

# Los Angeles Department of Water and Power

**Governmental Accounting Standards (GAS) 68  
Actuarial Valuation Based on June 30, 2015  
Measurement Date for Employer Reporting  
as of June 30, 2016**



This report has been prepared at the request of the LADWP to assist in preparing their financial report for their liabilities associated with the retirement plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the LADWP and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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*December 6, 2016*

*Ms. Ann Santilli  
Assistant Chief Financial Officer & Controller  
Department of Water and Power – City of Los Angeles  
111 North Hope Street, Room 450  
Los Angeles, CA 90012*

*Dear Ann:*

*We are pleased to submit this Governmental Accounting Standard (GAS) 68 Actuarial Valuation based on June 30, 2015 measurement date for employer reporting as of June 30, 2016. It contains various information that will need to be disclosed in order to comply with GAS 68.*

*This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Los Angeles Department of Water and Power (LADWP) to assist in preparing their financial report for the Water and Power Employees' Retirement Plan of the City of Los Angeles (WPERP). The census and financial information on which our calculations were based was provided by the Retirement Office. That assistance is gratefully acknowledged.*

*The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.*

*The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the WPERP.*

*We look forward to reviewing this report with you and to answering any questions.*

*Sincerely,*

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

*By:*

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

*John Monroe, ASA, MAAA, EA  
Vice President and Actuary*

*JEM/hy*

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## SECTION 1: Valuation Summary for Los Angeles Department of Water and Power

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### Purpose

This report has been prepared by Segal Consulting to present certain disclosure information required by Governmental Accounting Standard (GAS) 68 for employer reporting as of June 30, 2016. The results used in preparing this GAS 68 report are comparable to those used in preparing the Governmental Accounting Standard (GAS) 67 report for the WPERP based on a reporting date and a measurement date as of June 30, 2015. This valuation is based on:

- The benefit provisions of the WPERP, as administered by the Retirement Office;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of March 31, 2015, provided by the Retirement Office;
- The assets of the WPERP as of June 30, 2015, provided by the Retirement Office;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

### Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- The Government Accounting Standard Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices.
- When measuring pension liability GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as WPERP uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is determined on the same basis as WPERP's Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
- The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) calculated on a market value basis.

## SECTION 1: Valuation Summary for Los Angeles Department of Water and Power

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- For this report, the reporting dates for the employer are June 30, 2016 and June 30, 2015. The NPL was measured as of June 30, 2015 and June 30, 2014, respectively, and determined based upon the results of the actuarial valuations as of July 1, 2015 and July 1, 2014, respectively. Plan fiduciary net position (plan assets) and the TPL were valued as of the measurement date. Consistent with the provisions of GAS 68, the assets and liabilities measured as of June 30, 2015 and June 30, 2014 are not adjusted or rolled forward to June 30, 2016 and June 30, 2015, respectively.
- The NPL decreased from \$1.27 billion as of June 30, 2014 to \$1.14 billion as of June 30, 2015 due to actuarial experience gains on the TPL and changes in Plan provisions that were adopted by the Retirement Board. The decreases are offset to some extent by the approximately 4% return on the market value of assets during 2014/2015 (that was less than the assumed return of 7.5%). Changes in these values during the last two fiscal years ending June 30, 2015 and June 30, 2014 can be found in Exhibit 5.
- The discount rate used to measure the TPL and NPL as of June 30, 2015 and 2014 was 7.50%, following the same assumptions used by the WPERP in the funding valuations as of July 1, 2015 and July 1, 2014. The detailed calculations used in the derivation of the discount rate can be found in Appendices A and B of Section 3. Various other information that is required to be disclosed can be found throughout Exhibits 1 through 13 in Section 2.
- The NPL has been allocated based on the projected compensation for each entity for the year following the measurement date. The NPL allocation can be found in Exhibit 7 in Section 2.
- Results shown in this report exclude any employer contributions made after the measurement date of June 30, 2015. The LADWP should consult with their auditors to determine the deferred outflow that should be created for these contributions.
- The Retirement Board has adopted changes in the actuarial assumptions that will be effective with the July 1, 2016 actuarial valuation for funding purposes. Those changes have not been reflected in this GAS 68 valuation report as they are effective subsequent to the measurement date. The changes would not have had a significant impact on each of the two entity's percentage proportionate share. However, these changes in assumptions would have increased the total Retirement Plan NPL by \$680 million as of the June 30, 2015 measurement date. This increase in NPL would be allocated to each of the two entities using the proportionate share percentages.

**SECTION 1: Valuation Summary for Los Angeles Department of Water and Power**

**Summary of Key Valuation Results**

<b>Reporting Date for Employer under GAS 68</b>	<b>6/30/2016<sup>(1)</sup></b>	<b>6/30/2015<sup>(2)</sup></b>
<b>Measurement Date for Employer under GAS 68</b>	<b>6/30/2015</b>	<b>6/30/2014</b>
<b>Disclosure elements for fiscal year ending June 30:</b>		
1. Service cost	\$214,735,027	\$193,661,118
2. Total Pension Liability	11,218,445,567	10,975,550,617
3. Plan's Fiduciary Net Position	10,074,300,269	9,703,317,303
4. Net Pension Liability (2) – (3)	1,144,145,298	1,272,233,314
5. Pension expense	-33,414,842	93,359,854
<b>Schedule of contributions for fiscal year ending June 30:</b>		
6. Actuarially determined contributions	\$387,464,759	\$387,823,989
7. Actual contributions	376,902,022	384,265,892
8. Contribution deficiency (excess) (6) – (7)	10,562,737	3,558,097
<b>Demographic data for plan year ending June 30:</b>		
9. Number of retired members and beneficiaries	8,843	8,739
10. Number of vested terminated members <sup>(3)</sup>	1,528	1,484
11. Number of active members	9,205	8,960
<b>Key assumptions as of June 30:</b>		
12. Investment rate of return	7.50%	7.50%
13. Inflation rate	3.25%	3.25%
14. Projected salary increases <sup>(4)</sup>	4.75% to 10.00%, varying by service, including inflation	4.75% to 10.00%, varying by service, including inflation

<sup>(1)</sup> The reporting date and measurement date for the plan are June 30, 2015.

<sup>(2)</sup> The reporting date and measurement date for the plan are June 30, 2014.

<sup>(3)</sup> Includes terminated members due a refund of member contributions and members receiving PTD benefits.

<sup>(4)</sup> Includes inflation at 3.25% plus real across-the-board salary increases of 0.75% plus merit and promotional increases that vary by service.

## SECTION 1: Valuation Summary for Los Angeles Department of Water and Power

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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 (as well as the plan summary included in our funding valuation 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 the Retirement Office. 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 the Retirement Office.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.

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

- The valuation is prepared at the request of the LADWP to assist in preparing items related to the retirement plan in their financial report. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement of the plan’s assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
- If LADWP 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.

## SECTION 1: Valuation Summary for Los Angeles Department of Water and Power

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- 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. The LADWP 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 WPERP, it is not a fiduciary in its capacity as actuaries and consultants with respect to WPERP or LADWP.



## SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power

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### EXHIBIT 1

#### General Information – “Financial Statements”, Note Disclosures and Required Supplementary Information for a Single-Employer Pension Plan

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##### Plan Description

*Plan administration.* The Water and Power Employees’ Retirement Plan of the City of Los Angeles (WPERP) was established by the Los Angeles Department of Water and Power (LADWP) in 1938. WPERP is a single employer public employee retirement system whose main function is to provide retirement benefits to employees of the Los Angeles Department of Water and Power.

Under the provisions of the City Charter, the Board of Administration (the "Board") has the responsibility and authority to administer the Plan and to invest its assets. The Board members serve as trustees and must act in the exclusive interest of the Plan's members and beneficiaries. The Board has seven members: one member of the Board of Water and Power Commissioners, the General Manager, the Chief Accounting Employee, three employee members who are elected for three-year terms by active members of the Plan, and one retiree who is appointed by the Board of Water and Power Commissioners for a three-year term.

*Plan membership.* At June 30, 2015, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	8,843
Vested terminated members entitled to, but not yet receiving benefits <sup>(1)</sup>	1,528
Active members	<u>9,205</u>
Total	19,576

<sup>(1)</sup> Includes terminated members due a refund of member contributions and members receiving PTD benefits.

*Benefits provided.* WPERP provides service retirement, disability, death and survivor benefits to eligible employees. Most employees of the LADWP become members of WPERP effective on the first day of biweekly payroll following employment. Members employed prior to January 1, 2014 are designated as Tier 1 and those hired on or after January 1, 2014 are designated as Tier 2 (unless a specific exemption applies to employee providing a right to Tier 1 status).

Tier 1 members are eligible to retire once they attain the age of 60 with 5 or more years of service or at age 55 with 10 or more years of service credit acquired in the last 12 years prior to retirement. A Tier 1 member with 30 years of service is eligible to retire regardless of age. Tier 2 members are eligible to retire once they attain the age of 60 with 10 or more years of service or

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at any age with 30 years of service. For both tiers, combined years of service between WPERP and LACERS is used to determine retirement eligibility and at least 5 years must be actual employment at DWP or City. For both tiers, members receiving Permanent Total Disability benefits may retire regardless of age. For Tier 1, to be eligible for a Formula Pension, 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.

The Formula Pension benefit the member will receive is based upon age at retirement, monthly average salary base and years of retirement service credit.

The Tier 1 Formula Pension is equal to 2.1% times years of service credit times monthly average salary base. In addition, members retiring after attaining age 55 with 30 years of service credit, receive an increase in the benefit factor from 2.1% to 2.3%. A reduced early retirement benefit is paid for those members attaining age 55 with 10 years of service or any age (under 55) with 30 years of service. The reduction is 1.5% for each year of retirement age between 60 and 55 and 3.0% for each year of retirement before age 55.

Under Tier 2, there are various benefit factors that apply as shown below:

- 2.0% at age 55 with 30 years of Qualifying Service
- 1.5% at age 60 with 10 years of Qualifying Service
- 2.0% at age 63 with 10 years of Qualifying Service
- 2.1% at age 63 with 30 years of Qualifying Service

Reduced early retirement benefits are still available at any age (under 55) with 30 years of service and the reduction factors are the same as Tier 1. Note that these reduction factors continue to include the reduction from age 60 to 55 and from 55 to age at retirement.

For Tier 1 members, the maximum monthly retirement allowance is 100% of monthly average salary base. For Tier 2 members, the maximum monthly retirement allowance is 80% of monthly average salary base.

Under Tier 1, pension benefits are calculated based on the highest average salary earned during a 12-month period. Under Tier 2, pension benefits are calculated based on the average salary earned during a 36-month period.

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For both tiers, the member may elect the Full Allowance, or choose an optional retirement allowance. The Full Allowance provides the highest monthly benefit and up to a 50% continuance to an eligible surviving spouse or domestic partner. There are five optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the Full Allowance in order to allow the member the ability to provide various benefits to a surviving spouse, domestic partner, or named beneficiary.

WPERP provides annual cost-of-living adjustments (COLAs) to retirees who retired under the Formula Pension. The cost-of-living adjustments are made each July 1 based on the percentage change in the average of the Consumer Price Index for the Los Angeles-Riverside-Orange County Area--All Items For All Urban Consumers. It is capped at 3.0% for Tier 1 and 2.0% for Tier 2. Tier 2 members may purchase additional 1% COLA protection at full actuarial cost.

The LADWP contributes to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Administration. Employer contribution rates are adopted annually based upon recommendations received from WPERP's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2015 (based on the July 1, 2014 valuation) was 50.62% of compensation.

All members are required to make contributions to WPERP regardless of the retirement plan or tier in which they are included. The average member contribution rate as of June 30, 2015 (based on the July 1, 2014 valuation) was 6.53% of compensation. Most Tier 1 members contribute at 6% of compensation and all Tier 2 members contribute at 10% of compensation.

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**EXHIBIT 2**

**Net Pension Liability**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2015</b>	<b>June 30, 2014</b>
The components of the Net Pension Liability are as follows:		
Total Pension Liability	\$11,218,445,567	\$10,975,550,617
Plan's Fiduciary Net Position	<u>(10,074,300,269)</u>	<u>(9,703,317,303)</u>
Net Pension Liability	\$1,144,145,298	\$1,272,233,314
Plan's Fiduciary Net Position as a Percentage of the Total Pension Liability	89.80%	88.41%

The Net Pension Liability (NPL) for the plan was measured as of June 30, 2015 and 2014. The Plan's Fiduciary Net Position (plan assets) and Total Pension Liability (TPL) were valued as of the measurement date and are from actuarial valuations as of July 1, 2015 and 2014, respectively.

*Plans provisions.* The plan provisions used in the measurement of the NPL are the same as those used in the WPERP actuarial valuations as of July 1, 2015 and 2014, respectively. Starting with the June 30, 2015 measurement, the interest crediting rate on employee, Additional Annuity and Department matching contributions was decreased from 7.75% to 7.50% per annum. The interest rate and mortality table used to calculate the Money Purchase Annuity and certain other optional benefit amounts were changed to 7.50% per annum and a unisex version of the mortality tables used in this valuation.

*Actuarial assumptions.* The TPLs as of June 30, 2015 and June 30, 2014 were determined by actuarial valuations as of July 1, 2015 and July 1, 2014, respectively. The actuarial assumptions used in the June 30, 2015 and June 30, 2014 valuations were based on the results of an experience study for the period from July 1, 2009 through June 30, 2012. They are the same as the assumptions used in the July 1, 2015 and 2014 funding actuarial valuations for the WPERP. The assumptions are outlined on page 9 of this report. In particular, the following assumptions were applied to all periods included in the measurement for the July 1, 2015 and 2014 actuarial valuations:

Inflation	3.25%
Salary increases	4.75% to 10.00%, vary by service, including inflation
Investment rate of return	7.50%, net of pension plan investment expense, including inflation
Other assumptions	Same as those used in the July 1, 2015 funding valuation

## SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power

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### EXHIBIT 3

#### Target Asset Allocation

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The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation, but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

<b>Asset Class</b>	<b>Target Allocation</b>	<b>Long-Term Expected Real Rate of Return</b>
Domestic Equity	33%	6.13%
Developed International Equity	21%	7.00%
Fixed Income	24%	0.77%
Real Estate	5%	4.90%
Real Return	6%	2.85%
Private Equity	5%	9.00%
Covered Calls	5%	4.88%
Cash and Cash Equivalents	1%	0.00%
<b>Total</b>	<b>100%</b>	

*Discount rate:* The discount rate used to measure the TPL was 7.50% as of June 30, 2015 and June 30, 2014. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2015 and June 30, 2014.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

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**EXHIBIT 4**

**Discount Rate Sensitivity**

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*Sensitivity of the Net Pension Liability to changes in the discount rate.* The following presents the Net Pension Liability (NPL) of the WPERP as of June 30, 2015, calculated using the discount rate of 7.50%, as well as what the WPERP's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

<b>Net Pension Liability</b>	<b>1% Decrease (6.50%)</b>	<b>Current Discount Rate (7.50%)</b>	<b>1% Increase (8.50%)</b>
Water	\$838,736,632	\$373,023,565	-\$18,205,349
Power	<u>1,733,853,049</u>	<u>771,121,733</u>	<u>-37,634,459</u>
Total for all Entities	\$2,572,589,681	\$1,144,145,298	-\$55,839,808

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 5**

**Schedule of Changes in Net Pension Liability – Last Two Fiscal Years**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2015</b>	<b>June 30, 2014</b>
<b>Total Pension Liability</b>		
1. Service cost	\$214,735,027	\$193,661,118
2. Interest	821,047,664	779,396,615
3. Change of benefit terms	(144,007,904)	0
4. Differences between expected and actual experience	(162,912,927)	(154,221,968)
5. Changes of assumptions	0	525,443,921
6. Benefit payments, including refunds of member contributions	<u>(485,966,910)</u>	<u>(463,596,940)</u>
7. Net change in Total Pension Liability	\$242,894,950	\$880,682,746
8. Total Pension Liability – beginning	<u>10,975,550,617</u>	<u>10,094,867,871</u>
9. Total Pension Liability – ending (7) + (8)	<u>\$11,218,445,567</u>	<u>\$10,975,550,617</u>
<b>Plan fiduciary net position</b>		
10. Contributions – employer (including those for administrative expenses)	\$382,231,868	\$389,138,324
11. Contributions – employee	68,552,375	72,299,526
12. Net investment income	410,778,109	1,405,686,198
13. Benefit payments, including refunds of member contributions	(485,966,910)	(463,596,940)
14. Administrative expense	(4,612,476)	(4,221,234)
15. Other	<u>0</u>	<u>0</u>
16. Net change in Plan’s Fiduciary Net Position	\$370,982,966	\$1,399,305,874
17. Plan’s Fiduciary Net Position – beginning	<u>9,703,317,303</u>	<u>8,304,011,429</u>
18. Plan’s Fiduciary Net Position – ending (16) + (17)	\$10,074,300,269	\$9,703,317,303
19. Net Pension Liability – ending (9) – (18)	<u>\$1,144,145,298</u>	<u>\$1,272,233,314</u>
20. Plan fiduciary net position as a percentage of the Total Pension Liability (18) / (9)	89.80%	88.41%
21. Covered employee payroll	\$839,213,254	\$819,923,866
22. Plan Net Pension Liability as percentage of covered employee payroll (19) / (21)	136.34%	155.16%

**Notes to Schedule:**

*Benefit changes:*

For the June 30, 2015 measurement, the interest crediting rate on employee, Additional Annuity and Department matching contributions was decreased from 7.75% to 7.50% per annum. Also, the interest rate and mortality table used to calculate the Money Purchase Annuity and certain other optional benefit amounts were changed to 7.50% per annum and a unisex version of the mortality tables used in the funding valuation.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 6**

**Schedule of Employer Contributions – Last Ten Fiscal Years**

<b>Year Ended June 30,</b>	<b>Actuarially Determined Contributions<sup>(1)(2)(3)</sup></b>	<b>Contributions in Relation to the Actuarially Determined Contributions<sup>(2)</sup></b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered-Employee Payroll</b>	<b>Contributions as a Percentage of Covered Employee Payroll</b>
2006	\$110,268,590	\$101,556,257	\$8,712,333	\$574,315,572	17.68%
2007	134,504,482	129,154,539	5,349,943	604,514,525	21.37%
2008	134,651,427	141,862,126	-7,210,699	623,674,973	22.75%
2009	141,291,588	145,941,275	-4,649,687	696,704,083	20.95%
2010	200,578,728	201,034,807	-456,079	767,912,436	26.18%
2011	304,431,910	286,699,384	17,732,526	791,760,493	36.21%
2012	336,874,865	321,688,919	15,185,946	805,607,436	39.93%
2013	376,667,610	368,426,348	8,241,262	817,421,028	45.07%
2014	387,823,989	384,265,892	3,558,097	819,923,866	46.87%
2015	387,464,759	376,902,022	10,562,737	839,213,254	44.91%

See accompanying notes to this schedule on next page.

<sup>(1)</sup> All “Actuarially Determined Contributions” through June 30, 2014 were determined as the “Annual Required Contribution” under GAS 25 and 27.

<sup>(2)</sup> Based on actual covered payroll reported by the Retirement Office. For the year ended June 30, 2015, reflects the effect of the phase-in over two years of the contribution rate impact of new actuarial assumptions adopted by the Board.

<sup>(3)</sup> Actuarially Determined Contributions exclude employer contributions towards administrative expenses.



**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**Notes to Exhibit 6**

**Methods and assumptions used to establish “actuarially determined contribution” rates:**

<b>Valuation date</b>	Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported
<b>Actuarial cost method</b>	Entry Age Actuarial Cost Method
<b>Amortization method</b>	Level dollar amortization
<b>Remaining amortization period</b>	The July 1, 2004 Unfunded Actuarial Accrued Liability is amortized over a 15-year period commencing July 1, 2004. Any subsequent changes in Unfunded Actuarial Accrued Liability are amortized over separate 15-year periods effective with that valuation.
<b>Asset valuation method</b>	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. As directed by the Retirement Office, the actuarial valuation of assets may be reduced by an amount classified as a non-valuation reserve.

	<u>June 30, 2015 Valuation Date</u>	<u>June 30, 2014 Valuation Date</u>
<b>Actuarial assumptions:</b>		
Investment rate of return	7.50%, net of investment expenses	7.50%, net of investment expenses
Inflation rate	3.25%	3.25%
Real across-the-board salary increase	0.75%	0.75%
Projected salary increases*	4.75% to 10.00%	4.75% to 10.00%
Cost of living adjustments	3.00% (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1, 2.00% maximum for Tier 2)	3.00% (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1, 2.00% maximum for Tier 2)
Mortality	Healthy: RP-2000 Combined Healthy Mortality Table with ages set back one year projected to 2030 with Scale AA	Healthy: RP-2000 Combined Healthy Mortality Table with ages set back one year projected to 2030 with Scale AA
Other assumptions	Same as those used in the July 1, 2015 funding actuarial valuation	Same as those used in the July 1, 2014 funding actuarial valuation

\* Includes inflation at 3.25% as of June 30, 2015 and 2014 plus real across-the-board salary increase of 0.75% plus merit and promotional increases.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

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**EXHIBIT 7**

**Determination of Proportionate Share**

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	<u>Projected Compensation by Funding Entity</u>	
	<u>July 1, 2015 to June 30, 2016</u>	
<u>Entity</u>	<u>Projected Compensation</u>	<u>Proportionate Share as of June 30, 2015 Measurement Date</u>
Water	\$300,200,542	32.603%
Power	<u>620,580,532</u>	<u>67.397%</u>
Total	\$920,781,074	100.000%

**Notes:**

Projected July 1, 2015 through June 30, 2016 compensation information is based on the July 1, 2015 actuarial valuation.

The following items are allocated based on the corresponding proportionate share shown above.

- 1) Net Pension Liability
- 2) Service Cost
- 3) Interest on the Total Pension Liability
- 4) Current-period benefit changes
- 5) Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- 6) Member contributions
- 7) Projected earnings on plan investments
- 8) Expensed portion of current-period differences between actual and projected earnings on plan investments
- 9) Administrative expense
- 10) Recognition of beginning of year deferred outflows of resources as pension expense
- 11) Recognition of beginning of year deferred inflows of resources as pension expense

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2016. The reporting date and measurement date for the plan under GAS 67 are June 30, 2015. Consistent with the provisions of GAS 68, the assets and liabilities as of June 30, 2015 are not adjusted or "rolled forward" to June 30, 2016. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

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**EXHIBIT 7 (continued)**

**Determination of Proportionate Share**

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	<u>Projected Compensation by Funding Entity</u>	
	<u>July 1, 2014 to June 30, 2015</u>	
<u>Entity</u>	<u>Projected Compensation</u>	<u>Proportionate Share as of June 30, 2014 Measurement Date</u>
Water	\$291,132,426	32.344%
Power	<u>608,993,848</u>	<u>67.656%</u>
Total	\$900,126,274	100.000%

**Notes:**

Projected July 1, 2014 through June 30, 2015 compensation information is based on the July 1, 2014 actuarial valuation.

The following items are allocated based on the corresponding proportionate share shown above.

- 1) Net Pension Liability
- 2) Service Cost
- 3) Interest on the Total Pension Liability
- 4) Current-period benefit changes
- 5) Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- 6) Member contributions
- 7) Projected earnings on plan investments
- 8) Expensed portion of current-period differences between actual and projected earnings on plan investments
- 9) Administrative expense
- 10) Recognition of beginning of year deferred outflows of resources as pension expense
- 11) Recognition of beginning of year deferred inflows of resources as pension expense

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2015. The reporting date and measurement date for the plan under GAS 67 are June 30, 2014. Consistent with the provisions of GAS 68, the assets and liabilities as of June 30, 2014 are not adjusted or "rolled forward" to June 30, 2015. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

## SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power

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### EXHIBIT 7 (continued)

#### Determination of Proportionate Share

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	<u>Projected Compensation by Funding Entity</u>	
	<u>July 1, 2013 to June 30, 2014</u>	
<u>Entity</u>	<u>Projected Compensation</u>	<u>Proportionate Share as of June 30, 2013 Measurement Date</u>
Water	\$293,243,964	32.573%
Power	<u>607,010,490</u>	<u>67.427%</u>
Total	\$900,254,454	100.000%

**Notes:**

Projected July 1, 2013 through June 30, 2014 compensation information is based on the July 1, 2013 actuarial valuation.

Projected compensation for members that work at the Retirement Office or for those members that did not have an entity code was allocated proportionally between Water and Power (before including those members).

The following items are allocated based on the corresponding proportionate share shown above.

- 1) Net Pension Liability
- 2) Service Cost
- 3) Interest on the Total Pension Liability
- 4) Current-period benefit changes
- 5) Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- 6) Member contributions
- 7) Projected earnings on plan investments
- 8) Expensed portion of current-period differences between actual and projected earnings on plan investments
- 9) Administrative expense
- 10) Recognition of beginning of year deferred outflows of resources as pension expense
- 11) Recognition of beginning of year deferred inflows of resources as pension expense

For purposes of the above results, the reporting date for the employer under GAS 68 is June 30, 2014. The reporting date and measurement date for the plan under GAS 67 are June 30, 2013. Consistent with the provisions of GAS 68, the assets and liabilities as of June 30, 2013 are not adjusted or "rolled forward" to June 30, 2014. Other results, such as the total deferred inflows and outflows would also be allocated based on the same proportionate shares determined above.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 8**

**Pension Expense – Total**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2015</b>	<b>June 30, 2014</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$214,735,027	\$193,661,118
2. Interest on the Total Pension Liability	821,047,664	779,396,615
3. Expensed portion of current-period changes in proportion and differences between entity's contributions and proportionate share of contributions	0	0
4. Current-period benefit changes	(144,007,904)	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(29,782,985)	(30,062,762)
6. Expensed portion of current-period changes of assumptions or other inputs	0	102,425,716
7. Member contributions	(68,552,375)	(72,299,526)
8. Projected earnings on plan investments	(726,256,480)	(643,313,648)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	63,095,674	(152,474,510)
10. Administrative expense	4,612,476	4,221,234
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	102,425,716	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	(270,731,655)	(88,194,383)
14. Net amortization of deferred amounts from changes in proportion and differences between entity's contributions and proportionate share of contributions	0	0
<b>Pension Expense</b>	<b><u>\$(33,414,842)</u></b>	<b><u>\$93,359,854</u></b>

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 8 (continued)  
Pension Expense – Water**

<b>Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016 June 30, 2015</b>	<b>June 30, 2015 June 30, 2014</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$70,009,661	\$62,636,801
2. Interest on the Total Pension Liability	267,684,644	252,084,217
3. Expensed portion of current-period changes in proportion and differences between entity's contributions and proportionate share of contributions	1,120,470	(338,995)
4. Current-period benefit changes	(46,950,629)	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(9,710,091)	(9,723,352)
6. Expensed portion of current-period changes of assumptions or other inputs	0	33,128,071
7. Member contributions	(22,350,003)	(23,384,204)
8. Projected earnings on plan investments	(236,780,050)	(208,070,210)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	20,570,965	(49,315,607)
10. Administrative expense	1,503,797	1,365,295
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	33,393,666	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	(88,266,138)	(28,525,159)
14. Net amortization of deferred amounts from changes in proportion and differences between entity's contributions and proportionate share of contributions	<u>991,482</u>	<u>1,330,477</u>
<b>Pension Expense</b>	<b><u>\$(8,782,226)</u></b>	<b><u>\$31,187,334</u></b>

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 8 (continued)  
Pension Expense – Power**

<b>Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016 June 30, 2015</b>	<b>June 30, 2015 June 30, 2014</b>
<b>Components of Pension Expense</b>		
1. Service cost	\$144,725,366	\$131,024,317
2. Interest on the Total Pension Liability	553,363,020	527,312,398
3. Expensed portion of current-period changes in proportion and differences between entity's contributions and proportionate share of contributions	(1,120,470)	338,995
4. Current-period benefit changes	(97,057,275)	0
5. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	(20,072,894)	(20,339,410)
6. Expensed portion of current-period changes of assumptions or other inputs	0	69,297,645
7. Member contributions	(46,202,372)	(48,915,322)
8. Projected earnings on plan investments	(489,476,430)	(435,243,438)
9. Expensed portion of current-period differences between actual and projected earnings on plan investments	42,524,709	(103,158,903)
10. Administrative expense	3,108,679	2,855,939
11. Other	0	0
12. Recognition of beginning of year deferred outflows of resources as pension expense	69,032,050	0
13. Recognition of beginning of year deferred inflows of resources as pension expense	(182,465,517)	(59,669,224)
14. Net amortization of deferred amounts from changes in proportion and differences between entity's contributions and proportionate share of contributions	<u>(991,482)</u>	<u>(1,330,477)</u>
<b>Pension Expense</b>	<b><u>\$(24,632,616)</u></b>	<b><u>\$62,172,520</u></b>

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 9  
Deferred Outflows of Resources and Deferred Inflows of Resources – Total**

<b>Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016 June 30, 2015</b>	<b>June 30, 2015 June 30, 2014</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between entity's contributions and proportionate share of contributions <sup>(1)</sup>	\$9,049,824	\$5,710,795
2. Changes of assumptions or other inputs	320,592,489	423,018,205
3. Net difference between projected and actual earnings on pension plan investments	0	0
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	<u>\$329,642,313</u>	<u>\$428,729,000</u>
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between entity's contributions and proportionate share of contributions <sup>(1)</sup>	\$9,049,824	\$5,710,795
7. Changes of assumptions or other inputs	0	0
8. Net difference between projected and actual earnings on pension plan investments	344,001,112	818,338,458
9. Difference between expected and actual experience in the Total Pension Liability	<u>269,146,292</u>	<u>184,793,356</u>
10. Total Deferred Inflows of Resources	<u>\$622,197,228</u>	<u>\$1,008,842,609</u>
Deferred outflows of resources and deferred inflows of resources related to pension expense will be recognized as follows:		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2016	N/A	\$(168,305,939)
2017	\$(134,993,250)	(168,305,939)
2018	(134,993,251)	(168,305,940)
2019	(51,290,285)	(84,602,974)
2020	42,719,873	9,407,183
2021	(13,998,002)	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.



**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 9 (continued)  
Deferred Outflows of Resources and Deferred Inflows of Resources – Water**

<b>Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016 June 30, 2015</b>	<b>June 30, 2015 June 30, 2014</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between entity's contributions and proportionate share of contributions <sup>(1)</sup>	\$7,988,771	\$4,310,747
2. Changes of assumptions or other inputs	104,522,173	136,818,933
3. Net difference between projected and actual earnings on pension plan investments	0	0
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	<u>\$112,510,944</u>	<u>\$141,129,680</u>
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between entity's contributions and proportionate share of contributions <sup>(1)</sup>	\$1,061,053	\$1,400,048
7. Changes of assumptions or other inputs	0	0
8. Net difference between projected and actual earnings on pension plan investments	112,154,043	264,679,376
9. Difference between expected and actual experience in the Total Pension Liability	<u>87,749,265</u>	<u>59,768,656</u>
10. Total Deferred Inflows of Resources	<u>\$200,964,361</u>	<u>\$325,848,080</u>
Deferred outflows of resources and deferred inflows of resources related to pension expense will be recognized as follows:		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2016	N/A	\$(53,444,565)
2017	\$(41,899,646)	(53,444,565)
2018	(41,899,647)	(53,444,566)
2019	(15,621,285)	(27,383,250)
2020	15,004,283	2,998,546
2021	(4,037,122)	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 9 (continued)  
Deferred Outflows of Resources and Deferred Inflows of Resources – Power**

<b>Reporting Date for Employer under GAS 68 Measurement Date for Employer under GAS 68</b>	<b>June 30, 2016 June 30, 2015</b>	<b>June 30, 2015 June 30, 2014</b>
<b>Deferred Outflows of Resources</b>		
1. Changes in proportion and differences between entity's contributions and proportionate share of contributions <sup>(1)</sup>	\$1,061,053	\$1,400,048
2. Changes of assumptions or other inputs	216,070,316	286,199,272
3. Net difference between projected and actual earnings on pension plan investments	0	0
4. Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
5. Total Deferred Outflows of Resources	<u>\$217,131,369</u>	<u>\$287,599,320</u>
<b>Deferred Inflows of Resources</b>		
6. Changes in proportion and differences between entity's contributions and proportionate share of contributions <sup>(1)</sup>	\$7,988,771	\$4,310,747
7. Changes of assumptions or other inputs	0	0
8. Net difference between projected and actual earnings on pension plan investments	231,847,069	553,659,082
9. Difference between expected and actual experience in the Total Pension Liability	<u>181,397,027</u>	<u>125,024,700</u>
10. Total Deferred Inflows of Resources	<u>\$421,232,867</u>	<u>\$682,994,529</u>
Deferred outflows of resources and deferred inflows of resources related to pension expense will be recognized as follows:		
<b>Reporting Date for Employer under GAS 68 Year Ended June 30:</b>		
2016	N/A	\$(114,861,374)
2017	\$(93,093,604)	(114,861,374)
2018	(93,093,604)	(114,861,374)
2019	(35,669,000)	(57,219,724)
2020	27,715,590	6,408,637
2021	(9,960,880)	0
Thereafter	0	0

<sup>(1)</sup> Calculated in accordance with Paragraphs 54 and 55 of GAS 68.

## SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power

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### EXHIBIT 9 (continued)

#### Deferred Outflows of Resources and Deferred Inflows of Resources

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There are changes in each entity's proportionate share of the total Net Pension Liability (NPL) during the measurement period ended June 30, 2014. The net effect of the change on the entity's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through the WPERP which is 5.13 years determined as of July 1, 2013 (the beginning of the measurement period ended June 30, 2014). This is described in Paragraph 33a. of GAS 68.

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended June 30, 2014 is recognized over the same period.

There are also changes in each entity's proportionate share of the total NPL during the measurement period ended June 30, 2015. The net effect of the change on the entity's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through the WPERP which is 5.47 years determined as of July 1, 2014 (the beginning of the measurement period ended June 30, 2015). This is described in Paragraph 33a. of GAS 68.

In addition, the difference between the actual employer contributions and the proportionate share of the employer contributions during the measurement period ended June 30, 2015 is recognized over the same period.

The net effects of the change on the entity's proportionate share of the collective NPL and collective deferred outflows of resources and deferred in flows of resources for prior periods are continued to be recognized based on the expected remaining service lives of all employees calculated as of those prior measurement dates.

The average of the expected service lives of all employees is determined by:

- Calculating each active employees' expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 10**

**Schedule of Proportionate Share of the Net Pension Liability – Total**

<b>Reporting Date for Employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered-employee payroll<sup>(1)</sup></b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll</b>	<b>Plan's Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2013	100.0%	\$2,308,458,976	\$805,607,436	286.55%	76.18%
2014	100.0%	1,790,856,442	817,421,028	219.09%	82.26%
2015	100.0%	1,272,233,314	819,923,866	155.16%	88.41%
2016	100.0%	1,144,145,298	839,213,254	136.34%	89.80%

<sup>(1)</sup> These are the actual payroll amounts for the years ending on the dates shown.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 10 (continued)**

**Schedule of Proportionate Share of the Net Pension Liability – Water**

<b>Reporting Date for Employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered-employee payroll</b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll</b>	<b>Plan's Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2013	32.292%	\$745,446,783	\$260,146,478	286.55%	76.18%
2014	32.573%	583,343,786	266,262,257	219.09%	82.26%
2015	32.344%	411,484,901	265,192,153	155.16%	88.41%
2016	32.603%	373,023,565	273,607,137	136.34%	89.80%

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 10 (continued)**

**Schedule of Proportionate Share of the Net Pension Liability – Power**

<b>Reporting Date for Employer under GAS 68 as of June 30</b>	<b>Proportion of the Net Pension Liability</b>	<b>Proportionate share of Net Pension Liability</b>	<b>Covered-employee payroll</b>	<b>Proportionate share of the Net Pension Liability as a percentage of its covered-employee payroll</b>	<b>Plan’s Fiduciary Net Position as a percentage of the Total Pension Liability</b>
2013	67.708%	\$1,563,012,193	\$545,460,958	286.55%	76.18%
2014	67.427%	1,207,512,656	551,158,771	219.09%	82.26%
2015	67.656%	860,748,413	554,731,713	155.16%	88.41%
2016	67.397%	771,121,733	565,606,117	136.34%	89.80%

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 11**

**Schedule of Reconciliation of Net Pension Liability – Total**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2015</b>	<b>June 30, 2014</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$1,272,233,314	\$1,790,856,442
2. Pension Expense	(33,414,842)	93,359,854
3. Employer Contributions	(382,231,868)	(389,138,324)
4. New Net Deferred Inflows/Outflows	119,252,755	(311,039,041)
5. Change in Allocation of Prior Deferred Inflows/Outflows	0	0
6. New Net Deferred Flows Due to Change in Proportion <sup>(1)</sup>	0	0
7. Recognition of Prior Deferred Inflows/Outflows	168,305,939	88,194,383
8. Recognition of Prior Deferred Flows Due to Change in Proportion <sup>(1)</sup>	<u>0</u>	<u>0</u>
9. Ending Net Pension Liability	<u>\$1,144,145,298</u>	<u>\$1,272,233,314</u>

<sup>(1)</sup> Includes differences between actual employer contributions and proportionate share of contributions.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – Water**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2015</b>	<b>June 30, 2014</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$411,484,901	\$583,343,786
2. Pension Expense	(8,782,226)	31,187,334
3. Employer Contributions	(125,944,093)	(129,061,430)
4. New Net Deferred Inflows/Outflows	38,879,754	(100,600,941)
5. Change in Allocation of Prior Deferred Inflows/Outflows	(1,504,262)	821,518
6. New Net Deferred Flows Due to Change in Proportion <sup>(1)</sup>	5,008,501	(1,400,048)
7. Recognition of Prior Deferred Inflows/Outflows	54,872,472	28,525,159
8. Recognition of Prior Deferred Flows Due to Change in Proportion <sup>(1)</sup>	<u>(991,482)</u>	<u>(1,330,477)</u>
9. Ending Net Pension Liability	<u>\$373,023,565</u>	<u>\$411,484,901</u>

<sup>(1)</sup>Includes differences between actual employer contributions and proportionate share of contributions.



**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 11 (continued)**

**Schedule of Reconciliation of Net Pension Liability – Power**

<b>Reporting Date for Employer under GAS 68</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
<b>Measurement Date for Employer under GAS 68</b>	<b>June 30, 2015</b>	<b>June 30, 2014</b>
<b>Reconciliation of Net Pension Liability</b>		
1. Beginning Net Pension Liability	\$860,748,413	\$1,207,512,656
2. Pension Expense	(24,632,616)	62,172,520
3. Employer Contributions	(256,287,775)	(260,076,894)
4. New Net Deferred Inflows/Outflows	80,373,001	(210,438,100)
5. Change in Allocation of Prior Deferred Inflows/Outflows	1,504,262	(821,518)
6. New Net Deferred Flows Due to Change in Proportion <sup>(1)</sup>	(5,008,501)	1,400,048
7. Recognition of Prior Deferred Inflows/Outflows	113,433,467	59,669,224
8. Recognition of Prior Deferred Flows Due to Change in Proportion <sup>(1)</sup>	<u>991,482</u>	<u>1,330,477</u>
9. Ending Net Pension Liability	<u>\$771,121,733</u>	<u>\$860,748,413</u>

<sup>(1)</sup>Includes differences between actual employer contributions and proportionate share of contributions.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 12**

**Schedule of Recognition of Changes in Total Net Pension Liability**

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability**

Reporting Date for Employer under GAS 68 Year Ended June 30	Differences Between Expected and Actual Experience	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30							
			2014	2015	2016	2017	2018	2019	2020	2021
2014	\$(98,062,638)	5.24	\$(18,714,244)	\$(18,714,244)	\$(18,714,244)	\$(18,714,244)	\$(18,714,244)	\$(4,491,418)	\$0	\$0
2015	(154,221,968)	5.13	\$0	(30,062,762)	(30,062,762)	(30,062,762)	(30,062,762)	(30,062,762)	(3,908,158)	0
2016	(162,912,927)	5.47	0	0	(29,782,985)	(29,782,985)	(29,782,985)	(29,782,985)	(29,782,985)	(13,998,002)
Net increase (decrease) in pension expense			\$(18,714,244)	\$(48,777,006)	\$(78,559,991)	\$(78,559,991)	\$(78,559,991)	\$(64,337,165)	\$(33,691,143)	\$(13,998,002)

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes**

Reporting Date for Employer under GAS 68 Year Ended June 30	Effect of Assumption Changes	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30							
			2014	2015	2016	2017	2018	2019	2020	2021
2014	\$0	5.24	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	525,443,921	5.13	0	102,425,716	102,425,716	102,425,716	102,425,716	102,425,716	13,315,341	0
2016	0	5.47	0	0	0	0	0	0	0	0
Net increase (decrease) in pension expense			\$0	\$102,425,716	\$102,425,716	\$102,425,716	\$102,425,716	\$102,425,716	\$13,315,341	\$0

As described in Exhibit 9, the average of the expected remaining service lives of all employees that are provided with pensions through the WPERP (active and inactive employees) determined as of July 1, 2013 and 2014 (the beginning of the measurement periods ending June 30, 2014 and 2015) are 5.13 years and 5.47 years, respectively.

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 12 (continued)**

**Schedule of Recognition of Changes in Total Net Pension Liability**

**Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Pension Plan Investments**

Reporting Date for Employer under GAS 68 Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30							
			2014	2015	2016	2017	2018	2019	2020	2021
2014	\$(347,400,696)	5.00	\$(69,480,139)	\$(69,480,139)	\$(69,480,139)	\$(69,480,139)	\$(69,480,140)	\$0	\$0	\$0
2015	(762,372,550)	5.00	0	(152,474,510)	(152,474,510)	(152,474,510)	(152,474,510)	(152,474,510)	0	0
2016	315,478,371	5.00	<u>0</u>	<u>0</u>	<u>63,095,674</u>	<u>63,095,674</u>	<u>63,095,674</u>	<u>63,095,674</u>	<u>63,095,675</u>	<u>0</u>
Net increase (decrease) in pension expense			\$(69,480,139)	\$(221,954,649)	\$(158,858,975)	\$(158,858,975)	\$(158,858,976)	\$(89,378,836)	\$63,095,675	\$0

The differences between projected and actual earnings on pension plan investments are recognized over a five-year period per Paragraph 33b. of GAS 68.

**Total Increase (Decrease) in Pension Expense**

Reporting Date for Employer under GAS 68 Year Ended June 30	Total Differences	Reporting Date for Employer under GAS 68 Year Ended June 30								
		2014	2015	2016	2017	2018	2019	2020	2021	
2014	\$(445,463,334)	\$(88,194,383)	\$(88,194,383)	\$(88,194,383)	\$(88,194,383)	\$(88,194,384)	\$(4,491,418)	\$0	\$0	
2015	(391,150,597)	0	(80,111,556)	(80,111,556)	(80,111,556)	(80,111,556)	(80,111,556)	9,407,183	0	
2016	152,565,444	<u>0</u>	<u>0</u>	<u>33,312,689</u>	<u>33,312,689</u>	<u>33,312,689</u>	<u>33,312,689</u>	<u>33,312,690</u>	<u>(13,998,002)</u>	
Net increase (decrease) in pension expense		\$(88,194,383)	\$(168,305,939)	\$(134,993,250)	\$(134,993,250)	\$(134,993,251)	\$(51,290,285)	\$42,719,873	\$(13,998,002)	

**SECTION 2: GAS 68 Information for the Los Angeles Department of Water and Power**

**EXHIBIT 13**

**Allocation of Changes in Total Net Pension Liability**

In addition to the amounts shown in Exhibit 12, there are changes in each entity's proportionate share of the total Net Pension Liability (NPL) during the measurement periods ending on June 30, 2015, and 2014. The net effect of the change on the entity's proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources is also recognized over the average of the expected remaining service lives of all employees shown previously. The differences between the actual employer contributions and the proportionate share of the employer contributions during the measurement periods ending on June 30, 2015, and 2014 are recognized over the same periods. These amounts are shown below. While these amounts are different for each entity, they sum to zero for the entire Plan.

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended June 30, 2015**

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30					
			2016	2017	2018	2019	2020	2021
Water	\$6,128,971	5.47	\$1,120,470	\$1,120,470	\$1,120,470	\$1,120,470	\$1,120,470	\$526,621
Power	<u>(6,128,971)</u>	5.47	<u>(1,120,470)</u>	<u>(1,120,470)</u>	<u>(1,120,470)</u>	<u>(1,120,470)</u>	<u>(1,120,470)</u>	<u>(526,621)</u>
<b>Total</b>	\$0		\$0	\$0	\$0	\$0	\$0	\$0

**Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of the Change in Proportion and Change in Employer Contributions for the Year Ended June 30, 2014**

	Total Change to be Recognized	Recognition Period (Years)	Reporting Date for Employer under GAS 68 Year Ended June 30					
			2015	2016	2017	2018	2019	2020
Water	\$(1,739,043)	5.13	\$(338,995)	\$(338,995)	\$(338,995)	\$(338,995)	\$(338,995)	\$(44,068)
Power	<u>1,739,043</u>	5.13	<u>338,995</u>	<u>338,995</u>	<u>338,995</u>	<u>338,995</u>	<u>338,995</u>	<u>44,068</u>
<b>Total</b>	\$0		\$0	\$0	\$0	\$0	\$0	\$0

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

**Actuarial Assumptions and Methods**

**For June 30, 2015 Measurement Date and Employer Reporting as of June 30, 2016**

**Actuarial Assumptions:**

**Rationale for Assumptions:**

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2009 through June 30, 2012 Actuarial Experience Study dated April 17, 2013. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both Tier 1 and Tier 2 members.

**Demographic Assumptions:**

**Mortality Rates:**

*After Service Retirement and Pre-retirement:*

RP-2000 Combined Healthy Mortality Table with ages set back one year, projected to 2030 with Scale AA.

*After Disability Retirement*

RP-2000 Combined Healthy Mortality Table with ages set one year, projected to 2030 with Scale AA.

The RP-2000 mortality tables projected with Scale AA to 2020 and adjusted by the applicable set back shown above reasonably reflects the projected mortality experience as of the measurement date. The additional projection to 2030 is a provision for future mortality improvement.

**Termination Rates Before Retirement:**

Age	Rate (%)			
	Mortality*		Disability	
	Male	Female	Male	Female
25	0.028	0.013	0.006	0.000
30	0.036	0.018	0.012	0.006
35	0.060	0.031	0.012	0.036
40	0.080	0.041	0.018	0.072
45	0.094	0.063	0.030	0.102
50	0.116	0.093	0.054	0.138
55	0.180	0.191	0.126	0.168
60	0.367	0.382	0.240	0.000
65	0.739	0.742	0.000	0.000

\* 5% of pre-retirement deaths are assumed to be duty related, with the remaining being non-duty related.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

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**Withdrawal Rates:**

<u>Years of Service</u>	<u>Total Withdrawal*</u>
Less than 1	9.00%
1	4.00%
2	3.50%
3	3.00%
4	2.75%
5	2.50%
6	2.25%
7	2.00%
8	1.75%
9	1.50%
10	1.25%
11 & over	1.00%

\* No withdrawal is assumed after a member is first eligible to retire. Ordinary withdrawal members are assumed to receive their account balance at termination. Vested termination members are assumed to receive a deferred retirement benefit. For Tier 1 members terminating with less than one year of service and Tier 2 members terminating with less than 15 years of service, 100% are assumed to be ordinary withdrawals. For members terminating with more than one year of service (15 years of service for Tier 2), 15% are assumed to be ordinary withdrawals, with the remaining 85% being vested terminations.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

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**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	5.0%	25.0%	0.0%	25.0%
56	3.0	18.0	0.0	12.5
57	3.0	15.0	0.0	10.0
58	3.0	15.0	0.0	10.0
59	3.0	15.0	0.0	10.0
60	5.0	20.0	5.0	17.5
61	6.0	15.0	2.5	5.0
62	6.0	15.0	0.0	5.0
63	6.0	25.0	20.0	25.0
64	7.0	20.0	15.0	20.0
65	12.0	25.0	15.0	25.0
66	12.0	25.0	15.0	25.0
67	12.0	25.0	15.0	25.0
68	12.0	25.0	15.0	25.0
69	15.0	25.0	15.0	25.0
70	30.0	30.0	100.0	100.0
71	30.0	30.0	100.0	100.0
72	30.0	30.0	100.0	100.0
73	30.0	30.0	100.0	100.0
74	30.0	30.0	100.0	100.0
75	100.0	100.0	100.0	100.0

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

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<b>Benefit for Inactive Vested Members:</b>	For Tier 1, inactive vested members are assumed to retire at age 60 with a Money Purchase Annuity. Members receiving Permanent Total Disability benefits are assumed to retire at the earlier of age 60 or age 55 with 30 years of service. For Tier 2, inactive vested members are assumed to retire at age 63.
<b>Definition of Active Members:</b>	First day of biweekly payroll following employment.
<b>Unknown Data for Members:</b>	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
<b>Data Adjustments:</b>	Data as of March 31 has been adjusted to June 30 by adding three months of age and, for active employees, three months of service. Contribution account balances were also increased by three months of interest. For members in pay status, we have increased their benefits by the assumed July 1 COLA.
<b>Percent Married/Domestic Partner:</b>	85% of male members and 60% of female members are assumed to have an eligible spouse or domestic partner at pre-retirement death or retirement. The assumption is applied also for current retirees retired before April 1, 2012 with Options A, B, C, or F since they are missing this data. Spousal gender is assumed to be opposite that of the member.
<b>Age of Spouse:</b>	Females are 3 years younger than their spouses.
<b>Future Benefit Accruals:</b>	1.0 year of service per year.
<b>Other Government Service:</b>	Tier 1 members are assumed to purchase an additional 0.15 years of service per year. Tier 2 members are assumed to purchase an additional 0.03 years of service per year.
<hr/>	
<b><u>Economic Assumptions:</u></b>	
<b>Consumer Price Index:</b>	Increase of 3.25% per year; benefit increases due to CPI subject to 3.00% maximum for Tier 1 and 2.00% for Tier 2.



**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

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**Employee Contribution, Additional Annuity and Matching Account**

**Crediting Rate:** 7.50%, based on Plan provisions.

**Net Investment Return:** 7.50%, net of investment expenses.

**Administrative Expenses:** Offset by additional employer contributions.

**Salary Increases:** Annual Rate of Compensation Increase

Inflation: 3.25% per year, plus “across the board” salary increases of 0.75% per year, plus the following merit and promotional increases.

Years of Service	Increase
Less than 1	6.00%
1	5.50%
2	5.00%
3	4.00%
4	2.50%
5	1.50%
6	1.10%
7	1.00%
8	0.90%
9	0.80%
10 & over	0.75%

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

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**Actuarial Methods:**

**Actuarial Cost Method:** Entry Age Normal Actuarial Cost Method. Entry Age equals attained age less years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percent of salary.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

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**Expected Remaining Service Lives:** The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employee, nonactive and retired members.

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**Changes in Actuarial Assumptions:** Based on changes in Plan provisions, the following assumption has been changed. Previously, this assumption was as follows:

**Employee Contribution, Additional Annuity and Matching Account**

**Crediting Rate:** 7.75%, based on Plan provisions.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

**APPENDIX A**

**Calculation of Discount Rate as of June 30, 2015  
Projection of Pension Plan's Fiduciary Net Position (\$ in millions)**

<b>Year Beginning July 1,</b>	<b>Projected Beginning Plan Fiduciary Net Position (a)</b>	<b>Projected Total Contributions (b)</b>	<b>Projected Benefit Payments (c)</b>	<b>Projected Investment Earnings (d)</b>	<b>Projected Ending Plan Fiduciary Net Position (e) = (a) + (b) - (c) + (d)</b>
2015	\$10,074	\$444	\$528	\$752	\$10,743
2016	10,743	437	559	801	11,422
2017	11,422	416	596	850	12,091
2018	12,091	402	637	898	12,755
2019	12,755	387	680	946	13,407
2020	13,407	352	726	992	14,025
2021	14,025	327	773	1,035	14,614
2022	14,614	318	820	1,077	15,189
2023	15,189	336	867	1,119	15,777
2024	15,777	280	914	1,159	16,303
2040	18,445	59	1,560	1,327	18,271
2041	18,271	52	1,579	1,313	18,057
2042	18,057	46	1,592	1,296	17,806
2043	17,806	40	1,602	1,277	17,522
2044	17,522	34	1,607	1,255	17,204
2089	30,323	0	24	2,273	32,572
2090	32,572	0	19	2,442	34,995
2091	34,995	0	14	2,624	37,605
2092	37,605	0	11	2,820	40,414
2093	40,414	0	8	3,031	43,437
2118	246,313	0	0*	18,473	264,787
2119	264,787				
2119 Discounted Value:	143**				

\* Less than \$1 million, when rounded.

\*\* \$264,787 million when discounted with interest at the rate of 7.50% per annum has a value of \$143 million as of June 30, 2015.

### SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power

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#### APPENDIX A (continued)

##### Calculation of Discount Rate as of June 30, 2015 Projection of Pension Plan's Fiduciary Net Position (\$ in millions)

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Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Years 2025-2039, 2045-2088, and 2094-2117 have been omitted from this table.
- (3) Column (a): Except for the "discounted value" shown for 2119, none of the projected beginning Plan's Fiduciary Net Position amounts shown have been adjusted for the time value of money.
- (4) Column (b): Projected total contributions include employee and employer normal cost rates applied to closed group projected payroll (based on covered active members as of June 30, 2015), plus employer contributions to the unfunded actuarial accrued liability. Contributions are assumed to occur halfway through the year, on average.
- (5) Column (c): Projected benefit payments have been determined in accordance with Paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2015. The projected benefit payments reflect the cost of living increase assumptions used in the July 1, 2015 valuation report. The projected benefit payments are assumed to occur halfway through the year, on average.
- (6) Column (d): Projected investment earnings are based on the assumed investment rate of return of 7.50% per annum.
- (7) Throughout the projection, administrative expenses are not shown as they are expected to be offset by additional employer contributions above those shown in this projection.
- (8) As illustrated in this Appendix, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.50% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2015 shown earlier in this report, pursuant to Paragraph 44 of GASB Statement No. 67.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

**APPENDIX B**

**Calculation of Discount Rate as of June 30, 2014  
Projection of Pension Plan's Fiduciary Net Position (\$ in millions)**

<b>Year Beginning July 1,</b>	<b>Projected Beginning Plan Fiduciary Net Position (a)</b>	<b>Projected Total Contributions (b)</b>	<b>Projected Benefit Payments (c)</b>	<b>Projected Investment Earnings (d)</b>	<b>Projected Ending Plan Fiduciary Net Position (e) = (a) + (b) - (c) + (d)</b>
2014	\$9,703	\$502	\$505	\$728	\$10,428
2015	10,428	468	535	780	11,142
2016	11,142	450	570	831	11,853
2017	11,853	419	609	882	12,545
2018	12,545	397	65	931	13,223
2019	13,223	373	696	980	13,879
2020	13,879	338	744	1,026	14,499
2021	14,499	312	793	1,069	15,087
2022	15,087	303	843	1,111	15,659
2023	15,659	319	891	1,153	16,240
2039	18,564	55	1,566	1,336	18,388
2040	18,388	47	1,589	1,321	18,167
2041	18,167	41	1,606	1,304	17,905
2042	17,905	35	1,617	1,284	17,607
2043	17,607	29	1,622	1,261	17,274
2088	31,258	0	24	2,343	33,577
2089	33,577	0	19	2,518	36,076
2090	36,076	0	14	2,705	38,767
2091	38,767	0	11	2,907	41,664
2092	41,664	0	8	3,124	44,780
2116	236,219	0	0*	17,716	253,935
2117	253,935				
2117 Discounted Value:	148**				

\* Less than \$1 million, when rounded.

\*\* \$253,935 million when discounted with interest at the rate of 7.50% per annum has a value of \$148 million as of June 30, 2014.

### SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power

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#### APPENDIX B (continued)

#### Calculation of Discount Rate as of June 30, 2014 Projection of Pension Plan's Fiduciary Net Position (\$ in millions)

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Notes:

- (1) Amounts may not total exactly due to rounding.
- (2) Years 2024-2038, 2044-2087, and 2093-2115 have been omitted from this table.
- (3) Column (a): Except for the "discounted value" shown for 2117, none of the projected beginning Plan's Fiduciary Net Position amounts shown have been adjusted for the time value of money.
- (4) Column (b): Projected total contributions include employee and employer normal cost rates applied to closed group projected payroll (based on covered active members as of June 30, 2014), plus employer contributions to the unfunded actuarial accrued liability. Contributions are assumed to occur halfway through the year, on average.
- (5) Column (c): Projected benefit payments have been determined in accordance with Paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2014. The projected benefit payments reflect the cost of living increase assumptions used in the July 1, 2014 valuation report. The projected benefit payments are assumed to occur halfway through the year, on average.
- (6) Column (d): Projected investment earnings are based on the assumed investment rate of return of 7.50% per annum.
- (7) Throughout the projection, administrative expenses are not shown as they are expected to be offset by additional employer contributions above those shown in this projection.
- (8) As illustrated in this Appendix, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.50% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2014 shown earlier in this report, pursuant to Paragraph 44 of GASB Statement No. 67.

### **SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

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#### **APPENDIX C Glossary of Terms**

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Definitions of certain terms *as they are used in Statement 68*; the terms may have different meanings in other contexts.

**Active employees**

Individuals employed at the end of the reporting or measurement period, as applicable.

**Actual contributions**

Cash contributions recognized as additions to a pension Plan's Fiduciary Net Position.

**Actuarial present value of projected benefit payments**

Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.

**Actuarial valuation**

The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.

**Actuarial valuation date**

The date as of which an actuarial valuation is performed.

**Actuarially determined contribution**

A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

**Ad hoc cost-of-living adjustments (ad hoc COLAs)**

Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.

**SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

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**APPENDIX C (continued)**

**Glossary of Terms**

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**Agent employer**

An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan.

**Agent multiple-employer defined benefit pension plan (agent pension plan)**

A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.

**Automatic cost-of-living adjustments (automatic COLAs)**

Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

**Automatic postemployment benefit changes**

Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).

**Closed period**

A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.



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**APPENDIX C (continued)**

**Glossary of Terms**

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**Collective deferred outflows of resources and deferred inflows of resources related to pensions**

Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.

**Collective Net Pension Liability**

The Net Pension Liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.

**Collective pension expense**

Pension expense arising from certain changes in the collective Net Pension Liability.

**Contributions**

Additions to a pension Plan's Fiduciary Net Position for amounts from employers, nonemployer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.

**Cost-of-living adjustments**

Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

**Cost-sharing employer**

An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.

**Cost-sharing multiple-employer defined benefit pension plan (cost-sharing pension plan)**

A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

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**APPENDIX C (continued)**

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**Covered-employee payroll**

The payroll of employees that are provided with pensions through the pension plan.

**Defined benefit pension plans**

Pension plans that are used to provide defined benefit pensions.

**Defined benefit pensions**

Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 68.)

**Defined contribution pension plans**

Pension plans that are used to provide defined contribution pensions.

**Defined contribution pensions**

Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.

## **SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

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### **APPENDIX C (continued)**

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##### **Discount rate**

The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following:

1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan's Fiduciary Net Position is projected (under the requirements of Statement 68) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments.
2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.

##### **Entry age actuarial cost method**

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the *normalcost*. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the *actuarial accrued liability*.

##### **Inactive employees**

Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.

##### **Measurement period**

The period between the prior and the current measurement dates.

##### **Multiple-employer defined benefit pension plan**

A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

## **SECTION 3: Actuarial Assumptions and Methods and Appendices for the Los Angeles Department of Water and Power**

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### **APPENDIX C (continued)**

#### **Glossary of Terms**

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#### **Net Pension Liability**

The liability of employers and nonemployer contributing entities to employees for benefits provided through a defined benefit pension plan.

#### **Nonemployer contributing entities**

Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of Statement 68, employees are not considered nonemployer contributing entities.

#### **Other postemployment benefits**

All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.

#### **Pension plans**

Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed, and benefits are paid as they come due.

#### **Pensions**

Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.

#### **Plan members**

Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).

#### **Postemployment**

The period after employment.

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**APPENDIX C (continued)**

**Glossary of Terms**

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**Postemployment benefit changes**

Adjustments to the pension of an inactive employee.

**Postemployment healthcare benefits**

Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.

**Projected benefit payments**

All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.

**Public employee retirement system**

A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.

**Real rate of return**

The rate of return on an investment after adjustment to eliminate inflation.

**Service costs**

The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.

**Single employer**

An employer whose employees are provided with pensions through a single-employer defined benefit pension plan.

**Single-employer defined benefit pension plan (single-employer pension plan)**

A defined benefit pension plan that is used to provide pensions to employees of only one employer.

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**Special funding situations**

Circumstances in which a nonemployer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists:

1. The amount of contributions for which the nonemployer entity legally is responsible is *not* dependent upon one or more events or circumstances unrelated to the pensions.
2. The nonemployer entity is the only entity with a legal obligation to make contributions directly to a pension plan.

**Termination benefits**

Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.

**Total Pension Liability**

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 68.

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