PUBLIC UTILITIES COMMISSION
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SAN FRANCISCO, CA 94102-3298

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Ratesetting

TO PARTIES OF RECORD IN APPLICATION 17-04-001 ET AL.:

This is the proposed decision of Administrative Law Judge Bemesderfer. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's March 22, 2018, Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties of record may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, ex parte communications are prohibited pursuant to Rule 8.3(c)(4)(B).

/s/ ANNE E. SIMON
Anne E. Simon
Acting Chief Administrative Law Judge

AES:jt2

Attachment

Decision **PROPOSED DECISION OF ALJ BEMESDERFER**
(Mailed February 6, 2018)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SAN JOSE WATER COMPANY (U168W) for Authority to Adjust Its Cost of Capital and to Reflect That Cost of Capital in Its Rates for the Period from January 1, 2018 through December 31, 2020.	Application 17-04-001
And Related Matters.	Application 17-04-002 Application 17-04-003 Application 17-04-006

DECISION FIXING COST OF CAPITAL FOR CALENDAR YEARS 2018, 2019 AND 2020 FOR CALIFORNIA WATER SERVICE COMPANY, CALIFORNIA-AMERICAN WATER COMPANY, GOLDEN STATE WATER COMPANY AND SAN JOSE WATER COMPANY

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DECISION FIXING COST OF CAPITAL FOR CALENDAR YEARS 2018, 2019 AND 2020 FOR CALIFORNIA WATER SERVICE COMPANY, CALIFORNIA-AMERICAN WATER COMPANY, GOLDEN STATE WATER COMPANY AND SAN JOSE WATER COMPANY

Summary

We adopt the ratemaking capital structures, costs of equity, costs of debt and overall rates of return for the three-year period commencing January 1, 2018 through December 31, 2020 for all four applicants (Applicants). We also continue the Water Cost of Capital Mechanism for the same period.

The figures shown in Table I represent each Applicant's authorized return on equity, costs of debt, debt/equity ratio and overall rate of return on rate base. In each case, we have adopted the capital structure, costs of debt and return on equity proposed by the Office of Ratepayer Advocates. Overall rate of return has been calculated in each case by multiplying the cost of debt times the debt percentage in the capital structure and adding that product to the product of authorized return on equity times the equity percentage in the capital structure.

Table 1
Authorized Capital Structures, Costs of Equity, Costs of Debt and Overall Rate of Return for All Applicants

Company	Return on Equity	Cost of Debt	Debt/Equity Ratio	Overall Rate of Return
California Water Service Company	8.22%	5.51%	45.46%/54.44%	6.99%
California-American Water Company	8.23%	5.22%	45.82%/54.18%	6.85%
Golden State Water Company	8.23%	6.40%	45.87%/54.13%	7.39%
San Jose Water Company	8/30%	5.96%	47.42%/52.58%	7.19%

1. Background

In Decision (D.) 12-07-009, the Commission approved a settlement between Applicants and the Division of Ratepayer Advocates, predecessor to the Office of Ratepayer Advocates, (ORA) that fixed the return on equity (ROE) for all Applicants for the three-year period beginning January 1, 2012 at 9.99%. The terms of the settlement were extended to include the years 2015, 2016 and 2017 by annual letters to the Applicants from the Commission's Executive Director granting the requested extensions. On December 2, 2016, Applicants wrote to Executive Director Tim Sullivan proposing an additional year's extension. On February 16, 2017 Executive Director Sullivan responded to Applicants, rejecting their proposal and directing them to file cost of capital applications for the three-year period beginning January 1, 2018 on or before April 1, 2017.

The 9.99% ROE adopted for all Applicants in D.12-07-009 was adjusted downward by the operation of the Water Cost of Capital Mechanism (WCCM) for California Water Service Company (CWS), Golden State Water Company (GSW) and San Jose Water company (SJW) to its current authorized 9.43% ROE.

On April 3, 2017, Applicants CWS, California-American Water Company (CAW), GSW and SJW filed simultaneous applications for approval of their respective proposed costs of capital for the three-year period beginning January 1, 2018. On May 8, 2017, the assigned Administrative Law Judge (ALJ) issued a ruling consolidating the proceedings. On May 10, 2017, ORA filed a protest to all four applications.

Pursuant to the Scoping Memo of the assigned Commissioner issued on June 22, 2017, Applicants and ORA prepared and submitted extensive direct and rebuttal testimony addressing the methodology of determining costs of capital

and their contrasting recommendations regarding those costs. Evidentiary hearings were held September 13-15, 2017, following which the parties filed opening and reply briefs on September 28, 2017 and October 9, 2017, respectively.

In addition to the evidentiary hearings, the Commission held a series of public participation hearings (PPHs) in Los Angeles, Monterey and San Jose on October 30, November 1, and November 6, 2017. At the PPHs, members of the public made their views regarding the specific applications known and questioned representatives of the water companies and ORA regarding their positions on various issues in the proceeding. In total more than 400 ratepayers appeared at these meetings and more than 100 of them provided comments.

On December 15, 2017, ORA filed a motion to require Applicants to establish memorandum accounts to track the difference between water rates currently in effect and water rates that will go into effect upon resolution of this proceeding. With no opposition to the motion, the ALJ granted ORA's motion on December 27, 2017 and required Applicants to establish their memorandum accounts effective January 1, 2018.

2. Discussion

Fixing costs of capital for the next three years is an exercise in economic and financial forecasting. In estimating such things as the future path of inflation, we rely on the opinions of experts. Different experts, employing different forecasting techniques, typically present different views of the future, leaving it to us to choose among the views presented.

In these cases, the great majority of the difference between Applicants' experts and ORA's experts results from a disagreement about what should be the authorized ROE. Underlying the clash of expert opinions on this topic are

two rather different views of the justification for ROE. Applicants' experts take the position that the authorized ROE should be not less than the average ROE of similar securities issued by comparable regulated private water companies in other states. Underlying this position is the assumption that if Applicants choose to raise money by selling stock, these are the kinds of returns that investors in water company stocks would insist on receiving. If we approve ROEs significantly lower than those allowed to similar companies by other regulatory commissions, the argument goes, investors will choose to purchase the stock of those other companies rather than the stock of Applicants.

ORA does not disagree that such comparisons are relevant. But ORA also argues that the risk-hedging and risk-spreading mechanisms adopted by this Commission over the years have effectively guaranteed that the Applicants will earn their allowed returns on rate base, making investment in their common equity nearly risk-free and their ROEs should be adjusted downward to reflect this fact. Such mechanisms include the Water Rate Adjustment Mechanism (WRAM), which authorizes rate increases to offset declines in water use; the WCCM, which automatically adjusts authorized ROE up or down depending on changes in the capital markets; various 'balancing accounts' which permit applicants to earn back in the future certain expenses incurred in the present; an attrition or escalation adjustment mechanism which provides protection against inflation in years between general rate cases; and various specific advice letters relating to particular rates and charges which, if not the subject of timely protests, typically become effective 30 days after filing.

After reviewing the expert testimony, we adopt ORA's recommended ROEs, costs of debt (or CD) and capital structures. As the more detailed

discussion below will demonstrate, ORA's recommended ROEs, CDs and capital structures are reasonable and find ample support in the evidentiary record.

Applicants' request to continue employing the WCCM authorized by the Commission pursuant to D.09-07-051 and D.12-07-009 for the years 2019 and 2020, using the base year 2018 that will be adopted in this proceeding, is unopposed and should be adopted.

3. Return on Equity

The legal standard for setting the fair rate of return has been established by the United States Supreme Court in the *Bluefield*, *Hope* and *Duquesne* cases.[1] *Bluefield* stands for the proposition that a utility's overall return should be comparable to the overall return earned at the same time and in the same general part of the country on investments in other business undertakings attended by corresponding risks and uncertainties. *Hope* states that authorized rates will not be judged invalid as long as they enable a utility to maintain financial integrity, to attract capital, and to compensate investors for the risks they assume. In *Duquesne*, the Court concludes that rates must not be so low as to be confiscatory. However, in applying these parameters, we must not lose sight of our duty to utility ratepayers to protect them from unreasonable risks including risks of imprudent management.

Hence, our basic objective in a cost of capital proceeding is to set the equity return at the lowest level that meets the test of reasonableness.[2] At the same

[1] *The Federal Power Commission v. Hope Natural Gas Company,* 320 U.S. 591 (1944), *Bluefield Water Works & Improvement Company v. Public Service Commission of the State of Virginia*, 262 U.S. 679 (1923); *Duquesne Light Co. v. Barasch,* 488 U.S. 299 (1989).

[2] 46 CPUC2d 319 at 369 (1992).

time, the adopted equity return should be sufficient to provide a margin of safety to pay interest, pay reasonable common dividends, and allow for some money to be kept in the business as retained earnings.[3] To accomplish this objective, we have consistently evaluated analytical financial models as a starting point to arrive at a range of fair equity returns.

The financial models commonly used in equity return proceedings are the Capital Asset Pricing Model (CAPM),[4] Risk Premium Model (RPM),[5] and Discounted Cash Flow Analysis (DCF).[6] An additional method utilizing a comparable earnings approach[7] was used by SJW and GSW. A Proxy Group comprised of companies with characteristics and risks comparable to those of Applicants is used for the DCF and CAPM financial models. The parties selected their Proxy Groups from the water utilities group listed in Value Line.[8] Screens used by the parties in selecting their comparable Proxy Group included: (1) publicly traded water utility; (2) investment grade bond rating; (3) high percentage of revenue from regulated activities; and (4) no significant merger activity in the previous five years.

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[3] 78 CPUC at 723 (1975).

[4] The CAPM is a risk premium approach that gauges an entity's cost of equity based on the sum of an interest rate on a risk-free bond and a risk premium.

[5] Similar to the CAPM, the RPM measures a company's cost of equity capital by adding a risk premium to a risk-free long-term treasury or utility bond yield.

[6] The DCF model is used to estimate an equity return from a Proxy Group by adding estimated dividend yields to investors' expected long-term dividend growth rate.

[7] The Comparable Earnings Approach uses a proxy of non-utility companies to estimate a comparable utility ROE.

[8] Value Line is an independent financial and research publishing firm.

CAW, CWS, SJW and ORA used the same eight water companies in their Proxy Group analysis, as identified in the following table by utility, annual revenue, market capitalization and current bond rating. GSW added Artesian Resources to the companies in Table 2 to form its Proxy Group.

Table 2
Water Proxy Group Financial Data

Company	Annual Revenue[9] (Millions)	Market Capitalization[10] (Millions)	Standard & Poors' 2016 Credit Rating
American States Water	$439	$1,446	A+
American Water Works	$3,283	$13,661	A
Aqua America	$820	$5,449	A-
Connecticut Water Services	$98	$556	A
Middlesex Water	$132	$571	A
SJW Corporation	$348	$898	BBB+
York Water Co.	$47	$380	A-

Applicants used the CAPM, RPM and DCF financial models as a basis to derive their requested ROEs, ranging from a low of 10.75% by CWS to a high of 11.00% by GSW. ORA used the CAPM and a variation of the DCF as its basis to recommend ROEs for Applicants ranging from a low of 8.20% for CWS to a high of 8.30% for SJW.

Applicants assert that ORA's results and recommendations are too low given that the national average ROEs granted water utilities were 9.68% in 2016 and 9.43% for the first five months of 2017 and (2) major California energy

[9] As of December 31, 2016.

[10] As of September 1, 2016.

utilities have ROEs of 10.05% to 10.30%.[11] Conversely, the 10.75% to 11.00% ROEs being requested by Applicants are more than 100 basis points[12] higher than the national average ROEs granted water utilities and approximately 70 basis points higher than the California energy utilities' ROEs.

Applicants did not provide any evidence to substantiate that their businesses are riskier than either the national water utilities or the major California energy utilities. Consequently, we have no reason to consider either the national water utilities' average ROEs or the California energy utilities' ROEs as benchmark in this proceeding; instead we address the parties' financial model results.

4. Financial Modeling Adjustments

Applicants included upward adjustments in their financial modeling results for: (1) flotation costs; (2) non-regulated comparable earnings approach (Non-Reg. Comp.); (3) after tax weighted average cost of capital (ATWACC); (4) financial leverage; and (5) small size. ORA did not propose any adjustments to its 7.26% to 8.63% DCF and 5.27% to 10.43% CAPM financial model results.[13] Applicants applied the results of these financial model adjustments differently, as summarized in the following table:

[11] *See* for example Exhibit GSW 7 at 2-3.

[12] One basis point equals 0.01%.

[13] Exhibit ORA 20 at 62 and 68.

Table 3
Applicants' Proposed Returns on Equity
by Financial Models Employed and Related Adjustments

	CAW[14]	CWS[15]	GSW[16]	SJW[17]
DCF Base	6.80% - 9.00%	6.80% - 9.00%	8.80%	8.50%
ATWACC Adj.	2.70% - 2.00%	1.70% - 2.40%	n.a.[18]	n.a.
Leverage Adj.	n.a.	n.a.	1.33%	n.a.
Flotation Adj.	n.a.	n.a.	.25%	n.a.
Total DCF	**9.50% - 11.00%**	**8.50% - 11.40%**	**10.38%**	**8.50%**
RPM Base	10.10% - 10.20%	n.a.	11.50%	11.19%
Flotation Adj.	n.a.	n.a.	.25%	n.a.
Total RPM	**10.10% - 10.20%**	**combined[19]**	**11.75%**	**11.19%**
CAPM Base	9.00% - 9.70%	9.00% - 9.90%	10.40%	9.41%
ATWAC Adj.	1.00% - 1.20%	.60% - 1.50%	n.a.	n.a.
Size Adj.	n.a.	n.a.	1.00%	n.a.
Flotation Adj.	n.a.	n.a.	.25%	n.a.
Total CAPM	**10.00% - 10.90%**	**9.60% - 11.40%**	**11.65%**	**9.41%**
Separate Adjustments				
Non-Reg. Comp.	n.a.	n.a.	12.30%[20]	10.39%[21]
Size Adj.	n.a.	.20%	n.a.	.10%
Flotation Adj.	n.a.	n.a.	n.a.	.17%

[14] Exhibit CAW 1 at 2 and Exhibit BV-4 at 23-25 and 35-36.

[15] Exhibit CWS 1 at 54, Exhibit E pp. 23-24 and pp. 35-36, and Exhibit CWS 3.

[16] Exhibit GSW 3 at 4 and 30-40.

[17] Exhibit SJW 4 at 5.

[18] Not applicable (n.a.).

[19] CWS combined its RPM and CAPM results.

[20] Exhibit GSW 3 at 43, represents average of 12.2% historical and 12.4% forecast.

[21] Exhibit SJW 4 at 56-57 represents average of 11.42% DCF, 10.30% RPM, and 9.68% CAPM.

4.1. Flotation Cost

Flotation costs are those costs associated with the sale of new issuances of common stock. They include the essential costs of issuance such as underwriting fees, printing, legal, and registration.[22] This is not a new issue. Although CWS, GSW and SJW contend that it is appropriate to recover their flotation costs, only GSW and SJW reflected a flotation adjustment in their overall ROE recommendations. GSW included a 0.25% upward flotation costs adjustment to its CAPM, RPM, and DCF analysis to arrive at an 11.65% CAPM 11.75% RPM and 10.38 DCF.[23] SJW included a 0.17% upward flotation costs adjustment to the average of its DCF, RPM, CAPM, and Non-Reg. Comp. financial model results.[24]

We have previously disallowed energy utilities from including flotation cost impacts in similar financial models.[25] CWS, GSW and SJW testimony did not provide any new information for the Commission to reevaluate the appropriateness of allowing water utilities to include a flotation costs adjustment in their financial models. Accordingly, we reject GSW's and SJW's proposed flotation costs adjustments.

4.2. Non-Regulated Comparable Earnings Approach

The non-regulated comparable earnings approach estimates a fair ROE by comparing returns realized by non-regulated companies to returns that a public utility with similar risk characteristics would need to realize in order to compete

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[22] Exhibit SJW 4 at 59.

[23] Exhibit GSW 3 at 4.

[24] Exhibit SJW 4 at 5.

[25] *See* for example D.12-12-034 at 23 (2012), D.02-11-027 at 30 (2002), D.00-12-062 at 16 (2000) and 46 CPUC2d. 319 at 361 (1992).

for capital. Both SJW and GSW included a non-regulated comparable earnings approach to compare relative risk, not a particular business activity or degree of regulation.

SJW selected 15 companies from Value Line for its non-regulated Proxy Group[26] which included AutoZone Inc., Kroger Co., Lilly (Eli) and Co., and Reynolds American. SJW's non-regulated Proxy Group resulted in an 11.42% non-comparable earnings factor using the DCF method, a 10.30% non-regulated comparable earnings factor using the RPM, and a 9.69% non-regulated comparable earnings factor using CAPM.[27] SJW took the average mean and median of these results to arrive at an overall 10.39% non-regulated comparable earnings factor.

GSW selected 17 companies for its non-regulated Proxy Group[28] which included Campbell Soup Co., Cheesecake Factory Inc., Erie Indemnity, and O'Reilly Automotive Inc. GSW's non-regulated Proxy Group averaged a 12.20% non-regulated comparable earnings factor based on five historical years and a 12.40% non-comparable earnings factor based on five future years, resulting in a 12.30% combined past and future average non-comparable earnings factor.[29]

We find that non-utility Proxy Groups are not comparable to utility Proxy Groups for purposes of risk comparison. Non-utility earnings are dependent on a company's ability to price products or services at rates a buyer is willing to pay in a competitive market. Utility earnings are limited by a regulatory return on

[26] Exhibit SJW 4 at 55.

[27] Exhibit SJW 4 at 57.

[28] Exhibit GSW 3 at 1 of Schedule 13.

[29] Exhibit GSW 3 at 42-43.

rate base in a monopolistic market. While a non-regulated company faces the possibility of loss of business (or bankruptcy) to any number of competitors, a regulated utility in a monopolistic market faces the possibility of under-earning its allowed return but regulatory mechanism largely insulates it from factors beyond its control. This difference in the nature of the risks faced by regulated and non-regulated companies leads us to reject financial modeling results from SJW's and GSW's non-utility Proxy Groups. Accordingly, we reject SJW's and GSW's non-regulated comparable earnings adjust.

4.3. After Tax Weighted Average Cost of Capital

The ATWACC is calculated using a weighted-average of the after-tax cost of equity and the market CD. This method differs from the traditional WACC (weighted average cost of capital) which is calculated using a weighted-average of after-tax cost of equity and the pre-tax CD.

Both CWS and CAW used the ATWACC method in calculating their respective DCF and CAPM. The following table compares CAW and CWS respective CD forecast to the market CD.

Table 4
CAW and CWS Forecasted Cost of Debt vs. Market Cost of Debt

	Market Cost of Debt[30]	**Utility Forecasted Debt**[31]
CAW	4.1%	5.63%
CWS	4.1%	5.51%

CWS acknowledged in its testimony that the Commission has not adopted the ATWACC method.[32] By way of background, the ATWACC method was

[30] Exhibit CAW 1, Tab 4 at 37 and Exhibit CWS 1, Ex E at 37.

[31] CAW Application at 2 and CWS Application at 2.

first brought before the Commission in an energy 1998 cost of capital proceeding[33] and was represented in several subsequent energy cost of capital proceedings. Each time the ATWACC method was presented to the Commission, the Commission declined to adopt it. Neither CWS nor CAW provided convincing testimony that the ATWACC method should be adopted in this proceeding. Therefore, CWS and CAW's ATWACC calculations carry no weight in this proceeding.

4.4. Financial Leverage Adjustment

GSW includes a leverage adjustment in its DCF results to reflect a financial risk difference between a book value and market value capital structure.

GSW adjusted its 8.80% DCF result upward by a 1.33%[34] leverage adjustment to arrive at a 10.13% DCF.[35] In defense of this adjustment, GSW argues that investors expect to earn returns that reflect the fact that the company is not capitalized with 100% equity but has a balanced capital structure instead. The presence of debt on the company's balance sheet adds an element of risk to investment in its common stock that should be compensated for by an adjustment in ROE.[36]

We decline to adopt GSW's leverage adjustment. While such an approach might be appropriate in evaluating the risk of investment in a non-utility whose success or failure reflects its ability to compete in the marketplace, it is

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[32] Exhibit CWS 1 at 2.

[33] *See* D.99-06-057.

[34] Exhibit GSW 3 at 30.

[35] GSW further imputes a 25 flotation adjustment to arrive at its 10.38% DCF.

[36] Exhibit GSW 3 at Schedule 9.

inappropriate in the context of investing in a regulated utility whose returns are effectively insulated from market fluctuations. While it is true that a water utility is guaranteed only the right to earn a certain return on its rate base, the risk reduction mechanisms that we apply to water utilities[37] effectively mitigate most, if not all, of the risk associated with the existence of leverage in the capital structure.

4.5. Small Size Adjustment

Three of the four Applicants seek an upward adjustment to their ROEs for the small size of their operations. SJW added a 0.10% business risk to its total financial model results so that it may be compensated for its small size in comparison to the average market capitalization of its water Proxy Group.[38] CWS added a 20 basis points size adjustment to its overall ROE to compensate it for risks and challenges involved in operating a series of smaller districts that are not present for larger districts.[39] GSW added a 1.00% adjustment in its CAPM to account for its smaller size in comparison to the market-based average equity capitalization of the Water Proxy Group as a whole.[40]

We reject Applicants' small size adjustments because the impact of small size districts and operations is already reflected in the financial models of their Proxy Group. Applicants have included their own operations as part of their Proxy Groups. Given the Proxy Group members' substantial spread of annual revenue and market capitalization as shown in Table 3, and inclusion of

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[37] *See* footnote 4, *supra.*

[38] Exhibit SJW 4 at 63.

[39] Exhibit CWS 3 at 15.

[40] Exhibit GSW 3 at 39-40 and GSW 7 at 22.

Applicants' own operations as part of the Water Proxy Group, further small size adjustments are unnecessary.

We note that a related issue, whether the Commission should identify opportunities for consolidation of troubled systems within or adjacent to utilities' service territories that are not able to provide safe, reliable and affordable drinking water, and to what extent such issues should be addressed outside the water utility's general rate case, is being addressed in Rulemaking (R.) 17-06-024. This specific issue was not raised by the parties in this proceeding, but to the extent such consolidation or acquisitions are in the public interest, they may justify a troubled system adjustment. Parties may revisit this issue in R.17-06-024 consistent with the scope set forth in the January 9, 2018 Scoping Memo issued in that proceeding. Any future adjustments in this area whether addressed in R.17-06-024 or future applications for adjustments in cost of capital will need to be supported by the record in the respective proceedings.

5. Financial Model Results

Applicants and ORA derived an ROE range from the results of their financial models and used that range to recommend a specific ROE. The parties were not consistent in selecting their respective ROE range. CAW, GSW and SJW took a simple average of their individual financial model results.[41] CWS selected the lowest point and highest point from all of its financial model results. ORA used the results of its CAPM financial model.

The DCF financial model is investor related and assesses the equity returns based on dividend yields and growth. Unlike the DCF financial model both the

[41] Although SJW applied a simple average of its financial model results it gave very limited weigh to its DCF result. Exhibit SJW 4 at 5.

RPM and CAPM financial models are risk premium related. Applicants have included several variations of the CAPM financial model in arriving at their CAPM result.[42] Because both the RPM and CAPM financial models are risk premium related, we have given their results equal weight. Hence, we apply a simple weighted average of these three models consisting of 1/2.

DCF, 1/4 RPM and 1/4 CAPM to compare Applicants' and ORA's ranges of ROE. The following table summarizes the simple weighted averages of the individual financial models used by the parties, excluding the flotation cost, Non-Reg. Comp., ATWACC, financial leverage and small size adjustments we have determined are not appropriate in this proceeding.

Table 5
Applicants' and ORA's Adjusted ROE Ranges

	CAW	CWS	GSW	SJW	ORA[43]
DCF	6.80% - 9.00%	6.80% - 9.00%	8.80%	8.50%	7.26% - 8.63%
RPM	10.10% - 10.20%	n.a.	11.50%	11.19%	n.a.
CAPM	9.00% - 9.70%	9.00% - 9.90%	10.40%	9.41%	5.27% - 10.43%
Weighted Average	8.18% - 9.48%	7.90% - 9.45%	9.88%	9.40%	6.27% - 9.53%

6. Return on Equity Summary

The results of these financial models are used to establish a range to which parties apply risk factors and individual judgment to determine a proposed equity return. Although the parties agree that the models are objective, the results are dependent on subjective inputs. In the final analysis it is the

[42] Exhibit CAW 1 at 26.

[43] ORA's DCF range is based on is constant growth and non-constant growth DCF results.

application of judgment, not the precision of these models, which is the key to selecting a specific equity return within the range produced by financial model analysis.

As summarized in the following table, the financial models employed by Applicants and ORA, depending on the methods of calculation used and the assumptions made, produce average ROEs ranging from 6.27% to 9.88%. The table also compares the average of ROE ranges from the financial models to Applicants' requested and ORA's proposed ROEs. In all cases, the ROEs requested by Applicants exceed the ceiling of their adjusted financial model results by more than 100 basis points.

Table 6
Comparison of the Parties' Weighted Average Return of Equity Ranges to Applicants' Requested and ORA's Proposed Return on Equity

	Adjusted ROE Ranges		Requested/Proposed ROE	
	Utility	**ORA**	**Utility**	**ORA**
CAW	8.18% - 9.48%	6.27% - 9.53%	10.80%	8.23%
CWS	7.90% - 9.45%	6.27% - 9.53%	10.75%	8.22%
GSW	9.88%	6.27% - 9.53%	11.00%	8.22%
SJW	9.40%	6.27% - 9.53%	10.80%	8.30%

After considering all the evidence which includes the financial model results, adjustments to financial models, interest rate forecast, CD forecast, and applying informed judgement we arrive at a base ROE range of 7.40% to 9.40%. From that ROE range we consider the appropriate ROE for each of the Applicants.

ORA's expert Rothschild developed his ROE recommendations using a constant growth DCF method to derive a cost of equity range between 7.48% and

8.63% for the Water Proxy Group.[44] Based on this method, he calculated an unadjusted ROE for the Water Proxy Group of 8.25%. Rothschild's use of this methodology was criticized by CWS expert Vilbert, but on cross-examination Vilbert admitted that Rothschild's use of the method was "reasonable"[45] and that Rothschild had "implemented the methodology correctly"[46] in arriving at his Water Proxy Group ROE of 8.25%.

To determine the ROE of individual Applicants, Rothschild began with the 8.25% ROE of the Water Proxy Group and then asked if that ROE should be further modified to take account of firm-specific risks. Rothschild testified that in order for firm-specific risks to modify the Proxy Group's ROE, they have to meet two criteria. First, the "risks must be risks not faced by the other companies in the Proxy Group and/or the risks are relatively higher than for the Proxy Group on average" and second the "risks must not be the type that can be diversified by investors buying a portfolio of stocks."[47] Rothschild's explanation of non-diversifiable risks was not disputed by Applicants' experts.

Although Applicants' experts listed a variety of risks allegedly faced by the specific firms, including operating leverage from high capital expenditures, a "small firm effect," regulatory uncertainty, and water supply issues,[48] they failed in each case to demonstrate that these firm-specific risks were non-diversifiable,

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[44] Exhibit ORA 20 at 62. Although Rothschild used 7.48% to 8.63% based on a constant growth DCF, the overall result adopted in this opinion includes all results within a specific model, resulting in a lower bound of 7.26% in the DCF calculation.

[45] Transcript Vol.1 at 71, lines 14-17.

[46] *Ibid*. at 73, lines 18-20.

[47] Exhibit ORA 20 at 46.

[48] Exhibit ORA 20 at 77.

a fact admitted by Vilbert in his rebuttal testimony.[49] Since only non-diversifiable risks can potentially affect a specific company's ROE, we conclude that there is no basis for adjusting the Water Proxy Group ROE based on such risks.

Consistent with our above risk discussion, the adopted ROE should be set near the middle of the 7.40% to 9.40% ROE range found reasonable for this consolidated proceeding. ORA's recommended 8.23% ROE for CAW, 8.22% ROE for CWAS, 8.22% ROE for GSW, and 8.30% ROE for SJW, representing the Proxy Group ROE as modified by Rothschild to reflect the relative riskiness of each company's capital structure, are well within that middle range and are adopted.

7. Cost of Debt

We adopt ORA's proposed costs of debt, which are shown on Table 7, below.

Table 7
Comparison of ORA's and Applicants' Proposed Cost of Debt

	ORA Recommended Cost of Debt	Utility Proposed Cost of Debt
SJW	5.96%	6.20%
GSW	6.40%	6.60%
CAW	5.22%	5.63%
CWS	5.51%	5.51%

ORA calculates the annual CD percentage by dividing total annual debt cost amount (both annual interest amount and annual amortization of debt cost,

[49] Exhibit CWS 5 at 37.

including redemption premium) by the existing net proceeds amount. In calculating total annual debt cost for the test year, ORA also incorporates Applicants' proposed future debt cost. ORA calculates its recommended CD percentage by taking the average of the debt cost percentages from 2018 to 2020.[50]

Applicants calculate the annual CD percentage by dividing the total annual debt cost amount (both annual interest amount and annual amortization of debt cost, including redemption premium) by the existing net proceeds amount less unamortized amounts (of debt and redemption premium) associated with the debt that is already paid.[51] In calculating total annual debt cost, Applicants also incorporate future debt cost.[52] Applicants, except CAW, calculate the recommended CD percentage by taking the average of the debt cost percentages from 2018 to 2020. CAW recommends 2018 debt percentage be applied for 2019 and 2020.[53]

Where differences exist, we reject Applicants' proposed CD estimates because of a combination of double-counted issuance costs and, in the case of GSW, the inclusion of unsubstantiated redemption premiums. In developing its recommendation, ORA removed double-counted issuance costs of

[50] ORA Exhibit 28.

[51] CAW Exhibit 3 at 10 and Application, Attachment A, Chapter 3 – Table 2; SJW Exhibit 1 Schedule 4; GSW Exhibit 2, Tables 1 and 2.

[52] CAW Exhibit 3 at 11; GSW Exhibit 2 at 5, and 6; SJW Exhibit 1 at 5; CWS Exhibit 2 at 10, lines 6-7.

[53] GSW Exhibit 2, Table 2; SJW Exhibit 1, Schedule 4.

approximately $3.49 million, $420,900 and $1.18 million from the calculation of debt costs proposed by SJW, GSW and CAW, respectively.[54]

We concur with ORA that the double counted unamortized issuance costs and redemption premium costs associated with the loans that have already been paid as reflected in the Applicants' calculation of CD in the instant proceeding should be removed.[55]

The Applicants' proposed calculation of the effective cost of existing debt adds unamortized issuance costs to the annual cost of existing debt while also subtracting these unamortized issuance costs from net proceeds. Since the effective CD is calculated by dividing the annual CD by net proceeds, increasing both the annual cost amount (numerator) and decreasing the net proceeds amount (denominator) by the same amount for the same cost is essentially double-counting and results in a CD greater than the actual effective cost of outstanding debt.

SJW contends that since both the Bond redemption premium and debt issuance costs reduce borrowing proceeds, they should be treated consistently (as a reduction of Net Proceeds) for purposes of determining the weighted average effective interest rate GSW claims that financing charges associated with redeeming an old debt should be treated no differently than any other debt issuance related cost and should be deducted from net proceeds. Both SJW and GSW are incorrect. There is a fundamental difference between the two types of unamortized debt costs that should not be conflated. One type of unamortized debt cost is attached to existing debt, which may have been issued in order to

[54] ORA Exhibit 22 at 11.

[55] ORA Exhibit 22 at 12.

retire higher-cost debt early, thereby generating unamortized costs and possible early redemption premiums that have not been amortized in rates. The second type of costs that these Applicants propose to recover are not associated with any particular existing issuance but rather have been attached to an existing issuance out of convenience. We reject the inclusion of this second type of cost in current cost of debt.

8. Capital Structure

ORA witness Dawadi arrived at his recommended capital structures by calculating the weighted average capital structures of the Applicants' regulated operations as shown in their annual reports. His recommended capital structures are not materially different from those proposed by the Applicants; however, Dawadi's approach has the advantage of being based on the actual capital structure of the companies' regulated operations and as such it provides the most accurate capital risk profile on which to base adjustments to recommended ROE. Consequently, we conclude that Dawadi's method of establishing regulatory capital structures is reasonable and appropriate. We adopt the capital structures proposed by ORA for all Applicants.

9. Conclusion

Through the testimony of its expert witnesses, ORA has demonstrated that its recommended capital structures, returns on equity and CD for the Applicants are reasonable and should be adopted by this Commission. Accordingly, we adopt ORA's proposed capital structure, CD and ROE for each of the applicants, resulting in the authorized overall rates of return shown on Table 1, above.

10. Comments on Proposed Decision

The proposed decision of ALJ in this matter was mailed to the parties in accordance with Section 311 of the Pub. Util. Code and comments were allowed

under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on _____, and reply comments were filed on _____ by _____.

11. Assignment of Proceeding

Martha Guzman Aceves is the assigned Commissioner for this proceeding and Karl J. Bemesderfer is the assigned ALJ.

Findings of Fact

1. More than 400 ratepayers appeared at the PPHs and more than 100 of them provided comments.

2. Applicants seek Commission authorization to continue with their WCCM for the years 2019 and 2020 using the base year 2018 that will be adopted in this proceeding.

3. The legal standards for setting a fair rate of return have been established by the *Bluefield*, *Hope* and *Duquesne* cases. Such a rate of return should be similar to that generally being made at the same time and in the same general part of the country on investments in other business undertakings attended by corresponding risks and uncertainties, should enable a utility to maintain financial integrity, to attract capital, and to compensate investors for the risks they assume and should not be confiscatory.

4. The national average ROEs granted water utilities were 9.68% in 2016 and 9.43% for the first five months of 2017.

5. The major California energy utilities' ROEs are 10.05% to 10.30%.

6. The 10.75% to 11.00% ROEs requested by Applicants are more than 100 basis points higher than the national average ROEs granted water utilities and approximately 70 basis points higher than the major California energy utilities' ROEs.

7. The parties used the same eight water companies in their Proxy Group. In addition, GSW added Artesian Resources to its Proxy Group.

8. The parties used variations of the CAPM, RPM and DCF financial models to support their respective ROE recommendations.

9. GSW and SJW included a flotation cost adjustment in their financial model results, which the Commission has previously disallowed other utilities from using in similar financial models.

10. GSW and SJW included the impact of a non-regulated comparable earnings approach in their financial model results.

11. CWS and CAW included an ATWACC adjustment in their financial model results, which the Commission has previously disallowed other utilities from using in similar models.

12. GSW included a leverage adjustment in its DCF results.

13. CWS, GSW and SJW included a small size adjustment in their financial model results.

14. CWS's and SJW's operations are included in Proxy Group companies California Water Service Group and SJW Corp., respectively.

15. The RPM and CAPM financial models are both risk premium related.

16. The DCF financial model assesses equity returns based on dividend yields and growth.

17. ORA's recommended returns on equity range from 8.22% to 8.30%.

18. Applicants' costs of debt as calculated by ORA range from 5.22% to 5.40%.

19. After elimination of double-counted costs, ORA's calculated costs of debt are not materially different from those proposed by Applicants.

20. ORA's recommended capital structures are not materially different from those proposed by Applicants.

Conclusions of Law

1. The consolidation of these applications does not mean that a uniform ROE should be applied to each of the Applicants.

2. Applicants' requests to continue with their Water Cost of Capital Mechanisms are unopposed and should be adopted.

3. Applicants provided no reason to consider the average ROE of the national water utilities or major California energy utilities as an ROE benchmark in this proceeding.

4. The flotation cost and ATWACC adjustments proposed in this proceeding should be disallowed because the Commission has previously disallowed other utilities from using those adjustments in similar financial models and Applicants provided no reasons for changing this approach.

5. Non-regulated comparable earnings financial modeling results should not be considered in this proceeding for the reasons set forth in the body of this decision.

6. GSW's financial leverage adjustment in its DCF results should be disallowed for the reasons set forth in the body of this decision.

7. The small size adjustment should not be considered in this proceeding for the reasons set forth in the body of this decision.

8. A simple weighted average of financial modeling results consisting of 1/2 DCF, 1/4 RPM and 1/4 CAPM should be applied.

9. Applicants did not provide any evidence to substantiate that they are riskier than either the national water utilities or the major California energy utilities.

10. A 2018, 2019 and 2020 ROE range from 7.40% to 9.40% is just and reasonable for CAW, CWS, GSW and SJW.

11. An 8.23% ROE for the 2018, 2019 and 2020 calendar year is just and reasonable for CAW.

12. An 8.22% ROE for the 2018, 2019 and 2020 calendar year is just and reasonable for CWS.

13. An 8.22% ROE for the 2018, 2019 and 2020 calendar year is just and reasonable for GSW.

14. An 8.30% ROE for the 2018, 2019 and 2020 calendar year is just and reasonable for SJW.

15. ORA's recommended costs of debt for CAW, CWS, GSW and SJW are reasonable and should be adopted.

16. ORA's recommended capital structures for CAW, CWS, GSW and SJW are reasonable and should be adopted.

17. Applicants should amortize and close their memorandum accounts that track the difference between water rates currently in effect and water rates that will go into effect due to a change in their ROE authorized by this decision as part of their next general rate adjustment.

18. The water utilities' ROE applications should be granted to the extent provided for in the following order.

O R D E R

1. California Water Service Company is authorized an 8.22% return on equity and a 5.51% cost of debt with a 45.56% debt to 54.44% equity ratio resulting in a 6.99% return on rate base for the calendar years 2018, 2019 and 2020.

2. California-American Water Company is authorized an 8.23% return on equity and a 5.22% cost of debt with a 45.82% debt to 54.18% equity ratio

resulting in a 6.85% return on rate base for the calendar years 2018, 2019 and 2020.

3. Golden State Water Company is authorized an 8.22% return on equity and a 6.40% cost of debt with a 45.87% debt to 54.13% equity ratio resulting in a 7.39% return on rate base for the calendar years 2018, 2019 and 2020.

4. San Jose Water Company is authorized an 8.30% return on equity and a 5.96% cost of debt with a 47.42% debt to 52.58% equity ratio resulting in a 7.19% return on rate base for the calendar years 2018, 2019 and 2020.

5. California Water Service Company, California-American Water Company, Golden State Water Company and San Jose Water Company shall continue with their Water Cost of Capital Mechanism for the years 2019 and 2020, using the base year 2018 adopted in this decision.

6. California Water Service Company, California-American Water Company, Golden State Water Company and San Jose Water Company shall amortize and close their memorandum accounts that track the difference between water rates currently in effect and water rates that will go into effect due to a change in their return on equity authorized by this decision as part of their next general rate adjustment.

7. Application (A.) 17-04-001, A.17-04-002, A.17-04-003, and A.17-04-006 are closed.

This order is effective immediately.

Dated _____, at San Francisco, California.