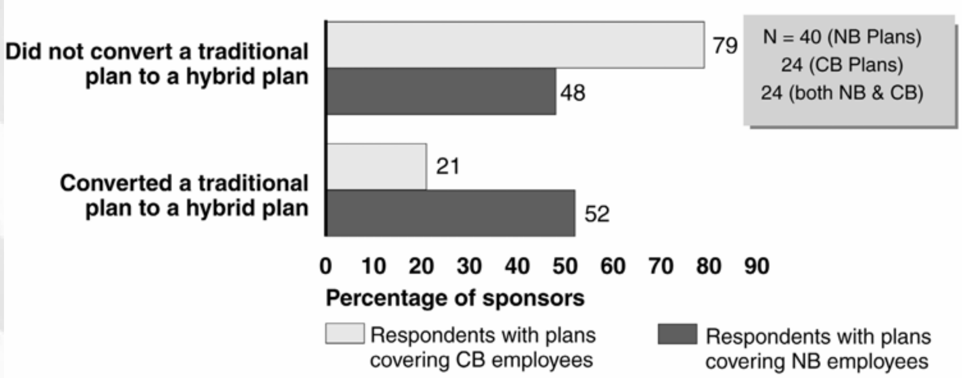
# Figure 5: Conversion to Hybrid/Cash Balance Plans




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

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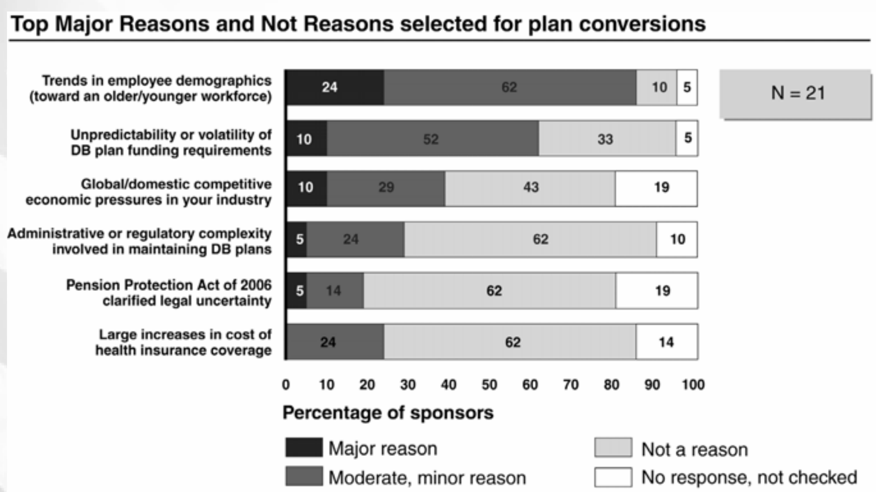
# Figure 6: Reasons for Non-Bargaining Unit Conversions to Hybrid/Cash Balance plans




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: The top three key reasons are ranked in declining order of the percentage of firms listing a 'major reason,' while the bottom three reasons are listed in declining order of firms listing 'not a reason.' 33 percent of respondents selected 'other' as a 'major reason.' In 'other' reasons listed by those respondents, 4 out of 9 listed merger or acquisition as the major reason for conversion.

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## Large DB Plan Sponsor Survey: Trends in DB Plan Sponsorship and Design—Freezes and Termination

- 62 percent (26 of 42) of respondents in the survey froze at least one plan; however, these larger sponsors were likely to report multiple plans
- 28 percent of respondents plans were frozen (47 of a total of 169 plans); only 8 percent were under a hard freeze, or a type of plan freeze in which all future benefit accruals cease. (Figure 7)
    - the rate of plan freezes is generally consistent with rate found for a subset of larger sponsors using a statistically representative sample in previous report analyzing freeze data*
    - prior report found larger sponsors were significantly less likely than smaller sponsors to have implemented a hard freeze
- Plan terminations were extremely rare among large plans, with only a few occurring during the time the sample was selected and administered

*See GAO, *Defined Benefit Pensions: Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges*, GAO-08-817 (Washington, D.C.: July 21, 2008)

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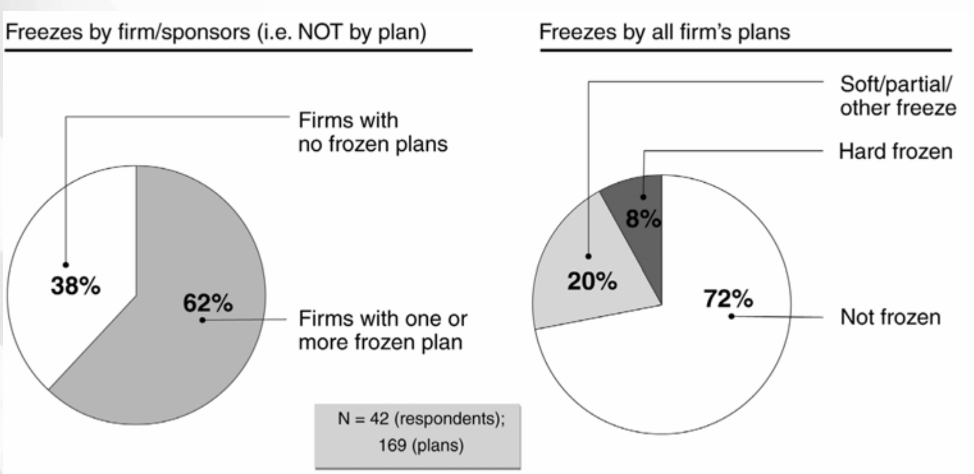
## Figure 7: Freeze Patterns among Respondents and their Plans




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

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## Trends in 401(k) Contributions among Large DB Plan Sponsors

- Most DB plan sponsors also offered a DC plan, typically a 401(k) plan
- From 1997 to the time of survey response, most DB sponsors either increased or did not change employer contributions to 401(k) plans for their NB employees. (Figure 8)
  - Main reasons for change included redesigned matching formula as well as compensation adjustments to attract top employees.
- The vast majority of respondents reported that plans covering NB employees either increased or did not change employee contributions.
  - Main reasons among respondents reporting increased contributions included addition of automatic enrollment feature to one or more plans.
- 72 percent of large sponsors reported either using or planning to use auto enrollment for plans covering NB employees (Figure 9).

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## Trends in 401(k) Contributions among Large DB Plan Sponsors: Bargaining Unit Employees

- From 1997 to the time of survey response, most DB sponsors either increased or did not change employer contributions to 401(k) plans for their bargaining unit employees. (Figure 8)
  - No single reason stood out for this result.
- Bargaining unit employees of most sponsors did not change employee contributions. (Figure 8)
- 50 percent of large sponsors with plans covering CB employees reported either **not** using or **not** planning to use auto enrollment (Figure 9).

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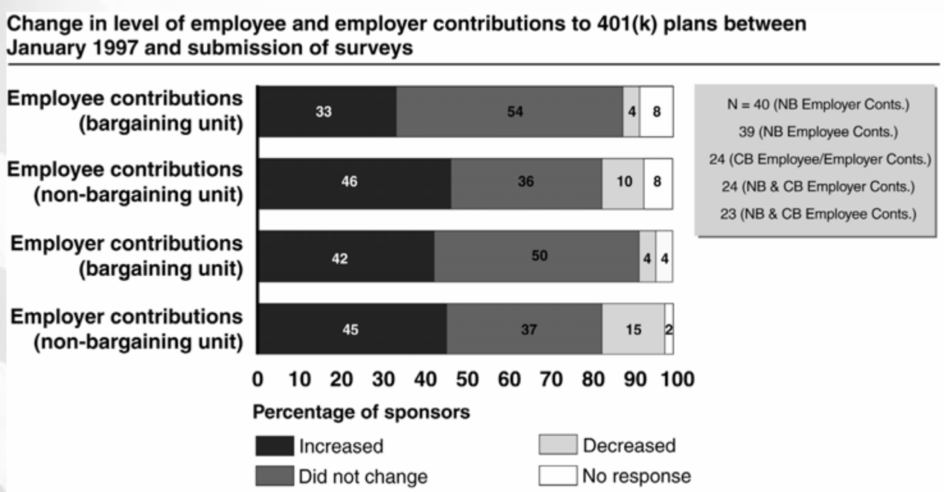
# Figure 8: Employer and Employee 401(k) Contributions for Non Bargaining and Bargaining Unit Employees




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

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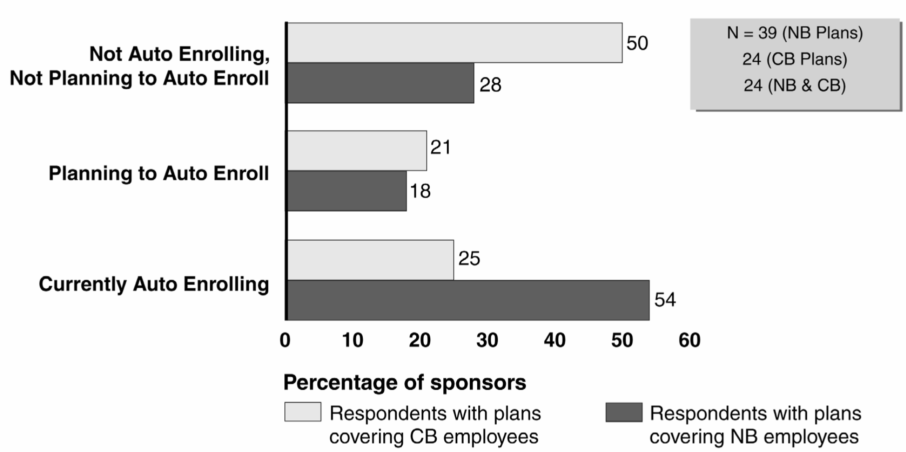
## Figure 9: Prevalence of 401(k) Auto-Enrollment Feature for Non Bargaining and Bargaining Unit Employees

Current and future use of auto enrollment




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

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## Large DB Plan Sponsor Survey: Health Benefits for Active Employees and Retirees

- Health care was the single largest benefit as a percentage of base pay (Figure 10)
- All responding DB plan sponsors offered health insurance to active employees and contributed to the cost
- All responding DB plan sponsors offered health insurance to at least some current retirees—nearly all to both pre-age 65 and age 65-plus employees
  - 80 percent provided health insurance to at least some active employees who become eligible for the benefit upon retirement
  - 20 percent provided health insurance that was fully paid by the retired employee (Figure 11)

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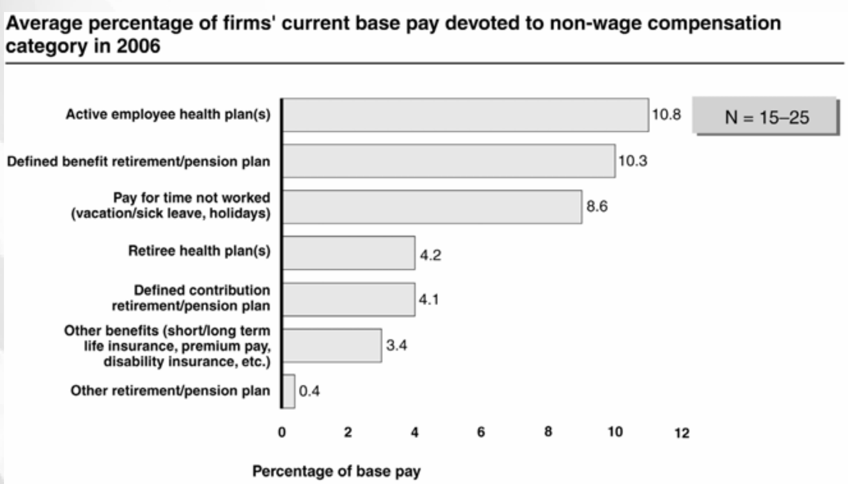
## Figure 10: For Large DB Sponsors, Health Insurance for Active Employees Was the Largest Component of Non-wage Compensation




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: Chart categories not mutually exclusive; N varies from 15-25 as respondents were not required to select a response to each category.

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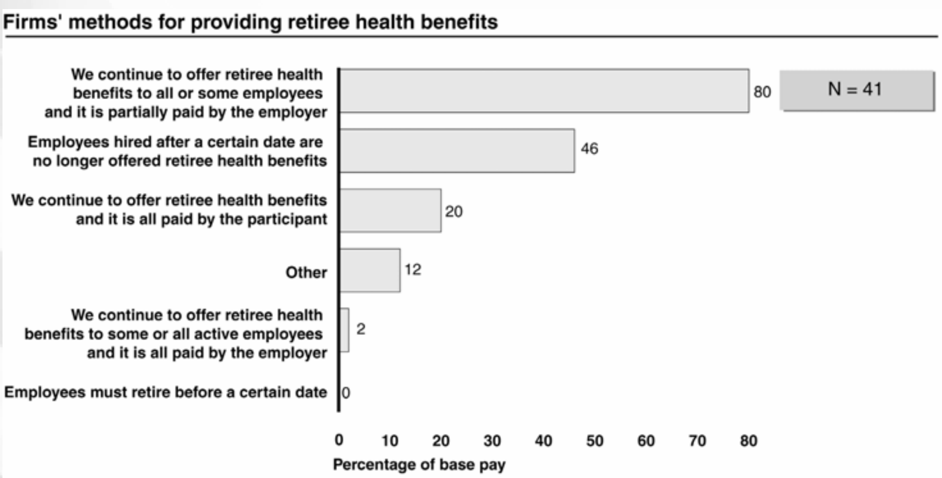
# Figure 11: Provision of Health Benefits to Active Employees, Current or Future Retirees




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: Chart categories not mutually exclusive.
*Responses in Other generally indicate varying benefits offered to different segments of the employee population

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## Large DB Plan Sponsor Survey: Health Benefits for *Current* Retirees

- Compared to respondents reporting on their benefits covering CB employees, respondents with NB employees reported decrease in the employer's share of the cost of providing health benefits to current retirees (Figure 12)
  - Main reasons were increases in cost of health insurance for retirees and for active employees (Figure 13)

- A plurality of respondents with CB employees reported no change in firm's share of the cost of providing health benefits to current retirees

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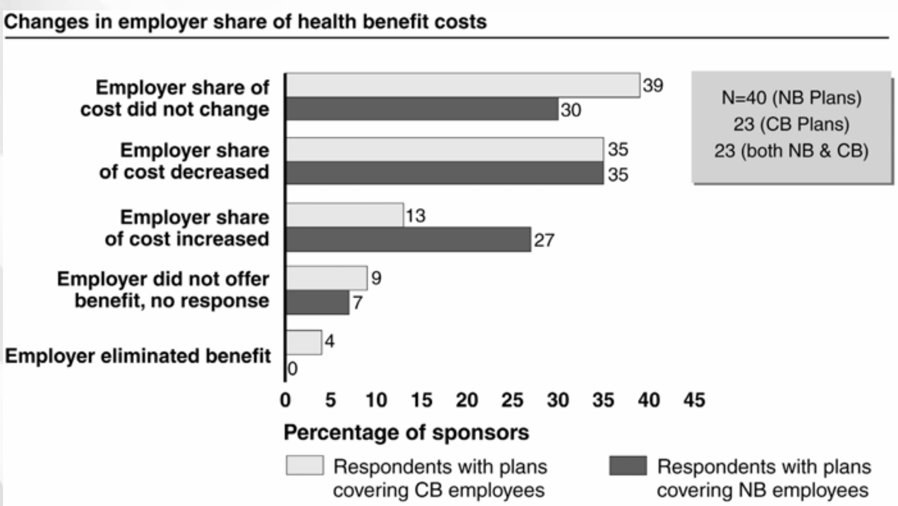
# **Figure 12:** Changes in Share of Health Benefit Costs for *Current* Retirees by Non-bargaining Unit and Bargaining Unit Firms




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

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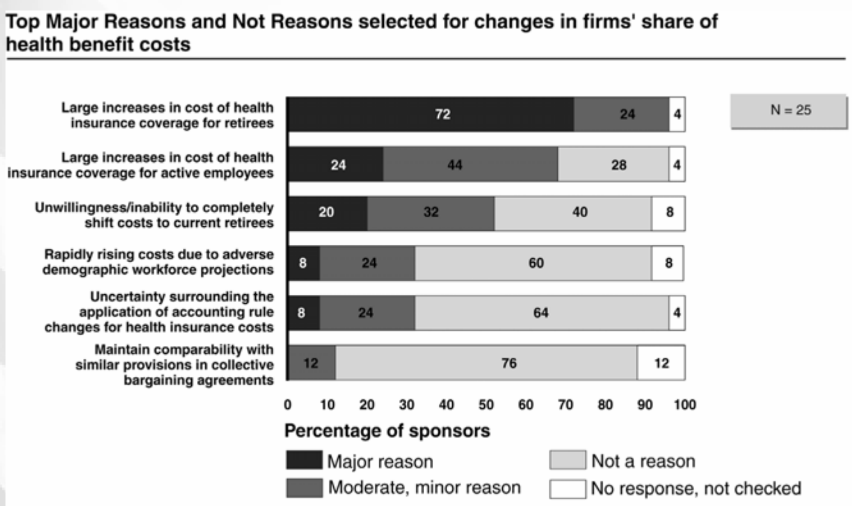
# Figure 13: Reasons for Changes in Non-Bargaining Unit Firms' Share of Health Benefit Costs for *Current* Retirees




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: The top three key reasons are ranked in declining order of the percentage of firms listing a 'major reason,' while the bottom three reasons are listed in declining order of firms listing 'not a reason.' 24 percent of respondents selected Other as a Major Reason; 5 out of 8 respondents mentioned caps reached or FAS 106 caps reached as part of the reason

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## Large DB Plan Sponsor Survey: Health Benefits for *Future* Retirees

- 46 percent of plan sponsors no longer offered retiree health benefits to active employees hired after a certain date.
- 54 percent decreased or eliminated the firm's share cost of providing health benefits for future retirees who were non-bargaining employees; (Figure 14)
  - Primary reasons cited were large cost increases in health insurance for both retirees and active employees (Figure 15)
- 41 percent of sponsors with bargaining unit employees reported decrease in or elimination of firm's share of health care costs for future retirees (Figure 14)
  - 26 percent reported no change
  - Primary reason cited was match/maintain parity with competitor's benefits package (Figure 16)

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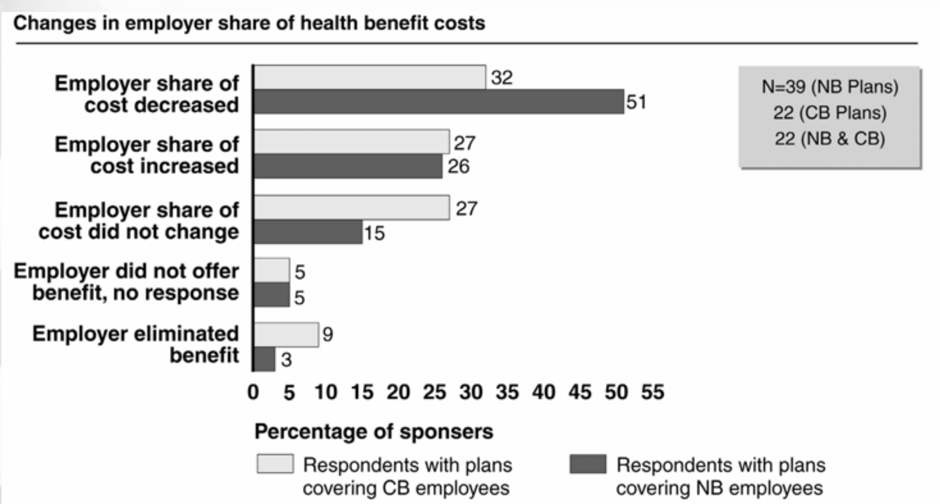
## Figure 14: Changes in Share of Health Benefit Costs for *Future* Retirees by Non-bargaining Unit and Bargaining Unit Firms




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

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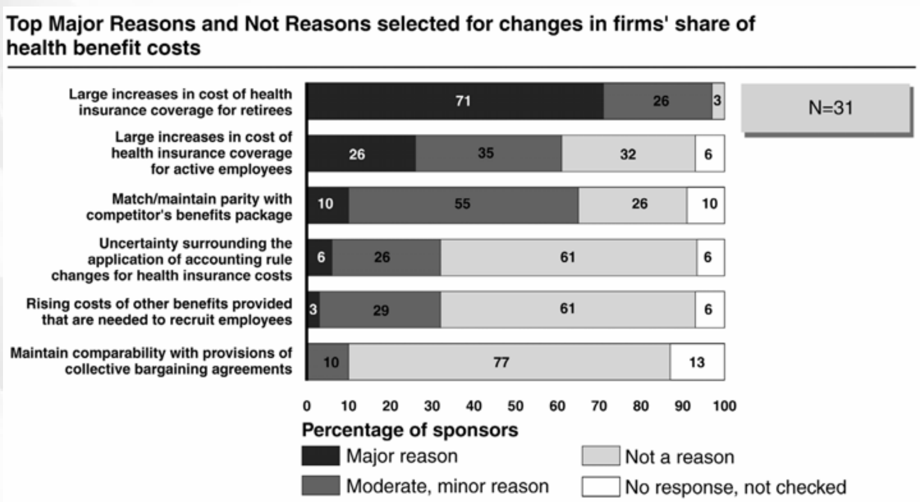
## Figure 15: Reasons for Changes in Non-Bargaining Unit Firms' Share of Health Benefit Costs for *Future* Retirees




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: The top three key reasons are ranked in declining order of the percentage of firms listing a 'major reason,' while the bottom three reasons are listed in declining order of firms listing 'not a reason.'

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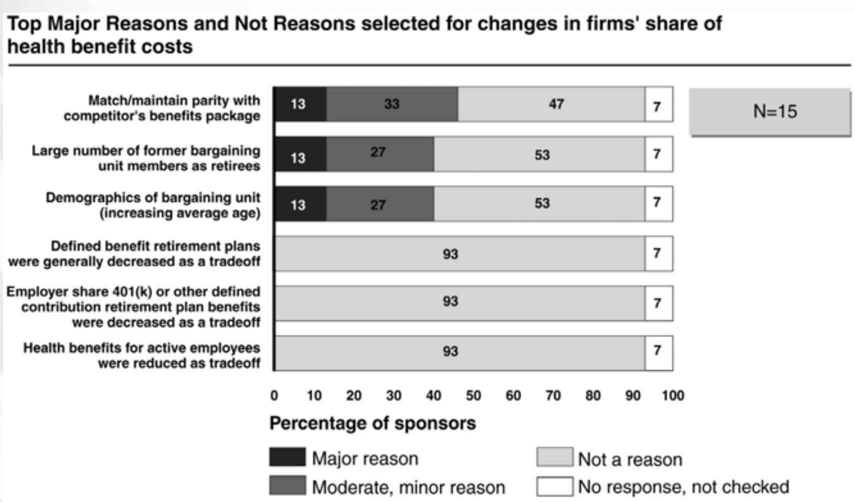
# Figure 16: Reasons for Changes in Collective Bargaining Unit Firms' Share of Health Benefit Costs for *Future* Retirees




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: The top three key reasons are ranked in declining order of the percentage of firms listing a 'major reason,' while the bottom three reasons are listed in declining order of firms listing 'not a reason.' 40 percent of respondents selected Other as a Major Reason; within the Other reasons listed by these respondents, there were no consistent responses.

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## Retiree Health Care Represents a Significant Liability for DB Plan Sponsors

- As of the end of 2004, 29 DB plan sponsors reported a total liability for retiree health plan year was $68 billion.
  - This was about 18 percent of the $370 billion of total DB liabilities that we estimated for all respondents from the 2004 Form 5500.
  - If we include the liabilities of only those that reported a retiree health liability, then the retiree health represented 40 percent of their estimated DB liabilities ($174 billion; covered by $180 billion in assets).
- We chose 2004 because:
  - We used 2004 Form 5500 data to select the respondents; and
  - Changes occurred with respect to the accounting treatment of health care liabilities that made it difficult to ascertain those liabilities in later years.

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## Large DB Plan Sponsor Survey: Most Sponsors Reported Few Planned Changes Before 2012

- When sponsors were asked about prospective changes to benefit offerings, most plan sponsors reported no firm plans to revise benefit formulas, freeze or terminate plans, or convert hybrid plans before 2012:
  - More than 60 percent of respondents planned no change to formula for calculating the rates of benefit accrual provided by DB plan
  - More than 60 percent of respondents believed their firm will probably not or definitely not freeze at least one DB plan
  - 80 percent of respondents believed their firm will probably not or definitely not convert DB plans to cash balance or other hybrid plans
  - 79 percent of respondents believed their firm will probably not or definitely not terminate DB plans

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## Large DB Plan Sponsor Survey: Sponsors Expect Few Changes to Their Pension Plans

- When sponsors were asked about how the pension environment (i.e. laws, accounting rules, etc.) might influence future benefit offerings, a majority respondents believed it **unlikely or very unlikely** that firm would:
  - use assets from DB to fund qualified health plans
  - increase employer match for DC plans
  - terminate at least one DB plan
  - amend at least one DB plan to change (either increase or decrease) rates of future benefit accruals
  - convert DB plan to cash balance or hybrid plan
  - replace DB plan with 401(k)-style DC plan
- PPA, FASB played virtually no role in changes to retirement plans

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## Large DB Plan Sponsor Survey: Limited Changes to DB and DC plans in response to PPA, FASB, or other changes prior to passage of PPA

- 50 percent of sponsors believed adding or expanding automatic enrollment features to 401(k)-type DC plans was very likely or likely in the future
  - 43 percent of these said PPA played major role in this expansion
- 45 percent of respondents believed changing the investment policy for at least one DB plan to increase the portion of the plans' portfolio invested in fixed income assets was very likely or likely
  - 21 percent said PPA played major/moderate role; 29 percent said FASB played major/moderate role

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## Large DB Plan Sponsor Survey: Conditions to Consider Forming New DB Plans

- Most sponsors reported no possible conditions that could make them definitely consider forming a new DB plan
- 26 percent of sponsors reported that there were conditions under which they would have considered offering a new DB plan; the most common conditions selected were:
  - Provide sponsors with greater scope in accounting for DB plans on corporate balance sheets
  - DB plans became more effective as an employee retention tool
  - Reduced unpredictability or volatility in DB plan funding requirements (Figure 17)

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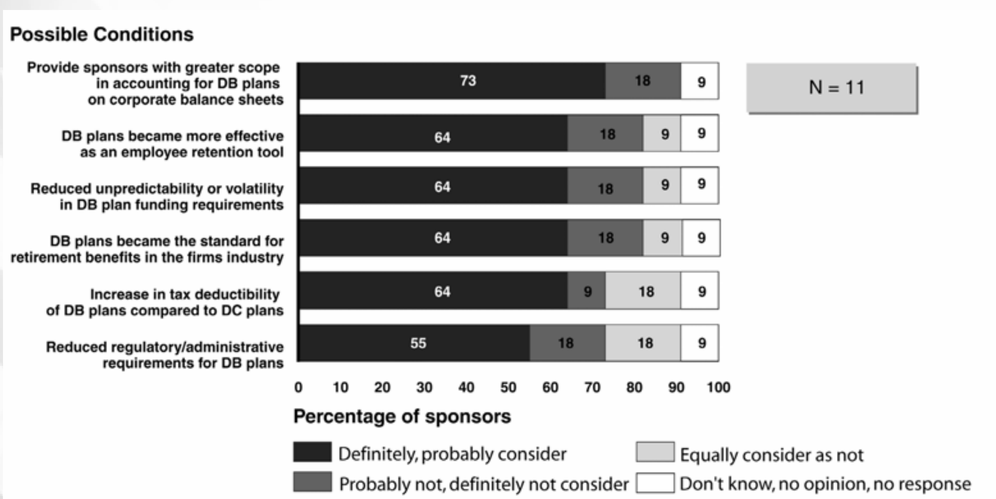
## Figure 17: Among the 26 Percent of Respondents that Would Consider a New DB Plan, Conditions Under Which They Would Consider Doing So




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: The top three key reasons are ranked in declining order of the percentage of firms listing a 'major reason,' while the bottom three reasons are listed in declining order of firms listing 'not a reason.'

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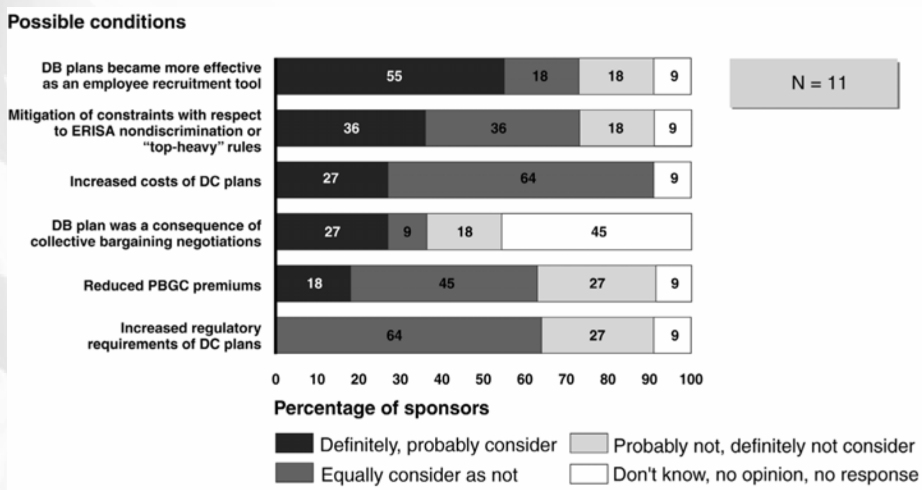
# Figure 18: Conditions Under Which Firms Would Have Considered Offering Employees a New DB Plan (continued)




Source: GAO analysis of survey of sponsors of large defined benefit pension plans.

Note: The top three key reasons are ranked in declining order of the percentage of firms listing a 'major reason,' while the bottom three reasons are listed in declining order of firms listing 'not a reason.'

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# Implications/Concluding Observations

- Stability of large sponsor plans now increasingly vulnerable to the broader decline of the DB system
  - Benefit formula revisions and plan freezes common among survey respondents, especially among NB plans, but among CB plans as well
- Findings consistent with mounting evidence of challenges facing private sector retirement system
  - DC plans losses from current markets, low coverage participation rates high fees
  - Current market turmoil exacerbates these challenges
- Findings highlight need for examination of current system's problems and the need to consider alternative models

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# Appendix II: Scope and Methodology

To achieve our objectives, we conducted a survey of sponsors of large defined-benefit (DB) pension plans. For the purposes of our study, we defined "sponsors" as the listed sponsor on the 2004 Form 5500 for the largest sponsored plan (by total participants).[1] To identify all plans for a given sponsor, we matched plans through unique sponsor identifiers.[2]

## Population and Sample Design

We constructed our population of DB plan sponsors from the 2004 Pension Benefit Guaranty Corporation's (PBGC) Form 5500 Research Database by identifying unique sponsors listed in this database and aggregating plan-level data (for example, plan participants) for any plans associated with this sponsor. As a result of this process, we identified approximately 23,500 plan sponsors. We further limited these sponsors to the largest sponsors (by total participants in all sponsored plans) that also appeared on the Fortune 500 or Fortune Global 500 lists. We initially attempted to administer the survey to the first 100 plans that met these criteria, but ultimately, we were only able administer the survey to the 94 sponsoring firms for which we were able to obtain sufficient information for the firm's benefits representative. While the 94 firms we identified for the survey are an extremely small subset of the approximately 23,500 total DB plan sponsors in the research database, we estimate that these 94 sponsors represented 50 percent of the total single-employer liabilities insured by PBGC and 39 percent of the total participants (active, retired, and separated-vested) in the single-employer DB system as of 2004.

## Administration of Survey

The Web-based questionnaire was sent in December 2007, via e-mail, to the 94 sponsors of the largest DB pension plans (by total plan participants as of 2004) who were also part of the Fortune 500 or Global Fortune 500. This was preceded by an e-mail to notify respondents of the survey and to

[1]At the time of sample selection we removed plans that terminated after 2004, which may have also included plans that reported a final filing or had merged into another plan.

[2]These include the nine-digit employee identification number (EIN) found in the Form 5500, as well as the Committee on Uniform Securities Identification Procedures (CUSIP) number, which is contained in the PBGC Research Database. A CUSIP number identifies most North American securities, including stocks of all registered U.S. and Canadian companies and U.S. government and municipal bonds. The number consists of nine characters (including letters and numbers) that uniquely identify a company or issuer and the type of security. In addition to these two methods, we identified sponsors by visually inspecting plan names and sponsor names from the database to find common sponsors that were not identified by EINs or CUSIPs.

test our e-mail addresses for these respondents. This Web questionnaire consisted of 105 questions and covered a broad range of areas, including

- the status of current DB plans;
- the status of frozen plans (if any) and the status of the largest frozen plan (if applicable);
- health care for active employees and retirees;
- nonwage compensation priorities;
- pension and other benefit practices or changes over approximately the last 10 years[3] and the reasons for those changes[4] (parallel questions asked for plans covering collectively bargained employees and those covering nonbargaining employees);[5]
- prospective benefit plan changes;

[3]The GAO Survey of Large Defined Benefit Plan Sponsors asked firms about changes made to benefit offerings between 1997 and the time of survey response, which for nearly all responding sponsors, was prior to July 2008.

[4]The reasons varied by the individual question. We developed an initial set of reasons that we pretested with sponsors, and we revised our list of reasons, given respondent reactions and input during those pretests. An open-ended "other" reason was also offered to respondents if the sponsor felt other reasons were needed to clarify an answer.

[5]The parallel questions in the survey asked the respondents to report for "plans covering *nonbargaining unit* employees only" and "plans covering *collective-bargaining unit* employees." Generally speaking, 40 respondents reported on the questions referring to plans covering nonbargaining unit employees, and 24 respondents reported on the questions referring to plans covering collective-bargaining unit employees. The 24 respondents that answered questions related to plans covering collective-bargaining unit employees generally also answered questions relating to plans covering nonbargaining unit employees. The number of respondents for a given survey question are enumerated in the briefing as "Ns" in appendix II. While we attempted to use consistent terminology for bargaining status throughout the survey, plans covering collectively bargained employees are not necessarily the same as collectively bargained plans. Some collectively bargained plans may cover nonbargaining unit employees—possibly under a separate nonnegotiated benefit structure. Further, a plan covering members of a bargaining unit is sometimes not collectively bargained, although collectively bargained pension plans are common among large plan sponsors that have employees covered by collective-bargaining agreements. Our survey only asked about plans covering collectively bargained employees, and we cannot determine if these plans also include nonbargained employees or if the plan itself is actively bargained.

- the influence of laws and accounting practices on possible prospective benefit changes; and
- opinions about the possible formation of a new DB plan.

The first 17 questions and last question of the GAO Survey of Sponsors of Large Defined Benefit Pension Plans questionnaire mirrored the questions asked in a shorter mail questionnaire (Survey of DB Pension Plan Sponsors Regarding Frozen Plans) about benefit freezes that was sent to a stratified random sample of pension plan sponsors that had 100 or more participants as of 2004. Sponsors in the larger survey were, like the shorter survey, asked to report only on their single-employer DB plans.

To help increase our response rate, we sent four follow-up e-mails from January through November 2008. We ultimately received responses from 44 plan sponsors, representing an overall response rate of 44 percent.

To pretest the questionnaires, we conducted cognitive interviews and held debriefing sessions with 11 pension plan sponsors. Three pretests were conducted in-person and focused on the Web survey, and eight were conducted by telephone and focused on the mail survey. We selected respondents to represent a variety of sponsor sizes and industry types, including a law firm, an electronics company, a defense contractor, a bank, and a university medical center, among others. We conducted these pretests to determine if the questions were burdensome, understandable, and measured what we intended. On the basis of the feedback from the pretests, we modified the questions as appropriate.

## Nonsampling Error

The practical difficulties of conducting any survey may introduce other types of errors, commonly referred to as nonsampling errors. For example, differences in how a particular question is interpreted, the sources of information available to respondents, or the types of people who do not respond can introduce unwanted variability into the survey results. We included steps in both the data collection and data analysis stages for the purpose of minimizing such nonsampling errors.

We took the following steps to increase the response rate: developing the questionnaire, pretesting the questionnaires with pension plan sponsors, and conducting multiple follow-ups to encourage responses to the survey.

We performed computer analyses of the sample data to identify inconsistencies and other indications of error and took steps to correct inconsistencies or errors. A second, independent analyst checked all computer analyses.

We initiated our audit work in April 2006. We issued results from our survey regarding frozen plans in July 2008.[6] We completed our audit work for this report in March 2009 in accordance with all sections of GAO's Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings and conclusions.

[6]We previously used a portion of this survey to analyze frozen plan tendencies, which used a stratified random probability sample of 471 DB pension sponsors from PBGC's 2004 Form 5500 Research Database. See GAO, *Defined Benefit Pensions: Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges*, GAO-08-817 (Washington, D.C.: July 21, 2008).

# Appendix III: GAO Contact and Staff Acknowledgments

## Contact

Barbara D. Bovbjerg, (202) 512-7215 or bovbjergb@gao.gov.

## Staff Acknowledgments

In addition to the contact above, Joe Applebaum, Sue Bernstein, Beth Bowditch, Charles Ford, Brian Friedman, Charles Jeszeck, Isabella Johnson, Gene Kuehneman, Marietta Mayfield, Luann Moy, Mark Ramage, Ken Stockbridge, Melissa Swearingen, Walter Vance, and Craig Winslow made important contributions to this report.

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# Pension Publications

## Companies That Have Changed Their Defined Benefit Pension Plans

Below is a list of employers that have announced significant changes to their defined benefit pension plans since December 2005. Changes include plan terminations, plan freezes for new and/or current employees, and changes to the formula by which pension benefits are calculated. For specifics, click on the employer's name to see the company's press release, SEC filing or news story announcing the change.

(Note: this is not a comprehensive list. These are only the changes that we are aware of, based on corporate press releases, news reports and other sources. This list does not include changes that have been made through the collective-bargaining process.)

Read our fact sheet on pension freezes. Visit our Reports page for studies on pension freezes and other topics. We have a similar list of companies that have reduced or eliminated their matching contributions to employees' 401(k) plans.

| Announcement Date | Employer | Effective Date |
|---|---|---|
| 03/23/2009 | Advance Publications | 05/15/2009 |
| 03/02/2009 | Talbots, Inc. | 05/01/2009 |
| 02/27/2009 | B&C Trucking Company | unknown |
| 02/25/2009 | Regions Financial Corporation | 04/16/2009 |
| 02/19/2009 | E.W. Scripps Company | unknown |
| 02/16/2009 | Sparton Corporation | 04/01/2009 |
| 02/13/2009 | Atlanta Convention and Visitors Bureau | 01/01/2009 |
| 02/05/2009 | Aon Corporation | 04/01/2009 |
| 02/05/2009 | Cincinnati Bell | 03/28/2009 |
| 02/05/2009 | McClatchy Company | 03/31/2009 |
| 01/15/2009 | Saks, Inc. | 01/30/2009 |
| 12/23/2008 | Albany International Corporation | 02/28/2009 |
| 12/23/2008 | Seattle Times | 02/06/2009 |

| | | |
|---|---|---|
| 12/17/2008 | Motorola | 03/01/2009 |
| 12/17/2008 | GenCorp Inc. | 02/01/2009 |
| 11/21/2008 | Random House, Inc. | 12/31/2008 |
| 11/11/2008 | Evening Post Publishing | 01/10/2009 |
| 11/10/2008 | R.H. Donnelly Corporation | 01/01/2009 |
| 10/22/2008 | New York Times Company | 01/01/2009 |
| 09/24/2008 | Xerium Technologies, Inc. | 12/31/2008 |
| 09/15/2008 | Equifax | 01/01/2009 |
| 07/08/2008 | YRC Worldwide Inc. | 07/01/2008 |
| 06/24/2008 | Boeing | 01/01/2009 |
| 06/11/2008 | Gannett | 08/01/2008 |
| 04/25/2008 | Standard Register | unknown |
| 04/16/2008 | Beneficial Mutual Bancorp Inc. | 06/30/2008 |
| 03/31/2008 | 3M | 01/01/2009 |
| 02/12/2008 | Bryn Mawr Bank Corporation | 03/31/2008 |
| 02/2008 | Northrop Grumman | 07/01/2008 |
| 12/05/2007 | Neiman Marcus, Inc. | 12/31/2007 |
| 11/16/2007 | Milacron Inc. (see p. 22) | 12/31/2007 |
| 11/06/2007 | Foamex International Inc. | 01/01/2008 |
| 10/02/2007 | Haynes International, Inc. | 01/01/2008 |
| 09/24/2007 | State Street Corp. | 01/01/2008 |
| 09/11/2007 | Andersen Corp. | 01/01/2008 |
| 09/07/2007 | Delphi Corporation | TBD |
| 09/04/2007 | Waters Corporation | 12/31/2007 |
| 08/09/2007 | Center Bancorp, Inc. | 09/30/2007 |
| 07/17/2007 | Dow Chemical Company | 01/01/2008 |
| 05/01/2007 | ArvinMeritor, Inc. | 01/01/2008 |
| 04/24/2007 | NASDAQ | 05/01/2007 |
| 04/12/2007 | Dun & Bradstreet Corp. | 06/30/2007 |
| 03/29/2007 | Fidelity Investments | 06/01/2007 |
| 03/20/2007 | Dana Corporation | 07/01/2007 |

| | | |
|---|---|---|
| 02/28/2007 | Tecumseh Products Co. | 05/01/2007 |
| 02/28/2007 | Goodyear Tire & Rubber Company | 01/01/2008 |
| 02/27/2007 | FedEx | 06/01/2008 |
| 02/23/2007 | SureWest Communications | 04/10/2007 |
| 02/20/2007 | HP (Hewlett-Packard) | 01/01/2008 |
| 02/16/2007 | SunTrust Banks Inc. | 01/01/2008 |
| 01/11/2007 | Ryder System, Inc. | 01/01/2008 |
| 11/30/2006 | Shenandoah Telecommunications | 01/31/2007 |
| 11/29/2006 | Kershaw County Medical Center | 01/01/2007 |
| 11/15/2006 | North Pittsburgh Telephone Co. | 12/31/2006 |
| 11/08/2006 | Whirlpool Corporation | 01/01/2007 |
| 11/08/2006 | Vought Aircraft Industries, Inc. | 12/31/2007 |
| 11/03/2006 | Citigroup | 01/01/2008 |
| 11/02/2006 | Belo Corp. | 03/31/2007 |
| 11/01/2006 | Aon Corporation | 01/01/2007 |
| 11/01/2006 | Met-Pro Corporation | 12/31/2006 |
| 11/31/2006 | Lenox Group Inc. | 01/01/2007 |
| 10/30/2006 | MeadWestvaco Corporation | 01/01/2007 |
| 10/30/2006 | Michelin | 01/01/2017 |
| 10/26/2006 | Tredegar Corporation | 12/31/2007 |
| 10/19/2006 | Journal Register Company | 01/01/2007 |
| 10/18/2006 | LSB Corporation | 12/31/2006 |
| 10/17/2006 | Con-Way Inc. | 12/31/2006 |
| 10/11/2006 | Remington Arms Company, Inc. | 01/01/2008 |
| 10/10/2006 | The Hershey Company | 01/01/2007 |
| 09/27/2006 | NCR Corporation | 01/01/2007 |
| 09/20/2006 | Calgon Carbon Corporation | 12/31/2006 |
| 09/07/2006 | Alliant Techsystems | 01/01/2007 |
| 08/31/2006 | Flushing Financial Corporation | 09/30/2006 |
| 08/28/2006 | DuPont | 01/01/2008 |
| 08/23/2006 | Tenneco Inc. | 01/01/2007 |

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|---|---|---|
| 08/08/2006 | Blount International, Inc. | 01/01/2007 |
| 08/01/2006 | Harry & David Operations Corp. | 07/01/2007 |
| 07/21/2006 | Reynolds and Reynolds Company | 10/01/2006 |
| 06/29/2006 | The Stride Rite Corporation | 12/31/2006 |
| 06/27/2006 | Nortel | 01/01/2008 |
| 06/23/2006 | G&K Services, Inc. | 01/01/2007 |
| 06/15/2006 | Bandag, Incorporated | 12/31/2006 |
| 05/15/2006 | Media General, Inc. | 12/31/2006 |
| 05/01/2006 | Lydall, Inc. | 06/30/2006 |
| 04/27/2006 | A.T. Cross Company | 05/20/2006 |
| 03/22/2006 | Unisys Corporation | 12/31/2006 |
| 03/20/2006 | Lincoln Electric Holdings, Inc. | 01/01/2006 |
| 03/07/2006 | General Motors Corp. | 01/01/2007 |
| 02/23/2006 | Wellpoint, Inc. | 01/01/2006 |
| 02/22/2006 | Coca-Cola Bottling Co. Consolidated | 06/30/2006 |
| 02/20/2006 | Stepan Company | 07/01/2006 |
| 02/15/2006 | Ferro Corporation | 04/01/2006 |
| 01/26/2006 | Harleysville Group Inc. | 04/01/2006 |
| 01/24/2006 | Lexmark International, Inc. | 05/01/2006 |
| 01/19/2006 | Russell Corporation | 04/01/2006 |
| 01/16/2006 | Alcoa | 03/01/2006 |
| 01/13/2006 | Armstrong World Industries, Inc. | 03/01/2006 |
| 01/05/2006 | IBM | 01/01/2008 |
| 12/05/2005 | Verizon Communications Inc. | 07/01/2006 |

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# Defined Benefit Pensions: Survey of Sponsors of Large Defined Benefit Pension Plans (GAO-08-818SP, July 2008), an E-supplement to GAO-08-817

Read the Full Report: Defined Benefit Pensions: Information from GAO Survey on Frozen Defined Benefit Plans (GAO-08-817)
Background Information

Instructions for Viewing This Survey

Table of Contents

## Background

Over the last five years, a number of large, high profile employers have announced their intention to freeze-- an amendment to the plan to limit some or all future pension accruals for some or all plan participants-- their larger defined benefit (DB) plans that represent a significant portion of plan liabilities and plan participants in the private DB system. To better understand the current plan freeze environment and its significance to the DB system going forward, GAO conducted a study of sponsors of tax-qualified, single-employer, defined benefit (DB) plans that had 100 or more total participants. Specifically, we surveyed a stratified probability sample of plan sponsors about their experiences with DB plans and plan freezes. We obtained a weighted response rate of 78 percent. A more detailed discussion of our scope and methodology is contained in our report: Defined Benefit Pensions: Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges, GAO-08-817 (Washington, D.C.: July 21, 2008). We administered the survey from November, 2007 through May 2008 in accordance with generally accepted government auditing standards.

---

# Instructions for Viewing this Survey

## Special Viewing Instructions

These tables are a product of combining the results of two questionnaires-- the first 17 questions and last question from a web questionnaire to large plan sponsors (with 50,000 or more participants) and a shorter mail questionnaire with the same 18 questions to smaller plan sponsors (100 to less than 50,000 participants). This document presents the results using the web survey format, including the navigation and introduction material from the web survey.

## How to View The Surveys

Click on the Table of Contents link located in the lower right of this screen. To read to the bottom of the screen, you may need to use your scroll bar on the right side of this screen.

The first screen in the survey is an introduction and general information that was sent to and viewed by recipients of the survey. There are no survey results to view on this screen. This screen is for information only and you may by-pass it by clicking on Next located at the bottom of the screen in the lower right.

The survey may have links to allow respondents to bypass inapplicable questions (skip patterns). While these were active links during the data collection period, they have now been disabled.

When a respondent wrote a narrative response to a question, we sometimes present the percent of respondents making a comment.

### How to View the Responses for Each Question

To view the responses to each question, click on the question number (Links to survey questions will look like this: 1., etc.).

After viewing the responses to each question, click on the "x" in the upper right corner of your screen to close that window and return to the questionnaire.

### How to Return to a Page That You Previously Visited

To return to the last screen you viewed, click the Previous button on the lower right corner of the screen.

Click the Next button to advance to the next screen.

### How to Make the Font Larger on Your Screen

You can make the font larger by changing your browser setting. For example, on Internet Explorer you can change the font size by going to View and selecting Text Size.

### Contact Information?

If you have questions concerning these data, please contact Barbara Bovbjerg at (202) 512-5491 or by e-mail at Barbara Bovbjerg.

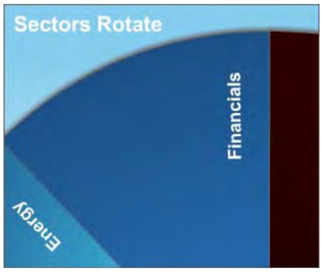
(130851)

Table of Contents

## Pension-Plan Freezes Likely To Ramp Up Next Year

| | |
|---|---|
| Date : | 03/20/2009 @ 9:30AM |
| Source : | Dow Jones News |
| Stock : | AON Corp. (AOC) |
| Quote : | 39.3 0.16 (0.41%) @ 11:36AM |

<< Back Quote Chart Financials Trades Level2




**Pension-Plan Freezes Likely To Ramp Up Next Year**

By Lynn Cowan

Of DOW JONES NEWSWIRES

The number of U.S. companies freezing their pension plans this year will represent the tip of the iceberg compared with the volume in years to come, according to pension experts.

Although a range of well-known corporations already have frozen their pensions - including Motorola Inc. (MOT), newspaper publisher McClatchy Co. (MNI) and insurer Aon Corp. (AOC) - there hasn't been a deluge of such decisions, which keep earned benefits intact but effectively bar employees from accruing more in the future. Actuaries and pension consultants say that many companies are so focused on resolving their overall business issues in the current economic climate that they can't focus on major, permanent shifts in employee benefits right now, but likely will re-evaluate their commitment to pensions beginning next year.

"When you look back at the last bear market from 2000 to 2002, the bulk of the uptick in plan closures and freezes happened after 2002. Companies had to deal with their immediate business issues first before addressing longer-term benefit planning," said Michael Archer, chief actuary at Towers Perrin. "Right now, most companies are saying, yes, pension issues are a problem, but we're not looking to close or freeze plans right away. It's in 2010 and 2011 where we could see higher activity, and get a better handle on the long-term effects of the downturn."

Right now changes to another type of retirement savings tool, 401 (k) plans, are far more common, most likely because any halt in company contributions is seen as a temporary measure that can be relatively easy to reverse in the future. There are also likely more freezes to come for traditional pension plans, experts agree, though the level is unlikely to top the pace seen in 2006, when many corporations decided to change their employee benefits as the Pension Protection Act (PPA), with a host of new regulations, was being signed into law.

"If you look back to 2006 and 2007, when a lot more plans were frozen, there were a few things that were the big drivers," said Scott Jarboe, a principal in benefits consultant Mercer's retirement, risk and finance business. "First, there were new (accounting) rules that drove more transparent reporting of pension details on the balance sheet. The second and more important issue was that the PPA was being finalized, and in most cases, corporations anticipated an increase in plan costs and volatility. A third, less fundamental issue, was that so many plan sponsors were freezing their pensions, that it created an opportunity to do the same and remain competitive," said Jarboe "The activity at that point was not driven by financially distressed companies," he said. "The issue we're going to see today is that plan sponsors who may have reviewed their plan designs and intend to remain committed to defined benefit pensions may be in such financial stress that they may have no choice but to freeze versus other more dramatic cost cutting measures."

There's disagreement among pension experts as to whether this economic climate will sound the death knell for traditional defined benefit plans in the years to come. In companies with unionized workforces, it will be harder to dislodge plans even if management has the desire. And while the market downturn has clearly exposed the risks involved with keeping a pension plan during tough times, there are advantages to having one under better conditions.

"Companies make two assumptions when they provide defined-benefit pensions: one, that contributions are tax-deductible; and secondly, companies count on the prospect that the market will subsidize the cost of the pension during good years," said Caitlin Long, head of the pensions solutions group at Morgan Stanley (MS).

Dan Yu, director of Eisner LLP's wealth management division, says he believes old-fashioned pensions were headed toward extinction even without the jolt they received from the market in 2008. "I would say, over the next decade, whether we are coming out of a recession or not, we'll see fewer. Defined benefit plans are dying dinosaurs. They won't exist in their present form after the next ten to 15 years," he said.

David Speier, a senior retirement consultant at Watson Wyatt Worldwide Inc. (WW), says he doesn't think the end is near, however. "I don't think that's a possibility. There are still private-sector companies out there that are committed to keeping defined benefit plans. There will be some that stick it out, even though we will clearly see more closures and plan freezes. But we won't be down to zero," he said.

-By Lynn Cowan, Dow Jones Newswires; 301-270-0323; lynn.cowan@dowjones.com

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Period

1 year

Line

# Ultimate guide to retirement

From the editors of: Money MAGAZINE

## Just how common are defined benefit plans?

Back Next

Not very. The percentage of workers in the private sector whose only retirement account is a defined benefit pension plan is now 10%, down from 60% in the early 1980s. About 30% of companies offer a combination of both types.

Meanwhile, the few employers that still offer traditional pensions - typically industries with a strong union presence, such as the airline and auto sectors - are working overtime to cut deals to either reduce or eliminate their plans.

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TOWERS WATSON

**INSIDER**

# What Happens to Executive Retirement Benefits When Companies Close or Freeze Their Broad-Based Pension Plans?

September 2011 | UNITED STATES | Brendan McFarland and Irina Pogrebivsky

Over the last several years, employers have been moving away from traditional, annuity-based defined benefit (DB) plans for their newly hired salaried workers, often shifting to a solely defined contribution (DC) plan design. The number of today's *Fortune* 100 companies providing only a DC plan to newly hired salaried workers has jumped from 28 in 1998 to 70 today. [1] <http://www.towerswatson.com/en/Insights/Newsletters/Americas/Insider/2011/What-Happens-to-Executive-Retirement-Benefits-When-Companies-Close-or-Freeze-Their-Broad-Based-Pen#1> Meanwhile, a parallel transformation has been taking place in the retirement benefits provided to executives at these companies:

- Most of the *Fortune* 100 companies that closed or froze their broad-based DB plan now provide DC-style retirement benefits to executives in the form of restoration plans.
- Fewer of these organizations provide employer-paid executive retirement plans.
- Most companies have eliminated DB supplemental retirement plans that provided more generous benefits to top-tier executives.
- Most companies' transition from the previous plans to the current benefit offerings for executives followed the same pattern used to transition the broad-based programs.

This analysis takes a before-and-after look at retirement benefits for executives in 39 of the 42 *Fortune* 100 companies that have frozen or closed their broad-based pension plans since 1998. [2] <http://www.towerswatson.com/en/Insights/Newsletters/Americas/Insider/2011/What-Happens-to-Executive-Retirement-Benefits-When-Companies-Close-or-Freeze-Their-Broad-Based-Pen#2> It does not capture supplemental individual retirement agreement benefits that companies might be providing to executives outside of formalized executive programs.

## TYPES OF EXECUTIVE RETIREMENT PLANS

Executive retirement plans provide more generous benefits than broad-based plans and help companies attract and retain senior-level employees in a competitive market for top talent. Executive benefits are typically delivered through a restoration plan and/or a supplemental executive retirement plan (SERP). Restoration plans are intended to restore benefits that cannot be paid due to statutory limits on broad-based plans. [3] <http://www.towerswatson.com/en/Insights/Newsletters/Americas/Insider/2011/What-Happens-to-Executive-Retirement-Benefits-When-Companies-Close-or-Freeze-Their-Broad-Based-Pen#3> SERPs typically provide executives with richer benefits than the broad-based plan benefit formula.

There are generally three types of executive plan designs:

- DB plans specify a benefit to be paid at retirement and include traditional annuity-based final average pay plans and account-based cash balance plans.
- In DC plans, employers allocate a specified dollar amount, often stated as a match, to individual employee accounts.
- Deferred compensation arrangements give employees an opportunity to defer a portion of their compensation (salary and/or bonus), but employers do not contribute.

SERPs and restoration designs may be structured as either DB or DC benefits.

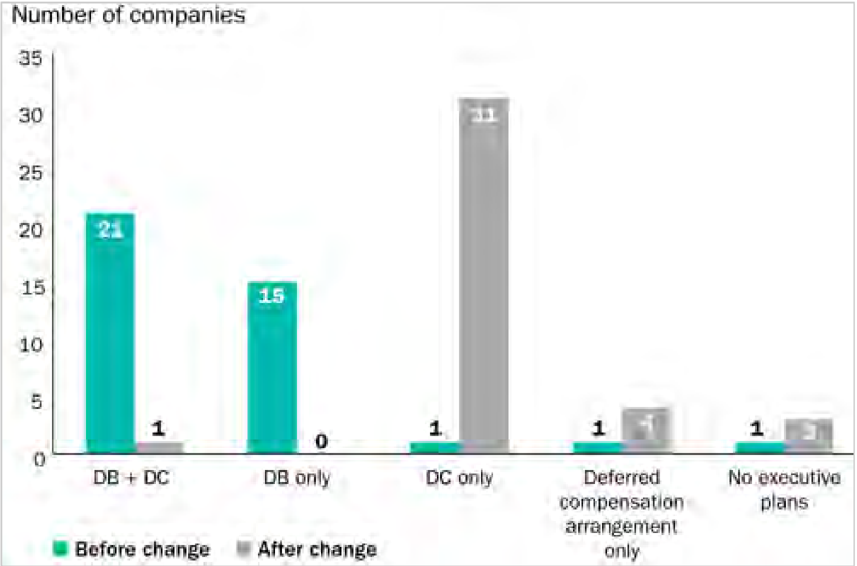
## *FORTUNE* 100 COMPANIES RETHINK THEIR EXECUTIVE RETIREMENT OFFERINGS

Since 1998, 42 companies in today's *Fortune* 100 list have frozen or closed their broad-based DB plans and now offer only DC plans to their newly hired workers. Many continue to accrue pensions for certain workers, but others have stopped all accruals.

In a number of these companies, the design changes in broad-based retirement program benefits have been accompanied by comparable transformations in their executive retirement offerings. Before changing their broad-based plans, most of these employers (36 of 39) offered an executive DB plan along with some sort of deferred compensation arrangement, and 21 also contributed to an executive DC plan.

Of the 39 companies in this analysis, 17 closed their broad-based pension plans, and 22 froze them. Before closing or freezing their broad-based plans, 37 of these companies had employer-paid executive retirement plans (see *Figure 1*). After freezing or closing the broad-based plan, however, the number of companies providing executive DB or DC plans dropped to 32. Given the growing scrutiny of executive compensation and a perceived disconnect between pay and performance, these companies might have decided to make more of their overall compensation and benefits package contingent on the company's performance (e.g., by increasing the level of long-term incentives in lieu of retirement benefits).

## FIGURE 1. AFTER CHANGING THE BROAD-BASED PLAN, *FORTUNE* 100 COMPANIES SHIFT EXECUTIVE BENEFITS FROM DB TO DC



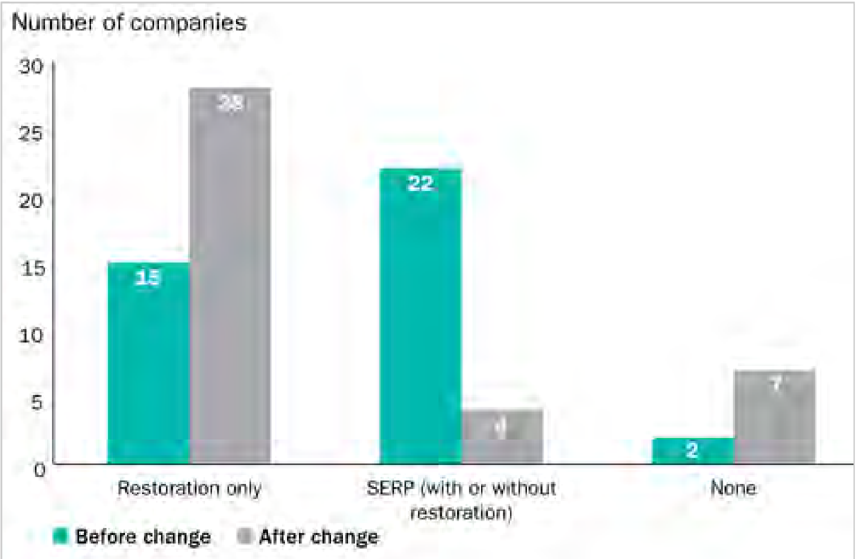

N=39

*Source: Towers Watson.*

Mirroring the shift away from broad-based DB plans to DC plans, only one of these organizations provides an executive DB plan today, whereas 31 now provide an executive DC plan as the main executive retirement plan vehicle.

All companies with executive DB and DC plans sponsor a deferred compensation arrangement except for two of the 15 companies that had executive DB plans prior to the change to the broad-based plan. A majority of companies in the analysis now provide executive DB and DC benefits through restoration plans rather than SERPs — a major shift (see *Figure 2*).

## FIGURE 2. *FORTUNE* 100 SPONSORSHIP OF RESTORATION PLANS COMPARED WITH SERPS




N=39

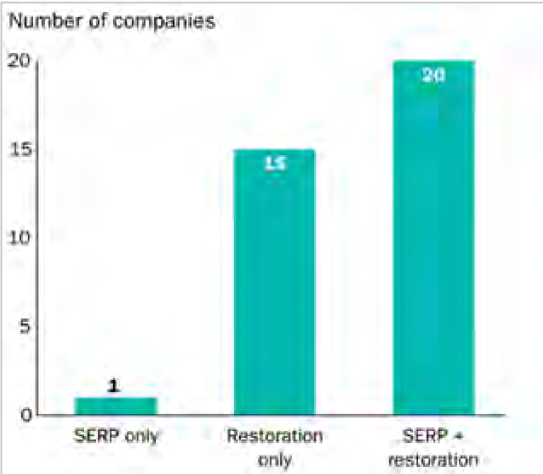
*Source: Towers Watson.*

When their broad-based DB plans were still open, most of these companies sponsored both executive DB and DC plans, but DB SERPs provided most of the benefit value. The executive DC plans primarily provided restoration benefits on the 401(k) plan matching contributions. Since changing their broad-based plans, most companies offer executive restoration DC plans based on the revised, generally enhanced, DC provisions of the underlying broad-based programs. [4] <http://www.towerswatson.com/en/Insights/Newsletters/Americas/Insider/2011/What-Happens-to-Executive-Retirement-Benefits-When-Companies-Close-or-Freeze-Their-Broad-Based-Pen#4> The majority of executive plan benefit value now comes from DC restoration plans.

## *EXECUTIVE DB OFFERINGS — BEFORE-AND-AFTER SNAPSHOT*

We now look at the types of executive DB plans — restoration, SERP or both — that were offered before employers changed their broad-based pensions (see *Figure 3*).

## FIGURE 3. EXECUTIVE DB PLANS OFFERED BY *FORTUNE* 100 COMPANIES BEFORE CHANGING THE BROAD-BASED PLAN




N=36

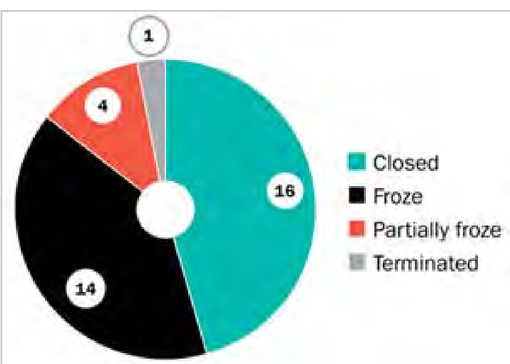
*Source: Towers Watson.*

Before changing their broad-based retirement programs for new hires, 35 of the 36 companies that offered an executive DB plan sponsored a restoration plan, and 21 provided a SERP (20 companies had both). In these companies, the executives' restoration plan made up for the compensation limits in the broad-based plan, while the SERP usually had a richer formula than the broad-based plan. Fifteen of the *Fortune* 100 sponsors offered only a restoration plan to executives, and one offered only a SERP.

### *EXECUTIVE DB RESTORATION PLANS*

As might be expected, changes in executive DB restoration plans generally mirrored the changes in the underlying broad-based plans. After changing their broad-based plans, slightly fewer than half (16 of 35) of these companies closed their executive DB restoration plans, and the remainder (19 of 35) either terminated or froze them (see *Figure 4*).

## FIGURE 4: CHANGES IN EXECUTIVE DB RESTORATION PLANS




N=35

*Source: Towers Watson.*

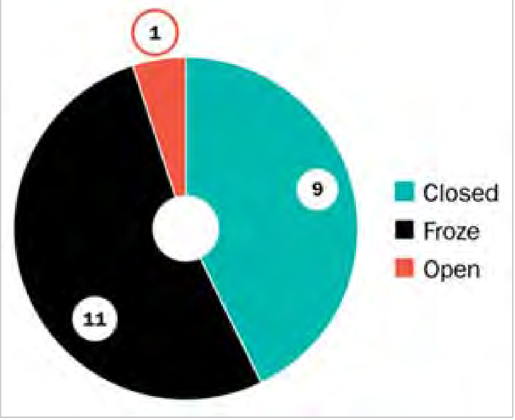
For DB restoration plans that closed, there was little change to the underlying benefit formula. Of the 20 DB restoration plans in which some executives are still accruing benefits — of which 16 were closed and four partially frozen — 16 employers kept the original benefit formula and four reduced it.

Because restoration plans are based on the broad-based plan formula, all these changes happened at the same time the broad-based pension was frozen or closed.

### *DB SERPS*

Changes in DB SERPs followed a similar pattern to changes in DB restoration plans — eight of the nine companies that closed their SERP had also closed their broad-based plan, and nine of the 11 companies that froze their SERP had frozen their broad-based plan. One company kept the DB SERP open to newly hired executives (although there was no longer any broad-based DB plan for new hires) (see *Figure 5*).

### FIGURE 5. CHANGES IN DB SERPS




N=21

*Source: Towers Watson.*

Two companies that closed their broad-based plan to new hires froze their DB SERP and stopped all benefit accruals. One company that froze its broad-based plan for all employees closed the DB SERP but allowed existing participants to continue to accrue benefits.

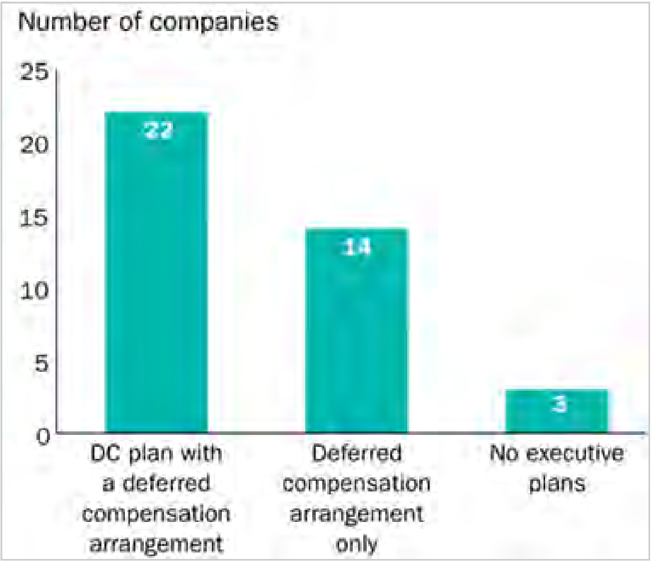
As with restoration plans, companies that closed their DB SERPs generally did not change the underlying formula. Ten of the 21 companies continued to offer DB SERPs to some portion of their executive workforce. Only one company reduced its DB SERP benefit — the rest kept the same formula.

Seven companies changed their DB SERP before changing their broad-based plan, 10 changed both plans at the same time, and three companies changed their SERP after changing the broad-based plan.

## *EXECUTIVE DC PLANS AND EXECUTIVE DEFERRED COMPENSATION ARRANGEMENTS — BEFORE-AND-AFTER SNAPSHOT*

We next analyze the executive DC plans and executive deferred compensation arrangements provided before the broad-based pension change. Of the 39 employers in this analysis, 36 offered their executives some sort of salary and/or bonus deferred compensation arrangement, and the majority (22) offered a matching contribution or a contribution allocation as well, as shown in *Figure 6*.

### FIGURE 6. EXECUTIVE DC PLANS AND DEFERRED COMPENSATION ARRANGEMENTS OFFERED BY *FORTUNE* 100 COMPANIES BEFORE CHANGING THE BROAD-BASED PLAN



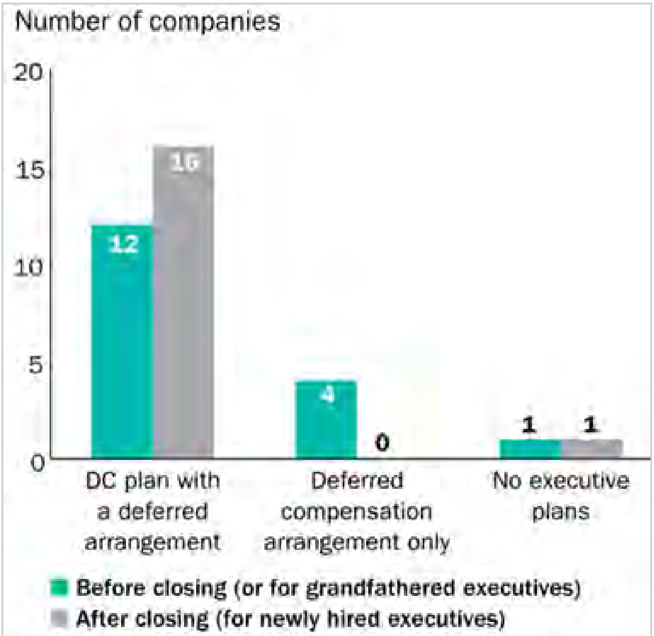

N=39

*Source: Towers Watson.*

When an employer eliminates a DB pension accrual, it typically compensates by contributing more to the DC plan, and the same seems to hold true for restoration plans. Most organizations that eliminated their DB restoration plan replaced it with a DC restoration plan. The same was not true for SERPs, however, as most employers did not replace their DB SERP with a DC SERP.

Moreover, organizations that closed their broad-based DB plans were more likely to enhance their executive DC offerings for newly hired employees than organizations that froze them.

### FIGURE 7. EXECUTIVE DC PLANS AND DEFERRED COMPENSATION ARRANGEMENTS OFFERED BY *FORTUNE* 100 COMPANIES BEFORE AND AFTER CLOSING THE BROAD-BASED PLAN




N=17

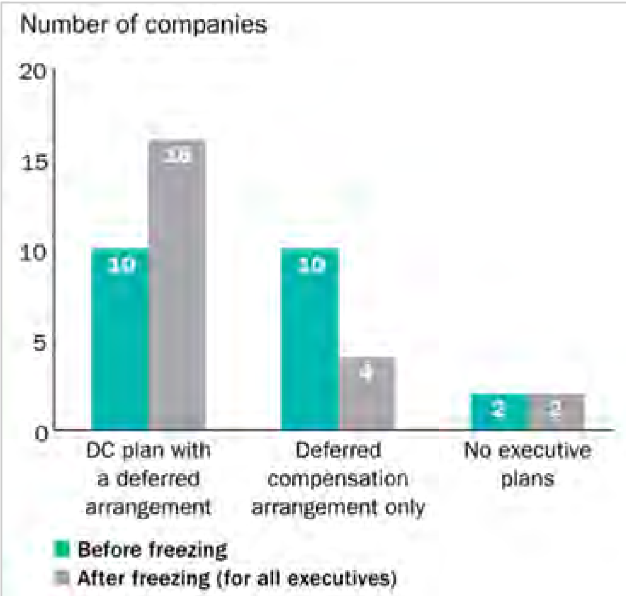
*Source: Towers Watson.*

Of the 17 *Fortune* 100 employers that closed their broad-based DB plans, five did not offer an executive DC plan (see *Figure 7*).

After closing their broad-based DB plan, all companies but one offered an executive DC plan to their newly hired/non-grandfathered executives. One company had provided a DB restoration plan as well as a SERP before changing its broad-based plan (without any deferred arrangement), but now offers no executive retirement plan to newly hired executives. Of the executive DC plans currently offered by the 16 companies, 14 are restoration plans and two are SERPs.

Among the employers that froze their broad-based pensions, we see slightly different outcomes for executive DC plans and deferred compensation arrangements (see *Figure 8*).

### FIGURE 8. EXECUTIVE DC PLANS AND DEFERRED COMPENSATION ARRANGEMENTS OFFERED BY *FORTUNE* 100 COMPANIES BEFORE AND AFTER FREEZING THE BROAD-BASED PLAN




N=22

*Source: Towers Watson.*

Before the 22 employers in this group froze the broad-based plan, 10 had offered an executive DC plan. After freezing the broad-based pension, 16 of the organizations offered an executive DC plan. Four organizations continued to offer only a deferred compensation arrangement, and two still have no salary/bonus deferral program. While six organizations added an executive DC plan after freezing the broad-based plan, the other six eliminated their employer-paid executive retirement programs altogether. Of the 16 executive DC plans still being provided to all executives, all but one are restoration plans.

### *MANY SPONSORS ELIMINATE SERPS*

As noted above, the decline in ongoing DB SERPs has not been offset by an increase in DC SERPs. Of the 21 organizations that sponsored DB SERPs before changing their broad-based plans, 18 no longer offer a SERP to new hires, two replaced the DB SERPs with DC SERPs, and one continues to sponsor the DB SERP even though the broad-based plan is a DC plan. One organization had a DC SERP before changing its broad-based plan, and the SERP remains open.

## SUMMARY

As many *Fortune* 100 companies have been freezing or closing their broad-based DB plans and shifting to DC-only vehicles, the pattern has been much the same for executives. Before these *Fortune* 100 companies changed their broad-based retirement packages, most provided a restoration pension and/or a SERP to executives. After eliminating the broad-based DB pension accruals, almost all of them also eliminated their executive DB plan accruals (both restoration and SERPs), and most replaced them with DC restoration plans. Seven companies do not contribute to executive retirement benefits — compared with only two before these companies closed or froze their broad-based plans.

### *ONGOING EXECUTIVE RETIREMENT PROGRAM TRENDS FOR NEWLY HIRED EXECUTIVES*

The results of the executive retirement program analysis for *Fortune* 100 companies are consistent with the pattern among *Fortune* 1000 organizations documented in Towers Watson's "2011 Report of Executive Retirement Benefits Practices." That report also finds an overall decline in the sponsorship of executive DB programs, a decrease in the number of SERPs and an increase in the number of restoration plans. In addition, data from the report clearly indicate that organizations sponsoring only DC plans are less likely to provide any executive retirement plan.

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### FOOTNOTES

[1]**See *Insider*, July 2011, " Prevalence of Retirement Plan Types in the Fortune 100 in 2011** <http://www.towerswatson.com/en/Insights/Newsletters/Americas/Insider/2011/Prevalence-of-Retirement-Plan-Types-in-the-emFortuneem-100-in-2011>," Towers Watson.

[2]**Only 39 companies had sufficient data available for the analysis.**

[3]**These limits include the Internal Revenue Code (IRC) section 401(a)(17) covered compensation limit (currently $245,000), the section 415 limits ($49,000 on annual contributions to DC plans and $195,000 in annuity benefits from DB plans), and limits on section 401(k) deferrals (currently $16,500 annually).**

[4]**After closing or freezing their broad-based DB plan, most of these companies enhanced their 401(k) plans to offset the DB change, at least to some degree.**

TOWERS WATSON

INSIDER

# Retirement Plan Types of *Fortune* 100 Companies in 2012

October 2012 | UNITED STATES | By Brendan McFarland

## OVER THE LAST 27 YEARS, THE RATIO OF TRADITIONAL DEFINED BENEFIT (DB) TO ACCOUNT-BASED RETIREMENT OFFERINGS FOR NEW HIRES HAS FLIPPED COMPLETELY AMONG THE *FORTUNE* 100.

In 2012, the number of *Fortune* 100 companies offering new salaried employees only a defined contribution (DC) plan rose, as it has for many years. Today, less than a third of these companies offer any DB plan to newly hired salaried workers, and only 11 still offer a traditional DB plan to new hires.

Large employers have been reassessing their retirement offerings for some time now. Over the past decade, most have shifted from traditional DB plans to either account-based DB plans or DC plans. The shift is motivated by several factors, including employers' desire to reduce overall retirement costs (perhaps due to higher compensation and benefit costs elsewhere, especially health care), perceptions that workers prefer more portable plans, market trends and the belief that such a shift reduces financial risk.[1]

## *FORTUNE* 100 PLAN SPONSORSHIP OVER TIME

Towers Watson has been tracking the retirement plan types offered by *Fortune* 100 companies for many years.[2] Since 1998, employers have been steadily shifting their retirement offerings for newly hired salaried employees away from traditional DB plans.

At the end of 1998, 90 *Fortune* 100 companies offered a DC plan and some sort of DB benefit, either a traditional or hybrid (account-based pension, typically cash balance) plan. Today only 30 companies on the *Fortune* 100 list offer a DB plan to their new salaried hires (*Figures 1a* and *1b*). Offering DC benefits only has become a prevalent practice.

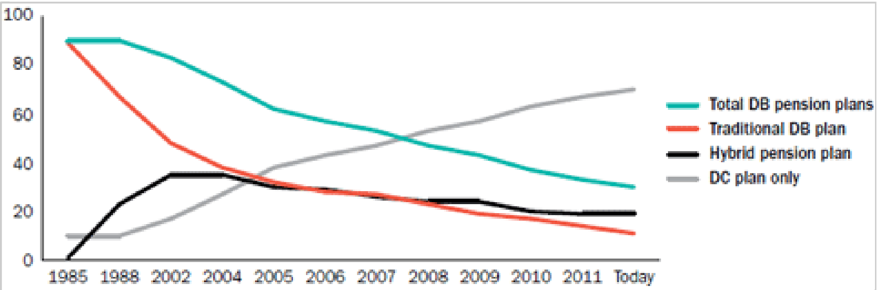
**Figure 1a. *Fortune* 100 retirement plan sponsorship, 1985 – 2012**

<http://www.towerswatson.com/assets/image/8067/fig1a.gif>

| | 1985 | 1998 | 2002 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | Today |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total DB pension plans | 90 | 90 | 83 | 73 | 62 | 57 | 53 | 47 | 43 | 37 | 33 | 30 |
| Traditional DB plan | 89 | 67 | 48 | 38 | 32 | 28 | 27 | 23 | 19 | 17 | 14 | 11 |
| Hybrid pension plan | 1 | 23 | 35 | 35 | 30 | 29 | 26 | 24 | 24 | 20 | 19 | 19 |
| DC plan only | 10 | 10 | 17 | 27 | 38 | 43 | 47 | 53 | 57 | 63 | 67 | 70 |

**Figure 1b. *Fortune* 100 retirement plan sponsorship, 1985 – 2012**

<http://www.towerswatson.com/assets/image/8067/fig1b.gif>




*Note: Sponsorship shown as plan type offered to salaried new hires at year-end is based on the following year's Fortune 100 list. For example, 2011 data are based on the 2012 Fortune 100 and include plans offered at year-end 2011. The 2010 data are based on the 2011 list and so on. The "Today" column in Figure 1a reflects plan changes that took effect between January 1, 2012, and June 30, 2012.*

*Source: Towers Watson*

A traditional DB plan provides an annual income at retirement defined by a formula that generally relates to pay and years of service. The value of benefit accruals is typically back-loaded, meaning benefit values increase faster as participants near retirement. As such, traditional DB plans are meant to encourage valuable workers to spend most of their productive careers with the employer. They are also intended to help employees retire with sufficient income to enjoy a reasonable standard of retirement living as well as help employers predict and control the timing of workers' retirement. Over time, the employer focus changed to providing a more uniform level of retirement-directed capital accumulation for all workers, prompting many companies to freeze or close their traditional DB plans.

Hybrid plans define the benefit as an account balance (a lump sum) rather than an annuity. The benefits typically accrue more evenly over a worker's career (though hybrid designs can vary accruals by age, service or a combination of the two). When hybrid plan participants leave their employer, they are allowed to take their lump sum account balance with them, as DC plan participants typically do. Hybrid participants can also convert their account balances into life annuities, but most do not. (Indeed, many traditional DB plans now offer lump sum distributions at retirement, and they are often the most popular option.)

In 1985, 89 *Fortune* 100 companies offered a traditional DB benefit to newly hired salaried employees. Almost 30 years later, the pattern has completely flipped. Of today's *Fortune* 100, 89 companies offer only account-based retirement plans to new salaried hires.

## THE EVOLUTION OF TODAY'S *FORTUNE* 100 PLANS: 1998 – 2012

Some of the changes in the reported retirement offerings arise from annual turnover in the *Fortune* 100 list, reflecting mergers, spin-offs, new or rapidly growing businesses, and bankruptcies. Historically, seven to eight companies are new to the *Fortune* 100 list in any given year, and six companies are new to the 2012 *Fortune* 100. To control for annual list turnover, we analyze the evolution of retirement offerings since 1998 for current *Fortune* 100 companies (*Figures 2a* and *2b*).

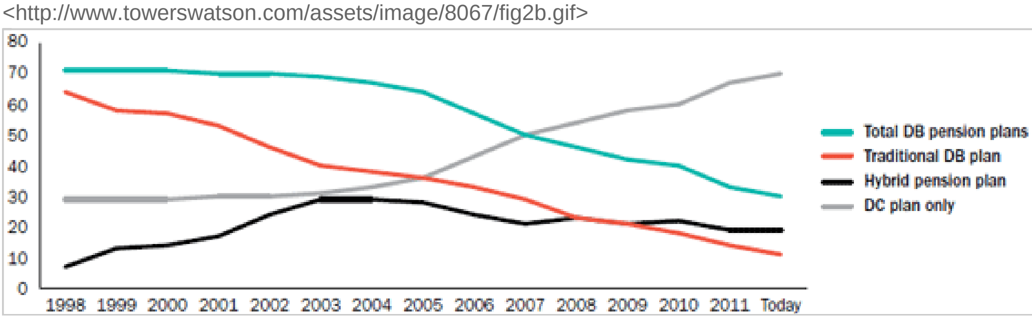
**Figure 2a. Sponsorship trends for 2012 *Fortune* 100 companies, 1998 – 2012**

<http://www.towerswatson.com/assets/image/8067/fig2a.gif>

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | Today |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total DB pension plans | 71 | 71 | 71 | 70 | 70 | 69 | 67 | 64 | 57 | 50 | 46 | 42 | 40 | 33 | 30 |
| Traditional DB plan | 64 | 58 | 57 | 53 | 46 | 40 | 38 | 36 | 33 | 29 | 23 | 21 | 18 | 14 | 11 |
| Hybrid pension plan | 7 | 13 | 14 | 17 | 24 | 29 | 29 | 28 | 24 | 21 | 23 | 21 | 22 | 19 | 19 |
| DC plan only | 29 | 29 | 29 | 30 | 30 | 31 | 33 | 36 | 43 | 50 | 54 | 58 | 60 | 67 | 70 |

**Figure 2b. Sponsorship trends for 2012 *Fortune* 100 companies, 1998 – 2012**

<http://www.towerswatson.com/assets/image/8067/fig2b.gif>




*Note: Sponsorship is shown as plan type offered to salaried new hires at the end of the year. The "Today" column In Figure 2a reflects plan changes that took effect between January 1, 2012, and June 30, 2012. Trend data are shown for the 2012 Fortune 100 companies and capture changes to retirement plans since 1998.*

*Source: Towers Watson*

More sponsors of active DB plans joined the *Fortune* 100 this year, replacing companies offering only a DC plan to new salaried hires. Of the six companies new to this year's *Fortune* 100, four are DB plan sponsors. Only one of the companies that fell off the list was a DB plan sponsor; thus, list turnover resulted in a gain of three DB plans.

Tracking the same *Fortune* 100 companies over time (i.e., comparing Figures 2a and 2b to Figures 1a and 1b) softens the arc of the trend away from DB plans somewhat, with both the decline in DB plans and the rise in DC-only approaches slightly less pronounced.

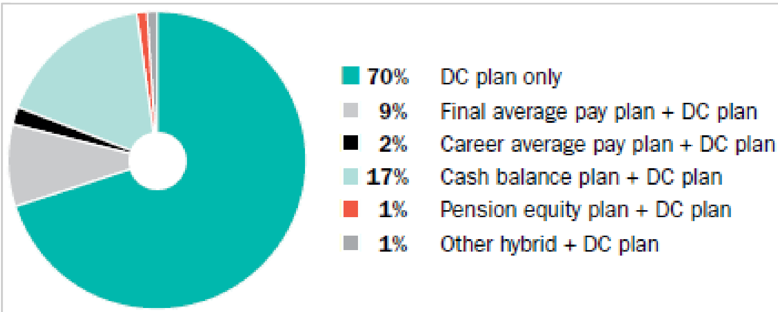
Our past analyses found that new list members were less likely to have ever offered a DB plan. For example, 29 of the companies in today's *Fortune* 100 offered only a DC plan to new hires back in 1998, but only 10 companies in the 1999 *Fortune* 100 sponsored only a DC plan.

This difference is mostly attributable to shifts in the sector makeup of the *Fortune* 100 over the last 20 to 30 years. For example, 30 years ago, most *Fortune* 100 companies were in manufacturing, and that sector typically offered traditional pension plans to new hires. Over time, however, these manufacturing companies have been replaced by high-tech companies, most of which never offered DB retirement plans.

Today, 70 of the 2012 *Fortune* 100 companies offer only a DC plan to new hires, whereas at year-end 1998, 29 of those same companies offered only a DC plan. Between year-end 2011 and June 2012, three additional companies stopped offering DB plans (two traditional DB plans and one hybrid plan) to new hires, opting for a DC-only approach instead. Over the same period, one company converted its traditional DB plan to a hybrid plan.

Of the 30 companies that offer a DB plan to new hires today, more than half sponsor a cash balance plan (roughly two-thirds sponsor some type of hybrid), as shown in *Figure 3*. Final average pay plans are the second most prevalent offering.

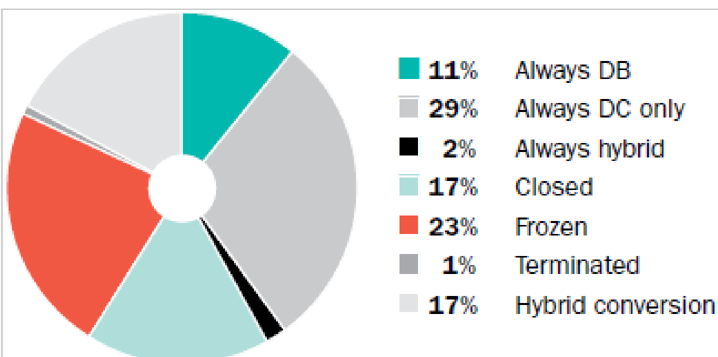
**Figure 3. Plan types offered by *Fortune* 100 companies today**




*Source: Towers Watson*

Companies took varying paths to their current retirement programs for new hires. *Figure 4* depicts the most recent plan action by current *Fortune* 100 companies. (*Figures 2a* and *2b* serve as points of comparison.)

**Figure 4. Most recent change to retirement program, 1998 – today**




*Source: Towers Watson*

When a sponsor freezes a DB plan, some or all benefits stop accruing for some or all participants. For example, the sponsor might stop accruals of benefits linked to service but continue those linked to pay. Benefits might stop accruing for all participants younger than 50 or those with 15 or fewer years of service. After a pension plan has been closed, benefits continue to accrue for existing participants, but no one else can join the plan. Since 1998, 23 companies froze their pension plans (some closed their plan to new hires at an earlier date and then froze the accruals later), while 17 closed them. One company terminated its plan. Meanwhile, 17 other companies converted their traditional DB plan to a hybrid plan. A minority of companies made no changes to their plans during the period.

## CONCLUSION

The shift away from traditional DB pension plans is well-established, as companies continue turning to account-based DB plans or a DC-only environment. Today, 70 *Fortune* 100 companies provide only DC plans to new hires. Looking at 2012 *Fortune* 100 companies back to 1998, only 11 offer a traditional DB plan to new hires today versus 64 in 1998 (thus controlling for turnover). Of companies on the *Fortune* 100 list in 1985, only 11 did not offer a traditional DB plan.

So far in 2012, there have been fewer retirement plan changes relative to 2011. Three companies have stopped offering DB plans to new (salaried) hires, shifting to an all-DC retirement environment, while one company converted its traditional DB plan to a hybrid plan.

These changes — both recent and over time — signal a large-scale redistribution of corporate resources for retirement. Employers are spreading their retirement dollars more evenly across the workforce, rather than concentrating benefits on older and longer-tenured workers. Traditional DB plans offer employers greater control over workforce retirement patterns. This is becoming more of an issue today, as the financial crisis and sluggish recovery have highlighted the shortcomings of a DC-only approach and many older workers are delaying retirement. Account-based plans generally make employees more responsible for their own retirement saving and planning, and result in less predictable retirement patterns.

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## ENDNOTES

[1]See Towers Watson's "**Retirement Plan Changes and Employer Motivations**
<http://www.towerswatson.com/assets/pdf/7078/Towers-Watson-Retirement-Plan-Changes.pdf> ," April 2012.

[2]See "**Prevalence of Retirement Plan Types in the *Fortune* 100 in 2011**
<http://www.towerswatson.com/en/Insights/Newsletters/Americas/Insider/2011/Prevalence-of-Retirement-Plan-Types-in-the-emFortuneem-100-in-2011>," Towers Watson *Insider*, July 2011.

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