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MEMORANDUM

Date: July 14, 2010

To: Tom Woodruff

From: Becky Sielman

Re: Impact of employee contributions in an OPEB trust

The SEBAC 2009 agreement included a requirement for certain employees to make employee contributions into an Other Post Employment Benefits (OPEB) trust during their working lifetimes to help fund their retiree medical benefits. The purpose of this memo is to discuss our interpretation of how these employee contributions impact the calculations required by GASB 43/45.

Spending policy for the employee contributions

Contributions to an OPEB trust, whether made by employees or by the State, will presumably be used at some point to pay OPEB benefits. At one extreme, contributions could be used immediately to help pay for each year's OPEB benefits. In this situation, there would be no accumulation of assets in the trust; it would merely serve as a pass-through account. At the other extreme, if there is no policy to draw from the OPEB trust to pay OPEB benefits, then there would be an accumulation of assets in the trust. However, it is nonsensical to put funds into a trust with no policy to **ever** draw from the trust to pay benefits, so clearly at some point trust assets would be used to pay benefits.

In order to discuss the impact of employee contributions on the GASB 43/45 calculations, we need to understand the spending policy for the contributions, because the spending policy will determine whether or not there will be an accumulation of assets in the trust. In the discussion that follows, we use the term **immediate spending policy** to indicate a policy of using contributions immediately to pay for each year's OPEB benefits, and we use the term **accumulation policy** to indicate a policy of leaving contributions in the trust for a significant time period (20-30 years or more) before starting to draw from the trust to pay benefits.

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Impact on the Actuarial Accrued Liability (AAL)

The AAL is the portion of the present value of future benefits that is attributable to prior periods of service (see Paragraph 41(A) of GASB 45). The "benefits" in question are those that are paid for by the employer. To the extent **retirees** pay deductibles, co-pays, lifetime maximums, or a portion of the premium, these payments serve to reduce the employer-paid benefit and therefore reduce the AAL. However, **employee** contributions that are made during the employee's working lifetime do not impact the benefits that the employee will receive in retirement, and therefore do not impact the AAL. Rather, employee contributions are a means of sharing in the cost of prefunding the OPEB benefits. The only exception is that if members can receive a refund of their employee contributions, for instance upon termination of employment, then the existence of employee contributions actually increases the AAL by including the refund of employee contributions as a benefit that may be paid in the future.

Impact on the Unfunded Actuarial Accrued Liability (UAAL)

The UAAL is equal to the AAL less any OPEB trust assets. With an immediate spending policy, there would be no accumulation of assets by virtue of the employee contributions, so the UAAL would not be impacted by the employee contributions. With an accumulation policy, employee contributions would result in a gradual build-up of assets in the trust, which would in turn result in a gradual decrease in the UAAL.

Impact on the Annual Required Contribution (ARC)

Per Paragraph 13(f) of GASB 45, the ARC consists of the employer's Normal Cost plus an amortization payment to gradually fund the UAAL.

Per Paragraph 41(A-3), the employer's Normal Cost is the Normal Cost less any employee contributions. Employee contributions therefore reduce the employer's Normal Cost and by extension the ARC on a dollar for dollar basis.

With an immediate spending policy, the UAAL would not be impacted by employee contributions, so there would be no impact on the amortization payment to fund the UAAL. With an accumulation policy, the UAAL would gradually decrease, so the amortization payment component of the ARC would likewise gradually decrease.

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Impact on Discount Rate

Paragraph 13(c) of GASB 45 states:

" ... the **investment return assumption** (**discount rate**) should be the estimated long-term investment yield on the investments that are expected to be used to finance the payment of benefits ... For this purpose, the investments expected to be used to finance the payment of benefits are (1) *plan assets* for plans for which the employer's funding policy is to contribute consistently an amount at least equal to the ARC, (2) *assets of the employer* for plans that have no plan assets, or (3) *a combination of the two* for plans that are being partially funded. The discount rate for a partially funded plan should be a blended rate that reflects the proportionate amounts of plan and employer assets expected to be used."

Paragraph 123 includes the following additional clarification:

"... the relevant rate of return would be based on:

a. Plan assets – that is, *when the employer is contributing the ARC* on a regular basis (previously referred to as funded plans)

b. Employer assets – that is, *when no plan assets have been accumulated* (previously referred to as unfunded plans)

c. A proportionate blend of plan and employer assets – that is, *when some plan assets have been accumulated, but the employer is contributing less than the ARC* (previously referred to as partially funded plans).

With regard to the *method* of developing a blended rate, the Board concluded that the rate should be proportional to the respective reliance expected to be placed on plan and employer assets to pay or provide OPEB when due. Research indicated that there are a number of reasonable approaches to determining a blended rate. These include what might be called a *funded ratio* approach (based on the extent to which a plan is funded) and an *ARC approach* (based on the percentage of the ARC actually being contributed). No single approach may be preferable in all circumstances."

In the State's particular situation where very small amounts of State contributions have been made to the OPEB trust and there is no funding policy to contribute the ARC on a regular basis, the situation is clearly not what is referred to in GASB 45 as a funded plan. However, there are **some** plan assets that have

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been accumulated, so the situation is not an unfunded one either. We are therefore left with a partially funded plan, for which a blended discount rate is appropriate. Paragraph 123 specifies two possible approaches; you developed a third in connection with the 2006 OPEB valuation which we used at your direction for evaluating the Comptroller's and Governor's proposed funding policies:

1. Funded ratio approach – based on expected future contributions, both employer and employee, evaluate the funded ratio (assets to liabilities) expected to be achieved over a reasonably long period such as the length of the amortization period; blend the endpoint discount rates (rate of return on trust assets versus rate of return on employer assets) based on this ratio. All other things being equal, adding employee contributions with an accumulation policy would increase the assets over time, which would increase the funded ratio, and therefore the discount rate developed using this approach would increase. Note that adding employee contributions with an immediate spending policy would not impact the asset level and would therefore not impact the discount rate. Note also that if expected employer and employee contributions remain very small, the expected long-term funded ratio would be very low, and therefore the discount rate would be very close to the unfunded endpoint discount rate.

2. ARC approach – evaluate the expected long-term ratio of expected employer contributions to the ARC; blend the endpoint discount rates based on this ratio. Since employee contributions would reduce the ARC, the denominator of this ratio would decrease which would increase the ratio itself, and therefore the discount rate developed using this approach would increase. Note that this result is the same for both an immediate spending policy and an accumulation policy, because in either case what matters is that the ARC is reduced by the employee contributions. Note also that if expected employer contributions remain very small, the numerator of this ratio would be very small as well, and therefore the discount rate would be very close to the unfunded endpoint discount rate.

3. Cash flow approach – evaluate the expected growth in trust assets at the end of each year assuming no benefits are paid from the trust, relative to the OPEB benefits expected to be paid each year directly from employer assets; blend the endpoint discount rates based on this ratio. Note that for the 2006 valuation this approach produced a much higher discount rate for the State's current situation than the two approaches outlined in Paragraph 123. All other things being equal, adding employee contributions with an accumulation policy would increase the assets over time, which would increase the numerator of this ratio, and therefore the

discount rate developed using this approach would increase. Note that adding employee contributions with an immediate spending policy would not impact the asset level and would therefore not impact the discount rate. Note also that if employee and employer contributions are small relative to expected OPEB benefit payouts, then the discount rate would be close to the unfunded endpoint discount rate.

Under all of these approaches, therefore, adding employee contributions with an accumulation policy would increase the discount rate. Adding employee contributions with an immediate spending policy would have no impact on the discount rate using the funded ratio approach or the cash flow approach. And regardless of the blended discount rate approach used, if employer and employee contributions are small relative to expected OPEB benefit payouts, then the discount rate would be close to the unfunded endpoint discount rate.

The blended discount rate of 6.08% that we used for the 2006 valuation at your direction to evaluate the Comptroller's proposal was based on the cash flow approach using a ten year period with an initial State contribution of $100 million, future State contributions of $50 million increasing by 5% per year after the first year, expected annual benefit payouts from our 2006 valuation, and endpoint discount rates of 8.5% and 4.5% for the funded and unfunded scenarios, respectively.

If we employ the same methodology using an initial State contribution of $10 million, ongoing employee contributions of $17 million increasing by 4% per year, expected annual benefit payouts from our 2008 valuation, and endpoints of 8.25% and 4.5%, respectively, the resulting blended discount rate is **5.02%**. If we further reflect annual State contributions of $50 million per year, the resulting blended discount rate is **5.75%**. These calculations are based on the preliminary results of our April 1, 2008 OPEB valuation, including the data, plan provisions, methods and assumptions contained therein. We expect that our valuation report will be published by the end of the summer. The explanatory notes contained in our April 1, 2006 valuation report, including statements of reliance and limitations on use, continue to apply.

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Tom -

You asked us to determine the Actuarial Accrued Liability (AAL) as of April 1, 2008 and the Annual Required Contribution (ARC) for FY 2009 using blended discount rates of 5.02% and 5.75%. The results are as follows, with our prior results shown for comparison:

5.02%: AAL $24.020 billion; ARC $1.787 billion
5.75%: AAL $21.000 billion; ARC $1.606 billion

4.50%: AAL $26.567 billion; ARC $1.942 billion
6.08%: AAL $19.814 billion; ARC $1.536 billion
8.25%: AAL $14.025 billion; ARC $1.203 billion

These calculations are based on the preliminary results of our April 1, 2008 OPEB valuation, including the data, plan provisions, methods and assumptions contained therein. We expect that our valuation report will be published by the end of the summer. The explanatory notes contained in our April 1, 2006 valuation report, including statements of reliance and limitations on use, continue to apply.

I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Becky