

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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Application of Southern California
Edison Company (U338E) for
Authority to Establish Its Authorized
Cost of Capital for Utility Operations
for 2020 and to Partially Reset the
Annual Cost of Capital Adjustment
Mechanism.

Application 19-04-014

And Related Matters

Application 19-04-015

Application 19-04-017

Application 19-04-018

OPENING BRIEF OF THE PUBLIC ADVOCATES OFFICE

NOEL OBIORA

Attorney

Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Telephone: (415) 703-5987
Email: Noel.Obiora@cpuc.ca.gov

NIKA KJENSLI

Program Supervisor

Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Telephone: (415) 703-1529
Email: Nika.kjensli@cpuc.ca.gov

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Application of Southern California Edison Company (U338E) for Authority to Establish Its Authorized Cost of Capital for Utility Operations for 2020 and to Partially Reset the Annual Cost of Capital Adjustment Mechanism.	Application 19-04-014
And Related Matters	Application 19-04-015 Application 19-04-017 Application 19-04-018

OPENING BRIEF OF THE PUBLIC ADVOCATES OFFICE

Pursuant to Rule 13.11 of the Commission’s Rules of Practices and Procedure, and the schedule established by Administrative Law Judges (ALJ) Brian Stephens and Michelle Cooke, the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) hereby submits the following Opening Brief in the consolidated Cost of Capital proceeding for Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E)¹.

I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS

The California Public Utilities Commission (Commission) established a rate case plan in 1989, that required California energy utilities to file a cost of capital application on May 8 of each year, for Commission approval of their rates of returns, to take effect the following year.² In 2008, the Commission established a uniform cost of capital

¹ Collectively referred to herein as the “Applicants.”

² Decision (D.) 89-01-040.

adjustment mechanism for SCE, SDG&E and PG&E in D.08-03-035 that replaced the annual cost of capital applications, but directed the utilities to file full cost of capital applications every three years, with the first application due on April 20, 2010.³

In 2009, following the financial crisis, SCE, PG&E and DRA⁴ filed joint petitions, in part, to defer SCE and PG&E's scheduled April 20, 2010 cost of capital applications to April 20, 2012. The Commission granted the requested deferral in D.09-10-016 and in D.10-01-017 also deferred SDG&E's scheduled April 20, 2010 cost of capital application to April 20, 2012.⁵ However, the energy utilities made their first triennial filing on April 20, 2012, rather than April 20, 2010, pursuant to D.10-01-017 which modified D.08-05-035.

This proceeding presents the first opportunity for the Commission to consider the Applicants' base rate of return since 2012.⁶ In the years since then, the utilities' Cost of Capital has been subject to a Cost of Capital Mechanism (CCM) that adjusts the base rate determined in 2012 when triggered by an index of interest rate movements in the bond markets. The CCM does not assess or consider any facts other than interest rate movement. The CCM does not change the cost of debt or respond to ratings upgrades or downgrades of the utilities by the credit rating agencies. Further the CCM is only triggered when the interest rates move more than a 100 basis points. As such it is rarely triggered.⁷ Nevertheless, the utilities have been satisfied with the CCM.⁸

In this proceeding, the Applicants' testimony evince one unanimous conclusion: The appropriate rate of return for Cost of Capital should be based primarily on subjective

³ D.08-05-035, Conclusion of Law 2 and 3, p.19, and Ordering Paragraph 1, p.20.

⁴ Division of Ratepayer Advocates, now the Public Advocates Office.

⁵ D.10-01-017, p.2-3,

⁶ D.12-12-034, Decision On Test Year 2013 Cost Of Capital For The Major Energy Utilities

⁷ Exhibit ("Ex.") SDG&E – 06, Testimony of Bruce MacNeil, p. BM-5, lines 3 -4 and MacNeil, p.5 lines 16 – 17 [Hereinafter, lines in a text will be represented by the numbers following a colon, e.g. p.BM-5:3-4]

⁸ Ex. SCE-01, p. 67, 2 – 9; Ex. PG&E – 01, p. 6-3:12 – 14 and p. 6 -4:1 – 8

notions of risks investors fear that California utilities may face in the distant future⁹ rather than any measurable facts and objective data. Applicants maintain that these worried investors request that all risks be made compensable with an increase in the rate of return, regardless of whether the risks were caused by Applicants' mismanagement and operational failures. Should the Commission adopt this view, that an increase in the rate of return cures all, such a standard would lead to perverse results of rewarding Applicants' mismanagement, ethical misconduct, and operations and safety failures.

All four Applicants have also argued that most of the Commission's policy proceedings from the Renewable Portfolio Standard program (RPS)¹⁰ to Community Choice Aggregation (CCA)¹¹ and investment in infrastructure to support transportation electrification, add uncertainties to their operations.¹² The Applicants argue that these uncertainties are considered risky by investors and should be compensable by further increases in return on equity (ROE). The record shows that Applicants' business operations and costs have limited exposure to any uncertainties arising from any of these proceedings. For example, the Applicants' claims that the RPS program adds substantial uncertainty to their operations, and thus adversely impacts their Cost of Capital, is refuted by the data collected from the utilities on their RPS compliance.¹³ Similarly, the utilities' claim that they bear the cost of CCAs' failure to serve their customers reliably is false. Ratepayers bear this cost, and the Commission has established several mechanisms, including a bond program, to ensure that these costs do not arise.¹⁴ Applicants also claim that they have to support investments in electric vehicle (EV) integration in their service areas, which present new risks to their operations. However,

⁹ Hearing Transcript, "Tr.", pp. 294-295.

¹⁰ Ex. SCE-01, p. 10; PG&E -01, p.2 – 14, and SDG&E - 03, p. DW-23.

¹¹ SDG&E – 03, p. DW-24

¹² SCE -01, p. 15: 3 – 4 and 9 – 10

¹³ [www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy - Electricity_and_Natural_Gas/Renewables%20Portfolio%20Standard%20Annual%20Report%202018.pdf](https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/Renewables%20Portfolio%20Standard%20Annual%20Report%202018.pdf) [https]

¹⁴ See Advice Letters (AL) 5542-E (PG&E), 3998-E (SCE), and 3376-E (SDG&E).

much of the electric vehicle investment programs considered by the Commission was voluntarily submitted by the utilities and serves to increase their rate base.

Any risks associated with their implementation of these programs are due to mismanagement. Management shortfalls should not be factored into the Cost of Capital as risks to be borne by ratepayers. As explained below, the Applicants' analyses are replete with errors and inconsistencies resulting in recommendations that overstate the risks reflected in their cost of equity and overall cost of capital

A. Public Advocates Offices' Recommendations

The Public Advocates Office recommends a Return on Equity (ROE) for PG&E of 8.49 percent¹⁵, which is lower than PG&E's request of 12 percent.¹⁶ The Public Advocates Office further recommends that PG&E's capital structure be left at its current levels, which has been the same since the last Cost of Capital proceeding.

The Public Advocates Office recommends 8.65 percent ROE for SCE, which is lower than SCE's request of 10.6 percent.¹⁷ SCE reduced its preferred stock since its last Cost of Capital proceeding. Although the Public Advocates Office acknowledges this change in SCE's capital structure, it nevertheless recommends that currently authorized common equity percentages of the capital structure remain unchanged.

The Public Advocates Office recommends 8.49 percent ROE for SoCalGas and SDG&E. SoCalGas requests 10.7 percent¹⁸ ROE and SDG&E requests 10.9 percent¹⁹ ROE. SoCalGas proposes to reduce the percentage of the preferred stock in its capital structure to 0.4 percent, and SDG&E proposes to eliminate all its preferred stock in this proceeding, for ratemaking purposes.

¹⁵ Ex. PAO -01, Mr. Rothschild's Direct Testimony, page 5, Table 4.

¹⁶ Ex. PG&E – 01, Mr. Bijur's PG&E Supplemental Testimony, page 1-4:29-32.

¹⁷ Ex. SCE – 02, Witness Villadsen's SCE Direct Testimony, page 4: 2-3.

¹⁸ Ex. SCG – 04, Witness Morin's SoCalGas Direct Testimony, page 4: 17-18.

¹⁹ Ex. SDG&E – 04, Witness Morin's SDG&E Direct Testimony, page 4: 11.

The Public Advocates Office's recommendations for Cost of Debt, Capital Structure, Return on Equity, and the Overall Rate of Return for each Applicant in this proceeding are set forth in the table below.

CAL ADVOCATES SUMMARY TABLE OF RECOMMENDATIONS						
2020 Energy Cost of Capital						
	Return on Equity	Debt Cost Rate	Overall Rate of Return	Capital Structure Ratios		
				Common Equity	Preferred Equity	Debt
Southern California Edison (SCE)	8.65%	4.67%	6.67%	47.00%	5.00%	48.00%
San Diego Gas and Electric (SDG&E)	8.49%	4.59%	6.62%	48.00%	0.00%	52.00%
Southern California Gas Company (SCG)	8.49%	4.23%	6.45%	47.60%	0.40%	52.00%
Pacific Gas and Electric Company (PG&E)	8.49%	5.16%	6.89%	52.00%	0.50%	47.50%

The results in the table above are based on investor expectations of returns and will allow the Applicants to raise the capital needed to provide safe and reliable service, including maintaining investment grade credit ratings. In considering the parties' recommendations, the Commission should also assess each variable (e.g. cost of equity, cost of debt and capital structure) separately on the basis of the facts presented by the Public Advocates Office to support the variable, as compared with the facts or lack thereof, presented by the Applicants. Thus, even if the Commission does not adopt the overall rate of return the Public Advocates Office recommends for any particular Applicant the Commission could still adopt any of the variables that form the basis of the Public Advocates Office's recommended rate of return, where the evidentiary basis to support that variable was duly and firmly established on the record. The three primary variables - cost of equity, cost of debt and capital structure ratios - are discussed in Sections III through V.

II. LEGAL STANDARDS AND POLICY CONSIDERATIONS

A. Burden of Proof

In any ratemaking proceeding before the Commission, the Applicants have the burden of proof.²⁰ Applicants must show that their request is just and reasonable.²¹ This is the legal standard the Commission is charged with, to ensure that all rates demanded and received by the utilities is “just and reasonable”.²² Therefore, the Applicants who are seeking to pass their cost of capital onto ratepayers, can only do so if those costs are deemed just and reasonable on the basis of the evidence received and that facts adduced in this proceeding.²³

B. The Legal Standard for Setting a Fair Rate of Return

It is well settled that a public utility is entitled to earn a fair rate of return on the value of its property employed for the convenience of the public.²⁴ The United States Supreme Court set, refined, and developed the legal standard for a fair rate of return in the following decisions: *Bluefield Water Works & Improvement Co. v. Public Service Comm'n of West Virginia (Bluefield)*,²⁵ *Federal Power Commission v. Hope Natural Gas Co. (Hope)*,²⁶ and *Duquesne Light Co. v. Barasch (Duquesne)*.²⁷

In *Bluefield*, the Court stated:

[The rate of return should be] reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economic management, to maintain and support its credit and enable

²⁰ *Application of Pacific Gas and Electric Company* (2000) D.00-02-046, mimeo, p. 36, 2000 Cal. PUC LEXIS 239, citing *In Re Pacific Bell* (1987) 27 CPUC 2d 1, 21, D.87-12-067.

²¹ Public Utilities Code, Section 451, 454.

²² *Id.*

²³ See *Application of Pacific Gas and Electric Company*, supra, footnote 20.

²⁴ *Bluefield Water Works & Improvement Company v. Public Service. Commission of the State of Virginia* (1923) 262 U.S. 679, 692-693.

²⁵ *Id.*

²⁶ *Federal Power Commission v. Hope Natural Gas Company* (1944) 320 U.S. 591, 603.

²⁷ *Duquesne Light Co. v. Barasch* (1989) 488 U.S. 299

it to raise the money necessary for the proper discharge of its public duties.²⁸

However, the Supreme Court in *Bluefield* also cautioned that a utility has no constitutional right to profits similar to those that investors in speculative business ventures might expect.²⁹

In *Hope*, the Court explains that (1) “[t]he return to the equity owner should be commensurate with the returns on investment in other enterprises having corresponding risk” and (2) “[t]hat return...should be sufficient to maintain its credit and to attract capital.” The court also noted that setting “just and reasonable rates involves a balancing of the investor and the consumer interests.”³⁰

In *Duquesne*, the Court further stated that rates must not be so low as to be confiscatory.³¹

C. Application of the Legal Standard

In applying the legal standard, the Commission has stated:

[W]e 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. At the same 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.”³²

²⁸ *Bluefield*, 262 U.S. 679, at 692 – 693.

²⁹ *Id.*

³⁰ *Hope*, 320 U.S. 591, 603

³¹ *Duquesne*, 488 U.S. 299 (1989)

³² 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, D.18-03-035, pp.6 - 7.

SCE claims the legal standard in the *Bluefield* and *Hope* cases is that the “return should be sufficient to **ensure** confidence in the financial soundness of the utility.”³³ In doing so, SCE essentially changes the *Bluefield* standard from a requirement that the Commission establish a return that “reasonably **assures** confidence ...”³⁴ to a requirement that essentially turns the standard into an insurance guaranty of sufficient rate return for the Applicants. This interpretation is clearly erroneous.

Also missing from the Applicants’ analysis of the standard is the context that *Bluefield* requires the Commission to consider in setting the return. *Bluefield* states that the return must be assessed in the context of the utilities’ “efficient and economic management” not in spite of mismanagement and fault, as the Applicants all claim. In other words, the risks the Commission must consider are those that arise under efficient and economic management, rather than inefficiency and mismanagement. However, in the time since the last cost of capital proceeding, one Applicant has caused a gas leak that resulted in the evacuation of Southern California neighborhoods,³⁵ and another caused the worst wildfire in the state that resulted in the death of 86 people and the destruction of a city.³⁶ A third Applicant was involved in unethical practices with respect to the maintenance of its nuclear facility.³⁷ Yet, Applicants construe some of these events in part as a factor of the risks of operating in California that should be compensated with a

³³ Application Of Southern California Edison Company (U 338-E) For Authority To Establish Its Authorized Cost Of Capital For Utility Operations For 2020 And To Partially Reset The Annual Cost Of Capital Adjustment Mechanism, p.4 [Emphasis added]. Hereinafter, “SCE’s Application”.

³⁴ *Bluefield*, 262 U.S. 679, 692 [Emphasis added.]

³⁵ *Root Cause Analysis of the Uncontrolled Hydrocarbon Release from Aliso Canyon SS-25*, ftp://ftp.cpuc.ca.gov/News_and_Outreach/SS25%20RCA%20Final%20Report%20May%2016,%202019.pdf [The Blade Partner Report]

³⁶ PG&E’s Supplemental Notice to Nov. 8 and 16 Notifications [re Camp Fire], https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/News_Room/NewsUpdates/2018/12-11-18.pdf

³⁷ Administrative Law Judge’s Ruling Finding Violations Of Rule 8.4, Requiring Reporting Of Ex Parte Communications, And Ordering Southern California Edison Company To Show Cause Why It Should Not Also Be Found In Violation Of Rule 1.1 And Be Subject To Sanctions For All Rule Violations, Investigation 12-10-013 (Filed October 25, 2012)

higher ROE.³⁸ PG&E, twice convicted of felony for safety violations, blames this in part on “the broken regulatory and legal framework that currently exists.”³⁹

Further, the legal standards set by the Supreme Court require the ROE to be based on **market returns**, not **book returns**. Stewart C. Myers⁴⁰ explains that investors’ market return expectations are more relevant to Supreme Court legal standards than return on book equity.⁴¹ Shareholders are not interested in return on book. The market return reflects how attractive, investors find the company at its then book value.

III. RETURN ON EQUITY (ROE)

The **cost of equity** is the return investors expect to earn on the market value of stocks. This return investors expect to earn when providing equity capital to the Applicants is determined, in part, by applying certain financial models to the market data of other companies with similar risks to the Applicants. These other companies are usually referred to as a “proxy group” or “comparative group” by rate of return experts. The appropriate **ROE** is based on the Commission’s determination of the cost of equity for the Applicants at the time of a proceeding and after reviewing evidentiary record.

The Public Advocates Office determined the appropriate return on equity for the Applicants by applying three well accepted financial models to a proxy group of 29 electric utility companies. The three models (constant growth Discounted Cash Flow (DCF), non-constant growth DCF and Capital Asset Pricing Model (CAPM)) supports the Commission’s history of reviewing an “array of models...before...adopting a return on equity.”⁴²

³⁸ Ex. SCG – 03, p.15.

³⁹ Ex. PGE-01,p.1-5.

⁴⁰ Stewart C. Myers is a Brattle Group colleague of Witness Vilbert and Witness Villadsen.

⁴¹ A formal link between the cost of capital as defined by financial economics and the right expected rate of return for utilities is set forth by Stewart C. Myers, Application of Finance Theory to Public Utility Rate Cases, Bell Journal of Economics & Management Science 3:58-97 (1972)., page 62

⁴² D. 10-01-035; see also, D.18-03-035

In applying the cost of equity models, the Public Advocates Office used the same proxy group of companies that PG&E's cost of equity expert, Witness Vilbert used, and also employed the DCF model and CAPM, with some variations, as Witness Vilbert employed⁴³. The following table⁴⁴ shows the range of ROE estimates from each of the models the Public Advocates Office employed.

TABLE 5: Cost of Equity Model Results	
<i>Electric Proxy Group</i>	
1. DCF - Constant Growth	7.51 - 8.72%
2. DCF Non Constant Growth	8.45 - 9.41%
3. CAPM	6.77 - 9.33%
High	9.41%
Low	6.77%
Average - High and Low	8.09%

Source: Schedule ALR 2

A. Discounted Cash Flow (DCF) Model

The DCF method recognizes that investors purchase common stock to receive future cash payments in two ways: (a) Dividends, and (b) proceeds from selling stock at preferably higher prices. The DCF assumes a rational investor will buy stock with the expectation of receiving dividends and a capital gain from selling the stock to another investor at a price higher than they paid. The model views the price the new owner is willing to buy stock as the investor's present value expectation of future flow of dividends and the future expected proceeds from selling stock at the market price. Therefore, the value of the stock is estimated as the discounted value of all future dividends until the stock is sold plus the value of proceeds from the sale of the stock.

The Public Advocates Office calculated the cost of equity using two variations of the DCF model, the constant growth and non-constant growth forms.

⁴³ Ex. PAO – 01, p. 2-3

⁴⁴ Derived from Ex. PAO-01, p.6.

1. Constant Growth Form of the DCF Model

In order to determine the present value of all future dividends that a company may pay, the DCF method makes an assumption as to how the company may grow and the company's future dividend yield in the course of that growth. The constant growth form of the DCF model can be used in determining the cost of equity when investors can reasonably expect that the growth of retained earnings and dividends will be constant.

Retained earnings are funds that a company keeps in its treasury, so that it is available for future needs, such as operating expenses, capital expenditures, debt payments, and new investments. These retained earnings show investors whether the company is growing which, in turn, is a measure of the future indicator of dividends and the value of a company's stock.

Public Advocates Office witness Rothschild first used the sustainable growth form of the constant growth DCF model to estimate a cost of equity range for the proxy group of companies.

The equation for the constant growth model Mr. Rothschild employed is:

$k = D/P + g$,⁴⁵ where:

k= cost of equity;

D=Dividend; and

P=Market price of stock at time of the analysis.

and where:

g=the growth rate, where $g = br + sv$;

b=the earnings retention rate;

r=return on common equity investment (referred to below as "book equity");

v=the fraction of funds raised by the sale of stock that increases the book value of the existing shareholders' common equity; and

s=the rate of continuous new stock financing.

⁴⁵ Ex. PAO – 01, p. 13, citing M. GORDON, *Cost of Capital to a Public Utility*, at 32-33 (MSU Public Utility Studies 1974). See also Tr. 212:10 – 28, wherein Witness Morin, the expert for SoCalGas and SDG&E acknowledges that the equation is a correct representation of the sustainable growth form of the DCF model.

The constant growth model is therefore correctly recognized to be:
 $k = D/P + (br + sv)$

The result of Mr. Rothschild's analysis using the foregoing equation for the constant growth form of the DCF method with the comparable proxy group is a cost of equity range of 7.51 percent to 8.72 percent.⁴⁶ The Applicants take exception to this range as too low and argue in part that the sustainable form of the constant growth DCF method should never be used to assess the utilities' cost of equity. However, the sustainable growth form of the DCF constant growth method is widely respected and used in the financial industry when assessing long-term future dividend assumptions. A leading financial textbook recommends using this very same method to calculate the cost of equity for regulated energy utility companies⁴⁷ and J.P. Morgan Chase also uses the sustainable growth form of the DCF constant growth method in its Long-Term Capital Market Assumptions.⁴⁸

Examination of the Applicants' arguments against the sustainable growth form of the DCF models shows that Applicants are merely trying to obfuscate a form of the model they simply deem conservative.

a) PG&E

PG&E employed a DCF model to estimate a cost of equity for the same proxy group as the Public Advocates Office but concluded that the appropriate cost of equity range for the electric utility sample using the DCF is 8.3 percent to 9.8 percent.⁴⁹ PG&E's Witness Vilbert estimates using the DCF model for its electric utility group of

⁴⁶ Ex. PAO-01, p. 18.

⁴⁷ Ex. PAO – 05, Brealey, Myers, and Allen (2017), *Principles of Corporate Finance*, 12th Edition, McGraw-Hill Irwin, New York, pp. 86-87.

⁴⁸ Ex. PAO-04, 2019 | 23rd Annual Edition, *Long-Term Capital Market Assumptions - Time-tested projections to build stronger portfolios*, pp. 62-63.

⁴⁹ PG&E's Witness Vilbert also has estimates using a Water and Gas utility sample and a Regulated Utility, but the sample his DCF model shares with Mr. Rothschild is the electric utility sample. Ex. Vilbert Rebuttal, p .9.

companies is within the same range as the Public Advocates Office estimates, except that PG&E's estimate (9.8 percent) is about 100 basis points higher than the Public Advocates Office's estimate (8.75 percent).

The difference between the two estimates is based on how each expert estimated the expected growth of future dividends in the comparable group of companies. Witness Vilbert, as do the other Applicants' costs of equity experts, uses Value Line's five year estimates of earnings, dividends, book value and stock prices, as well as I/B/E/S five-year forecasts for earnings per share, both of which are financial forecasts made by Wall Street analysts.⁵⁰ Witness Vilbert explains:

Estimating the growth rate of dividends is one of the most challenging and most controversial aspect of implementing the DCF model. There are three ways to estimate the growth rate of dividends per share (DPS): 1) use average historical growth rates, 2) rely on forecasts of earnings per share (EPS) growth rates by financial analysts, and 3) calculate the sustainable growth rate.

...

Although the model requires the growth of dividends, financial analysts generally provide only long-term EPS forecasts, but usually for a maximum of five years into the future. This is not really a problem because dividends are paid from earnings and dividends cannot growth [sic] in the long-run at a different rate than EPS. In other words, EPS growth is the fundamental value in estimating the growth rate of dividends.⁵¹

Contrary to Witness Vilbert's claim, using only a five-year earnings forecast to estimate a long-term growth component is a problem. It essentially uses a short-term earnings per share growth rate from sources such as Value Line as a proxy for long-term sustainable growth. The Commission has consistently measured the short-term for regulatory assessment purposes as something within the five-year range, and the long-

⁵⁰ Ex. PAO-01, p. 64.

⁵¹ Ex. PG&E-03, p. 1-37.

term as beyond ten years.⁵² Further, such short-term estimates from investor services fits disingenuously into an outcome determinative model, because it presumes that for the balance of the long-term for which earnings is being measured, earnings would grow in the same manner and at the same rate as they grew in the five-year forecast used to estimate growth. For this reason, it allows Applicants to use the forecast when the five-year estimate is favorable, but discard it and rely on an alternative model when the five-year estimate is unfavorable.

In aggregate, investors do not make the mistake of assuming dividends would continue to grow for many years into the future as just the five-year earnings per share growth rate.⁵³

...Investors know that a continued increase in the earned return on equity to higher and higher levels in the future is illogical.⁵⁴

Contrary to the Applicants' efforts to vilify the Public Advocates Office's consultant, Mr. Rothschild, for using the sustainable growth method, the record shows that Mr. Rothschild, presented an overview of current capital markets that provided added context to assist the Commission in determining that the appropriate return on equity in this proceeding is consistent with the DCF constant growth method. In particular, Mr. Rothschild demonstrated that market conditions are favorable for raising equity by showing: (1) interest rates are low, (2) credit spreads are low, (3) volatility expectations are low, and (4) the market to book ratios of energy companies are over two⁵⁵. A market

⁵² See Rulemaking (R.) 01-10-024, *Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development*.

⁵³ Ex. PAO – 01, p. 68:9-11

⁵⁴ *Id.*, p. 69:13-14.

⁵⁵ SoCalGas' cost of capital expert, Roger Morin, illustrates a market to book ratio of two in the following hypothetical.

[Public Advocates Office:] Now, on the basis of the hypothetical I just gave you, I built the house for \$100,000. My rent — maximum rent under rent control is \$10,000, which is a 10 percent return on book and the market value is \$200,000. And based on the rent-controlled price, that would be 5 percent return. Would you agree that the market-to-book ratio then is 2?

to book ratio above one indicates, all else being equal, that cost of equity for utility companies is lower than expected returns on book equity.

Given the low level of rates at this time and the regulatory practice of using the CCM to adjust the return on equity when interest rates change, any ROE the Commission approves under the current conditions would represent a floor if interest rates increase in the future as claimed by Applicants' cost of capital experts. According to a recent J.P. Morgan Asset Management report "[t]his S&P bull market is the longest on record, with trough-to-peak gains almost twice the bull market average of the last 50 years..." Therefore, the Commission should set rates in this proceeding based on the current low cost of capital environment and re-evaluate the approved rates should conditions change in the future.

b) SCE

SCE's cost of equity expert, Witness Villasden, essentially reiterates the same arguments Witness Vilbert made against Mr. Rothschild's testimony, without once addressing the fact that the Value Line financial forecasts both she and Witness Vilbert use to estimate long-term growth falls short of an acceptable long-term horizon under Commission practice.⁵⁶

c) SoCalGas and SDG&E

SDG&E and SoCalGas expert, Witness Morin attempts to discredit the sustainable growth form of the DCF constant growth method. Witness Morin acknowledges that J.P. Morgan Chase, the largest bank in the United States with assets under management of 2 trillion dollars, uses the sustainable growth method for its long-term capital market assumptions because "the method is fine for unregulated companies."⁵⁷

A. [Morin] Yes.

Q. And the market-to-book ratio essentially means that the investors are willing to pay two times the value — for this hypothetical, the [investors] are willing to pay two times the value of the house to own the house, is that correct?

A. That's correct.

⁵⁶ Ex. SCE – 04 pp. 43 – 46.

⁵⁷ Tr. pp. 205:14 – 206:2.

Q. Do you have any document that states, or any peer reviewed article that states that the sustainable growth method is not applicable to a regulated company?

A. Well, I published three books in 1980, 1986 and 1996.

Q. Besides your own books.

A. Yes.

...

Q. Are there any published articles or academic reports or peer review articles that make that claim?

A. No. ... ⁵⁸

Contrary to Witness Morin's claims that the sustainable growth form of the DCF model is not used with utilities, one of the seminal financial textbooks used in colleges⁵⁹ applied the sustainable growth form of the DCF methodology to illustrate how to estimate cost of equity, but does so most of the same comparable group of companies that Witness Morin used as his proxy group for SoCalGas.⁶⁰

In D.18-03-035 the Commission found the sustainable growth form of the DCF method the appropriate model to use for California water utilities and relied on estimates of cost of equity that Public Advocates Office made using that sustainable growth form of the DCF model.⁶¹

2. Non-Constant Growth Form of the DCF Model

The non-constant growth form of the DCF model determines the return on investment expected by investors based on an estimate of each separate annual cash flow the investor expects to receive. For the purpose of this computation, Mr. Rothschild incorporated Value Line's detailed annual forecasts to arrive at the specific non-constant growth expectations that an investor who trusts Value Line would expect.

⁵⁸ Tr. pp. 207:26 – 208:5 and 208:20 – 23.

⁵⁹ By Witness Morin's own admission, Tr. p.278:2-9.

⁶⁰ Tr. p. 281-282.

⁶¹ Tr. pp. 658 – 659, D.18-03-035.

Mr. Rothschild used annual expected cash flows to estimate the non-constant growth form of the DCF, reasoning that it simplifies the input because dividends are paid quarterly. By modeling dividend cash-flows annually rather than quarterly when they are actually expected to occur, Mr. Rothschild assumes a slight overstatement of the cost of equity.⁶² Applicants disagree.

SCE witness Villasden states:

No. The sample companies pay dividends quarterly. As I noted in my direct testimony, there is no reason not to match the estimation period of the DCF model with the actual period that dividends are paid. Mr. Gorman, Mr. Rothschild and Mr. O'Donnell all use the annual version of the model. There is simply no reason to use an approximation which can be avoided by using a quarterly version of the DCF model.⁶³

Witness Villasden did not argue or suggest that the annual dividend calculation form Messers Gorman, Rothschild and O'Donnell employed was erroneous or internally inconsistent. Further, given that these assessments are being done for each of a group of companies, to produce a range of estimates, it was inevitable that the range would encompass much of what could be attained by using a quarterly version.

SoCalGas and SDG&E's Witness Morin argues that Mr. Rothschild underestimates the cost of equity by not using the full prospective dividend to be received at the end of the year.⁶⁴ However, he also concedes that Mr. Rothschild's approach is consistent with industry practice.⁶⁵ Witness Morin does not compute a non-constant growth DCF model estimation for his recommendation.

⁶² Ex. PAO-01, p. 21.

⁶³ Ex. SCE-09, p. 42.

⁶⁴ Ex. SCG-09, p. 10.

⁶⁵ Ex. SCG-04, p. 19.

Notwithstanding Applicants’ protestations about whether a quarterly or annual dividend calculation is used in the non-constant growth DCF model, the resulting estimates are comparable, except for SoCalGas.

Public Advocates Office	8.45% - 9.41%
PG&E	8.3% - 9.8%
SCE	8.3% ⁶⁶ - 8.7% ⁶⁷

The fact that these range of estimates all fall within a reasonable error band of the Public Advocates Office recommendations validates the objectivity with which the Public Advocates Office implemented its modeling for this proceeding, without bias for or against any of the Applicants.

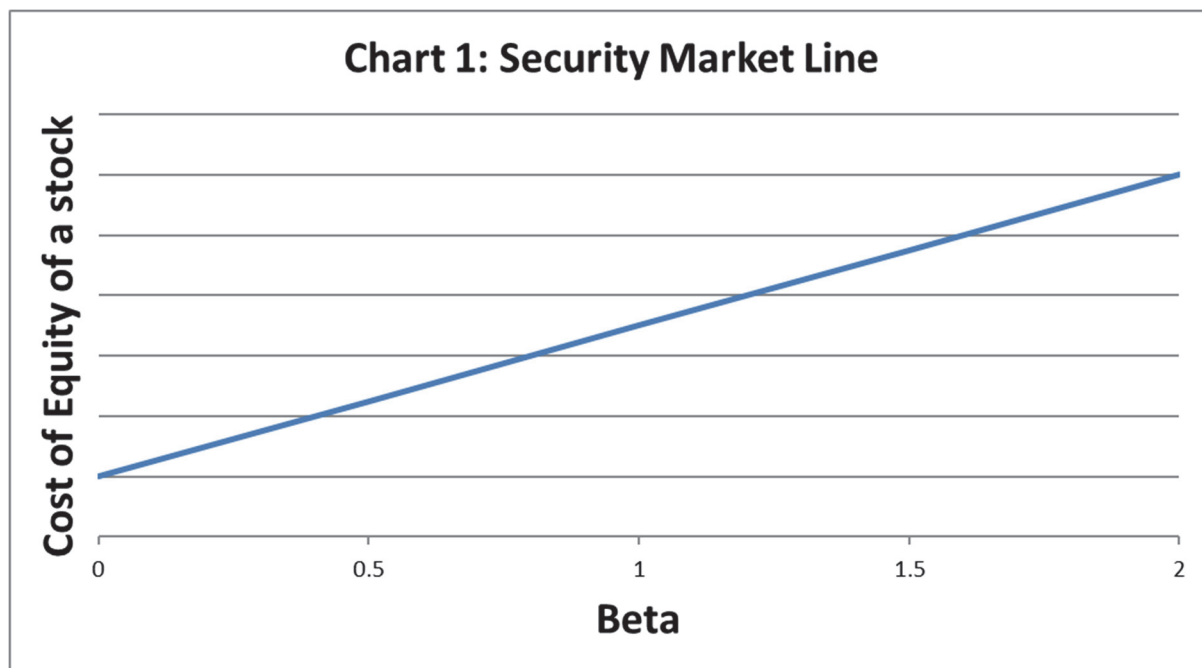
3. Capital Asset Pricing Model (CAPM)

The CAPM relates return to risk: Specifically, it relates the expected return on an investment in a security to the risk of investing in that security. The riskier the investment, the greater the expected return (i.e., the cost of equity) investors require to make that investment.

The CAPM predicts that for a given equity security, the cost of equity has a positive linear relationship to how sensitive the stock’s returns are to movements in the overall market (e.g., S&P 500). CAPM theory predicts that the cost of equity increases only for the type of risk related to the overall market such as a recession or interest rate changes. This Market-related risk cannot be removed by diversification, so the investor must to bear it no matter what. A security’s market sensitivity is measured by its Beta. As shown in Chart 1 below, the higher the beta of a stock the higher the company’s cost of equity—the return required by the investor to invest in the stock.

⁶⁶ Using common equity ratio of 52 percent.

⁶⁷ Using common equity ratio of 48 percent.



The CAPM can be implemented based on (1) investors' return expectations and (2) historical returns. Mr. Rothschild chose to implement the CAPM primarily based on investor expectations because when the Applicants raise money in the capital markets their cost of equity will be based on investor expectations, not historical returns.

B. Forward Looking CAPM

In order to implement the CAPM Mr. Rothschild first calculated each of the following three model inputs: (1) Risk Free Rate, (2) Beta and (3) Risk Premium. He then used the following equation to calculate the cost of equity.

$$K = R_f + \beta_i * (R_m - R_f)$$

Where:

K is the cost of equity;

R_m is the expected return on the overall market (e.g. S&P 500);

R_f is the risk-free interest rate;

$[R_m - R_f]$ is the premium investors expect to earn above the risk-free rate for investing in the overall market; and

β_i (Beta) is a measure of non-diversifiable (systematic) risk.

Risk-Free Rate. The risk-free rate is the interest paid on investments that have little to no risk. Mr. Rothschild recommends using a risk-free rate of 2.12% based on short-term U.S. Treasury bonds (3-months as of June 30, 2019) because those bonds have a negligible risk of default, and their value has a relevantly low exposure to swings in the overall market.

Beta. Traditionally the betas used in CAPM calculations are based on betas calculated from historical returns. Mr. Rothschild calculated betas based on investors' return expectations⁶⁸ because, among other reasons, studies have found that betas calculated based on investor expectations provides more reliable information regarding future betas than betas calculated using historical returns.

Risk Premium. Mr. Rothschild calculated his equity risk premium based on the expected return on the S&P 500 less the risk-free rate of interest (3-months U.S. bond yield). He calculated an expected return on the S&P 500 with a DCF analysis with a growth component based on stock option traded on the S&P 500.

The result of Mr. Rothschild's CAPM analysis based primarily on investor expectations as indicated by the price of stock options with the comparable proxy group is a cost of equity range of 6.77 percent to 9.33 percent.⁶⁹

All Applicants claim that Mr. Rothschild's risk-free rate is inappropriate because it is based on the current 3-month U.S. Treasury yield. None of the Applicants criticize Mr. Rothschild's beta⁷⁰ or risk premium calculations. They claim that it is more appropriate to use the interest rate on long-term Treasury bonds (e.g. 30 years) or interest rate forecasts. However, the yield on long-term Treasury bonds was only 40 basis points⁷¹ higher than the yield used by Mr. Rothschild. If Mr. Rothschild had used the long-term

⁶⁸ Mr. Rothschild calculated forward looking betas using the prices of stock options (e.g. calls, puts).

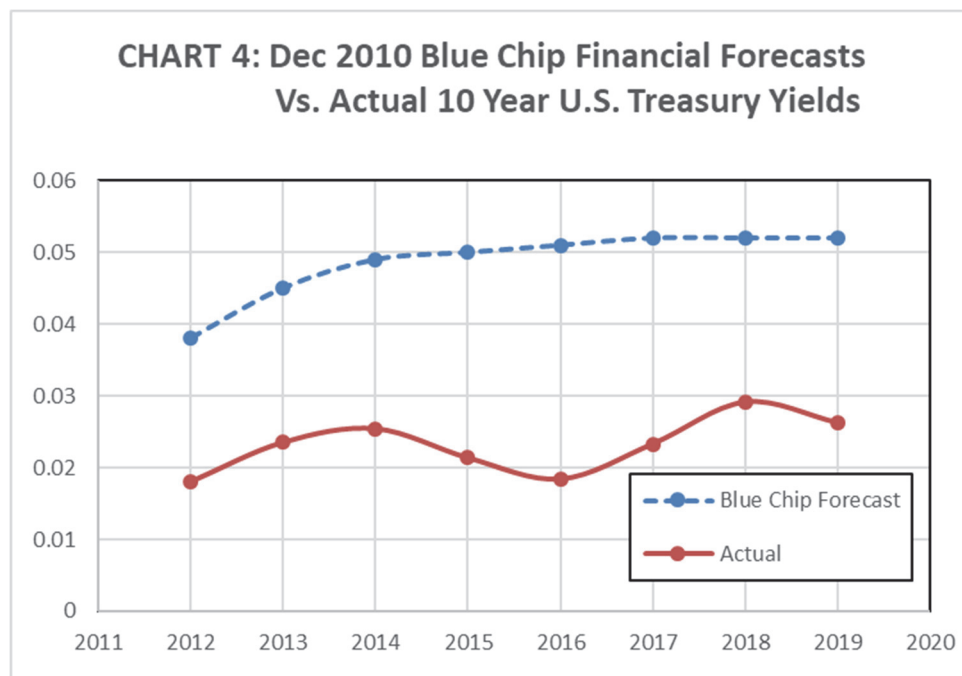
⁶⁹ Ex. PAO-01, p. 19.

⁷⁰ Witness Vilbert and Witness Villadsen claim that Mr. Rothschild failed to recognize that his calculated betas are "levered equity betas that reflect market value capital structures".

⁷¹ June 30, 2019 (U.S. Treasury.)

Treasury yield of 2.52% instead of 2.12% his CAPM result would have been increased by merely 8 to 16 basis points.

Regarding interest rate forecast, all Applicants rely on the Blue Chip Financial Forecasts in their CAPM. Blue Chip Financial Forecasts consist of survey data provided by a relatively small number of economists. Such forecasts have proven to be inaccurate and inconsistent with actual market data, such as TIPS and yields on U.S. Treasury Bonds, which provide an implied forecast of inflation or interest rates for investors. As shown in the chart below, Blue Chip Financial forecasted in 2012 that 10-Year U.S. Treasury bonds would be over 5% by 2018 when they are actually under 3%.



1. PG&E

PG&E used a CAPM to estimate a cost of equity for the same proxy group as the Public Advocates Office, but concluded that the appropriate cost of equity range for the electric utility sample using the CAPM is 8.7 percent to 10.1 percent.⁷² Thus, PG&E's estimates using the CAPM for its electric utility group of companies is within the same range as the Public Advocates Office's estimates, except that the higher end of PG&E's

⁷² Witness Vilbert also has estimates for a Water and Gas utility sample and for Regulated Utility, but the sample his CAPM shares with Mr. Rothschild is the electric utility sample. Ex. Vilbert Rebuttal, p. 9.

estimate (10.1 percent) is about 200 basis points higher than the average of the Public Advocates Office's CAPM estimates (8.00 percent).

The main difference between the two estimates is based on how each expert estimated the risk-free rate in the comparable group of companies. Witness Vilbert, as do the other Applicants' costs of equity experts, uses Blue Chip Financial Forecasts instead of market-based rates. Witness Vilbert explains:

Modern capital market theories of risk and return use the short-term risk-free rate of return as the starting benchmark, but regulatory bodies frequently use a version of the risk positions model that is based upon the long-term risk-free rate

...

It is my understanding that the final tariff rates will not go into effect until January 1, 2020 and be set through December 31, 2022. As such, I do not believe the current yield on the long-term Treasury bond is a good estimate for the risk-free rate that will prevail over the relevant time period.⁷³

Contrary to Mr. Vilbert's claim, using only Blue Chip Financial Forecasts to estimate what he concedes is a risk free rate is a problem. It essentially replaces the interest rate forecasts of millions of investors, as indicated by bond yields, with the forecast of a few economist. Witness Vilbert's use of Blue Chip's forecasted interest rates is inappropriate because it is not consistent with investor expectations.

2. SCE

SCE's cost of equity expert, Witness Villasden, essentially reiterates the same arguments Witness Vilbert made against the risk-free rate component of Mr. Rothschild's testimony.

3. SoCalGas and SDG&E

SoCalGas and SDG&E employed a "Traditional CAPM" and "Empirical CAPM" analyses to estimate a cost of equity. For SoCalGas, Witness Morin concluded that the

⁷³ Ex. PG&E – 03, p. 1-37.

appropriate cost of equity his proxy group was 8.7 percent based on a Traditional CAPM and 9.6 percent for his Empirical CAPM.⁷⁴ For SDG&E, Witness Morin concluded that the appropriate cost of equity his proxy group was 8.5 percent based on a Traditional CAPM and 9.2 percent for his Empirical CAPM.⁷⁵

Like PG&E and SCE, the main difference between Mr. Rothschild's CAPM results, and SoCalGas' and SDG&E's is how each expert estimated the risk-free rate in the comparable group of companies. Witness Morin states that it is not appropriate to use short-term interest rates as a proxy for the risk-free rate because "[s]hort-term rates are volatile, fluctuate widely, and are subject to more random disturbances than are long-term rates. He explains that he bases his risk-free rate on interest rate forecasts market-based rates because: (1) investors price securities based on long-term expectations, (2) publishing long-term interest rates proves that they are "in the minds of investors," and (3) the purpose of this proceeding is to provide ROE estimate for future proceedings.⁷⁶

Contrary to Witness Morin's claim, using only Blue Chip Financial Forecasts to estimate what he concedes is a risk-free rate is a problem. It essentially replaces the interest rate forecasts of millions of investors, as indicated by bond yields, with the forecast of a few economists. Witness Morin's use of forecasted interest rates is inappropriate because it is not consistent with investor expectations. The yield on long-term U.S. Treasury bond is currently at about 2% which is a direct measure of investors' long-term interest rate expectations. If investors expected long-term interest rates to increase to 4.2%,⁷⁷ as Witness Morin proposes, investors who purchase long-term Treasury bonds would be expecting to lose money.⁷⁸

⁷⁴ Ex. SCG - 04, p. 48, Table 4.

⁷⁵ *Id.*, p. 43, Table 4.

⁷⁶ *Id.*, p. 32, lines 16-18 and p. 33, lines 1-19.

⁷⁷ *Id.*, p. 32, Table 2.

⁷⁸ The price of bonds and interest rates move in opposite direction.

C. OTHER RISKS

1. Location

Applicants maintain that the CAPM does not assess utility specific risks that arise from their unique location in California and thus request that the Commission increase their ROEs or approve the higher end of their ROE estimates to compensate for such risks.⁷⁹ However, it would be inconsistent with the law to assess a risk premium to the utilities based on the fact that they are located in California.⁸⁰

A public utility is entitled to such rates as will permit it to earn a return upon the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and **in the same general part of the country** on investments in other business undertakings which are attended by corresponding risks and uncertainties ...⁸¹

While the Applicants all cite this seminal language from *Bluefield*, it is clear from the evidence that they failed to consider or heed the directive that the comparable risk that forms the basis for the cost of capital estimates must be from “the same general part of the country” as that of the utilities being assessed.⁸² SCE’s Villasden writes:

Q.70. Are there any differences in the regulatory environment in which the comparable companies and SCE operates?

A70. Yes. SCE is located in California, which has many regulatory and legislative risks that are not common to other electric utilities.⁸³

SDG&E’s Folkman writes:

⁷⁹ See PG&E-01, p. 86; SCE-02, p. 57; SDG&E-01, p. 7.

⁸⁰ *Bluefield*, 262 U.S. 679, 692 (1923).

⁸¹ *Id.* See also SCG-01, p. 2.

⁸² Tr. pp. 287-288.

⁸³ Ex. SCE-02, pp. 57-58.

SDG&E currently faces substantial risks operating as a utility in California compared to its peers nationwide.⁸⁴

SoCalGas' Aragon states:

SoCalGas operates in one of the most litigious regions in the country. In fact, California consistently ranks among the top for total number of civil cases litigated, being fourth in 2017. Litigation increases operating expenses and each incident carries a high degree of uncertainty and risk for SoCalGas.⁸⁵

There is no legal basis for assessing a risk premium for the utilities based on the fact that the regulatory and legal climate in which they operate in California is different from other States. The Commission should not compare the risk of utility operations in New Jersey to the risk of operation in California and penalize California for not being as environmentally passive as New Jersey. Essentially, the Applicants are asking the Commission to endorse a policy that proclaims the State of California risky for investment in regulated utilities.

2. Renewable Portfolio Standard Program

Applicants also argue that "California has one of the most aggressive Renewables Portfolio Standards ("RPSs") in the nation."⁸⁶ They claim that because the targets set are more aggressive than the targets in other states, the program create uncertainties to their operations. However, on further examination it was clear that the Applicants' cost of equity experts do not have a clear understanding or grasp of the RPS program or how it figures into the Applicants cost of capital considerations.⁸⁷

California has had an RPS target since 2003, when the legislation was passed. Each year since 2003, the utilities have an annual target they must meet towards a gradual

⁸⁴ Ex. SDG&E-01, p. BAF-7.

⁸⁵ Ex. SCG-03, p. 4.

⁸⁶ Ex. SCE-02, pp. 59-60.

⁸⁷ Tr. pp. 294 – 295. Sempra Applicants' witness Morin could not accurately state the standard and admits he relied solely on what the Applicants-clients told him to make his bold but false statements about the target. SCE's Villasden refers to SCE's other witnesses for the RPS.

implementation of the overall target. The program was designed to ensure that the utilities do not incur any costs they would not have otherwise incurred in the normal operations of their business, if they did not have an RPS target, and this condition was made necessary by federal law. Thus, the utilities' claims in this proceeding regarding the RPS is misleading and unreasonable. The record shows that all three utilities are substantially ahead of their RPS procurement annual targets by contracts procured, and since the RPS became law, the cost of implementation has consistently gone down.

3. Community Choice Aggregation

Applicants argue that the Commission should also approve a greater ROEs because they are experiencing “ongoing transformation from an integrated electric company with a monopoly service territory, to one in which its services are provided in a more competitive environment.”⁸⁸ This competitive environment they refer to is community choice aggregation. They claim CCAs are reducing their territories and exposing them to unplanned uncertainties.

SDG&E argues that the growing flexibility for customers to choose their energy services provider, such as through a CCA is a business risk for the company. This risk, according to SDG&E, means that the company “as provider of last resort (“POLR”) must stand ready to provide electricity if the market does not meet demand due to a sudden exit or failure of an LSE [Load Serving Entity]”⁸⁹

Thus, in a nutshell, the utilities' concerns about CCAs is that: 1) CCAs reduce utility service territories, and 2) CCAs may suddenly fail and leave the Applicants with returning customers. Both of these conditions are clearly market opportunities for the Applicants, not risks. If CCAs pose any risks at all, only ratepayers will bear those risks. Thus, the Commission has taken steps to ensure that to the extent possible ratepayers remain financially indifferent to a sudden exit by a CCA.⁹⁰ The Commission has

⁸⁸ Ex. PG&E – 01, p. 2-14.

⁸⁹ Ex. SDG&E – 03, p. 22.

⁹⁰ Assembly Bill 117 (2002); see also Senate Bill 790 (2011).

developed strict implementation plans for CCAs , imposed the non-bypassable Power Charge Indifferent Adjustment (PCIA) charges on CCAs, and requires CCAs to participate in resource adequacy and integrated resource plans administered by the Commission.

None of the Applicants mentions these safeguards in place for CCA implementation or even the fact that the Commission has an extensive Electric Rule 23 that governs the terms and conditions of operations of CCAs and their relationship with the Applicants. Applicants’ attempt to list CCAs as an uncertain risk they bear only illustrates how far they seem willing to go to find risks where none exists.

SDG&E goes so far as to claim:

SDG&E, as a POLR, remains exposed if the customers served by CCA and/or Direct Access (“DA”) providers return to bundled utility service, adding complexity to the market and **creating unplanned procurement obligations** that could put a strain on SDG&E’s balance sheet and cashflows.²¹

This assertion by SDG&E is incorrect.

D. Evidence On Return On Equity

The evidence on return on equity shows that Applicants and the Public Advocates Office are closest in their range of recommendations under the DCF model.

Public Advocates Office	8.45% - 9.41%
PG&E	8.3% - 9.8%
SCE	8.3% ²² - 8.7% ²³
SoCalGas	9.29% - 10.75% ²⁴

²¹ *Id.*, p. 23 [Emphasis added.].

²² Using common equity ratio of 52 percent.

²³ Using common equity ratio of 48 percent.

²⁴ Using common equity ratio of 52 percent and excluding floatation costs.

This evidence shows that while the Public Advocates Office's recommendations is on the low end of the Applicants' request, it consistent with the modeling done by the Applicants, and non-biased against any Applicant.

Further, the Public Advocates Office submits that the Applicants have not submitted any evidence to support their claims of risks based on regulatory policy and California law.

Therefore, the evidence only supports awarding the Applicants a ROE in the range of 8.45 percent to 9.41 percent. Any ROE above this range is not supported by the record. The Public Advocates Office's recommendation is within this range.

I. CAPITAL STRUCTURE

The Public Advocates Office recommends that Applicants retain their current authorized percentage of common equity, which has been unchanged from the levels authorized by the Commission in the prior cost of capital proceeding. However, where there had been preferred stock in the authorized capital structure, the Public Advocates Office recommends that the percentage level of preferred stock be included with long-term debt as the Applicant reduces its level of preferred stock. The table below compares the Applicants' requested capital structure ratios to Mr. Rothschild's recommendations.²⁵

²⁵ Ex. PAO-01, p. 31:2-12.

CAPITAL STRUCTURE COMPARISON 2020 Energy Cost of Capital								
	Source	Applicant Requests			Source	Rothschild Recommendations		
		Common Equity	Preferred Equity	Debt		Common Equity	Preferred Equity	Debt
Southern California Edison (SCE)	[A]	52.00%	5.00%	43.00%	[E]	48.00%	5.00%	47.00%
San Diego Gas and Electric (SDG&E)	[B]	56.00%	0.00%	44.00%	[F]	52.00%	0.00%	48.00%
Southern California Gas Company (SCG)	[C]	56.00%	0.40%	43.60%	[G]	52.00%	0.40%	45.60%
Pacific Gas and Electric Company (PG&E)	[D]	52.00%	0.50%	47.50%	[H]	52.00%	0.50%	47.50%

[A] Testimony Supporting Southern California Edison's Application,

Mr. Wood SCE, page 4, Executive Summary, Figure II-1.

[B] Mr. Gokmann SDG&E Direct Testimony page BAF-2, Table 1.

[C] Mr. Gonzalez SoCalGas Direct Testimony, Exhibit SCG-02, page 1.

[D] Pacific Gas and Electric Company Cost of Capital 2020, Prepared Testimony, page 1-3, Table 1-1.

[E] Mr. Rothschild's Direct Testimony, page 5, Table 1.

[F] Ibid. Table 2.

[G] Ibid. Table 3.

[H] Ibid. Table 4.

The Public Advocates Office's capital structure recommendations are consistent with the Commission's policy guidance that common equity ratios of regulated utilities be kept between 45% and 50%.²⁶ In D.09-05-019, the Commission stated:

We find equity components in excess of 50% to be problematic and have concerns about equity ratios less than 45%. It is this Commission's responsibility to establish a safe range within which a company's capital ratio may move and against which the cost of capital may be measured.²⁷

Applicants have the burden of proof in this proceeding and have failed to present evidence to support their requests that their capital structure ratios be changed to increase the common equity component of the capital structure. Nevertheless, where the

²⁶ Decision On Base Year 2009 Cost Of Capital For The Three Large Multi-District Class A Water Utilities:

California Water Service Company, California American Water, And Golden State Water Company, D.09-05-019.

²⁷ *Id.*, p. 9.

authorized capital structure of an Applicant has a common equity ratio that is above 50 percent, as with the Sempra energy utilities and PG&E, the Public Advocates Office recommends leaving it at its current level.

It is well settled that a change in the common equity component of the Capital Structure, has implications for the revenue due the company and rates borne by the ratepayers. However, the Applicants have presented no evidence to show the corresponding impact that their requested increases in the common equity ratio would have on ratepayers or the corresponding benefits that ratepayers stand to gain. Moreover, Applicants did not answer many of the discovery requests asking them to justify their requested capital structure ratios.⁹⁸

Therefore, the Public Advocates Office recommends rejecting the proposed increase in the common equity ratio of SDG&E and SoCalGas from the currently authorized 52% up to 56%, and for SCE from the currently authorized 48% common equity to 52%. PG&E does not seek a change in its currently authorized common equity ratio.

A. Sempra Applicants – SDG&E and SoCalGas

SDG&E concedes that it has not evaluated the cost to ratepayers in this proceeding if the Commission increases its common equity ratio from 52 percent to 56 percent.

Q · Is there a cost to ratepayers, in terms of rates, if the -- if the Commission authorizes an increased capital structure that allows a common equity ratio of 56 percent from 52?

A · I think it's indeterminant, but the evidence suggests that an authorized equity layer of 56 versus 52 results in lower costs overall for ratepayers.

Q · Isn't it true that that can be quantified in terms of dollars and cents as to how much it would cost ratepayers to increase their –

A · We have not quantified that.⁹⁹

⁹⁸ Ex. PAO-01, p. 32: 6-9.

⁹⁹ Tr., p. 851:8-21.

While SDG&E and SoCalGas presented scant evidence to support their proposed increases in common equity ratio, the capital structure of their parent company shows a much lower common equity ratio than what is currently authorized for SDG&E and SoCalGas. This lower parent company common equity ratio suggests that the Commission should reject the request by SDG&E and SoCalGas to increase their common equity ratio. Mr. Rothschild explains that his recommended capital structure for SDG&E and SoCalGas contains a conservatively high level of common equity relative to their parent company's structure. Per Value Line data, the actual and projected capital structures for Sempra are as follows:

	2020	2018
Long-term Debt	55.7%	53.0%
Preferred Stock	5.9%	5.0%
Common Equity	38.4%	42.0%

Thus, the actual consolidated capital structure of their parent, Sempra Energy, contains meaningfully less equity than their current authorized capital structure.

SoCalGas' Witness Bruce Folkman argues that if Mr. Rothschild really believes that the parent company's capital structure should be used to justify SoCalGas's capital structure, then his recommendation should be lower than SoCalGas's current authorized common equity ratio of 52 percent.¹⁰⁰ In this argument, Mr. Folkman misses the point. Mr. Rothschild is merely pointing out that SoCalGas and SDG&E might be using a higher common equity ratio to support the consolidated capital structure of the parent company, leaving their ratepayers to bear the cost. Mr. Folkman concedes this relationship between SDG&E and SoCalGas capital structure and their parent company capital structure.¹⁰¹ The Public Advocates Office's proposal to retain the current 52% equity ratio is an equitable capital structure for the utility.

It is incumbent on Mr. Folkman and the Sempra Applicants to establish the evidence that supports an increase in the company's common equity ratio. However, the

¹⁰⁰ Tr. p. 869:19-28.

¹⁰¹ Tr. pp. 868:5-16; 872:7 – 873:4.

Sempra Applicants having failed to present such evidence, the Public Advocates Office recommends that the Commission retain the common equity ratios as currently authorized. This is a most fair, if not conservative recommendation especially in light of the fact that the Sempra Applicants have enjoyed strong credit ratings since 2012 under the same capital structure.¹⁰²

SDG&E claims that Moody's Credit Rating Agency "is focused on the need for SDG&E's capital structure to be adopted as proposed" from 52 percent to 56 percent in order to support the company's credit rating.¹⁰³ However, SDG&E Witness Widadja conceded that he was only relying on a text in the Moody's report as the sole evidence supporting his argument for an increase in SDG&E's common equity ratio.¹⁰⁴

B. Southern California Edison

SCE, which is owned by Edison International, is currently authorized a capital structure containing 48 percent common equity. SCE requests that its new cost of capital be computed based on a capital structure containing 52 percent common equity.¹⁰⁵ According to the April 26, 2019 issue of Value Line, the actual consolidated capital structure of Edison International contained only 38.3 percent common equity as of the end of 2018 and is forecast to be 39 percent by the end of the 2020 Test Year. A further increase to 41 percent common equity within the 2022-2024 time frame is also forecast by Value Line.

The common equity ratio increase requested by SCE has not been justified with any specific quantification of the value of the alleged benefits. Furthermore, the increase is unlikely to have economic benefit to ratepayers because Edison International has a

¹⁰² Tr. pp. 757:12 – 759:13.

¹⁰³ Ex. SDG&E-03-S, p. 7. Tr. p. 199:12.

¹⁰⁴ Tr. p. 201:7-12.

Q. ... you based this condition on what Moody's would do solely on the statement that you quoted in this page is that correct?

A. Yeah. That's what they sent me for.

¹⁰⁵ See page 48 of the testimony of company witness Sergio P. Deana.

consolidated capital structure containing only about 38% common equity. Even if a pro-forma adjustment is made to the capital structure of Edison International for the new equity sale that was announced at the end of July 2019, the new common equity ratio is still only about 42% common equity.

With the exception of making the change to recognize that preferred stock is being reduced, the Public Advocates Office recommends keeping the currently authorized common equity percentage of SCE's capital structure unchanged.

Long-term Debt	47.0%
Preferred Equity	5.0%
Common Equity	48.0%

C. PG&E

The Public Advocates Office recommends a capital structure for PG&E at the following levels:

Long-term Debt	47.5%
Preferred Equity	0.50%
Common Equity	52.0%

The most recent Value Line report on the consolidated PG&E Corp showed a capital structure containing 51.5 percent common equity as of the end of 2018. Given PG&E's current financial situation, Value Line did not show any projected common equity ratios for PG&E Corp. in that most recent edition.

Immediately prior to filing for bankruptcy, the common equity level being used by PG&E both on a consolidated level and on the utility level was very close to the actual 52% authorized level.

D. Summary

The Public Advocates Office maintains that the prior authorized capital structures will allow the companies to raise investment capital in the short and long term. Additionally, by recognizing the importance of the actual consolidated capital structures

to the credit quality of subsidiaries, the Commission will provide an increased incentive for the companies to increase common equity ratios at the subsidiary level. In so doing, the financial integrity of not only the consolidated entities will improve, but the financial integrity of the regulated utility subsidiaries will improve as well.

II. EMBEDDED COST OF DEBT AND PREFERRED EQUITY

The **cost of debt** is the return investors expect to earn on the market value of debt (e.g. bonds). It is the interest rate creditors require to provide debt to the Applicants. The appropriate **cost of debt** is based on the Commission's determination of the Applicants' actual cost at the time of a proceeding after reviewing evidentiary record. The Commission adopts the Applicants' requested cost of debt if it accurately reflects their actual cost of debt. If not, the Commission may require an adjustment to the cost of debt for ratemaking purposes.

III. COST OF CAPITAL ADJUSTMENT MECHANISM

The Public Advocates Office recommends leaving the Cost of Capital Mechanism (CCM) unchanged. SoCalGas and SDG&E recommend that the Commission adopt and implement certain adjustments to the CCM. Their recommendation includes the following four changes:

1. Changing the dead band trigger to 50 basis points from the currently authorized 100 basis points;
2. Clarifying the selection of a CCM benchmark index when the utility has split ratings;
3. Clarifying the approach when SDG&E's credit ratings change during CCM years;
4. Providing guidance for utilities with non-investment grade ratings.

The Public Advocates Office takes no issue on the requested clarifications to the CCM, set forth in proposals 2, 3, and 4 above but does not support the request to reduce the dead band trigger¹⁰⁶ from 100 to 50 basis points. SoCalGas and SDG&E present no

¹⁰⁶ "The utilities' cost of capital is governed in the intervening years by a trigger adjustment tied to an interest rate index that varied between utilities based on their respective corporate credit rating. During

factual evidence to show that the current cost of capital mechanism has produced adverse consequences for shareholders or ratepayers. To the contrary, the current mechanism has functioned well. In rebuttal testimony, Mr. MacNeil states that since 2001, “all additional triggers using a 50 basis point dead band...were downward triggers that would have led to a timelier reduction in ROE benefitting ratepayers.”¹⁰⁷ Mr. MacNeil’s observation is one-sided; he only focuses on the benefits that ratepayers could have incurred under a 50 basis point dead band in the case of downward triggers from 2012 – 2018. Mr. MacNeil neglects to elaborate on the adverse impacts to ratepayers had the upper dead band been triggered in this same time period, which is the more likely occurrence given the currently low interest rates.

The current 100 basis point dead band has not been triggered in the last ten years. Thus, it has achieved its intended purpose. Furthermore, neither PG&E nor SCE support changes to the CCM as proposed by SoCalGas and SDG&E. For these reasons, the Commission should decline this proposal to modify the dead band trigger of the CCM.

IV. CUSTOMER DEPOSITS (PG&E ONLY)

PG&E’s proposed treatment of its customer deposits should continue to be addressed in the General Rate Case (GRC) application because it is not an appropriate component of Cost of Capital. It is neither debt nor equity, but more like revenue authorized in rates but never used¹⁰⁸. In this respect, it is no different from all the other

those intervening years, the utilities are required to file a Tier 2 advice letter on October 15 of any year when the difference between the current 12-month October through September average utility bond rate and their respective interest rate benchmark exceeds a trigger of 100 basis points. If triggered, the utilities’ return on equity for the following calendar year would automatically be adjusted by one-half the difference between the current average utility bond rates and their benchmarks. Although the authorized capital structure would not be adjusted, the long-term debt and preferred stock costs would be updated.” D.10-01-017, p. 2.

¹⁰⁷ SDG&E – 10, p. BM-4.

¹⁰⁸ “PG&E holds customer deposits as a result of requiring new customers to establish credit under Tariff Rule 6. A customer who does not qualify for credit must submit a deposit pursuant to Tariff Rule 7. PG&E refunds the deposits within 12 months to those customers that have generally paid their bills on time. PG&E pays interest on the deposits equal to the three-month commercial paper rate.” D.14-08-032, p. 624.

proposals that a utility puts forth in a GRC without absolute certainty that the goals would be accomplished.

PG&E argues that the 2014 GRC recommended that “a comprehensive review of the treatment of customer deposits should be made in the next cost of capital proceeding”. However, D.14-08-032’s recommendation contemplated examining the following claim with input from all Applicants:

PG&E argues that in order to be consistent with its proposed treatment of nuclear fuel and CWIP, customer deposits should be included in PG&E’s capital structure as a source of debt. PG&E argues that the impact of this debt should be considered as part of its capital structure in relation to equity. If no matching equity is deemed necessary in the cost of capital proceeding, then PG&E believes the overall rate of return could be adjusted downward to achieve the same revenue requirement effect as by a rate base reduction. If full matching equity is required, however, the revenue requirement would be limited to reducing PG&E’s embedded cost of debt (providing a weighted downward adjustment of 0.4%).¹⁰⁹

It appears that the reason D.14-08-032 chose the cost of capital proceeding for the examination of this question was because TURN was proposing that the Commission adopt uniform treatment of customer deposits for all investor owned utilities and the cost of capital proceeding is the most relevant proceeding on the issue where all IOUs participate. However, none of the other three Applicants presented any testimony addressing this question. In fact, even PG&E takes the position that it cannot address ratemaking treatment of customer deposits as a source of funds and that “ratemaking for CDs post-bankruptcy be taken up in PG&E’s next cost of capital application after it emerges from bankruptcy.”¹¹⁰ Therefore, this proceeding never resulted in the comprehensive review that D.14-08-032 contemplated.

¹⁰⁹ D.14-08-032, pp. 625-626.

¹¹⁰ Ex. PG&E-01, p. 7-6, lines 28 – 30.

The treatment of customer deposits (CDs) has two aspects, a ratemaking aspect and an operational aspect: “[h]ow CDs may be deployed by the company and propose appropriate ratemaking mechanisms for PG&E’s CDs.”¹¹¹ The former, “how CDs may be deployed,” is an operational aspect. It examines the account for reasonableness in the handling and treatment of customer deposits, as well as addressing ratepayer concerns if any as to how said accounts accumulate, are refunded and managed. The latter, “propose[d] appropriate ratemaking mechanisms for PG&E’s CDs” is a ratemaking phase that determines the appropriate treatment for purposes of regulatory accounting. The two cannot be separated into two different proceedings and placing them in the Cost of Capital proceeding would make the former a distraction from all other aspects of the cost of capital proceeding.

Further, the record shows that the Cost of Capital Applications are subject to deferrals when the CCM appears to produce reasonably acceptable returns. However, customer deposits would need to be addressed even in years when the CCM is deferred.

Finally, it would be inconsistent for the Commission to review PG&E’s customer deposits in the Cost of Capital proceeding when the customer deposits of the other utilities are still being addressed in their respective GRCs

IV. SHOULD PG&E BE ORDERED TO FILE A NEW COST OF CAPITAL APPLICATION WHEN IT EMERGES CHAPTER 11 BANKRUPTCY?

As stated in its opening testimony, the Public Advocates Office supports requiring PG&E to refile a new cost of capital application in 2020 after it emerges from Chapter 11 bankruptcy if the adopted bankruptcy plan of reorganization results in a significant change to PG&E’s capital structure. The Public Advocates Office defines a significant change as a reduction in PG&E’s equity to less than 50 percent.

¹¹¹ Ex. PG&E-01, p. 7-1.

V. CONCLUSION

For the reasons stated above, the Public Advocates Office requests that the Commission adopt its recommendation on the Applicants' Cost of Capital and continue the treatment of customer deposits in the GRCs.

Respectfully submitted,

/s/ NOEL OBIORA

NOEL OBIORA
Attorney

Public Advocates Office
California Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94102
Telephone: (415) 703-5987
Email: Noel.Obiora@cpuc.ca.gov

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