Segal Consulting

City of Los Angeles Department of Water and Power

Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2017 In accordance with GASB Statement No. 45

Segal Consulting

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November 2, 2017

Ms. Ann Santilli
Assistant Chief Financial Officer and Controller
City of Los Angeles Department of Water and Power
111 N. Hope Street, Room 450
Los Angeles, CA 90011

Dear Ann:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2017 for funding and financial reporting under Governmental Accounting Standards Board Statement No. 45 (GASB 45). The report summarizes the actuarial data used in the valuation, discloses the Net OPEB Obligation (NOO) as of June 30, 2017, establishes the Annual Required Contribution (ARC) for the coming year, and analyzes the preceding year's experience. This report was based on the census and financial data provided by the Department of Water and Power (DWP), with exceptions noted for data in Exhibit II, and the terms of the Plan as communicated to us by DWP. The actuarial calculations were completed under the supervision of Thomas Bergman, ASA, MAAA, EA and Andy Yeung, ASA, MAAA, FCA, EA.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in this valuation and described in Exhibit II are reasonably related to the experience of and the expectations for the Plan. The actuarial projections are based on these assumptions and the plan of benefits as summarized in Exhibit III.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By:

Paul Angelo, FSA, MAAA, FCA, EA	*Andy Yeung, ASA, MAAA, FCA, EA*
Senior Vice President and Actuary	*Vice President and Actuary*

JAC/bbf

cc: Kathy Fong

SECTION 1

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PURPOSE

This report presents the results of our actuarial valuation of the City of Los Angeles Department of Water and Power (DWP) postretirement medical and dental benefits plan as of June 30, 2017 for funding and financial reporting under GASB 45. The results are in accordance with the current Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants' active working lifetimes.

The membership data used in the June 30, 2017 valuation was based on the characteristics of covered active members, retired members and beneficiaries as of March 31, 2017. In the prior valuation, we used the membership characteristics as of June 30, 2016.

HIGHLIGHTS OF THE VALUATION

- **The Annual Required Contribution (ARC)** decreased from 10.11% of payroll for the 2016-2017 fiscal year to 8.60% of payroll for the 2017-2018 fiscal year. The reasons for the decrease in ARC include: (a) actual 2017-2018 medical premiums, on average, increased less than the assumed 6.50% projected in our prior valuation, and (b) lowering the ultimate future trend assumption from 5.00% in the prior valuation to 4.50% in this valuation, and (c) favorable investment and demographic experience. The return on market value of assets was 12.93% and the return on actuarial value of assets was 8.33% after reflecting the recognition of deferred losses from prior years.
- As of June 30, 2017, the ratio of assets, on an actuarial value basis, to the Actuarial Accrued Liability (AAL), i.e., the funded ratio, is 80.86% compared to 75.07% in the prior valuation. These ratios if measured on a Market Value basis have increased to 81.44% from 72.53% during 2016-2017. There is a reduction in the Unfunded Actuarial Liability (UAAL) to $449.3 million from $581.8 million calculated in the prior valuation. A detailed reconciliation of the change in UAAL can be found in Chart 2.
- **The Net OPEB Asset (NOA, or negative Net OPEB Obligation (NOO))** decreased from $1.049 billion in the June 30, 2016 valuation to $1.042 billion in the June 30, 2017 valuation. Chart 7 shows the detailed derivation of the NOA (negative NOO) as of June 30, 2017. An NOA exists when the cumulative actual employer contributions exceed the cumulative ARCs.
- It is our understanding that DWP does not have a formal funding policy for OPEB. In the past we have calculated the ARC based the following approach: Normal cost plus amortization of the UAAL using the following basis:
  - Declining 30-year amortization beginning June 30, 2005, with 18 years remaining as of June 30, 2017 and,
  - UAAL amortized as a level percent of payroll.

  Unless directed otherwise, we will continue to use the above approach to calculate the ARC.

  From a governance standpoint, we believe it would be appropriate for DWP to adopt a formal funding policy, particularly as the current practice has a single, declining amortization period.

- As of June 30, 2017, the Plan is subject to the new Governmental Accounting Standard No. 74 (GASB 74), which replaced GASB 43. The June 30, 2017 valuation under GASB 74 for financial reporting purposes was provided as a separate report. As of June 30, 2018, DWP (the employer) will be subject to the new Governmental Accounting Standard No. 75 (GASB 75), which replaces GASB 45. This is the last valuation to be used for GASB 45 financial reporting.

The key valuation results for the current and prior years are shown.

SUMMARY OF VALUATION RESULTS

	June 30, 2017	June 30, 2016
Actuarial Accrued Liability (AAL)	$2,347,483,631	$2,334,042,813
Actuarial Value of Assets (AVA)	1,898,136,791	1,752,195,162
Unfunded Actuarial Accrued Liability on AVA Basis	449,346,840	581,847,651
Funded Ratio on AVA Basis	80.86%	75.07%
Market Value of Assets (MVA)	$1,911,892,665	$1,692,877,717
Unfunded Actuarial Accrued Liability on MVA Basis	435,590,966	641,165,096
Funded Ratio on MVA Basis	81.44%	72.53%
Annual Required Contribution (ARC) for Fiscal Year Ending*:	**June 30, 2018**	**June 30, 2017**
Normal cost (beginning of year)	$49,190,698	$49,295,168
Amortization of the unfunded actuarial accrued liability	33,213,505	41,394,976
Adjustment for timing	2,934,888	3,229,999
Total Annual Required Contribution (payable throughout the year)	$85,339,091	$93,920,143
Covered payroll	991,814,994	928,888,680
ARC as a percentage of pay	8.60%	10.11%
Total Participants	17,844	17,244
Annual OPEB Cost (AOC) for Fiscal Year Ending (payable throughout year):	**June 30, 2018**	**June 30, 2017**
Annual Required Contribution	N/A**	$93,920,143
Interest on Net OPEB Obligation (NOO)	N/A**	-73,443,533
ARC Adjustment	N/A**	77,294,965
Total Annual OPEB Cost	N/A**	$97,771,575
AOC as a percent of pay	N/A**	10.53%

* *In future valuations, the ARC will be referred to as the Actuarially Determined Contribution (ADC).*

** *The AOC and NOO are not applicable to GASB 75, which replaces GASB 45 for fiscal years ended after June 30, 2017.*

IMPORTANT INFORMATION ABOUT ACTUARIAL VALUATIONS

In order to prepare an actuarial valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by DWP with exceptions noted for Data in Exhibit II. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** This valuation is based on the market value of assets as of the valuation date, as provided by DWP.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to health care trends and member enrollment in retiree health benefits. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The valuation is prepared at the request of DWP. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If DWP is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience and health care trend, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. DWP should look to their other advisors for expertise in these areas.

As Segal Consulting has no discretionary authority with respect to the management or assets of DWP, it is not a fiduciary in its capacity as actuaries and consultants with respect to DWP.

November 2, 2017

ACTUARIAL CERTIFICATION

This is to certify that Segal Consulting, a Member of The Segal Group, Inc. has conducted an actuarial valuation of certain benefit obligations of City of Los Angeles Department of Water and Power's other postemployment benefit programs as of June 30, 2017, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statement No. 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by the Employer and reliance on participant, premium, claims and expense data provided by the Employer or from vendors employed by the Employer with exceptions noted for Data in Exhibit II. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency.

The actuarial computations made are for purposes of fulfilling funding and plan accounting requirements. Determinations for purposes other than meeting funding and financial accounting requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with GASB Statement No. 45 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and collectively meet their "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.

Thomas Bergman
Thomas Bergman, ASA, MAAA, EA
Associate Actuary

Andy Yeung
Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

The actuarial present value of total projected benefits uses the actuarial assumptions disclosed in Section 4 to calculate the value today of all benefits expected to be paid to current actives and retired plan members. The actuarial balance sheet shows the expected breakdown of how these benefits will be financed.

CHART 1

Actuarial Present Value of Total Projected Benefits (APB) and Actuarial Balance Sheet

	Actuarial Present Value of Total Projected Benefits (APB)	
	June 30, 2017	**June 30, 2016**
Participant Category		
Current retirees, beneficiaries, and dependents	$1,330,963,851	$1,302,645,211
Current active members	1,525,681,292	1,553,145,299
Total	$2,856,645,143	$2,855,790,510

	June 30, 2017	**June 30, 2016**
Actuarial Balance Sheet		
The actuarial balance sheet as of the valuation date is as follows:		
Assets		
1. Actuarial value of assets	$1,898,136,791	$1,752,195,162
2. Present value of future normal costs	509,161,512	521,747,697
3. Unfunded actuarial accrued liability	449,346,840	581,847,651
4. Present value of current and future assets	$2,856,645,143	$2,855,790,510
Liabilities		
5. Actuarial Present Value of total Projected Benefits	$2,856,645,143	$2,855,790,510

The actuarial accrued liability shows that portion of the APB (Chart 1) allocated to periods prior to the valuation date by the actuarial cost method. The chart below shows the portion covered by accumulated plan assets, and reconciles the unfunded actuarial accrued liability from last year to this year.

CHART 2

Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL)

	June 30, 2017	June 30, 2016
Participant Category		
Current retirees, beneficiaries, and dependents	$1,330,963,851	$1,302,645,211
Current active members	1,016,519,780	1,031,397,602
Total actuarial accrued liability	$2,347,483,631	$2,334,042,813
Actuarial value of assets	1,898,136,791	1,752,195,162
Unfunded actuarial accrued liability	$449,346,840	$581,847,651
Development of Unfunded Actuarial Accrued Liability		
1. Unfunded actuarial accrued liability as of June 30, 2016		$581,847,651
2. Employer normal cost at beginning of year		49,295,168
3. Total employer contributions		-91,023,926
4. Interest on 1, 2 and 3		42,515,969
5. Expected unfunded actuarial accrued liability (sum of 1 – 4)		$582,634,862
6. Change due to non-investment and investment experience gains		-41,878,554
7. Change due to premiums on average, increasing less than expected		-21,388,901
8. Change due to updating health trend assumptions		-70,508,237
9. Change from other assumption and method changes		487,670
10. Subtotal of 6 – 9		-$133,288,022
11. Unfunded actuarial accrued liability as of June 30, 2017		$449,346,840

The unfunded actuarial accrued liability may be amortized over periods of up to 30 years. Amortization payments may be calculated as level dollar amounts or as amounts designed to remain level as a percent of a growing payroll. base.

It is our understanding that DWP does not have a formal funding policy. In the past we have calculated the ARC based the following approach: Normal cost plus amortization of the UAAL using the following rules:

- Declining 30-year amortization beginning June 30, 2005, with 18 years remaining as of June 30, 2017 and
- UAAL amortized as a level percent of payroll.

Unless directed otherwise, we will continue to use the above approach to calculate the ARC.

From a governance standpoint, we believe it would be appropriate for DWP to adopt a formal funding policy, particularly as the current practice has a single, declining amortization period.

CHART 3

Table of Amortization Bases

Type	Date Established	Initial Year	Initial Amount	Annual Payment*	Years Remaining	Outstanding Balance
Total Unfunded Actuarial Accrued Liability	6/30/2017	18	$449,346,840	$33,213,505	18	$449,346,840

* *Level percentage of pay*

The Annual Required Contribution (ARC) is the amount calculated to determine the annual cost of the OPEB plan for accounting purposes *as if* the plan were being funded through contributions to a trust fund. The GASB standards cannot require the contributions actually be made to a trust fund. The ARC is simply a device used to measure annual plan costs on an accrual basis. The calculation consists of adding the Normal Cost of the plan to an amortization payment. The resulting sum is then adjusted to the start of the accounting period and adjusted as if the annual cost were to be contributed throughout the fiscal year.

The amortization payment is based on a 30-year declining amortization of the Unfunded Actuarial Accrued Liability on a level percent of payroll basis. As of June 30, 2017, 18 years remained on the schedule.

The primary reasons behind the decrease in the ARC from the prior valuation were:

- Premiums on average, increasing less than expected
- Favorable investment and demographic experience.
- Lowering the ultimate medical trend assumption from 5.00% to 4.50%.

CHART 4

Determination of Annual Required Contribution (ARC) – Payable Throughout Fiscal Year*
Total

Cost Element	Fiscal Year Beginning July 1, 2017 and Ending June 30, 2018		Fiscal Year Beginning July 1, 2016 and Ending June 30, 2017	
	Amount	**Percentage of Compensation**	**Amount**	**Percentage of Compensation**
1. Normal cost	$49,190,698	4.96%	$49,295,168	5.31%
2. Amortization of the unfunded actuarial accrued liability (18 years as of June 30, 2017)	33,213,505	3.35%	41,394,976	4.46%
3. Adjustment for timing	2,934,888	0.29%	3,229,999	0.34%
4. Total Annual Required Contribution (ARC)	$85,339,091	8.60%	$93,920,143	10.11%
5. Total Compensation	$991,814,994		$928,888,680	

* *In future valuations, the ARC will be referred to as the Actuarially Determined Contribution (ADC).*

CHART 4 (continued)

Determination of Annual Required Contribution (ARC) – Payable Throughout Fiscal Year*
Tier 1

Cost Element	Fiscal Year Beginning July 1, 2017 and Ending June 30, 2018		Fiscal Year Beginning July 1, 2016 and Ending June 30, 2017	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Normal cost	$40,861,763	5.06%	$43,709,535	5.40%
2. Amortization of the unfunded actuarial accrued liability (18 years as of June 30, 2017)	27,020,381	3.35%	36,040,727	4.46%
3. Adjustment for timing	2,417,674	0.30%	2,840,367	0.35%
4. Total Annual Required Contribution (ARC)	$70,299,818	8.71%	$82,590,629	10.21%
5. Total Compensation	$806,945,610		$808,838,256	

* *In future valuations, the ARC will be referred to as the Actuarially Determined Contribution (ADC).*

CHART 4 (continued)

Determination of Annual Required Contribution (ARC) – Payable Throughout Fiscal Year*
Tier 2

Cost Element	Fiscal Year Beginning July 1, 2017 and Ending June 30, 2018		Fiscal Year Beginning July 1, 2016 and Ending June 30, 2017	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Normal cost	$8,328,935	4.51%	$5,585,633	4.65%
2. Amortization of the unfunded actuarial accrued liability (18 years as of June 30, 2017)	6,193,124	3.35%	5,354,249	4.46%
3. Adjustment for timing	517,214	0.28%	389,632	0.33%
4. Total Annual Required Contribution (ARC)	$15,039,273	8.14%	$11,329,514	9.44%
5. Total Compensation	$184,869,384		$120,050,424	

* *In future valuations, the ARC will be referred to as the Actuarially Determined Contribution (ADC).*

The Annual OPEB Cost (AOC) adjusts the ARC for timing differences between the ARC and contributions in relation to the ARC. The AOC is the cost of OPEB actually booked as an expense for the Fiscal Year under GASB 45.

The AOC is not applicable to GASB 75, which replaces GASB 45 for the fiscal years ended after June 30, 2017.

CHART 4 (continued)

Determination of Annual OPEB Cost (AOC) – Payable Throughout Fiscal Year

Cost Element	Fiscal Year Beginning July 1, 2017 and Ending June 30, 2018		Fiscal Year Beginning July 1, 2016 and Ending June 30, 2017	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Annual Required Contribution	N/A*		$93,920,143	10.11%
2. Interest on Beginning of Year Net OPEB Assets (NOA), i.e. negative Net OPEB Obligation (NOO)	N/A*		-73,443,533	-7.90%
3. ARC adjustment	N/A*		77,294,965	8.32%
4. Annual OPEB Cost	N/A*		$97,771,575	10.53%
5. Total Compensation	N/A*		$928,888,680	

** The AOC and NOO are not applicable to GASB 75, which replaces GASB 45 for fiscal years ended after June 30, 2017.*

For GASB 45 (employer reporting) purposes, the schedule of employer contributions compares actual contributions to the AOC.

CHART 5

Required Supplementary Information – Schedule of Employer Contributions GASB 45

Fiscal Year Ended June 30	Annual Required Contributions (1)	Actual Contributions (1)(2)	Percentage Contributed
2013	$49,496,185	$70,796,216	143.03%
2014	60,676,014	77,555,959	127.82%
2015	73,353,532	82,075,281	111.89%
2016	64,253,043	83,574,832	130.07%
2017	97,265,180	94,265,812	96.92%
2018	88,378,508	Not Made Yet	N/A

Fiscal Year Ended June 30	Annual OPEB Cost (1)	Actual Contributions (1)(2)	Percentage Contributed
2013	$38,311,203	$70,796,216	184.79%
2014	51,084,335	77,555,959	151.82%
2015	68,150,228	82,075,281	120.43%
2016	61,466,878	83,574,832	135.97%
2017	101,253,784	94,265,812	93.10%
2018	N/A(3)	N/A(3)	N/A(3)

(1) *Includes an interest adjustment to the end of the year.*

(2) *Contributions without interest were:*
$68,234,175 for 2012-2013,
$74,714,782 for 2013-2014,
$79,160,430 for 2014-2015,
$80,606,726 for 2015-2016, and
$91,023,926 for 2016-2017.

(3) *The AOC is not applicable to GASB 75, which replaces GASB 45 for fiscal years ended after June 30, 2017*

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

CHART 6

Required Supplementary Information – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a) / (c)]
06/30/2012	$1,244,039,107	$1,566,059,276	$322,020,169	79.44%	$886,539,366	36.32%
06/30/2013	1,332,135,662	1,743,726,715	411,591,053	76.40%	900,254,454	45.72%
06/30/2014	1,485,139,934	1,947,912,233	462,772,299	76.24%	900,126,274	51.41%
06/30/2015	1,637,578,438	1,956,230,463	318,652,025	83.71%	920,781,074	34.61%
06/30/2016	1,752,195,162	2,334,042,813	581,847,651	75.07%	928,888,680	62.64%
06/30/2017	1,898,136,791	2,347,483,631	449,346,840	80.86%	991,814,994	45.31%

The Net OPEB Obligation (NOO) measures the accumulated differences between the annual OPEB cost and the actual contributions in relation to the ARC. A negative NOO is sometimes called a Net OPEB Asset (NOA). The AOC and NOO are not applicable to GASB 75, which replaces GASB 45 for the fiscal years ending after June 30, 2017.

CHART 7

Required Supplementary Information – Net OPEB Obligation (NOO)

Actuarial Valuation Date	Fiscal Year End	Annual Required Contribution[1] (a)	Interest on Existing NOO (b)	ARC Adjustment[1] (c)	Annual OPEB Cost (a) + (b) + (c) (d)	Actual Contribution Amount[1][2] (e)	Net Increase in NOO (d) – (e) (f)	NOO as of Fiscal Year (g)
06/30/2012	06/30/2013	$49,496,185	-$73,943,050	$62,758,068	$38,311,203	$70,796,216	-$32,485,013	-$986,588,883
06/30/2013	06/30/2014	60,676,014	-76,460,638	66,868,959	51,084,335	77,555,959	-26,471,624	-1,013,060,507
06/30/2014	06/30/2015	73,353,532	-75,979,538	70,776,234	68,150,228	82,075,281	-13,925,053	-1,026,985,560
06/30/2015	06/30/2016	64,253,043	-77,023,917	74,237,752	61,466,878	83,574,832	-22,107,954	-1,049,093,514
06/30/2016	06/30/2017	97,265,180	-76,059,280	80,047,884	101,253,784	94,265,812	6,987,972	-1,042,105,542
06/30/2017	06/30/2018	N/A[3]	N/A[3]	N/A[3]	N/A[3]	N/A[3]	N/A[3]	N/A[3]

(1) *Includes an interest adjustment to the end of the year.*

(2) *Contributions without interest were:*
$68,234,175 for 2012-2013,
$74,714,782 for 2013-2014,
$79,160,430 for 2014-2015,
$80,606,726 for 2015-2016
$91,023,926 for 2016-2017, and

(3) *The AOC* is *not applicable to GASB 75, which replaces GASB 45 for fiscal years ended after June 30, 2017.*

This exhibit summarizes the participant data used for the current and prior valuations.

EXHIBIT A

Summary of Participant Data - Total

	June 30, 2017	June 30, 2016
Retirees		
Number*	6,674	6,649
Average age of retirees	72.8	72.4
Number of spouses	3,476	3,496
Average age of spouses	68.7	68.3
Surviving Spouses		
Number*	1,364	1,331
Average age	80.8	80.7
Active Participants		
Number	9,806	9,264
Average age	47.9	47.9
Average years of qualifying service**	16.3	17.0
Average expected retirement age	63.0	62.7

** A retiree or surviving spouse is only counted if receiving a medical and/or dental benefit.*

***Differs from the service type shown (Service Credit) in the Retirement Plan valuation.*

EXHIBIT A (continued)

Summary of Participant Data – Tier 1

	June 30, 2017	June 30, 2016
Retirees		
Number*	6,674	6,649
Average age of retirees	72.8	72.4
Number of spouses	3,476	3,496
Average age of spouses	68.7	68.3
Surviving Spouses		
Number*	1,364	1,331
Average age	80.8	80.7
Active Participants		
Number	7,543	7,827
Average age	50.6	49.7
Average years of qualifying service**	20.2	19.5
Average expected retirement age	62.6	62.4

* *A retiree or surviving spouse is only counted if receiving a medical and/or dental benefit.*

***Differs from the service type shown (Service Credit) in the Retirement Plan valuation.*

EXHIBIT A (continued)

Summary of Participant Data – Tier 2

	June 30, 2017	June 30, 2016
Retirees		
Number*	0	0
Average age of retirees	N/A	N/A
Number of spouses	N/A	N/A
Average age of spouses	N/A	N/A
Surviving Spouses		
Number*	0	0
Average age	N/A	N/A
Active Participants		
Number	2,263	1,437
Average age	38.8	37.9
Average years of qualifying service**	3.4	3.1
Average expected retirement age	64.4	64.2

** A retiree or surviving spouse is only counted if receiving a medical and/or dental benefit.*

***Differs from the service type shown (Service Credit) in the Retirement Plan valuation.*

EXHIBIT B
Cash Flow Projections

Initially, the ARC generally exceeds the current pay-as-you-go (“paygo”) cost of an OPEB plan. Over time the paygo cost will tend to grow and becomes close to and may exceed the ARC, which is expected in a well-funded and more mature plan such as this one. The following table projects the paygo cost as the projected net fund payment over the next ten years.

Year Ending June 30	Projected Number of Retirees*			Projected Benefit Payments		
	Current	Future	Total	Current	Future	Total
2018	11,514	579	12,093	$96,466,515	$5,215,181	$101,681,696
2019	11,135	1,161	12,296	99,421,950	11,275,581	110,697,531
2020	10,758	1,736	12,494	101,862,684	17,967,601	119,830,285
2021	10,381	2,343	12,724	104,476,675	26,454,440	130,931,115
2022	10,007	2,928	12,935	106,192,655	35,020,093	141,212,748
2023	9,637	3,467	13,104	107,081,492	43,502,393	150,583,885
2024	9,266	3,980	13,246	107,850,568	52,164,287	160,014,855
2025	8,901	4,454	13,355	108,493,996	60,312,642	168,806,638
2026	8,538	4,905	13,443	108,611,512	68,257,589	176,869,101
2027	8,178	5,336	13,514	108,713,999	75,920,609	184,634,608

* *Includes spouses of retirees.*

EXHIBIT C

Actuarial Value of Assets

To minimize volatility in the calculation of the Annual Required Contribution, the Employer may choose to smooth out short-term changes in the market value of plan assets by use of an actuarial value of assets method. City of Los Angeles Department of Water and Power adopted the following method that smooths such changes over a five-year period.

Determination of Actuarial Value of Assets as of June 30, 2017

		Original Amount	Percent Unrecognized	Unrecognized Amount	
1.	Market value of assets				$1,911,892,665
2.	Calculation of unrecognized return*				
	(a) Year ended June 30, 2017	$96,241,076	80%	76,992,860	
	(b) Year ended June 30, 2016	-111,317,036	60%	-66,790,222	
	(c) Year ended June 30, 2015	-54,731,423	40%	-21,892,569	
	(d) Year ended June 30, 2014	127,229,022	20%	25,445,805	
	(e) Year ended June 30, 2013	58,417,148	0%	0	
3.	Total unrecognized return**				$13,755,874
4.	Actuarial value: (1) - (3)				$1,898,136,791
5.	Actuarial value as a percentage of market value: (5) ÷ (1)				99.28%

* Total return minus expected return on a market value basis

** Deferred return as of June 30, 2017 recognized in each of the next 4 years:

(a) Amount recognized during 2017-2018:	$11,484,328
(b) Amount recognized during 2018-2019:	-13,961,476
(c) Amount recognized during 2019-2020:	-3,015,193
(d) Amount recognized during 2020-2021:	19,248,215
(e) Total	$13,755,874

EXHIBIT I

Summary of Required Supplementary Information

Valuation date	June 30, 2017
Actuarial cost method	Entry Age, Level Percent of Pay
Amortization method	30-Year Amortization Closed, Level Percent of Pay
Remaining amortization period	18 years as of June 30, 2017
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market returns and the expected returns on a market value basis, and is recognized over a five-year period.
Actuarial assumptions:	
Investment rate of return	7.25%
Inflation rate	3.00%
Projected salary increases	3.50%, plus merit and promotional increases, shown in Exhibit II.
Non-Medicare cost trend rate	7.00%, graded down to an ultimate rate of 4.50% over 10 years
Medicare cost trend rate	6.50%, graded down to an ultimate rate of 4.50% over 8 years
Dental and Medicare Part B subsidy costs trend rate	4.50%

Plan membership:	June 30, 2017	June 30, 2016
Current retirees* and beneficiaries receiving dental and/or medical subsidy	8,038	7,980
Current active participants	9,806	9,264
Total	17,844	17,244

* *Excludes 3,476 and 3,496 spouses from the June 30, 2017 and 2016 valuations, respectively.*

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Data:	Detailed census data and financial data for postemployment benefits were provided by DWP. Consistent with valuation for the Retirement Plan, that service has been increased by three months to account for the difference between the date the active census data was captured (March 31) and the valuation date (June 30). Where known, actual subsidies (updated from March 31 to July 1) were valued.
Actuarial Cost Method:	Entry age, level percent of pay.
Rationale for Assumptions:	The information and analysis used in selecting each non-health-related assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2012 through June 30, 2015 Actuarial Experience Study dated May 23, 2016 performed by Segal for the Retirement Plan. The information and analysis used in selecting health-related assumptions is shown in our assumptions letter dated September 22, 2017. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both Tier 1 and Tier 2 employees.
Mortality Rates:	
Pre-retirement:	Head count-weighted RP-2014 Employee Mortality Table times 80%, projected generationally with the two-dimensional MP-2015 projection scale.
After Service Retirement:	Head count-weighted RP-2014 Healthy Annuitant Mortality Table with no age adjustment for males and set back one year for females, projected generationally with the two-dimensional MP-2015 projection scale.
After Disability Retirement:	Head count-weighted RP-2014 Healthy Annuitant Mortality Table with no age adjustment for males and set back one year for females, projected generationally with the two-dimensional MP-2015 projection scale.

The RP-2014 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Termination Rates Before Retirement:

	Rate (%)	
Age	Male Mortality*	Disability
25	0.049	0.006
30	0.048	0.012
35	0.053	0.012
40	0.064	0.018
45	0.098	0.030
50	0.167	0.054
55	0.273	0.126
60	0.452	0.240
65	0.779	0.000

Age	Female Mortality*	Disability
25	0.017	0.000
30	0.022	0.006
35	0.029	0.036
40	0.039	0.072
45	0.058	0.102
50	0.100	0.138
55	0.168	0.168
60	0.241	0.000
65	0.356	0.000

* *Note that generational projections beyond the base year (2014) are not reflected in the above mortality rates.*

Withdrawal Rates:

Years of Service	Total Withdrawal*
Less than 1	12.00%
1	6.00%
2	4.00%
3	2.50%
4	2.00%
5	2.00%
6	1.75%
7	1.50%
8	1.25%
9	1.00%
10 & over	0.75%

**No withdrawal is assumed after a member is first eligible to retire*

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Retirement Rates:

	Rate (%)			
	Tier 1		Tier 2	
Age	Under 30 Years of Service	30 or More Years of Service	Under 30 Years of Service	30 or More Years of Service
55	4.50%	25.00%	0.0%	25.0%
56	2.00	20.00	0.0	14.0
57	2.50	17.00	0.0	12.0
58	3.00	17.00	0.0	12.0
59	3.00	17.00	0.0	12.0
60	5.00	20.00	5.0	17.5
61	6.00	20.00	2.5	5.0
62	6.00	20.00	0.0	5.0
63	6.00	25.00	20.0	25.0
64	7.00	25.00	15.0	25.0
65	11.00	28.00	14.0	28.0
66	11.00	28.00	14.0	28.0
67	11.00	28.00	14.0	28.0
68	11.00	28.00	14.0	28.0
69	13.00	28.00	13.0	28.0
70	25.00	25.00	100.0	100.0
71	25.00	25.00	100.0	100.0
72	25.00	25.00	100.0	100.0
73	25.00	25.00	100.0	100.0
74	25.00	25.00	100.0	100.0
75	100.00	100.00	100.0	100.0

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Measurement Date: June 30, 2017

Discount Rate: 7.25%, net of investment expenses.

Salary Increases: Annual Rate of Compensation Increase

Inflation: 3.00% per year, plus "across the board" salary increases of 0.50% per year, plus the following merit and promotional increases.

Years of Service	Increase
Less than 1	6.50%
1	6.00%
2	5.50%
3	4.50%
4	3.00%
5	2.00%
6	1.50%
7	1.40%
8	1.30%
9	1.20%
10 & over	1.00%

The merit and promotional increases are added to the sum of the inflationary and "across the board" salary increases.

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Per Capita Cost Development:

The assumed per capita claims cost by age (and other demographic factors such as sex and family status) is the future per capita cost of providing postretirement health care benefits at each age. The factors on page 30 are applied to the premiums shown on pages 28 and 29 to calculate the age-based costs.

Medical and Dental Annual Subsidy

Where known, actual subsidies provided in the data were used. For periods where subsidy is unknown, the average monthly retiree subsidies effective July 1, 2017 were assumed as shown below:

Dental Premium Subsidy (For Single and Multi-Party, Tiers 1 and 2)

		Premium
Carrier	**Election Percent**	**Single Party**
United Concordia DHMO	20%	$18.90
United Concordia PPO	65%	$37.85
IBEW Local 18	15%	$117.90

The maximum monthly dental subsidy is $37.85, except for Local 18 with a maximum of $117.90.

Eligible spouses and survivors are not eligible for DWP dental subsidy.

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

For retirees in pay status, we use the relevant premiums provided on participant records. In cases where the carrier elections are unknown, we will assume the participant elects a carrier in the same proportion as current retirees in that group. The table below shows the assumed distribution of medical insurance carriers for retirees and the monthly premiums as of July 1, 2017.

Under Age 65

Carrier	Assumed Election Percent	Single Party Premium	Participant +1 Both Under 65
Kaiser	55.0	$815.27	$1,630.53
United Health Care Option A	5.0	1,352.89	2,705.85
Blue Cross HMO	20.0	1,469.31	1,739.45
United Health Care HMO	5.0	1,348.09	2,782.00
United Health Care Option B	5.0	1,174.17	2,348.39
Blue Cross PPO	5.0	1,660.14	2,110.07
United Health Care Option C	5.0	913.86	1,827.75

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Age 65 and Older

Carrier	Assumed Election Percent	Single Party Premium	Participant +1 Both Age 65+
Kaiser Senior Advantage	55.0	$330.11	$660.22
United Health Care Option A	25.0	595.97	1,191.94
United Health Care Medicare Advantage	10.0	462.91	925.82
Senior Dimensions	5.0	267.75	535.50
Blue Cross HMO	5.0	930.19	1,506.49
Medicare Part B	100	$134.00	$268.00

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

The per capita costs were then adjusted for age and gender using the below factors:

Applied to Per Capita Costs for under age 65				
	Retiree		Spouse	
Age	Male	Female	Male	Female
55	0.9031	0.9324	0.7107	0.8050
60	1.0725	1.0050	0.9515	0.9337
64	1.2304	1.0661	1.2011	1.0508

Applied to Per Capita Costs for age 65 and older				
	Retiree		Spouse	
Age	Male	Female	Male	Female
65	0.9114	0.7747	0.9114	0.7747
70	1.0563	0.8349	1.0563	0.8349
75	1.1384	0.8987	1.1384	0.8987
80+	1.2259	0.9688	1.2259	0.9688

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Health Care Cost Subsidy Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. Trend rates are used to increase the premiums and the stated subsidies into the future. For example, the expected maximum monthly medical subsidy for a Tier 1 retiree with 30 years of service in the year July 1, 2018 through June 30, 2019 (set equal to the two-party, under-65 Kaiser premium) would be determined with the following formula:

[$1,631 x (1 + 7.00%)] = $1,745

	Medical			
Year Ending June 30	**Non-Medicare**	**Medicare**	**Medicare Part B**	**Dental**
2018	7.00%	6.50%	4.50%	4.50%
2019	6.75	6.25	4.50	4.50
2020	6.50	6.00	4.50	4.50
2021	6.25	5.75	4.50	4.50
2022	6.00	5.50	4.50	4.50
2023	5.75	5.25	4.50	4.50
2024	5.50	5.00	4.50	4.50
2025	5.25	4.75	4.50	4.50
2026	5.00	4.50	4.50	4.50
2027	4.75	4.50	4.50	4.50
2028 & Later	4.50	4.50	4.50	4.50

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Marital Status	Actives at the time of retirement: 75% of male employees and 40% of female employees assumed to be married with coverage for spouse. Retirees at the time of retirement: Actual data included in census.
Spouse Age Difference	Husbands are assumed to be 2 years older than female members. Wives are assumed to be 3 years younger than male members.
Future Benefit Accruals:	1.0 year of service per year.
Other Government Service:	Tier 1 members are assumed to purchase an additional 0.10 years of service per year. Tier 2 members are assumed to purchase an additional 0.03 years of service per year. These service purchases exclude those priced at full actuarial cost.
Participation	97% of the current actives are assumed to enroll in medical coverage at retirement. 95% of the current actives are assumed to enroll in dental coverage at retirement.
Asset Valuation Method	Any actual investment gains and losses that are above or below the annual return assumed in the valuation are recognized over 5-year periods.
Plan Design:	Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.
Administrative Expenses:	No administrative expenses were valued separately from the claim costs.
Implicit Subsidy:	None. Premiums paid by the retirees reflect rates underwritten for retirees only.

Impact of Affordable Care Act:

As directed by DWP, we have reflected in the current valuation the impact of potential excise tax imposed by the Affordable Care Act (ACA), and related statutes.

In particular, it is our understanding that beginning in 2020 (deferred from 2018 when thresholds begin), the legislation will impose a 40 percent excise tax on the cost of health plans above a certain threshold. It is our further understanding that the thresholds in 2018 for non-Medicare retirees aged 55 through 64 are $11,850 for single coverage and $30,950 for family coverage as specified in the Health Care Reform. For all other retirees the thresholds in 2018 are $10,200 for single coverage and $27,500 for family coverage. ACA allows the higher thresholds also to be used for any member "who participates in a plan sponsored by an employer the majority of whose employees covered by the plan are engaged in a high-risk profession or employed to repair or install electrical or telecommunication lines." We did not have the data available to identify such members in the current valuation, and so have not applied these higher thresholds except for members aged 55 through 64 (to whom the higher thresholds apply regardless of risk-type profession classification). If such data is provided by DWP, we can reflect this lower the excise tax calculation in our future valuations.

The thresholds in 2019 are indexed and for the purpose of this valuation, they are assumed to increase by 4.00% (i.e., 1% over the assumed 3.00% CPI assumption used in the retirement valuation) over those in 2018. After 2019, the thresholds are assumed to increase by 3.00% (assumed CPI inflation) per year. In this valuation, we have allocated the excise tax between the Plan and the retiree, based on the proportion of the health care cost expected to be paid by each party.

Assumption Changes Since Prior Valuation:

The following assumptions were changed since the prior valuation:

- Updated spouse age difference assumption.
- Updated per capita costs.
- Updated the first year medical trend, with separate rates for non-Medicare and Medicare medical plans.
- Decreased dental, Medicare Part B subsidy and ultimate medical plan trend from 5.00% to 4.50%.
- Medical carrier election assumptions were updated.

EXHIBIT III

Summary of Plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Eligibility:	A retiree who was an employee of DWP immediately prior to retirement and is receiving a monthly allowance under DWP's retirement plan is eligible for the subsidy.
Tier 1	All members hired before January 1, 2014.
Tier 2	All members hired on or after January 1, 2014.
Age & Service Requirement:	Eligible for minimum pension from the Retirement Plan as follows:
Tier 1	Age 60 with 5 years of Department service; or
	Age 55 with 10 years of Department service in the last 12 years; or
	Any age with 30 years of Department service; or
	Receiving permanent total disability benefits from the Plan.
	Note: To be eligible, the employee must have worked or been paid disability four of the last five years immediately preceding eligibility to retire, or while eligible to retire.
Tier 2	Age 60 with 10 years of Qualifying service; or
	Age 55 with 30 years of Qualifying service; or
	Any age with 30 years of Qualifying service.

Benefit Types:

The DWP subsidy is computed by a formula related to years of qualifying service and attained age at retirement. The actual years of qualifying service are rounded either up or down to the nearest integer value.

The subsidy limit is applied to the combined medical carrier and Medicare Part B premium, but not the dental premium.

Tier 1

	Years of Service				
Age at Retirement	**10**	**15**	**20**	**25**	**30**
55	$326	$652	$978	$1,304	$1,631
56	332	664	996	1,328	1,631
57	338	676	1,014	1,352	1,631
58	344	688	1,032	1,376	1,631
59	350	700	1,049	1,399	1,631
60	356	712	1,067	1,423	1,631
61	362	723	1,085	1,447	1,631
62	368	735	1,103	1,470	1,631
63	374	747	1,121	1,494	1,631
64	379	759	1,138	1,518	1,631
65	385	771	1,156	1,542	1,631

Tier 2

	Years of Service				
Age at Retirement	**10**	**15**	**20**	**25**	**30**
55	$163	$326	$489	$652	$815
56	166	332	498	664	815
57	169	338	507	676	815
58	172	344	516	688	815
59	175	350	525	700	815
60	178	356	534	711	815
61	181	362	543	723	815
62	184	368	551	735	815
63	187	374	560	747	815
64	190	379	569	759	815
65	193	385	578	771	815

	As shown, the maximum possible subsidy is $1,631 and $815 for Tier 1 and 2, respectively. Subsidies may increase until age at retirement reaches 69.
Dependent Coverage:	Dependent spouses are eligible for the DWP medical subsidy coverage. Surviving spouses are eligible to receive the DWP medical subsidy that would have been given to the deceased employee or retiree if still living, and only if the surviving spouse was enrolled in the deceased members' plan at the time of the members' death. Surviving spouses and dependent spouses are not eligible for the dental subsidy.
Retiree Contributions:	To the extent the DWP subsidies are less than the medical or dental premiums, the retiree contributes the cost difference.

EXHIBIT IV
Definitions of Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or Actuarial Assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Actuarial Present Value of Total Projected Benefits (APB): Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.

Normal Cost: The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial Accrued Liability For Actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial Accrued Liability For Retirees: The single sum value of lifetime benefits to existing retirees. This sum takes account of life expectancies appropriate to the ages of the retirees and of the interest which the sum is expected to earn before it is entirely paid out in benefits.

Actuarial Value of Assets (AVA):	The value of assets used by the actuary in the valuation. These may be at market value or some other method used to smooth variations in market value from one valuation to the next.
Funded Ratio:	The ratio AVA/AAL.
Unfunded Actuarial Accrued Liability (UAAL):	The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.
Amortization of the Unfunded Actuarial Accrued Liability:	Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.
Investment Return (discount rate):	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next. If the plan is funded on a pay-as-you-go basis, the discount rate is tied to the expected rate of return on day-to-day employer funds.
Covered Payroll:	Annual reported salaries for all active participants on the valuation date.
ARC as a Percentage of Covered Payroll:	The ratio of the Annual Required contribution to covered payroll.
Health Care Cost Trend Rates:	The annual rate of increase in net claims costs per individual benefiting from the Plan.
Annual Required Contribution (ARC):	The ARC is equal to the sum of the normal cost and the amortization of the unfunded actuarial accrued liability.

Net OPEB Obligation (NOO): The NOO is the cumulative difference between the ARC and actual contributions made. If the plan is not pre-funded, the actual contribution would be equal to the annual benefit payments less retiree contributions. There are additional adjustments in the NOO calculations to adjust for timing differences between cash and accrual accounting, and to prevent double counting of OPEB plan costs.

EXHIBIT V

Accounting Requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions.* Under this statement, all state and local government entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements. The accounting standards supplement cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

The statement covers postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Exhibit III of Section 4, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits is not limited by legal or contractual limits on funding the plan unless those limits clearly translate into benefit limits on the substantive plan being valued.

The standards introduce an accrual-basis accounting requirement, thereby recognizing the employer cost of postemployment benefits over an employee's career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Exhibit II of Section 4. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the Net OPEB Obligation (NOO). In addition, Required Supplementary Information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan. Exhibit IV of Section 4 contain a definition of terms.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the Annual Required amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

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