

VIA E-MAIL & USPS

DRAFT – FOR DISCUSSION WITH CLIENT

January 6, 2017

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

**Re: Los Angeles Department of Water & Power (LADWP)
Ten-Year Illustration of Annual Required Contribution (ARC)
Amounts in Accordance with GASB Statements No. 43 and No. 45 (“OPEB”)**

Dear Ann:

We have prepared an illustration of the Annual Required Contribution (ARC) and the Annual OPEB Cost (AOC) in accordance with GASB Statements No. 43 and 45 for benefits provided by the Los Angeles Department of Water & Power Other Postemployment Benefits (OPEB) program.

For this letter, we have been asked by the Department to prepare alternative illustrations assuming the following:

- **Baseline Scenario** - Active member headcount will remain constant at 9,264¹ in all future years.
- **Alternative Scenario #1** - The number of active employees for fiscal year 2016/2017 will remain level at 9,264. It is then assumed that the number of active members will increase to 9,650 as of July 1, 2017, 9,850 as of July 1, 2018, and 10,000 starting at July 1, 2019.
- **Alternative Scenario #2** - The number of active employees for fiscal year 2016/2017 will remain level at 9,264. It is then assumed that the number of active members will increase to 10,000 as of July 1, 2017, 10,300 as of July 1, 2018, and 10,600 as of July 1, 2019, and 10,900 starting at July 1, 2020. In addition, starting with the July 1, 2019 actuarial valuation date, the discount rate assumption is reduced from 7.25% to 7.00%.

Consistent with illustrations we prepared for the Department in the past, we have assumed that the Department’s contributions for the ten-year illustration period are the benefits expected to be paid for current and future retirees.

¹ 9,264 is the number of active members included in the most recent valuation as of June 30, 2016.

Key Assumptions

The actuarial assumptions and methods used in the illustrations are summarized as follows:

- The projections are based on the actuarial methods and census data used in our June 30, 2016 actuarial valuation for the OPEB Plan. Future experience is expected to follow all of these assumptions, unless otherwise noted. We also assumed that the Plan's funding policy or practice will remain unchanged for all projection years. Beginning with the 2016/2017 plan year, contributions are the benefits expected to be paid for current and future retirees.
- In projecting the payroll, we assumed that the projected fiscal year 2016-2017 payroll of \$928.9 million used in the June 30, 2016 actuarial valuation will increase by 3.50% (3.00% inflation plus 0.50% across-the-board salary increase assumptions used in the June 30, 2016 valuation). There are additional increases in the payroll due to any assumed increases in active members under Alternative Scenario #1 and #2. These additional increases in payroll are assumed to be proportional to the percent increase in the number of active members.
- There will be a gradual reduction in the employer's aggregate normal cost as a larger proportion of the active workforce is covered by the lower cost Tier 2 plan. We have included the estimated reduction in normal cost in preparing this projection.
- The calculations for the 2016/17 Fiscal Year are based on the actuarial assumptions, methods and census data used in our June 30, 2016 actuarial valuation for the OPEB Plan. The calculations for all remaining years are based on the actuarial methods, assumptions (unless otherwise noted) and census data used in our June 30, 2016 actuarial valuation for the OPEB Plan and projecting forward.
- The results shown in this study are for the OPEB Plan only. They do not include any benefits from any other plans such as the Retirement Plan, the Disability Fund or the Death Benefit Fund.
- Plan provisions used in the June 30, 2016 actuarial valuation remain unchanged.
- The amortization period is a single closed period of 30 years beginning June 30, 2005. As of the June 30, 2016 valuation, 19 years remain in the amortization period.

Important Notes About These Illustrations

Projections, by their nature, are not a guarantee of future results. The modeling illustrations are intended to serve as projections of future financial outcomes that are based on the information available to us at the time the modeling is performed, and the assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance, and the regulatory environment.

Except as noted, all of the above calculations are based on the June 30, 2016 actuarial valuation results including the participant data and actuarial assumptions on which that valuation was

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based. That valuation and these illustrations were prepared under the supervision of Thomas Bergman, ASA, MAAA, Enrolled Actuary and Andy Yeung, FCA, ASA, MAAA, Enrolled Actuary. They are Members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein. Please let us know if you have any questions.

Sincerely,

Andy Yeung

Dtb/gxk

Attachments

cc: Kathy Fong

Exhibit I Los Angeles Department of Water & Power

Projection of ARC, AOC, AAL, AVA, UAAL, Funded Ratio and Required Contribution

Baseline Scenario

Reflects Level Active Member Population Starting at July 1, 2016

Return on Market Value of Assets of 7.25% per year beginning July 1, 2016

Fiscal Year	Fiscal Year Pay (in thousands)	Required Contribution*			NC	Amortization of the UAAL	Total ARC*	Change	Annual OPEB Cost (AOC)
		Employer Contribution Rate	Amount	Change					
2016 / 2017	\$ 928,889	10.11%	\$ 93,920,143		\$ 51,050,853	\$ 42,869,290	\$ 93,920,143	\$ 97,771,575	
2017 / 2018	\$ 961,400	10.07%	\$ 96,792,340	\$ 2,872,197	\$ 52,536,484	\$ 44,255,856	\$ 96,792,340	\$ 2,872,197	
2018 / 2019	\$ 995,049	10.08%	\$ 100,335,228	\$ 3,542,888	\$ 54,084,997	\$ 46,250,231	\$ 100,335,228	\$ 3,542,888	
2019 / 2020	\$ 1,029,875	10.25%	\$ 105,560,681	\$ 5,225,453	\$ 55,656,706	\$ 49,903,975	\$ 105,560,681	\$ 5,225,453	
2020 / 2021	\$ 1,065,921	10.28%	\$ 109,553,779	\$ 3,993,098	\$ 57,263,293	\$ 52,290,486	\$ 109,553,779	\$ 3,993,098	
2021 / 2022	\$ 1,103,228	10.06%	\$ 110,990,155	\$ 1,436,376	\$ 58,895,698	\$ 52,094,457	\$ 110,990,155	\$ 1,436,376	
2022 / 2023	\$ 1,141,841	9.77%	\$ 111,538,822	\$ 548,667	\$ 60,582,295	\$ 50,956,527	\$ 111,538,822	\$ 548,667	
2023 / 2024	\$ 1,181,806	9.40%	\$ 111,055,128	\$ (483,694)	\$ 62,340,211	\$ 48,714,917	\$ 111,055,128	\$ (483,694)	
2024 / 2025	\$ 1,223,169	8.93%	\$ 109,204,715	\$ (1,850,413)	\$ 64,159,361	\$ 45,045,354	\$ 109,204,715	\$ (1,850,413)	
2025 / 2026	\$ 1,265,980	8.34%	\$ 105,568,449	\$ (3,636,266)	\$ 66,054,949	\$ 39,513,500	\$ 105,568,449	\$ (3,636,266)	

* Includes Interest Adjustment to the middle of the year.

Valuation Year	June 30 of Valuation Year			Funded Ratio (Actuarial Value of Assets)
	AAL (in thousands)	AVA (in thousands)	UAAL (in thousands)	
2016	\$ 2,334,043	\$ 1,752,195	\$ 581,848	75.07%
2017	\$ 2,456,995	\$ 1,878,848	\$ 578,146	76.47%
2018	\$ 2,582,532	\$ 2,002,716	\$ 579,816	77.55%
2019	\$ 2,709,038	\$ 2,110,682	\$ 598,357	77.91%
2020	\$ 2,837,191	\$ 2,239,829	\$ 597,363	78.95%
2021	\$ 2,966,776	\$ 2,402,216	\$ 564,559	80.97%
2022	\$ 3,097,630	\$ 2,576,377	\$ 521,253	83.17%
2023	\$ 3,230,794	\$ 2,763,164	\$ 467,630	85.53%
2024	\$ 3,366,495	\$ 2,963,494	\$ 403,001	88.03%
2025	\$ 3,505,130	\$ 3,178,347	\$ 326,783	90.68%

Exhibit I (Continued)
Los Angeles Department of Water & Power

Projection of ARC, AOC, AAL, AVA, UAAL, Funded Ratio and Required Contribution

Alternative Scenario #1

Reflects Active Member Population of 9,264 as of July 1, 2016, 9,650 as of July 1, 2017, 9,850 as of July 1, 2018, and 10,000 Starting at July 1, 2019
 Return on Market Value of Assets of 7.25% per year beginning July 1, 2016

Fiscal Year	Fiscal Year Pay (in thousands)	Required Contribution*			NC	Amortization of the UAAL	Total ARC*	Change	Annual OPEB Cost (AOC)
		Employer Contribution Rate	Amount	Change					
2016 / 2017	\$ 928,889	10.11%	\$ 93,920,143		\$51,050,853	\$ 42,869,290	\$ 93,920,143	\$ 97,771,575	
2017 / 2018	\$ 992,459	9.95%	\$ 98,721,398	\$ 4,801,255	\$54,465,542	\$ 44,255,856	\$ 98,721,398	\$ 4,801,255	
2018 / 2019	\$ 1,048,484	9.87%	\$ 103,525,640	\$ 4,804,242	\$57,116,054	\$ 46,409,586	\$ 103,525,640	\$ 4,804,242	
2019 / 2020	\$ 1,101,706	9.98%	\$ 109,941,361	\$ 6,415,721	\$59,596,890	\$ 50,344,471	\$ 109,941,361	\$ 6,415,721	
2020 / 2021	\$ 1,140,266	10.04%	\$ 114,484,934	\$ 4,543,573	\$61,341,410	\$ 53,143,524	\$ 114,484,934	\$ 4,543,573	
2021 / 2022	\$ 1,180,175	9.88%	\$ 116,565,149	\$ 2,080,215	\$63,116,570	\$ 53,448,579	\$ 116,565,149	\$ 2,080,215	
2022 / 2023	\$ 1,221,482	9.65%	\$ 117,873,303	\$ 1,308,154	\$64,950,864	\$ 52,922,439	\$ 117,873,303	\$ 1,308,154	
2023 / 2024	\$ 1,264,233	9.36%	\$ 118,294,766	\$ 421,463	\$66,861,718	\$ 51,433,048	\$ 118,294,766	\$ 421,463	
2024 / 2025	\$ 1,308,482	8.98%	\$ 117,535,723	\$ (759,043)	\$68,839,086	\$ 48,696,637	\$ 117,535,723	\$ (759,043)	
2025 / 2026	\$ 1,354,279	8.51%	\$ 115,234,273	\$ (2,301,450)	\$70,898,476	\$ 44,335,797	\$ 115,234,273	\$ (2,301,450)	

* Includes Interest Adjustment to the middle of the year.

Valuation Year	June 30 of Valuation Year			Funded Ratio (Actuarial Value of Assets)
	AAL (in thousands)	AVA (in thousands)	UAAL (in thousands)	
2016	\$ 2,334,043	\$ 1,752,195	\$ 581,848	75.07%
2017	\$ 2,456,995	\$ 1,878,848	\$ 578,146	76.47%
2018	\$ 2,584,530	\$ 2,002,716	\$ 581,814	77.49%
2019	\$ 2,714,320	\$ 2,110,682	\$ 603,638	77.76%
2020	\$ 2,846,936	\$ 2,239,829	\$ 607,108	78.68%
2021	\$ 2,981,450	\$ 2,402,216	\$ 579,234	80.57%
2022	\$ 3,117,740	\$ 2,576,377	\$ 541,363	82.64%
2023	\$ 3,256,886	\$ 2,763,164	\$ 493,722	84.84%
2024	\$ 3,399,161	\$ 2,963,494	\$ 435,667	87.18%
2025	\$ 3,545,011	\$ 3,178,347	\$ 366,664	89.66%

Exhibit I (Continued)
Los Angeles Department of Water & Power

Projection of ARC, AOC, AAL, AVA, UAAL, Funded Ratio and Required Contribution

Alternative Scenario #2

Reflects Active Member Population of 9,264 as of July 1, 2016, 10,000 as of July 1, 2017, 10,300 as of July 1, 2018, 10,600 as of July 1, 2019 and 10,900 Starting at July 1, 2020

Discount Rate Assumption is decreased from 7.25% to 7.00% as of July 1, 2019

Return on Market Value of Assets of 7.25% per year from July 1, 2016 through June 30, 2019 and 7.00% thereafter

Fiscal Year	Fiscal Year Pay (in thousands)	Required Contribution*			NC	Amortization of the UAAL	Total ARC*	Change	Annual OPEB Cost (AOC)
		Employer Contribution Rate	Amount	Change					
2016 / 2017	\$ 928,889	10.11%	\$ 93,920,143		\$ 51,050,853	\$ 42,869,290	\$ 93,920,143	\$ 97,771,575	
2017 / 2018	\$ 1,028,455	9.77%	\$ 100,470,554	\$ 6,550,411	\$ 56,214,698	\$ 44,255,856	\$ 100,470,554	\$ 6,550,411	
2018 / 2019	\$ 1,096,385	9.67%	\$ 105,997,751	\$ 5,527,197	\$ 59,443,670	\$ 46,554,081	\$ 105,997,751	\$ 5,527,197	
2019 / 2020	\$ 1,167,810	10.69%	\$ 124,804,494	\$ 18,806,743	\$ 67,454,782	\$ 57,349,712	\$ 124,804,494	\$ 18,806,743	
2020 / 2021	\$ 1,242,891	10.70%	\$ 132,933,684	\$ 8,129,190	\$ 71,234,813	\$ 61,698,871	\$ 132,933,684	\$ 8,129,190	
2021 / 2022	\$ 1,286,392	10.68%	\$ 137,392,181	\$ 4,458,497	\$ 73,329,117	\$ 64,063,064	\$ 137,392,181	\$ 4,458,497	
2022 / 2023	\$ 1,331,416	10.63%	\$ 141,516,008	\$ 4,123,827	\$ 75,493,572	\$ 66,022,436	\$ 141,516,008	\$ 4,123,827	
2023 / 2024	\$ 1,378,015	10.54%	\$ 145,300,257	\$ 3,784,249	\$ 77,746,980	\$ 67,553,277	\$ 145,300,257	\$ 3,784,249	
2024 / 2025	\$ 1,426,246	10.42%	\$ 148,606,096	\$ 3,305,839	\$ 80,078,922	\$ 68,527,174	\$ 148,606,096	\$ 3,305,839	
2025 / 2026	\$ 1,476,164	10.25%	\$ 151,284,040	\$ 2,677,944	\$ 82,506,195	\$ 68,777,845	\$ 151,284,040	\$ 2,677,944	

* Includes Interest Adjustment to the middle of the year.

Valuation Year	June 30 of Valuation Year			Funded Ratio (Actuarial Value of Assets)
	AAL (in thousands)	AVA (in thousands)	UAAL (in thousands)	
2016	\$ 2,334,043	\$ 1,752,195	\$ 581,848	75.07%
2017	\$ 2,456,995	\$ 1,878,848	\$ 578,146	76.47%
2018	\$ 2,586,342	\$ 2,002,716	\$ 583,625	77.43%
2019	\$ 2,810,083	\$ 2,110,682	\$ 699,402	75.11%
2020	\$ 2,950,825	\$ 2,234,608	\$ 716,218	75.73%
2021	\$ 3,095,817	\$ 2,391,030	\$ 704,787	77.23%
2022	\$ 3,243,322	\$ 2,558,402	\$ 684,920	78.88%
2023	\$ 3,394,478	\$ 2,737,491	\$ 656,987	80.65%
2024	\$ 3,549,618	\$ 2,929,115	\$ 620,503	82.52%
2025	\$ 3,709,252	\$ 3,134,153	\$ 575,099	84.50%