

City of Los Angeles Department of Water and Power

**Actuarial Valuation and Review of Other
Postemployment Benefits (OPEB) as of
June 30, 2016 In accordance with
GASB Statements No. 43 and No. 45**



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December 8, 2016

*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, 2016 under Governmental Accounting Standards Board Statements No. 43 and No. 45. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB Obligation (NOO) as of June 30, 2016, 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 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.

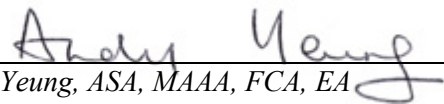
This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions used in this valuation and described 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
Senior Vice President and Actuary*



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

JAC/hy

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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, 2016. 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.

HIGHLIGHTS OF THE VALUATION

- **The Annual Required Contribution (ARC)** increased from 6.73% of payroll for the 2015/2016 fiscal year to 10.11% of payroll for the 2016/2017 fiscal year. The reasons for the increase in ARC include: (a) actual 2016/2017 medical premiums, on average, increased more than the assumed 6.75% projected in our prior valuation, (b) reflecting the adoption on June 22, 2016 of the new assumptions from the experience study for the 3-year period ending June 30, 2015, performed by Segal for the Retirement Plan, and (c) investment and demographic experience losses. The market value return was 0.9% but the actuarial return of 7.0% was higher after reflecting the recognition of the deferred gains from prior years.
- As of June 30, 2016, the ratio of assets, on an actuarial basis, to the Actuarial Accrued Liability (AAL), i.e., the funded ratio, is 75.07% compared to 83.71% in the prior valuation. These ratios if measured on a Market Value basis have decreased to 72.53% from 85.79% during 2015/2016. A detailed reconciliation of the change in Unfunded Actuarial Accrued Liability (UAAL) can be found in Chart 2.

- **The Net OPEB Asset (NOA, or negative Net OPEB Obligation (NOO))** increased from \$1.027 billion in the June 30, 2015 valuation to \$1.049 billion in the June 30, 2016 valuation. Chart 7 shows the detailed derivation of the NOA (negative NOO) as of June 30, 2016. An NOA exists when the cumulative actual employer contributions exceed the cumulative ARCs.
- In prior valuations, Segal had estimated the monthly health subsidy that active participants would be eligible for (based on age and service at retirement) by projecting the years of service that was provided by DWP to Segal specifically for the OPEB valuation. Based on a recent discussion with DWP and the Retirement Office, starting with this OPEB valuation, we have been directed by DWP to instead use the years of service provided by the Retirement Office to Segal for the Retirement Plan valuation, for active participants.¹ We have continued to use the service provided by DWP for current retirees in this OPEB valuation.

As part of this valuation, we have also refined the methodology used in prior valuations to estimate the service based health subsidy. In the past, subsidy levels were based on years of service after it was truncated (i.e. rounded down) to the next lowest integer. It is our understanding that service is actually either rounded

¹ 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, 2016) and the valuation date as of June 30, 2016.

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up or down to the nearest integer when DWP determines the actual health subsidy.²

The net effect of the two changes described above is to increase the AAL by \$1.4 million (or by about 0.07%) and increase the ARC by \$1.1 million (or by about 0.11% of payroll).

- In performing the June 30, 2015 valuation, we inadvertently applied a 2015-2016 single party Kaiser premium rate of \$659 for under age 65 and \$332 for age 65 and older. The actual premiums should have been \$628 for under age 65 and \$337 for age 65 and older. When the June 30, 2015 liabilities and ARC are recalculated by applying the corrected 2015-2016 premium rates as of June 30, 2015, the result was that the AAL as of June 30, 2015 increased by \$2 million (or 0.1%) from \$1,956 million to \$1,958 million. The ARC for 2015/2016 increased by \$181,000 from \$61,971,000 to \$62,152,000 (or 0.29%), which is equivalent to an increase from 6.73% to 6.75% of payroll.

Based on guidance from DWP following discussions with its auditor, we have not revised the June 30, 2015 valuation, but provided a footnote in the Summary of Valuation Results in Section 1 of this report to note those differences.

- In the next valuation as of June 30, 2017, the Plan will be subject to the new Governmental Accounting Standard No. 74 (GASB 74), which replaces GASB 43. 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. As part of the transition to the new financial reporting standards, we recommend DWP consider reviewing and adopting a formal funding policy which will be used in calculating the Actuarially Determined Contributions (ADC) as that term is defined under the new GASB standard. We are available to discuss the changes required under the new financial reporting requirements in the upcoming months.

² For example, the subsidy level for a participant with 12.4 years of service at retirement would be based on 12 years of service, whereas the subsidy level for a participant with 12.6 years of service at retirement would be based on 13 years of service. In prior valuations, we would have calculated the subsidy level for both participants in the above example based on 12 years of service.

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

SUMMARY OF VALUATION RESULTS

	June 30, 2016	June 30, 2015*
Actuarial Accrued Liability (AAL)	\$2,334,042,813	\$1,956,230,463
Actuarial Value of Assets (AVA)	1,752,195,162	1,637,578,438
Unfunded Actuarial Accrued Liability on AVA Basis	581,847,651	318,652,025
Funded Ratio on AVA Basis	75.07%	83.71%
Market Value of Assets (MVA)	\$1,692,877,717	\$1,678,318,226
Unfunded Actuarial Accrued Liability on MVA Basis	\$641,165,096	277,912,237
Funded Ratio on MVA Basis	72.53%	85.79%
<hr/>		
Annual Required Contribution (ARC) for Fiscal Year Ending:	June 30, 2017	June 30, 2016*
Normal cost (beginning of year)	\$49,295,168	\$38,342,912
Amortization of the unfunded actuarial accrued liability	41,394,976	21,427,361
Adjustment for timing	<u>3,229,999</u>	<u>2,200,865</u>
Total Annual Required Contribution, including adjustment for timing	\$93,920,143	\$61,971,138
Covered payroll	\$928,888,680	\$920,781,074
ARC as a percentage of pay	10.11%	6.73%
<hr/>		
Total Participants	17,244	16,792
<hr/>		
Annual OPEB Cost (AOC) for Fiscal Year Ending (payable throughout year):	June 30, 2017	June 30, 2016
Annual Required Contribution	\$93,920,143	\$61,971,138
Interest on Net OPEB Obligation	-73,443,533	-74,288,462
ARC Adjustment	<u>77,294,965</u>	<u>71,601,247</u>
Total Annual OPEB Cost	97,771,575	\$59,283,923
AOC as a percent of pay	10.53%	6.44%

** In performing the June 30, 2015 valuation, we inadvertently applied a 2015-2016 single party Kaiser premium rate of \$659 for under age 65 and \$332 for age 65 and older. The actual premiums should have been \$628 for under age 65 and \$337 for age 65 and older. When the June 30, 2015 liabilities and ARC are recalculated by applying the corrected 2015-2016 premium rates as of June 30, 2015, the result was that the AAL as of June 30, 2015 increased by \$2 million (or 0.1%) from \$1,956 million to \$1,958 million. The ARC for 2015/2016 increased by \$181,000 from \$61,971,000 to \$62,152,000 (or 0.29%), which is equivalent to an increase from 6.73% to 6.75% of payroll.*

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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 starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement and then develop short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan’s benefits for each of those events. The forecasted benefits are then discounted to a present value. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

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.

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- 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.

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December 8, 2016

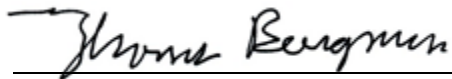
ACTUARIAL CERTIFICATION

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, 2016, 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 Statements No. 43 and 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 plan accounting requirements. Determinations for purposes other than meeting 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 Statements No. 43 and 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, ASA, MAAA, EA
Associate Actuary



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

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2016
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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, 2016	June 30, 2015
Participant Category		
Current retirees, beneficiaries, and dependents	\$1,302,645,211	\$1,073,290,295
Current active members	<u>1,553,145,299</u>	<u>1,262,520,564</u>
Total	\$2,855,790,510	\$2,335,810,859
	June 30, 2016	June 30, 2015
Actuarial Balance Sheet		
The actuarial balance sheet as of the valuation date is as follows:		
Assets		
1. Actuarial value of assets	\$1,752,195,162	\$1,637,578,438
2. Present value of future normal costs	521,747,697	379,580,396
3. Unfunded actuarial accrued liability	<u>581,847,651</u>	<u>318,652,025</u>
4. Present value of current and future assets	\$2,855,790,510	\$2,335,810,859
Liabilities		
5. Actuarial Present Value of total Projected Benefits	\$2,855,790,510	\$2,335,810,859

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2016
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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, 2016	June 30, 2015
Participant Category		
Current retirees, beneficiaries, and dependents	\$1,302,645,211	\$1,073,290,295
Current active members	<u>1,031,397,602</u>	<u>882,940,168</u>
Total actuarial accrued liability	\$2,334,042,813	\$1,956,230,463
Actuarial value of assets	<u>1,752,195,162</u>	<u>1,637,578,438</u>
Unfunded actuarial accrued liability	\$581,847,651	\$318,652,025
Development of Unfunded Actuarial Accrued Liability		
1. Unfunded actuarial accrued liability as of June 30, 2015		\$318,652,025
2. Employer normal cost at beginning of year		38,342,912
3. Total employer contributions		-80,606,726
4. Interest on 1, 2 and 3		<u>23,806,514</u>
5. Expected unfunded actuarial accrued liability (sum of 1 – 4)		\$300,194,725
6. Change due to updating service used in the valuation		1,443,446
7. Change due to assumption changes from experience study other than discount rate		110,442,194
8. Change due to lowering discount rate		73,697,987
9. Change due to premiums on average, increasing more than expected		54,908,286
10. Change due to non-investment and investment experience losses		<u>41,161,013</u>
11. Subtotal of 6 – 10		<u>\$281,652,926</u>
12. Unfunded actuarial accrued liability as of June 30, 2016		\$581,847,651

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2016
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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. City of Los Angeles Department of Water and Power has elected to amortize unfunded actuarial accrued liability using the following rules:

- Declining 30-year amortization with 19 years remaining as of June 30, 2016.
- UAAL amortized as a level percent of payroll.

CHART 3

Table of Amortization Bases

Type	Date Established	Initial Year	Initial Amount	Annual Payment*	Years Remaining	Outstanding Balance
Total Unfunded Actuarial Accrued Liability	6/30/2016	19	\$581,847,651	\$41,394,976	19	\$581,847,651

* *Level percentage of pay*

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2016
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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, 2016, 19 years remained on the schedule.

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

- New assumptions (including lower discount rate) adopted from the Retirement Plan Experience Study.
- Premiums increasing on average more than expected.

CHART 4

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

Cost Element	Fiscal Year Beginning July 1, 2016 and Ending June 30, 2017		Fiscal Year Beginning July 1, 2015 and Ending June 30, 2016	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Normal cost	\$49,295,168	5.31%	\$38,342,912	4.16%
2. Amortization of the unfunded actuarial accrued liability (19 years as of June 30, 2016)	41,394,976	4.46%	21,427,361	2.33%
3. Adjustment for timing	<u>3,229,999</u>	<u>0.34%</u>	<u>2,200,865</u>	<u>0.24%</u>
4. Total Annual Required Contribution (ARC)	<u>\$93,920,143</u>	<u>10.11%</u>	<u>\$61,971,138</u>	<u>6.73%</u>
5. Total Compensation	\$928,888,680		\$920,781,074	

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2016
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CHART 4 (continued)

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

Cost Element	Fiscal Year Beginning July 1, 2016 and Ending June 30, 2017		Fiscal Year Beginning July 1, 2015 and Ending June 30, 2016	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Normal cost	\$43,709,535	5.40%	\$36,443,379	4.21%
2. Amortization of the unfunded actuarial accrued liability (19 years as of June 30, 2016)	36,040,727	4.46%	20,124,468	2.33%
3. Adjustment for timing	<u>2,840,367</u>	<u>0.35%</u>	<u>2,082,945</u>	<u>0.24%</u>
4. Total Annual Required Contribution (ARC)	<u>\$82,590,629</u>	<u>10.21%</u>	<u>\$58,650,792</u>	<u>6.78%</u>
5. Total Compensation	\$808,838,256		\$864,862,923	

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2016
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CHART 4 (continued)

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

Cost Element	Fiscal Year Beginning July 1, 2016 and Ending June 30, 2017		Fiscal Year Beginning July 1, 2015 and Ending June 30, 2016	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Normal cost	\$5,585,633	4.65%	\$1,899,533	3.40%
2. Amortization of the unfunded actuarial accrued liability (19 years as of June 30, 2016)	5,354,249	4.46%	1,302,893	2.33%
3. Adjustment for timing	<u>389,632</u>	<u>0.33%</u>	<u>117,920</u>	<u>0.21%</u>
4. Total Annual Required Contribution (ARC)	<u>\$11,329,514</u>	<u>9.44%</u>	<u>\$3,320,346</u>	<u>5.94%</u>
5. Total Compensation	\$120,050,424		\$55,918,151	

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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.

CHART 4 (continued)

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

Cost Element	Fiscal Year Beginning July 1, 2016 and Ending June 30, 2017		Fiscal Year Beginning July 1, 2015 and Ending June 30, 2016	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Annual Required Contribution	\$93,920,143	10.11%	\$61,971,138	6.73%
2. Interest on Beginning of Year Net OPEB Assets (NOA), i.e. negative Net OPEB Obligation (NOO)	-73,443,533	-7.90%	-74,288,462	-8.07%
3. ARC adjustment	<u>77,294,965</u>	<u>8.32%</u>	<u>71,601,247</u>	<u>7.78%</u>
4. Annual OPEB Cost	<u>\$97,771,575</u>	<u>10.53%</u>	<u>\$59,283,923</u>	<u>6.44%</u>
5. Total Compensation	\$928,888,680		\$920,781,074	

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For GASB 43 (plan reporting) purposes, the schedule of employer contributions compares actual contributions to the ARC. 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 43 and 45

Fiscal Year Ended June 30	Annual Required Contributions ⁽¹⁾	Actual Contributions ⁽¹⁾⁽²⁾	Percentage Contributed
2012	\$53,691,399	\$104,795,523	195.18%
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	Not Made Yet	N/A

Fiscal Year Ended June 30	Annual OPEB Cost ⁽¹⁾	Actual Contributions ⁽¹⁾⁽²⁾	Percentage Contributed
2012	\$41,619,631	\$104,795,523	251.79%
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	Not made yet	N/A

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

⁽²⁾ Contributions without interest were:
 \$102,353,408 for 2011-2012,
 \$68,234,175 for 2012-2013,
 \$74,714,782 for 2013-2014,
 \$79,160,430 for 2014-2015, and
 \$80,606,726 for 2015-2016

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2016
Measurement Under GASB 43 and 45**

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)]
06/30/2011	\$1,132,928,966	\$1,520,418,745	\$387,489,779	74.51%	\$870,203,423	44.53%
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%

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2016
Measurement Under GASB 43 and 45**

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).

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)
06/30/2011	06/30/2012	\$53,691,399	-\$69,046,918	\$56,975,150	\$41,619,631	\$104,795,523	-\$63,175,892	-\$954,103,870
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	Not made yet	N/A	N/A

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

⁽²⁾ Contributions without interest were:

\$102,353,408 for 2011-2012,

\$68,234,175 for 2012-2013,

\$74,714,782 for 2013-2014,

\$79,160,430 for 2014-2015, and

\$80,606,726 for 2015-2016.

**SECTION 3: Supplemental Valuation Details for the City of Los Angeles Department of Water and Power
June 30, 2016 Measurement Under GASB 43 and 45**

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

**EXHIBIT A
Summary of Participant Data - Total**

	June 30, 2016	June 30, 2015
Retirees		
Number*	6,649	6,340
Average age of retirees	72.4	72.6
Number of spouses	3,496	3,321
Average age of spouses	68.3	68.6
Surviving Spouses		
Number*	1,331	1,350
Average age	80.7	80.6
Active Participants		
Number	9,264	9,102
Average age	47.9	48.7
Average years of service	17.0	17.5
Average expected retirement age	62.7	62.8

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

**SECTION 3: Supplemental Valuation Details for the City of Los Angeles Department of Water and Power
June 30, 2016 Measurement Under GASB 43 and 45**

EXHIBIT A (continued)

Summary of Participant Data – Tier 1

	June 30, 2016	June 30, 2015
Retirees		
Number*	6,649	6,340
Average age of retirees	72.4	72.6
Number of spouses	3,496	3,321
Average age of spouses	68.3	68.6
Surviving Spouses		
Number*	1,331	1,350
Average age	80.7	80.6
Active Participants		
Number	7,827	8,371
Average age	49.7	49.6
Average years of service	19.5	19.0
Average expected retirement age	62.4	62.6

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

**SECTION 3: Supplemental Valuation Details for the City of Los Angeles Department of Water and Power
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EXHIBIT A (continued)

Summary of Participant Data – Tier 2

	June 30, 2016	June 30, 2015
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	1,437	731
Average age	37.9	37.2
Average years of service	3.1	0.7
Average expected retirement age	64.2	64.8

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

**SECTION 3: Supplemental Valuation Details for the City of Los Angeles Department of Water and Power
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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 has grown 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
2017	11,476	504	11,980	\$91,419,029	\$4,248,330	\$95,667,359
2018	11,103	1,033	12,136	93,916,308	9,342,546	103,258,854
2019	10,733	1,591	12,324	96,934,055	15,721,076	112,655,131
2020	10,362	2,153	12,515	98,916,662	22,570,703	121,487,365
2021	9,995	2,737	12,732	100,401,072	30,276,868	130,677,940
2022	9,628	3,297	12,925	101,769,268	38,380,155	140,149,423
2023	9,265	3,814	13,079	102,379,963	46,381,854	148,761,817
2024	8,905	4,304	13,209	102,945,798	54,441,289	157,387,087
2025	8,546	4,759	13,305	103,653,318	62,214,372	165,867,690
2026	8,190	5,193	13,383	104,206,640	69,885,686	174,092,326

* Includes spouses of retirees.

**SECTION 3: Supplemental Valuation Details for the City of Los Angeles Department of Water and Power
June 30, 2016 Measurement Under GASB 43 and 45**

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, 2016

1. Market value of assets				\$1,692,877,717
	Original Amount	Percent Unrecognized	Unrecognized Amount	
2. Calculation of unrecognized return*				
(a) Year ended June 30, 2016	-\$111,317,036	80%	-\$89,053,629	
(b) Year ended June 30, 2015	-54,731,423	60%	-32,838,854	
(c) Year ended June 30, 2014	127,229,022	40%	50,891,608	
(d) Year ended June 30, 2013	58,417,148	20%	11,683,430	
(e) Year ended June 30, 2012	-75,896,730	0%	<u>0</u>	
3. Total unrecognized return**				-\$59,317,445
4. Actuarial value: (1) - (3)				\$1,752,195,162
5. Actuarial value as a percentage of market value: (5) ÷ (1)				<u>103.50%</u>

* Total return minus expected return on a market value basis

** Deferred return as of June 30, 2016 recognized in each of the next 4 years:

(a) Amount recognized during 2016/2017:	\$3,919,542
(b) Amount recognized during 2017/2018:	-7,763,888
(c) Amount recognized during 2018/2019:	-33,209,692
(d) Amount recognized during 2019/2020:	<u>-22,263,407</u>
(e) Total	-\$59,317,445

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
Measurement Under GASB 43 and 45**

EXHIBIT I

Summary of Required Supplementary Information

Valuation date	June 30, 2016
Actuarial cost method	Entry Age, Level Percent of Pay
Amortization method	30-Year Amortization Closed, Level Percent of Pay
Remaining amortization period	19 years as of June 30, 2016
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.
Medical cost trend rate	6.50%, graded down to an ultimate rate of 5.00% over 6 years
Dental and Medicare Part B Premium costs trend rate	5.00%

Plan membership:	June 30, 2016	June 30, 2015
Current retirees* and beneficiaries receiving dental and/or medical subsidy	7,980	7,690
Current active participants	<u>9,264</u>	<u>9,102</u>
Total	17,244	16,792

* Excludes 3,496 and 3,321 spouses from the June 30, 2016 and 2015 valuations, respectively.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Data: Detailed census data and financial data for postemployment benefits were provided by DWP, except service for actives was provided by the Retirement Office. 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 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.

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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
Measurement Under GASB 43 and 45**

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Termination Rates Before Retirement:

Age	Rate (%)	
	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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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Withdrawal Rates:

<u>Years of Service</u>	<u>Total Withdrawal*</u>
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*

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Retirement Rates:

Age	Rate (%)			
	Tier 1		Tier 2	
	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

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Measurement Date: June 30, 2016

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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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**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. To determine the assumed per capita claims cost, historical premiums are reviewed, and adjusted for increases in the cost of health care services.

*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, 2016 were assumed as shown below:

Dental Premiums (For Single and Multi-Party)

Carrier	Election Percent	Premium
		Single Party
United Concordia DHMO	20%	\$18.35
United Concordia PPO	70%	\$36.61
IBEW Local 18	10%	\$126.77

The maximum monthly dental subsidy for Tier 1: \$36.61, except for Local 18 with a maximum of \$126.77.

The maximum monthly dental subsidy for Tier 2: \$43.47

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

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
Measurement Under GASB 43 and 45**

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, 2016.

Under Age 65			
Carrier	Assumed Election Percent*	Single Party Premium	Participant +1 Both Under 65
Kaiser	60.0	\$742.84	\$1,485.68
United Health Care Option A	5.0	1,387.58	2,775.23
Blue Cross HMO	15.0	1,485.60	1,758.81
United Health Care HMO	5.0	1,307.16	2,697.54
United Health Care Option B	5.0	1,204.28	2,408.61
Blue Cross PPO	5.0	1,678.73	2,133.89
United Health Care Option C	5.0	937.29	1,874.61

** No members assumed to elect Health Plan of Nevada or Blue Cross Owens Valley.*

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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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	\$330.82	\$661.64
United Health Care Option A	25.0	580.66	1,162.72
United Health Care Medicare Advantage	10.0	462.91	925.82
Senior Dimensions	2.5	267.75	530.56
United Health Care Option B	2.5	429.13	858.26
Blue Cross HMO	5.0	939.98	1,523.03
Medicare Part B	100	\$121.80	\$243.60

** No members assumed to elect Blue Cross PPO or United Health Care Option C.*

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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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				
Age	Retiree		Spouse	
	Male	Female	Male	Female
55	0.9050	0.9343	0.7122	0.8067
60	1.0747	1.0071	0.9535	0.9356
64	1.2330	1.0684	1.2037	1.0530

Applied to Per Capita Costs for age 65 and older				
Age	Retiree		Spouse	
	Male	Female	Male	Female
65	0.9126	0.7757	0.9126	0.7757
70	1.0577	0.8359	1.0577	0.8359
75	1.1398	0.8998	1.1398	0.8998
80+	1.2274	0.9701	1.2274	0.9701

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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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, 2017 through June 30, 2018 (set equal to the two-party, under-65 Kaiser premium) would be determined with the following formula:

$$[\$1,486 \times (1 + 6.50\%)] = \$1,583$$

Year Ending June 30	Medical			Dental
	Non-Medicare	Medicare	Medicare Part B	
2017	6.50%	6.50%	5.0%	5.0%
2018	6.25	6.25	5.0	5.0
2019	6.00	6.00	5.0	5.0
2020	5.75	5.75	5.0	5.0
2021	5.50	5.50	5.0	5.0
2022	5.25	5.25	5.0	5.0
2023 & Later	5.00	5.00	5.0	5.0

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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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 3 years older than wives.
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 continue medical coverage at retirement. 95% of the current actives are assumed to continue 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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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**Assumption Changes Since Prior
Valuation:**

The following assumptions were changed since the prior valuation:

- Updated decrement assumptions, including mortality, termination, withdrawal, and retirement rates.
- Updated salary increase assumptions.
- Updated discount and inflation rates.
- Updated per capita costs.
- Service for active participants is now provided by the Retirement Office.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
Measurement Under GASB 43 and 45**

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.
<i>Tier 1</i>	All members hired before January 1, 2014.
<i>Tier 2</i>	All members hired on or after January 1, 2014.
Age & Service Requirement:	Eligible for minimum pension from the Retirement Plan as follows:
<i>Tier 1</i>	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.
<i>Tier 2</i>	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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2016
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Benefit Types:

The DWP subsidy is computed by a formula related to years of service and attained age at retirement. The actual years of 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

Age at Retirement	Years of Service				
	10	15	20	25	30
55	\$297	\$594	\$891	\$1,189	\$1,486
56	302	605	908	1,210	1,486
57	308	616	924	1,232	1,486
58	313	627	940	1,253	1,486
59	319	638	956	1,275	1,486
60	324	648	972	1,297	1,486
61	330	659	989	1,318	1,486
62	335	670	1,005	1,340	1,486
63	340	681	1,021	1,361	1,486
64	346	691	1,037	1,383	1,486
65	351	702	1,054	1,405	1,486

Tier 2

Age at Retirement	Years of Service				
	10	15	20	25	30
55	\$149	\$297	\$446	\$594	\$743
56	151	303	454	605	743
57	154	308	462	616	743
58	157	313	470	627	743
59	159	319	478	638	743
60	62	324	486	648	743
61	165	330	494	659	743
62	168	335	502	670	743
63	170	340	511	681	743
64	173	346	519	692	743
65	176	351	527	702	743

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As shown, the maximum possible subsidy is \$1,486 and \$743 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.

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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.

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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.

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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.

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EXHIBIT V

Accounting Requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 – *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Under these statements, 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 statements cover 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 new 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

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contain a definition of terms as well as more information about GASB 43/45 concepts.

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 actuarially determined 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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