



City of Los Angeles Department of Water and Power

**Actuarial Valuation and Review of Other
Postemployment Benefits (OPEB) as of
June 30, 2013 In accordance with GASB Statements
No. 43 and No. 45**

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November 6, 2013

*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:

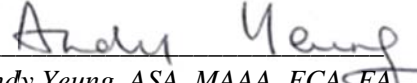
We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2013 under Governmental Accounting Standards Board Statements 43 and 45. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB obligation (NOO) as of June 30, 2013, 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, 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 and Dave Bergerson, FCA, ASA, MAAA.

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 Associate Actuary*

TXB/kek

SECTION 1

EXECUTIVE SUMMARY

Purpose	1
Highlights of the Valuation	1
Summary of Valuation Results	3
Actuarial Certification	4

SECTION 2

VALUATION RESULTS

CHART 1	
Actuarial Present Value of Total Projected Benefits (APB) and Actuarial Balance Sheet.....	5
CHART 2	
Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL)	6
CHART 3	
Table of Amortization Bases	7
CHART 4	
Determination of Annual Required Contribution (ARC) – Payable Throughout Fiscal Year.....	8
CHART 5	
Required Supplementary Information – Schedule of Employer Contributions	10
CHART 6	
Required Supplementary Information – Schedule of Funding Progress	11
CHART 7	
Required Supplementary Information – Net OPEB Obligation (NOO).....	12

SECTION 3

VALUATION DETAILS

EXHIBIT A	
Summary of Participant Data....	13
EXHIBIT B	
Cash Flow Projections	14
EXHIBIT C	
Actuarial Value of Assets	15

SECTION 4

SUPPORTING INFORMATION

EXHIBIT I	
Summary of Required Supplementary Information	16
EXHIBIT II	
Actuarial Assumptions and Actuarial Cost Method.....	17
EXHIBIT III	
Summary of Plan	26
EXHIBIT IV	
Definitions of Terms.....	28
EXHIBIT V	
Accounting Requirements	31

**SECTION 1: Executive Summary for City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

PURPOSE

This report presents the results of our actuarial valuation of the City of Los Angeles Department of Water and Power (DWP) post retirement medical and dental benefits plan as of June 30, 2013. The results are in accordance with the 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 5.38% of payroll for the 2012/2013 fiscal year to 6.49% of payroll for the 2013/2014 fiscal year. The reasons for the increase in ARC include:
 - Actuarial demographic and investment losses.
 - Greater than projected average increases in premiums (over 30% for some plans). While the maximum monthly medical subsidy limits (\$1,288 for 2012/2013 and \$1,319 for 2013/2014) increased less than the amount projected using the assumptions in the June 30, 2012 valuation, the increase in premiums affected many single and Medicare retirees whose subsidies were below the subsidy limits.
 - Increased spouse coverage assumption for future retirees.
- The market value of assets returned 12.5% during the 2012/2013 fiscal year, compared with the 7.75% assumption. However, the investment return on an actuarial value basis was 7.2% based on the 5-year asset smoothing method used for the actuarial

valuation. As of June 30, 2013, there was a net unrecognized deferred investment gain of about \$47.2 million, while in the last valuation as of June 30, 2012, there was a net unrecognized deferred investment loss of \$16.3 million.

- **The Net OPEB Asset (NOA, or negative Net OPEB Obligation (NOO))** increased from \$954 million in the June 30, 2012 valuation to \$987 million in the June 30, 2013 valuation. Chart 7 shows the detailed derivation of the NOA (negative NOO) as of June 30, 2013. An NOA exists when the cumulative actual employer contributions exceed the cumulative ARCs.

As shown in Chart 5, the actual contributions have far exceeded the ARCs for the past several years. In the past, contributions have equaled the current year's benefit payments plus a series of supplemental contributions. It is our understanding that currently DWP is contributing benefit payments. As shown in Chart 4 and Exhibit B, the projected benefit payments for the upcoming year would be about 134% of the ARC; in future years, benefit payments are projected to increase faster than the ARCs. In other words, if future employer contributions continue to equal the current year's benefit payments, they will continue to exceed the ARC.

We understand that DWP is considering adopting a formal funding policy to contribute only the ARC, which would be a reduction from the recent levels of contributions.

**SECTION 1: Executive Summary for City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

- **The Annual OPEB Cost (AOC)** increased from \$36,907,715, or 4.16% of payroll in the prior valuation to \$49,212,916, or 5.47% of payroll in the current valuation.
- Following directions received from DWP for the prior valuations, we have continued to reflect the estimated impact of any potential excise tax imposed by the Patient Protection and Affordable Care Act in the June 30, 2013 valuation.
- The results of this valuation do not reflect changes in the actuarial assumptions as recommended by Segal to the Board of Administration at the Water and Power Employees' Retirement Plan (WPERP) and documented in our Actuarial Experience Study for the period July 1, 2009 through June 30, 2012. These assumptions are under consideration by the Board of Administration, but they have not been officially adopted. We continue to recommend that the proposed assumptions be adopted and made effective in a future valuation. The adoption of all of the proposed assumptions would have increased the ARC in this valuation. The most significant of the proposed assumption changes is for the mortality assumption. Note that the current mortality table being used no longer includes a margin for future improvement in mortality.

**SECTION 1: Executive Summary for City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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

SUMMARY OF VALUATION RESULTS

	June 30, 2013	June 30, 2012
Actuarial Accrued Liability (AAL)	\$1,743,726,715	\$1,566,059,276
Actuarial Value of Assets	1,332,135,662	1,244,039,107
Unfunded Actuarial Accrued Liability	411,591,053	322,020,169
Funded Ratio	76.40%	79.44%
Market Value of Assets	\$1,379,333,002	\$1,227,703,761
Annual Required Contribution (ARC) for Fiscal Year Ending:	June 30, 2014	June 30, 2013
Normal cost (beginning of year)	\$30,421,552	\$26,278,118
Amortization of the unfunded actuarial accrued liability	25,890,294	19,658,017
Adjustment for timing	<u>2,141,369</u>	<u>1,746,812</u>
Total Annual Required Contribution, including adjustment for timing	\$58,453,215	\$47,682,947
Covered payroll	\$900,254,454	\$886,539,366
ARC as a percentage of pay	6.49%	5.38%
Total Participants	16,319	16,340
Annual OPEB Cost (AOC) for Fiscal Year Ending (payable throughout year):	June 30, 2014	June 30, 2013
Annual Required Contributions	\$58,453,215	\$47,682,947
Interest on Net OPEB Obligations	-73,659,587	-71,234,228
ARC Adjustments	<u>64,419,288</u>	<u>60,458,996</u>
Total Annual OPEB Cost	\$49,212,916	\$36,907,715
AOC as a percent of pay	5.47%	4.16%

**SECTION 1: Executive Summary for City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

November 6, 2013

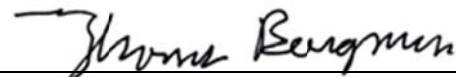
ACTUARIAL CERTIFICATION

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, 2013, 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 43 and 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. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal Consulting, however, does review the data for reasonableness and consistency.

The actuarial computations made are for purposes of fulfilling plan accounting and funding requirements. Determinations for purposes other than meeting financial accounting and funding 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 43 and 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
Assistant Actuary



Dave Bergerson, FCA, ASA, MAAA
Vice President and Actuary

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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, 2013	June 30, 2012
Participant Category		
Current retirees, beneficiaries, and dependents	\$949,000,064	\$862,726,478
Current active members	<u>1,076,721,226</u>	<u>949,090,791</u>
Total	\$2,025,721,290	\$1,811,817,269
	June 30, 2013	June 30, 2012

Actuarial Balance Sheet

The actuarial balance sheet as of the valuation date is as follows:

Assets		
1. Actuarial value of assets	\$1,332,135,662	\$1,244,039,107
2. Present value of future normal costs	281,994,575	245,757,993
3. Unfunded actuarial accrued liability	<u>411,591,053</u>	<u>322,020,169</u>
4. Present value of current and future assets	\$2,025,721,290	\$1,811,817,269
Liabilities		
5. Actuarial Present Value of total Projected Benefits	\$2,025,721,290	\$1,811,817,269

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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 liability from last year to this year.

CHART 2

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

	June 30, 2013	June 30, 2012
Participant Category		
Current retirees, beneficiaries, and dependents	\$949,000,064	\$862,726,478
Current active members	<u>794,726,651</u>	<u>703,332,798</u>
Total actuarial accrued liability	\$1,743,726,715	\$1,566,059,276
Actuarial value of assets	<u>1,332,135,662</u>	<u>1,244,039,107</u>
Unfunded actuarial accrued liability	\$411,591,053	\$322,020,169
Development of Unfunded Actuarial Accrued Liability		
1. Unfunded actuarial accrued liability as of June 30, 2012		\$322,020,169
2. Employer normal cost at beginning of year		26,278,118
3. Total employer contributions		-68,234,175
4. Interest on 1, 2, and 3		<u>24,431,076</u>
5. Expected unfunded actuarial accrued liability (sum of 1 – 4)		\$304,495,188
6. Change due to actuarial investment loss		6,381,528
7. Change due to the combined effect of non-investment experience losses, updated premiums and subsidy levels		<u>100,714,337</u>
8. Unfunded actuarial accrued liability as of June 30, 2013		\$411,591,053

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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 22 years remaining as of June 30, 2013.
- 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	06/30/2013	22	\$411,591,053	\$25,890,294	22	\$411,591,053

* *Level percentage of pay*

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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 in 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, 2013, 22 years remained on the schedule.

CHART 4

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

Cost Element	Fiscal Year Beginning July 1, 2013 and Ending June 30, 2014		Fiscal Year Beginning July 1, 2012 and Ending June 30, 2013	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Normal cost	\$30,421,552	3.38%	\$26,278,118	2.96%
2. Amortization of the unfunded actuarial accrued liability (22 years as of June 30, 2013)	25,890,294	2.88%	19,658,017	2.22%
3. Adjustment for timing	<u>2,141,369</u>	<u>0.23%</u>	<u>1,746,812</u>	<u>0.20%</u>
4. Total Annual Required Contribution (ARC)	<u>\$58,453,215</u>	<u>6.49%</u>	<u>\$47,682,947</u>	<u>5.38%</u>
5. Total Compensation	\$900,254,454		\$886,539,366	

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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, 2013 and Ending June 30, 2014		Fiscal Year Beginning July 1, 2012 and Ending June 30, 2013	
	Amount	Percentage of Compensation	Amount	Percentage of Compensation
1. Annual Required Contribution	\$58,453,215	6.49%	\$47,682,947	5.38%
2. Interest on Beginning of Year Net OPEB Asset (NOA), i.e. negative Net OPEB Obligation (NOO)	-73,659,587	-8.18%	-71,234,228	-8.03%
3. ARC adjustment	<u>64,419,288</u>	<u>7.16%</u>	<u>60,458,996</u>	<u>6.81%</u>
4. Annual OPEB Cost	<u>\$49,212,916</u>	<u>5.47%</u>	<u>\$36,907,715</u>	<u>4.16%</u>
5. Total Compensation	<u>\$900,254,454</u>		<u>\$886,539,366</u>	

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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**

Fiscal Year Ended June 30	Annual Required Contributions⁽¹⁾	Actual Contributions⁽¹⁾⁽²⁾	Percentage Contributed
2009	\$60,976,358	\$162,149,922	265.92%
2010	58,502,789	163,103,076	278.80%
2011	68,705,252	143,234,806	208.48%
2012	53,691,399	104,795,523	195.18%
2013	49,496,185	70,796,216	143.03%
2014	60,676,014	Not made yet	N/A

**Required Supplementary Information – Schedule of Employer Contributions
GASB 45**

Fiscal Year Ended June 30	Annual OPEB Cost⁽¹⁾	Actual Contributions⁽¹⁾⁽²⁾	Percentage Contributed
2009	\$50,038,490	\$162,149,922	324.05%
2010	46,400,013	163,103,076	351.52%
2011	56,463,635	143,234,806	253.68%
2012	41,619,631	104,795,523	251.79%
2013	38,311,203	70,796,216	184.79%
2014	51,084,335	Not made yet	N/A

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

⁽²⁾ Contributions without interest were:
\$159,819,136 for 2008-2009,
\$160,739,954 for 2009-2010,
\$140,758,013 for 2010-2011,
\$102,353,408 for 2011-2012, and
\$68,234,175 for 2012-2013

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2013
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)]
06/30/2008	\$719,636,742	\$1,358,103,498	\$638,466,756	52.99%	\$708,732,000	90.09%
06/30/2009	849,955,427	1,390,810,591	540,855,164	61.11%	805,137,795	67.18%
06/30/2010	987,475,976	1,631,916,204	644,440,228	60.51%	856,089,559	75.28%
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%

**SECTION 2: Valuation Results for the City of Los Angeles Department of Water and Power June 30, 2013
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)
06/30/2008	06/30/2009	\$60,976,358	-\$46,027,385	\$35,089,517	\$50,038,490	\$162,149,922	-\$112,111,432	-\$687,453,744
06/30/2009	06/30/2010	58,502,789	-54,996,300	42,893,524	46,400,013	163,103,076	-116,703,063	-804,156,807
06/30/2010	06/30/2011	68,705,252	-62,322,153	50,080,536	56,463,635	143,234,806	-86,771,171	-890,927,978
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	Not made yet	N/A	N/A

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

⁽²⁾ Contributions without interest were:
 \$159,819,136 for 2008-2009,
 \$160,739,954 for 2009-2010,
 \$140,758,013 for 2010-2011,
 \$102,353,408 for 2011-2012, and
 \$68,234,175 for 2012-2013.

SECTION 3: Supplemental Valuation Details for the City of Los Angeles Department of Water and Power June 30, 2013 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**

	June 30, 2013	June 30, 2012
Retirees		
Number*	6,161	6,082
Average age of retirees	72.6	72.6
Number of spouses	3,252	3,194
Average age of spouses	68.6	69.0
Surviving Spouses		
Number*	1,393	1,403
Average age	80.5	80.4
Active Participants		
Number	8,765	8,855
Average age	49.1	48.8
Average years of service	18.5	18.7
Average expected retirement age	62.6	62.0

* 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, 2013 Measurement Under GASB 43 and 45

EXHIBIT B

Cash Flow Projections

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 may even eventually exceed the ARC in a well funded plan. 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
2014	10,806	552	11,358	\$74,463,832	\$3,863,041	\$78,326,873
2015	10,403	990	11,393	76,440,527	7,675,399	84,115,926
2016	9,997	1,463	11,460	78,255,602	12,245,636	90,501,238
2017	9,594	1,973	11,567	79,812,077	17,671,424	97,483,501
2018	9,190	2,510	11,700	81,133,268	23,877,915	105,011,183
2019	8,789	3,057	11,846	83,164,717	31,562,008	114,726,725
2020	8,392	3,605	11,997	83,669,358	38,967,152	122,636,510
2021	7,999	4,182	12,181	83,818,294	47,211,160	131,029,454
2022	7,611	4,708	12,319	83,859,108	55,410,389	139,269,497
2023	7,229	5,196	12,425	83,661,462	63,611,030	147,272,492

* Includes spouses of retirees.

SECTION 3: Supplemental Valuation Details for the City of Los Angeles Department of Water and Power June 30, 2013 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 smoothes such changes over a five-year period.

Determination of Actuarial Value of Assets as of June 30, 2013

1. Market value of assets				\$1,379,333,002
	Original Amount	Percent Unrecognized	Unrecognized Amount	
2. Calculation of unrecognized return*				
(a) Year ended June 30, 2013	\$58,417,148	80.00%	\$46,733,718	
(b) Year ended June 30, 2012	-75,896,730	60.00%	-45,538,038	
(c) Year ended June 30, 2011	101,367,622	40.00%	40,547,049	
(d) Year ended June 30, 2010	27,273,055	20.00%	5,454,611	
3. Total unrecognized return**				<u>47,197,340</u>
4. Actuarial value: (1) - (3)				<u>\$1,332,135,662</u>
5. Actuarial value as a percentage of market				96.58%

* Total return minus expected return on a market value basis.

** Deferred return as of June 30, 2013 recognized in each of the next 4 years:

(a) Amount Recognized during 2013/2014	\$22,232,219
(b) Amount Recognized during 2014/2015	\$16,777,608
(c) Amount Recognized during 2015/2016	-\$3,495,917
(d) Amount Recognized during 2016/2017	<u>\$11,683,430</u>
Subtotal	\$47,197,340

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

EXHIBIT I

Summary of Required Supplementary Information

Valuation date	June 30, 2013
Actuarial cost method	Entry Age Normal, Level Percent of Pay
Amortization method	30-Year Amortization Closed, Level Percent of Pay
Remaining amortization period	22 years as of June 30, 2013
Asset valuation method	Before June 30, 2008, the actuarial value of assets was defined as the market value of assets. After the June 30, 2008 valuation, any actual investment gains and losses that are above or below the 8.00% annual return assumed in the valuations prior to July 1, 2010 are recognized over 5-year periods. After the June 30, 2010 valuation, any actual investment gains or losses that are above or below the 7.75% assumption are recognized over 5-year periods.

Actuarial assumptions:

Investment rate of return	7.75%
Inflation rate	3.50%
Projected salary increases	4.25%
Medical cost trend rate	8.00%, 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, 2013	June 30, 2012
Current retirees* and beneficiaries receiving dental and/or medical subsidy	7,554	7,485
Current active participants	<u>8,765</u>	<u>8,855</u>
Total	16,319	16,340

* Excludes 3,252 and 3,194 spouses from the June 30, 2013 and 2012 valuations, respectively.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Data: Detailed census data and financial data for postemployment benefits were provided by DWP. Where known, actual subsidies were valued.

Actuarial Cost Method: Entry age normal, level percent of pay.

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, 2013 were assumed as shown below:

Dental Premiums (For Single and Multi-Party)

Carrier	Election Percent	Premium
		Single Party
United Concordia DHMO	20	\$19.16
United Concordia PPO	70	39.37
IBEW Local 18	10	136.13

The maximum monthly dental subsidy: \$39.37, except for Local 18.

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, 2013
Measurement Under GASB 43 and 45**

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 carriers 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, 2013.

Under Age 65

Carrier	Assumed Election Percent*	Single Party Premium	Participant +1 Both Under 65
Kaiser	60	\$659.43	\$1,318.86
United HealthCare Option A	10	1,209.22	2,418.50
Blue Cross HMO	15	973.72	1,509.35
United HealthCare HMO	10	1,037.08	2,140.20
United HealthCare Option B	5	1,049.48	2,099.00

* No members assumed to elect Health Plan of Nevada, United HealthCare Option C or Blue Cross PPO or Owens Valley.

Age 65 and Older

Carrier	Assumed Election Percent*	Single Party Premium	Participant +1 Both Age 65+
Senior Advantage	55	\$309.76	\$619.52
United HealthCare Option A	30	507.80	1,015.60
United Health Care Medicare Advantage	10	406.49	812.98
Blue Cross HMO	5	655.47	1,307.74
Medicare Part B	100	\$104.90	\$209.80

* No members assumed to elect United HealthCare Option B, Blue Cross PPO, Senior Dimensions or United HealthCare Option C.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

<i>Marital Status</i>	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.
<i>Spouse Age Difference</i>	Husbands are assumed to be 3 years older than wives.
<i>Future Benefit Accruals:</i>	1.0 year of service per year.
<i>Other Government Service:</i>	Members are assumed to purchase an additional 0.15 years of service per year.
<i>Participation</i>	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.
<i>Asset valuation method</i>	Before June 30, 2009, the actuarial value of assets was defined as the market value of assets. After the June 30, 2008 valuation, any actual investment gains and losses that are above or below the annual return assumed in the valuation are recognized over 5-year periods.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

Measurement Date: June 30, 2013

Discount Rate: 7.75%, net of administration and investment expenses.

Salary Increases: Annual Rate of Compensation Increase
Inflation: 3.50% per year, plus “across the board” salary increases of 0.75% per year, plus the following merit and promotional increases.

<u>Years of Service</u>	<u>Increase</u>
0	6.25%
1	5.25%
2	4.75%
3	3.50%
4	2.00%
5 & Over	1.10%

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

Mortality Rates:

*After Service Retirement
and Pre-retirement:*

RP-2000 Combined Healthy Mortality Table with ages set back two years for males and one year for females.

After Disability Retirement

RP-2000 Combined Healthy Mortality Table with ages set back two years for males and one year for females.

The tables shown above were determined to reasonably reflect mortality experience through the measurement date; however, they do not provide any margin for future mortality improvement. The recommended mortality table from the 2012 WPERP Actuarial Experience Study is the RP-2000 Combined Healthy Mortality Table with ages set back one year, projected to 2030 with Scale AA. That table would include a margin for future mortality improvement.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

**EXHIBIT II
Actuarial Assumptions and Actuarial Cost Method (continued)**

Termination Rates before Retirement:

Age	Rate (%)					
	Mortality		Disability		Total Withdrawal*	
	Male	Female	Male	Female	Male	Female
25	0.037	0.020	0.006	0.000	6.550	9.200
30	0.039	0.025	0.012	0.006	4.350	7.250
35	0.063	0.044	0.012	0.036	3.060	5.550
40	0.096	0.065	0.018	0.072	2.180	4.150
45	0.130	0.103	0.030	0.102	1.660	3.150
50	0.186	0.155	0.054	0.138	1.260	2.450
55	0.292	0.242	0.126	0.168	0.980	2.100
60	0.527	0.444	0.240	0.000	0.720	1.100
65	1.001	0.862	0.000	0.000	0.420	0.350

* 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, 2013
Measurement Under GASB 43 and 45**

**EXHIBIT II
Actuarial Assumptions and Actuarial Cost Method (continued)**

Retirement Rates:	Age	Under 30 Years of Service	Over 30 Years of Service
	50	0.00%	0.00%
	51	0.00	0.00
	52	0.00	0.00
	53	0.00	0.00
	54	0.00	0.00
	55	4.00	25.00
	56	3.00	15.00
	57	3.00	12.50
	58	3.00	12.50
	59	4.00	12.50
	60	5.00	20.00
	61	5.00	10.00
	62	5.00	10.00
	63	5.00	25.00
	64	5.00	20.00
	65	15.00	25.00
	66	15.00	25.00
	67	15.00	25.00
	68	15.00	25.00
	69	15.00	25.00
	70	100.00	100.00

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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 monthly medical subsidy for a retiree age 65 with 30 years of service in the year July 1, 2014 through June 30, 2015 would be determined with the following formula:

$$[\$1,319 \times (1 + 8.0\%)] = \$1,425$$

Year Ending June 30	Medical	Medicare Part B	Dental
2014	8.0%	5.0%	5.0%
2015	7.5	5.0	5.0
2016	7.0	5.0	5.0
2017	6.5	5.0	5.0
2018	6.0	5.0	5.0
2019	5.5	5.0	5.0
2020 & later	5.0	5.0	5.0

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method (continued)

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 Health Care Reform:	<p>As directed by DWP, we have reflected in the current valuation the impact of potential excise tax imposed by the Patient Protection and Affordable Care Act (PPACA), and the Health Care and Education Reconciliation Act (HCERA), which were signed into law in March of 2010. We understand that FASB requires the disclosure of the tax liability for single employer and non-governmental plans. GASB has not yet offered any guidance on how to comply with this legislation for disclosure purposes and they do not always follow the FASB lead. Nonetheless, as directed by DWP, we have included the tax liability in the current valuation.</p> <p>In particular, it is our understanding that beginning in 2018, 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. PPACA 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 <u>not</u> applied these higher thresholds except for members aged 55 through 64. If such data is provided by DWP, we can reflect this lower the excise tax calculation in our future valuations.</p>

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

The thresholds in 2019 are indexed and for the purpose of this valuation, they are assumed to increase by 4.50% (i.e., 1% over the assumed 3.5% CPI assumption used in the retirement valuation) over those in 2018. After 2019, the thresholds are assumed to increase by 3.50% (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 per capita costs.
- Updated medical insurance plan elections.
- Updated spouse coverage assumption.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
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.

Age & Service Requirement

Age 60 with 5 years of service.

Age 55 with 10 years of service in the last 12 years

Age with 30 years of service

Benefit Types: The DWP subsidy is computed by a formula related to years of service and age at retirement. Sample monthly subsidies effective July 1, 2013 by age and service are as follows.

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

Age at Retirement	Years of Service				
	10	15	20	25	30
55	\$264	\$528	\$791	\$1,055	\$1,319
56	269	537	806	1,074	1,319
57	273	547	820	1,093	1,319
58	278	556	834	1,113	1,319
59	283	566	849	1,132	1,319
60	288	576	863	1,151	1,319
61	293	585	878	1,170	1,319
62	297	595	892	1,189	1,319
63	302	604	906	1,209	1,319
64	307	614	921	1,228	1,319
65	312	623	935	1,247	1,319

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

Annual OPEB Cost (AOC):	Annual OPEB cost is the measure required by GASB 45 of a sole or agent employer's "cost" of participating in an OPEB plan. When an employer has no net OPEB obligation, annual OPEB cost is equal to the ARC. When a net OPEB obligation has a liability (positive) balance, annual OPEB cost is equal to (a) the ARC, plus (b) one year's interest on the beginning balance of the net OPEB obligation, less (c) an adjustment to the ARC to offset, approximately, the amount included in the ARC for amortization of the past contribution deficiencies. When a net OPEB obligation has an asset (negative) balance, the interest adjustment should be deducted from and the ARC adjustment should be added to the ARC, to determine annual OPEB cost.
Net OPEB Obligation (NOO):	The NOO is the cumulative difference between the annual OPEB cost 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.
ARC Adjustment:	The ARC adjustment is an amortization payment based on the prior year NOO. The purpose of the interest and ARC adjustments is to avoid "double-counting" annual OPEB cost and liabilities. Without the adjustments, annual OPEB cost and the net OPEB obligation (liability) would be overstated by the portion of the amortization amount previously recognized in annual OPEB cost. With the adjustments, annual OPEB cost should be approximately equal to the ARC that would have been charged if all prior ARCs had been paid in full, plus one year's interest on the net OPEB obligation.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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.

**SECTION 4: Supporting Information for the City of Los Angeles Department of Water and Power June 30, 2013
Measurement Under GASB 43 and 45**

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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