

Company: Southern California Gas Company (U 904 G) / San Diego Gas & Electric
Company (U 902 M)
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Proceeding: 2023 Cost of Capital
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PREPARED OPENING TESTIMONY OF
JOSHUA C. NOWAK
ON BEHALF OF SOUTHERN CALIFORNIA GAS COMPANY AND
SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



January 29, 2024

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1 **I. INTRODUCTION AND SUMMARY**

2 **Q. Please state your name and business address.**

3 A. My name is Joshua C. Nowak, and I am employed by Concentric Energy Advisors, Inc.
4 (“Concentric”) as a Vice President. Concentric is a management consulting and economic
5 advisory firm, focused on the North American energy and water industries. Based in
6 Marlborough, Massachusetts, and with offices in Washington, D.C., and Calgary, Alberta,
7 Concentric specializes in regulatory and litigation support, financial advisory services,
8 energy market strategies, market assessments, energy commodity contracting and
9 procurement, economic feasibility studies, and capital market analyses. My business
10 address is 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts 01752.

11 **Q. On whose behalf are you testifying?**

12 A. I am submitting this testimony to the California Public Utilities Commission
13 (“Commission”) on behalf San Diego Gas & Electric Company (“SDG&E”) and Southern
14 California Gas Company (“SoCalGas”) (collectively the “Companies”) and for SDG&E
15 regarding the issue of a “blended ROE.”

16 **Q. Please describe your experience in the energy and utility industries and your
17 educational and professional qualifications.**

18 A. I hold a Bachelor’s degree in Economics from Boston College, and have more than 15
19 years of experience in providing economic, financial, and strategic advisory services. As a
20 consultant, I primarily advise clients in regulated utility industries and have provided
21 testimony regarding financial matters before multiple regulatory agencies. I have advised
22 numerous energy and utility clients on a wide range of financial and economic issues with
23 primary concentrations in valuation and utility rate matters. Many of these assignments

1 have included the determination of the cost of capital for valuation and ratemaking
2 purposes. I have provided testimony before the Federal Energy Regulatory Commission
3 (“FERC”) as well as state and provincial jurisdictions in the U.S. and Canada. Prior to
4 joining Concentric in 2018, I was employed by National Grid USA where I was responsible
5 for regulatory filings related to the cost of capital across the company’s multiple U.S.
6 operating companies and service territories. A summary of my professional and
7 educational background is presented in Exhibit JCN-1.

8 **Q. What is the purpose of your opening testimony?**

9 A. The purpose of my opening testimony is to present evidence and provide recommendations
10 in response to the Commission’s Phase 2 list of issues regarding the return on equity
11 (“ROE”). Specifically, my opening testimony provides responses to the following issues:

- 12 1) Whether a blended ROE should be authorized for combined service gas and
13 electric investor-owned utilities for future cost of capital cycle applications;
- 14 2) The appropriate methodology for calculating return on equity;
- 15 3) Measures to prevent circularity, self-reference, and status quo bias; and
- 16 4) Affordability considerations.

17 **II. BLENDED ROE FOR COMBINED SERVICE GAS AND ELECTRIC**
18 **UTILITIES, ON BEHALF OF SDG&E**

19 **Q. What do you understand a “blended ROE” to mean?**

20 A. I understand a “blended ROE” for a combined gas and electric investor-owned utility
21 (“IOU”) to refer to authorizing a single ROE that applies to both its gas and electric
22 services.

1 **Q. Has the Commission previously used a blended ROE for combination gas and**
2 **electric investor-owned utilities such as SDG&E?**

3 A. Yes, the Commission has previously authorized a blended ROE for combined service gas
4 and electric IOUs. That is, in my understanding, the Commission has authorized a single
5 ROE for the entirety of the IOU's CPUC-jurisdictional business. This has been the
6 Commission's consistent approach over the last several decades, and most recently in the
7 decision issued in December 2022 approving a blended ROE for SDG&E for test year
8 2023.¹

9 **Q. Do other state utility regulators also authorize a blended ROE for combination gas**
10 **and electric utilities?**

11 A. Yes. Based on my experience, while state regulatory practice varies in the determination
12 of authorized ROEs for combination gas and electric utilities, several states authorize a
13 blended ROE for combination gas and electric utilities. These states include
14 Massachusetts, New York, Rhode Island, Washington, and Wisconsin. Equity ratios for
15 combination utilities have been set equally for gas and electric operations in these states as
16 well.

17 **Q. Please explain why it would be appropriate for the Commission to continue a**
18 **blended approach.**

19 A. There are several reasons that support the continued use of a blended ROE for combined
20 service gas and electric IOUs in California:

- 21 (1) A blended approach to setting the authorized ROE provides regulatory
22 efficiency for the Commission. Reviews of the appropriate ROE can be

¹ Decision ("D.") 22-12-031.

1 time-consuming and costly for all parties involved. By taking a blended
2 approach to establishing the authorized ROE, the Commission is operating
3 in a cost-effective manner.

4 (2) Capital market indicators such as beta coefficients (a measure of market risk
5 in the CAPM) or credit ratings have not yet revealed overall substantial risk
6 differences between gas and electric utilities. This, however, may change
7 as the energy transition evolves.

8 (3) Evidentiary-based cost of capital determinations for California’s combined
9 service gas and electric utilities, gas-only utilities, and electric-only utilities
10 are currently within a narrow range of 25 basis points, as shown in Figure
11 1.

12 **Figure 1: Cost of Capital Determinations – Combined Gas/Electric**
13 **Service**

	PG&E	SCE	SDG&E	SoCalGas
Cost of long-term debt	4.66%	4.48%	4.34%	4.54%
Cost of preferred equity	5.52%	7.02%	6.22%	6.00%
Cost of common equity	10.70%	10.75%	10.65%	10.50%
Rate of Return	7.80%	7.87%	7.67%	7.67%

14
15 (4) To the extent there is overlap between the service territories for combined
16 service gas and electric utility companies, this serves to mitigate risks
17 associated with the energy transition and fuel switching.

18 (5) Combined service gas and electric utility companies such as SDG&E
19 typically use common capital sources (debt and equity) to fund both gas and
20 electric operations rather than financing each business separately. That is,
21 an investor in a combined gas and electric IOU cannot choose to only invest

1 in that IOU's gas or electric operations. Instead, an investment is made in a
2 combined IOU as a whole. Therefore, an investor's return requirement
3 reflects the collective risk profile of that utility's combined operations. Even
4 if a combined IOU was provided separate gas and electric ROEs for
5 ratemaking purposes, in practice, an investor would simply assess the
6 Company's expected return by combining those two separate ROEs into a
7 single expected return for the IOU. Thus, the Commission can, as it
8 currently does, reflect this practical consideration by assessing the overall
9 risk profile of combined IOUs and authorize a single ROE for each
10 combined IOU that reflects the collective risks from having differing gas
11 and electric operations.

12 (6) The proxy group applied in the cost of equity analyses is an appropriate
13 input to consider the effect of combined gas and electric operations in
14 determining the cost of capital for a combined IOU. There are a substantial
15 number of companies classified as "electric" utility companies in the Value
16 Line universe of potential proxy group companies that are actually
17 combined service electric and gas utilities. For example, as discussed in
18 James M. Coyne's opening testimony in phase one of this proceeding, the
19 proxy group was selected such that its average percentage of revenue and
20 income derived from electric and gas utility operations was comparable to
21 SDG&E's composition.² That is, proxy group's overall electric and gas

² See, e.g., Exhibit SDG&E-04, Prepared Direct Testimony of James M. Coyne, *Return on Equity* on behalf of SDG&E at 31 (Apr. 20, 2022).

1 operations were proportional to SDG&E's operations, so the cost of equity
2 analyses appropriately accounted for the collective risk profile of SDG&E's
3 combined operations. As such, no change is necessary to the process.

4 **Q. What other issues that the Commission must consider if it chooses to deviate from**
5 **applying a blended ROE for combination gas and electric utilities?**

6 A. Despite the above-mentioned factors that support the Commission's current practice, new
7 and emerging risks could affect gas and electric utilities differently. However, unless there
8 is capital market evidence that the risks and cost of capital for electric and gas utilities
9 diverge, then there is no reason to diverge from the Commission's blended ROE approach.
10 It is critical to note that, if the Commission establishes a separate ROE for gas and electric
11 operations of a combination utility, each ROE must continue to meet the standards set by
12 the United States Supreme Court in *Bluefield Waterworks & Imp. Co. v. Public Service*
13 *Commission of West Virginia*, 262 U.S. 679 (1923) (*Bluefield*), and *Federal Power*
14 *Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944) (*Hope*). That is, the
15 ROE established for both the gas and electric services must be:

- 16 • Adequate to allow the Company to attract the capital that is necessary to
17 provide safe and reliable service;
- 18 • Sufficient to ensure the Company's ability to maintain its financial integrity;
19 and
- 20 • At a level that is comparable to returns required on investments of similar
21 risk.

22 As a practical matter, SDG&E is a single entity that raises capital for its combination gas
23 and electric operations. As such, even if the gas and electric operations are authorized

1 distinct ROEs for ratemaking purposes, SDG&E will continue to raise capital for its
2 combination gas and electric operations and investors will view the risks and returns of the
3 combined operations on a sum-of-the parts basis. Consequently, the authorized ROEs must
4 continue to meet the *Hope* and *Bluefield* comparable return standards on a standalone basis
5 for each of the gas and electric operations. If either of SDG&E’s respective gas or electric
6 authorized ROEs fail to meet these return standards, this could impede the Company’s
7 access to capital or raise the overall cost of capital. Under current and anticipated public
8 policies relating to decarbonization, electrification, and the energy transition, the company
9 will be required to make significant investments, and therefore need to maintain efficient
10 access to capital markets.

11 **Q. What is your recommended approach?**

12 A. I recommend the continued use of a blended approach on ROE until a utility can
13 demonstrate the need for an ROE or capital structure difference to account for changes in
14 business risks.

15 **III. APPROPRIATE METHODOLOGIES FOR CALCULATING RETURN ON**
16 **EQUITY, ON BEHALF OF THE COMPANIES**

17 **Q. What models has the Commission used to estimate the return on equity in past**
18 **proceedings?**

19 A. The Commission has relied on multiple models to determine ROE and has recognized that
20 the Discounted Cash Flow (“DCF”) model, the Capital Asset Pricing Model (“CAPM”),
21 and the Bond Yield Plus Risk Premium (“Risk Premium”) model are commonly used in
22 proceedings to estimate the ROE.³

³ D.22-12-031 at 18-19.

1 **Q. Why should the Commission continue to consider the results of multiple**
2 **methodologies to establish authorized ROEs?**

3 A. The cost of equity cannot be directly observed in the same way as the cost of debt or
4 preferred stock. For that reason, several financial models have been developed to estimate
5 the cost of equity, including the DCF model, CAPM, Risk Premium model, and Expected
6 Earnings model. Each model has strengths and shortcomings, depending on market
7 conditions, and no one model always produces reliable or “accurate” results. Because each
8 model employs assumptions that are affected differently by market conditions, the use of
9 multiple models limits the reliance on any one set of assumptions that might be unduly
10 affected by current market conditions. This is why the Commission has correctly
11 repeatedly observed, as it did in Decision 23-11-031, that the “financial models commonly
12 used in ROE proceedings are the Capital Asset Pricing Model (CAPM), Risk Premium
13 Model (RPM), and Discounted Cash Flow (DCF) model.”⁴

14 The objective of setting an authorized ROE is to determine a fair return that meets the legal
15 requirements of the U.S. Supreme Court’s *Hope* and *Bluefield* decisions. The return should
16 be consistent with the long-term expectations of equity investors in long-lived utility assets.
17 Further, it is important that the approach not be overly formulaic. The results of each
18 financial model should be considered in the context of economic and capital market
19 conditions at the time of the analysis. The authorized ROE should therefore not be based
20 on a specific weighting of individual models, but be based on the informed judgment of
21 the regulatory commission to interpret the results of the models. As the Commission has
22 found, “[i]t is the application of informed judgment, not the precision of quantitative

⁴ *Id.*

1 financial models, which is the key to selecting a specific ROE.”⁵ In addition to the DCF,
2 CAPM, Risk Premium and Expected Earnings models, it may also be appropriate for the
3 Commission to consider the results of other models, or variations of the standard models
4 (e.g., the Empirical CAPM or Multi-Stage DCF).

5 **Q. Is there academic support for the use of multiple methodologies to estimate the cost**
6 **of equity?**

7 A. Yes, there is. For example, in his college level finance text, Professor Eugene Brigham
8 discusses the value of using more than one model to estimate the cost of equity. He
9 concludes:

10 In practical work, *it is often best to use all three methods* – CAPM,
11 bond yield plus risk premium, and DCF – and then apply judgment
12 when the methods produce different results. People experienced in
13 estimating equity capital costs recognize that both careful analysis
14 and some very fine judgments are required.⁶

15 Dr. Roger Morin describes the benefits of a multi-model approach succinctly in his book
16 on the topic:

17 The court cases discussed previously indicated that there are no
18 specific rules or infallible models for determining a fair return. It is
19 dangerous and inappropriate to rely on only one methodology in
20 determining the cost of equity. The results from only one method
21 are likely to contain a high degree of measurement error. The
22 regulator’s hands should not be bound to one methodology of
23 estimating equity costs, nor should the regulator ignore relevant
24 evidence and back itself into a corner. For instance, by relying
25 solely on the DCF model at a time when the fundamental
26 assumptions underlying the DCF model are tenuous, a regulatory
27 body greatly limits its flexibility and increases the risk of

⁵ *Id.* at 51 (Conclusion of Law (“COL”)) 13; *id.* at 23 (“We affirmed this view in D.89-10-031, noting that it is apparent that all these models have flaws and, as we have routinely stated in past decisions, the models should not be used rigidly or as definitive proxies for the determination of the investor-required ROE.”

⁶ Eugene F. Brigham, *Financial Management: Theory and Practice* 256 (Dryden Press, 4th ed. 1985).

1 authorizing unreasonable rates of return. The same is true for any
2 one specific model.

3 There are four generic methodologies available to measure the cost
4 of equity: DCF, Risk Premium, and CAPM, which are market-
5 oriented, and the Comparable Earnings, which is accounting-
6 oriented. Each generic market-based methodology in turn contains
7 several variants.

8 When measuring equity costs, which essentially deals with the
9 measurement of investor expectations, no one single methodology
10 provides a foolproof panacea. Each methodology requires the
11 exercise of considerable judgement on the reasonableness of the
12 assumptions underlying the methodology and on the reasonableness
13 of the proxies used to validate the theory.⁷

14 **Q. Some utility regulators prefer to focus on the results of one particular model, such as**
15 **the DCF or CAPM, when establishing the authorized ROE. Please explain why this**
16 **is limiting.**

17 A. While certain models, such as the DCF or CAPM, are widely recognized for purposes of
18 estimating the authorized ROE for regulated public utilities, it is important to consider the
19 results of multiple methodologies for the reasons discussed above. This is especially true
20 when capital market conditions are distressed by economic circumstances (*e.g.*, the recent
21 period during the COVID-19 pandemic) or distorted by monetary policy (*e.g.*, the
22 abnormally low interest rate environment that followed the financial crisis of 2008-09).
23 These conditions can cause the results of the DCF or CAPM model to deviate from the
24 long-term investor-required cost of equity.

25 All models are subject to limiting assumptions. For example, it is not appropriate to rely
26 solely on the DCF model to establish the forward-looking cost of equity when historical
27 stock prices and dividend yields are not expected to be sustainable. A fundamental

⁷ Roger A. Morin, *New Regulatory Finance* 28 (Public Utilities Reports, Inc., 2006).

1 assumption of the DCF model is that current price-to-earnings (“P/E”) ratios will remain
2 constant.⁸ If that assumption is violated, then the results of the DCF model will tend to
3 understate the forward-looking cost of equity because the current dividend yield
4 component is not reflective of what investors are expecting in the future based on the
5 anticipated decline in share prices and valuations. Similarly, it is not appropriate to rely
6 solely on the CAPM results using current average interest rates on government bonds when
7 those yields are artificially suppressed by Federal Reserve policy that lowers interest rates
8 well-below the long-term average historical average in order to provide near-term
9 economic stimulus during a recession or other economic disruption.

10 **Q. Have other utility regulators responded to conditions in capital markets that may**
11 **distort the results of models used to estimate the cost of equity?**

12 A. Yes. The reliability of the DCF model, for example, came under increasing scrutiny over
13 the past decade. In a capital market environment that was characterized by a combination
14 of unsustainably low interest rates, coupled with unsustainably high utility stock prices and
15 reduced near-term earnings growth, affected all three inputs to the DCF model. In such an
16 environment, where the fundamental assumptions of the DCF model are flawed, the model
17 results cannot be expected to provide realistic estimates of the forward-looking required
18 return.

19 In Opinion No. 569-A, FERC determined that it would place equal weight on the results of
20 the DCF, CAPM, and Risk Premium analysis to establish the return for electric
21 transmission companies, a significant departure from its historical exclusive reliance on
22 the DCF model. In reaching this decision, FERC explained:

⁸ *Id.* at 256-257.

1 We disagree with CAP's contention that the record does not support
2 our finding of model risk as justifying no longer relying solely on
3 the DCF model. Model risk includes the broad conceptual issue of
4 models being imperfect and not always working well in all
5 situations. It also entails errors of specific model inputs, such as the
6 error discussed with respect to the Portland General Electric inputs,
7 discussed in paragraph 145 below. We continue to find that ROE
8 determinations should consider multiple models, both to capture the
9 variety of models used by investors and to mitigate model risk. With
10 respect to the former, we reiterate our findings from Opinion No.
11 569 in support of the finding that use of multiple models reduces
12 model risk.⁹

13 In summary, FERC recognized that market conditions were distorting the results of the
14 DCF model on which FERC had traditionally relied to set the authorized ROE for electric
15 transmission companies. For that reason, FERC moved away from sole reliance on the
16 DCF model to an equal weighting of the results of the DCF, CAPM and Risk Premium
17 models, while also considering evidence on the Expected Earnings model on a case-by-
18 case basis.¹⁰ The important conclusion to be drawn is that these various financial models
19 provide estimates of the cost of equity. They cannot be mechanically applied to produce a
20 precise or "correct" authorized ROE for a regulated utility such as SDG&E or SoCalGas.

21 **Q. What financial models do you recommend the Commission use to establish the**
22 **authorized ROE for SDG&E and SoCalGas?**

23 A. I recommend the Commission consider the results of the DCF, CAPM, Risk Premium, and
24 Expected Earnings models to establish the authorized ROEs for California's investor-
25 owned utilities. Furthermore, I recommend that the Commission continue to not assign
26 any specific weight to the results of the various models, but, rather, consider the model

⁹ *Ass'n of Bus. Advocating Tariff Equity v. Midcontinent Indep. Sys. Operator, Inc.*, Opinion No. 569-A, 171 FERC ¶ 61,154, at para. 43 (2020).

¹⁰ *Id.* at para. 140-141 and 132.

1 results in the context of economic and capital market conditions and use informed judgment
2 to select the appropriate authorized ROE. Each model is described in more detail in the
3 Appendix.

4 **Q. What are your key conclusions and recommendations regarding the appropriate**
5 **methodologies the Commission should use to establish the authorized ROE for**
6 **regulated utilities in California?**

7 A. My primary conclusion is that it is appropriate to consider the results of multiple
8 methodologies to estimate the cost of equity for regulated utilities such as SDG&E and
9 SoCalGas, as the Commission has done in the past. I recommend using the Constant
10 Growth DCF model, the CAPM using forward-looking inputs whenever possible, the Risk
11 Premium model, and the Expected Earnings approach to estimate the cost of equity for
12 California's regulated electric and gas utilities. I also recommend that the Commission
13 evaluate the results of the various models in the context of capital market conditions rather
14 than adopting a formulaic approach (*i.e.*, do not assign specific weights to each model).

15 **IV. MEASURES TO PREVENT CIRCULARITY, SELF-REFERENCE, AND STATUS**
16 **QUO BIAS, ON BEHALF OF THE COMPANIES**

17 **Q. Please discuss the concern with circularity in the financial models that are**
18 **commonly used to estimate the authorized ROE.**

19 A. All financial models that are commonly used to estimate the authorized ROE for regulated
20 utilities are subject to certain limiting assumptions, which emphasizes the importance of
21 relying on multiple approaches, as discussed above. A balance of models primarily
22 dependent on market-based information (*i.e.*, DCF, CAPM), a model that incorporates
23 comparable returns (*i.e.*, Risk Premium), and a model based on independent forecasts of
24 accounting returns (*i.e.*, Expected Earnings) can help to ensure that the end results are based

1 on a robust analysis and informed judgment in varying capital market conditions.
2 Ultimately, as the Commission has repeatedly found, informed judgment is required. No
3 single financial model or specific weighting of the results of multiple models is appropriate
4 under all capital market conditions. As such, the use of multiple models can assist the
5 analyst and the Commission in the determination of the just and reasonable return.

6 **Q. Please discuss measures the Commission can take to reduce concerns over**
7 **circularity, self-reference and status quo bias.**

8 A. There are several measures the Commission can take to reduce the effects of circularity,
9 self-reference and status quo bias, but these concerns cannot be entirely prevented or
10 eliminated. For example, I typically exclude from the proxy group the parent company of
11 the operating utility for which the return is being set, which can help to eliminate a degree
12 of circularity in the model results. However, it is important to remember that one of the
13 fundamental principles in setting a just and reasonable return is that the authorized return
14 must be comparable to returns available to investors in companies with similar risk,
15 meaning that references to the decisions of regulators in other jurisdictions are not
16 necessarily biased. Investors' return expectations are informed by the authorized returns
17 and equity ratios from hundreds of rate case decisions in other state and federal
18 jurisdictions, and the rates of returns that have been authorized for other utilities are a
19 relevant consideration for investors as they establish their return expectations for
20 comparable risk companies.

1 **Q. What is your conclusion concerning measures to reduce circularity, self-reference,**
2 **and status quo bias in the authorized ROE?**

3 A. My conclusion is that the best way to reduce circularity, self-reference, and status quo bias
4 is for the Commission to continue using multiple approaches to estimate the authorized
5 ROE, and to consider the results of the models within the context of the limiting
6 assumptions of each model, as well as the capital market conditions in which the models
7 are being applied. Ultimately, however, some degree of circularity is unavoidable when
8 applying these models, and investors do rely on authorized returns for comparable-risk
9 companies in other jurisdictions as they establish their return expectations. This is why the
10 Commission should continue to rely upon using its informed judgment.

11 **V. AFFORDABILITY CONSIDERATIONS, ON BEHALF OF THE COMPANIES**

12 **Q. What is the Commission's legal requirement regarding setting rates for a regulated**
13 **public utility?**

14 A. The Commission's obligation under the State of California's statutes is to set rates that are
15 just and reasonable.¹¹ In particular, the relevant statute states:

16 All charges demanded or received by any public utility, or by any
17 two or more public utilities, for any product or commodity furnished
18 or to be furnished or any service rendered or to be rendered shall be
19 just and reasonable.

¹¹ See Cal. Pub. Util. Code § 451 (Just and reasonable charges; Service; Rules).

1 **Q. Please explain how the *Hope* and *Bluefield* decisions affect the determination of**
2 **whether utility rates are just and reasonable.**

3 A. In setting just and reasonable rates, the cost of capital is determined based on the principles
4 of the *Hope* and *Bluefield* decisions established by the U.S. Supreme Court.¹² As described
5 in Section II, the authorized rate of return must satisfy the following three standards:

- 6 1) sufficient to maintain the financial integrity and soundness of the company;
- 7 2) adequate to attract capital on reasonable terms and conditions; and
- 8 3) provide investors with returns comparable to those of entities with similar
9 business and financial risk.

10 Each of the three standards must be met, and none ranks in importance to the others. In
11 addition, the *Hope* decision found that it is the end result reached, not the methodology
12 employed, which determines whether a rate is just and reasonable.

13 **Q. Do the *Hope* and *Bluefield* decisions require that utility rates be affordable in order**
14 **to be considered just and reasonable?**

15 A. It is my understanding that the Commission has repeatedly found that a fixing of just and
16 reasonable rates involves a balancing of the investor and the consumer interests.¹³ The
17 affordability of utility services is an important public policy consideration for the State of
18 California, but it is not a determining factor in setting the appropriate rate of return for a
19 regulated public utility. Furthermore, there is no objective standard for rate affordability;
20 however, there are legal standards for setting a reasonable rate of return. As the

¹² *Bluefield Waterworks & Imp. Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923), and *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S. 591 (1944).

¹³ See D.22-12-031 at 38 (finding that SDG&E's authorized ROE was "reasonably sufficient to assure confidence in the financial soundness of the utility and to maintain investment grade credit ratings while balancing the interests between shareholders and ratepayers.").

1 Commission has found, setting a reasonable rate of return ultimately benefits both
2 shareholders and ratepayers by ensuring the financial integrity of the utility and strong
3 credit ratings.¹⁴ If a return is set below the market-required costs, the financial integrity of
4 the utility is undermined and ratepayers are harmed through inadequate investment,
5 lowered credit ratings, and higher borrowing costs.

6 **Q. Why is it important to set a reasonable ROE when considering rate affordability?**

7 A. A company's authorized ROE is a significant consideration in maintaining the financial
8 integrity of the company. The financial integrity of a company has a direct bearing on its
9 ability to access capital at reasonable rates. For example, credit ratings are a reflection of
10 a company's ability to meet its debt payment obligations, which are largely based on the
11 financial soundness of a company. In most circumstances, a company with a higher credit
12 rating will be able to access capital at a lower rate than a company with a lower credit
13 rating. As such, any degradation in a company's financial integrity can limit its access to
14 capital at reasonable rates. That is, a credit rating downgrade will likely cause an increase
15 in the interest rate at which it can obtain capital. This increase in the cost of debt will be
16 borne by customers for the duration of the security, which is often 30 years. Therefore, the
17 ROE established by the Commission must be sufficient to maintain the financial integrity
18 of the company, otherwise it will limit its ability to raise capital at reasonable rates. This
19 can have the effect of increasing costs to customers in the long-run.¹⁵

¹⁴ *Id.* at 15 (“That return should also be reasonably sufficient to ensure confidence in the financial soundness of the utility, and adequate, under efficient management, to maintain and support its credit and to enable it to raise the money necessary for the proper discharge of its public duties.”).

¹⁵ *See* D.23-08-028 at 9 (“[A]n unreasonably low ROE may not be in the public interest because it could cause investors to move to utilities with higher ROEs.”).

1 **Q. Are there other ways for the State of California and the Commission to address the**
2 **issue of rate affordability?**

3 A. Yes, the State of California and the Commission have other tools at their disposal to more
4 appropriately address rate affordability. Low-income, financial assistance programs, and
5 no-cost weatherization programs are all designed to address rate affordability issues and
6 are commonly applied in the gas and electric utility industry to address rate affordability.
7 These are appropriate vehicles to address rate affordability and do not have an effect on a
8 utility's financial integrity, or its ability to raise capital at reasonable rates. For example,
9 as discussed in Valerie Bille's opening and rebuttal testimony in phase one of this
10 proceeding,¹⁶ my understanding is that SDG&E and SoCalGas have actively participated
11 in the Commission's Affordability rulemaking and *en bancs*, and have supported near-term
12 proposals to help with affordability, such as identifying opportunities to utilize non-
13 ratepayer funding for certain public purpose programs not specifically related to a utility's
14 cost of service and/or implementing an income-based fixed charge.¹⁷ Affordability should
15 continue to be addressed through those efforts, proceedings, and forums, rather than
16 unnecessarily inserting the issue in future cost of capital proceedings and potentially
17 setting a return that is contrary to *Hope* and *Bluefield*.

¹⁶ See, e.g., Exhibit SDG&E-01, Prepared Direct Testimony of Valerie Bille, *Policy Overview* on behalf of SDG&E at 9 & n.23 (Apr. 20, 2022).

¹⁷ See CPUC, *2022 Senate Bill 695 Report* at 57-59 (discussing proposals to remove public purpose funding from electric bills), available at: <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/office-of-governmental-affairs-division/reports/2022/2022-sb-695-report.pdf>; *id.* at 62 (discussing income-based fixed charge proposal). In June 2022, the legislature passed AB 205, which requires the Commission to authorize an income-graduated fixed charge for default residential rates by July 1, 2024. See also, Cal. Pub. Util. Code § 739.9.

1 **Q. What are your conclusions and recommendations with respect to affordability?**

2 A. My primary conclusion is that introducing rate affordability into the determination of the
3 cost of capital would distort the Commission's rate setting process, just as introducing
4 corporate profitability as a determining factor would distort the process. Setting the cost
5 of capital properly, including ROE, is the best way to help ensure affordable rates for
6 customers because it results in the lowest cost of capital overall. The balancing of investor
7 and consumer interests is achieved by setting a cost of capital that is: 1) commensurate
8 with returns on investments in enterprises having comparable risks; 2) adequate to attract
9 capital on reasonable terms, thereby enabling California's utilities to provide safe, reliable
10 service; and 3) sufficient to ensure the financial soundness of California's investor-owned
11 utility electric and gas utility operations.

12 In summary, the cost of equity is a true cost in the capital market. Setting an authorized
13 ROE that fairly represents the true cost of equity balances the interest of both ratepayers
14 and shareholders. A properly set cost of capital sustains the financial health and integrity
15 of the utility such that the company is able to make the investments needed to maintain the
16 safety, integrity, and reliability of the system—such as through wildfire mitigation—in
17 addition to meeting important public policy goals.

18 **VI. CONCLUSIONS AND RECOMMENDATIONS**

19 **Q. Please summarize your conclusions and recommendations.**

20 A. My primary conclusions and recommendations are:

21 (1) I recommend the continued use of a blended approach on ROE for
22 SDG&E—i.e., providing a single ROE to a combined gas and electric utility—unless there
23 is capital market evidence of a cost of capital distinction between gas and electric
24 operations, or a utility can demonstrate the need for an ROE or capital structure difference

1 to account for changes in business risks. However, even in that scenario, the authorized
2 ROEs must continue to reflect the *Hope* and *Bluefield* comparable return standards on a
3 standalone basis for each of the gas and electric operations.

4 (2) The Commission should consider the results of multiple methodologies to
5 estimate the cost of equity for regulated utilities as the Commission has done in the past. I
6 recommend using the Constant Growth DCF model, the CAPM using forward-looking
7 inputs whenever possible, the Risk Premium model, and the Expected Earnings approach
8 to estimate the cost of equity for California's regulated electric and gas utilities. I also
9 recommend that the Commission evaluate the results of the various models in the context
10 of capital market conditions rather than adopting a formulaic approach (i.e., do not assign
11 specific weights to each model).

12 (3) The best way to reduce circularity, self-reference and status quo bias is for
13 the Commission to continue using multiple approaches to estimate the authorized ROE,
14 and to consider the results of the models within the context of the limiting assumptions of
15 each model, as well as the capital market conditions in which the models are being applied.

16 (4) While the affordability of utility services is an important public policy
17 consideration for the State of California, it is not a determining factor in setting the
18 appropriate rate of return for a regulated public utility. Such a return must be set consistent
19 with *Bluefield* and *Hope*. Setting the cost of capital properly, including ROE, best ensures
20 affordable rates because it results in the lowest cost of capital overall, ensures adequate
21 investment, and lowers borrowing costs for customers.

22 **Q. Does this complete your opening testimony?**

23 A. Yes.

Exhibit JCN-1

Joshua C. Novak, Vice President - Professional and Educational Background

JOSHUA C. NOWAK
VICE PRESIDENT

Mr. Nowak is a financial and economic consultant with more than fifteen years of experience in the energy industry. He has provided expert testimony on regulatory issues in several proceedings before the Federal Energy Regulatory Commission and regulatory commissions in Alaska, Connecticut, Kentucky, Minnesota, New Brunswick, New Hampshire, New York, North Dakota, Ohio, and Texas. Mr. Nowak specializes in providing rate case services on economic conditions and financial market matters related to the cost of capital. He is also experienced in providing strategic direction on financing activities including bond offerings, credit rating analysis, and investor relations. Previously, Josh was the Director of Regulatory Strategy & Integrated Analytics at National Grid where he was responsible for issues related to the cost of capital across its federal and state jurisdictional operating companies. He holds a Bachelor's Degree in Economics and History from Boston College.

REPRESENTATIVE EXPERIENCE

Expert Testimony and Litigation Support

Mr. Nowak's work includes regulatory project management, research, and analysis for expert witness testimony. His work has included:

- Expert testimony on cost of capital, financial markets, return on equity, capital structure, and debt financing issues
- Regulatory strategy in return on equity proceedings, including coordination across several utilities in joint-party proceedings
- Extensive support for expert testimony in cost of capital and return on equity proceedings through research, financial analysis, and testimony development
- Expert testimony, sponsoring lead-lag studies, in support of utility cash working capital requirements
- Project management of expert testimony assignments, including all phases of the regulatory schedule
- Performing analysis to support expert testimony regarding affiliate expenses and allocations

Policy Analysis

Mr. Nowak has contributed to projects related to policy review including:

- A review of natural gas capacity options and a cost-benefit analysis for state regulators seeking to reduce energy costs for ratepayers
- Analysis of the economic and environmental benefits of changes to natural gas ratemaking/expansion policy



Management and Operations Consulting

Mr. Nowak has taken a lead analytical role in developing benchmarking analyses and process reviews. Specifically, he has:

- Developed benchmarking analyses, in support of expert testimony, comparing electric and gas utilities' cost and operational efficiency, taking into account a situational assessment of exogenous factors
- Performed a process review of a gas utility's expansion projects, including an evaluation of policies, procedures, and financial models
- Supported analysis for a report of the reasonableness of a shared service company's administrative and general costs

Financial Analysis

Other financial analysis Mr. Nowak has conducted include:

- Extensive analysis on issues related to utilities' cost of capital
- Developing dispatch models to estimate revenues for merchant powerplants
- Estimating damages for breach of contract in fuel delivery commitment
- Researching strategic investment opportunities for merchant generators
- A report on the profitability of various generation technologies in a deregulated energy market
- Reviewing internal financial models used by utility clients
- Supporting utility asset appraisals, including research and analysis for income approach, cost approach, and sales comparison approach

Other Experience

In his previous work, Mr. Nowak contributed to the evaluation of regulatory policy for government clients. His experience included performing policy analysis, including economic impact assessments, for federal regulations.

PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2018 - Present)

Vice President

Assistant Vice President

National Grid USA (2017 - 2018)

Director, Regulatory Strategy & Integrated Analytics

ScottMadden, Inc. (formerly Sussex Economic Advisors, LLC) (2012 - 2016)

Director

Principal



Concentric Energy Advisors, Inc. (2007 – 2012)

Senior Consultant

Consultant

Assistant Consultant

Analyst

RTI International (2006 – 2007)

Economist

EDUCATION

Boston College

B.A., Economics and History, 2006



SPONSOR	DATE	CASE/APPLICANT	DOCKET	SUBJECT
Regulatory Commission of Alaska				
ENSTAR Natural Gas Company, a Division of Semco Energy, Inc.	06/16	ENSTAR Natural Gas Company, a Division of Semco Energy, Inc.	TA 285-4	Cash Working Capital
Connecticut Public Utilities Regulatory Authority				
Aquarion Water Company of Connecticut	08/22	Aquarion Water Company of Connecticut	Docket No. 22-07-01	Return on Equity
Aquarion Water Company of Connecticut	01/22	Aquarion Water Company of Connecticut	Docket No. 13-02-20RE06	Return on Equity and Cost of Debt
Federal Energy Regulatory Commission				
Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation	04/21	Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Niagara Mohawk Power Corporation d/b/a National Grid, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation	EL21-66-000, ER21-1647-000	Transmission Ownership Risk and Returns
Central Hudson Gas & Electric Corporation	12/19	Central Hudson Gas & Electric Corporation	ER20-715-000	Return on Equity
Kentucky Public Service Commission				
Duke Energy Kentucky, Inc.	12/22	Duke Energy Kentucky, Inc.	Case No. 2022-00372	Return on Equity
Minnesota Public Utilities Commission				
Northern States Power Company (Xcel Energy Inc.)	11/23	Northern States Power Company (Xcel Energy Inc.)	G-002/GR-23-413	Return on Equity



SPONSOR	DATE	CASE/APPLICANT	DOCKET	SUBJECT
New Brunswick Energy and Utilities Board				
New Brunswick Power Corporation (NB Power)	11/22	New Brunswick Power Corporation (NB Power)	Matter 541	Macroeconomic Environment and Capital Market Conditions
Public Utilities Commission of New Hampshire				
Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities	04/16	Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities	Docket No. DE 16-383	Cash Working Capital
New York Public Service Commission				
National Fuel Gas Distribution Corporation	10/23	National Fuel Gas Distribution Corporation	Case 23-G-0627	Return on Equity
Central Hudson Gas & Electric Corporation	07/23	Central Hudson Gas & Electric Corporation	Case 23-E-0418/ Case 23-G-0419	Return on Equity
The Brooklyn Union Gas Company d/b/a National Grid NY ("KEDNY) and KeySpan Gas East Corporation d/b/a National Grid ("KEDLI")	04/23	The Brooklyn Union Gas Company d/b/a National Grid NY ("KEDNY) and KeySpan Gas East Corporation d/b/a National Grid ("KEDLI")	Case 23-G-0225/ Case 23-G-0226	Return on Equity
Niagara Mohawk Power Corporation d/b/a National Grid	07/20	Niagara Mohawk Power Corporation d/b/a National Grid	Case 20-E-0380/ Case 20-G- 0381	Return on Equity
Niagara Mohawk Power Corporation d/b/a National Grid	07/17	Niagara Mohawk Power Corporation d/b/a National Grid	Case 17-E-0238 / Case 17-G- 0239	Capital Structure and Overall Cost of Capital
North Dakota Public Service Commission				
Northern States Power Company (Xcel Energy Inc.)	12/23	Northern States Power Company (Xcel Energy Inc.)	Docket No. PU-23-367	Return on Equity



SPONSOR	DATE	CASE/APPLICANT	DOCKET	SUBJECT
Public Utilities Commission of Ohio				
Duke Energy Ohio, Inc.	01/23	Duke Energy Ohio, Inc.	Case No. 22-1153-EL-UNC	Return on Equity
Public Utility Commission of Texas				
Wind Energy Transmission Texas, LLC	05/15	Wind Energy Transmission Texas, LLC	Docket No. 44746	Cash Working Capital
Lone Star Transmission, LLC	05/14	Lone Star Transmission, LLC	Docket No. 42469	Cash Working Capital
Railroad Commission of Texas				
Texas Gas Service Company, a Division of One Gas, Inc.	06/16	Texas Gas Service Company, a Division of One Gas, Inc.	GUD No. 10526	Cash Working Capital
Texas Gas Service Company, a Division of One Gas, Inc.	03/16	Texas Gas Service Company, a Division of One Gas, Inc.	GUD No. 10506	Cash Working Capital
Texas Gas Service Company, a Division of One Gas, Inc.	12/15	Texas Gas Service Company, a Division of One Gas, Inc.	GUD No. 10488	Cash Working Capital
CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	03/14	CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD No. 10432	Cash Working Capital

APPENDIX – ROE MODELS AND SPECIFICATIONS

Q. Please describe the DCF model.

- A. The DCF approach is based on the theory that a stock’s current price represents the present value of all expected future cash flows. The DCF model is a market-based analysis that has been widely adopted by regulators at FERC and the state-level and is utilized by investors and financial analysts. In its simplest form, the DCF model expresses the ROE as the sum of the expected dividend yield and long-term growth rate:

$$k = \frac{D(1+g)}{P_0} + g \quad [1]$$

Where “*k*” equals the required return, “*D*” is the current dividend, “*g*” is the expected growth rate, and “*P*” represents the subject company’s stock price.

Assuming a constant growth rate in dividends, the model may be rearranged to compute the ROE accordingly, as shown in Formula [2]:

$$r = \frac{D}{P} + g \quad [2]$$

Stated in this manner, an investor’s required return is equal to the expected dividend yield plus the projected growth in earnings. The Constant Growth form of DCF model was developed by Professor Myron Gordon to estimate the cost of equity for dividend-paying companies that operate in stable and mature industries such as public utilities.

Q. What are the assumptions underlying the Constant Growth DCF model?

- A. The Constant Growth DCF model is based on the following assumptions: (1) a constant average growth rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant price-to-earnings multiple; and (4) a discount rate greater than the expected

growth rate. Since the Constant Growth DCF model assumes that earnings and dividends grow at the same constant rate in perpetuity, analysts commonly use forecast earnings per share growth rates from equity analysts as the expected dividend growth rate.

Q. Please describe the CAPM method.

A. The CAPM is a risk premium approach that estimates the cost of equity for a given security as a function of a risk-free return plus a risk premium, to compensate investors for the non-diversifiable or “systematic” risk of that security.¹⁸ The CAPM is a market-based analysis used at FERC and increasingly used by regulators at the state-level and utilized by investors and financial analysts. As shown in Equation [3], the CAPM is defined by four components, each of which must theoretically be a forward-looking estimate:

$$K_e = r_f + \beta(r_m - r_f) \quad [3]$$

where:

K_e = the required ROE for a given security;

r_f = the risk-free rate of return;

β = the Beta of an individual security; and

r_m = the required return for the market as a whole.

The term $(r_m - r_f)$ represents the Market Risk Premium (“MRP”). According to the theory underlying the CAPM, if unsystematic risk can be diversified away, investors should be concerned only with systematic or non-diversifiable risk. Non-diversifiable risk is measured by Beta, which is defined as:

¹⁸ Systematic risks are fundamental market risks that reflect aggregate economic measures and therefore cannot be mitigated through diversification. Unsystematic risks reflect company-specific risks that can be mitigated and ultimately eliminated through investments in a diverse portfolio of companies and/or market sectors.

$$\beta = \frac{\text{Covariance}(r_e, r_m)}{\text{Variance}(r_m)} \quad [4]$$

where:

r_e = the rate of return for the individual security or portfolio.

The variance of the market return, noted in Equation [4], is a measure of the uncertainty of the general market. The covariance between the return on a specific security and the market reflects the extent to which the return on that security will respond to a given change in the market return. Thus, Beta represents the risk that the selected security will not be effective in diversifying systemic market risks.

Each of the components can be adjusted to accommodate varying capital market conditions. For example, if interest rates are expected to change in the future, a projected interest rate can be used as the risk-free rate. Variations of the CAPM (*e.g.*, the Empirical CAPM) should also be considered by the Commission.

Q. Please discuss the Bond Yield Plus Risk Premium model.

A. In general terms, this approach is based on the fundamental principle that equity is riskier than debt because equity investors bear the residual risk associated with ownership. Academic literature and market evidence indicate that the equity risk premium is inversely related to the level of interest rates. The Risk Premium model estimates the cost of equity as the sum of the Equity Risk Premium and the yield on a particular class of bonds.

$$\text{ROE} = \text{RP} + \text{Y} \quad [5]$$

Where:

RP = Risk Premium (difference between allowed ROE and the 30-Year Treasury Yield) and

Y = Applicable bond yield.

Since the equity risk premium is not directly observable, it is typically estimated using a variety of approaches, some of which incorporate *ex-ante*, or forward-looking estimates of the cost of equity, and others that consider historical, or *ex-post*, estimates. The Risk Premium analysis typically relies on authorized returns from a large sample of electric or gas utility companies.

Q. How do you estimate the cost of equity using the Risk Premium analysis?

A. To estimate the relationship between risk premiums and interest rates, many analysts conduct a regression analysis using the following equation:

$$RP = a + (b \times Y) \quad [6]$$

where:

RP = Risk Premium (difference between allowed ROEs and the 30-Year Treasury Yield or Utility bond yield);

a = Intercept term;

b = Slope term; and

Y = 30-Year Treasury Yield or Utility bond yield.

Authorized ROEs for electric and gas utility companies represent the returns available to investors in companies with similar risk, and therefore serve as the measure of required equity returns. While some components of the Risk Premium analysis are not directly

market-based, the Risk Premium model is based on authorized ROEs and the corresponding interest rates at the time the regulatory decisions were issued. The authorized ROEs are determined by market-based models and are based on the interpretation of the results in the context of prevailing capital market conditions. As such, the authorized ROEs reflect the interpretation of market-based information.

Q. Please describe the Expected Earnings model.

A. The Expected Earnings model is a comparable earnings analysis that calculates the earnings that an investor expects to receive on the book value of a stock. The Expected Earnings analysis is a forward-looking estimate of investors' expected returns. The Expected Earnings model is useful in helping to determine the opportunity cost of investing in the subject company, and it reinforces the link to the basic tenet of *Hope* and *Bluefield* standards that a utility should be granted the opportunity to earn a return that is commensurate with the return on other investments of similar risk. The proxy group companies are selected as having comparable business and financial risk as the company for which the return is being established, and therefore the expected ROEs are for similarly situated companies. For that reason, the Expected Earnings approach provides valuable insight into the opportunity cost of investing in the subject company.

Q. What data can be used to develop the Expected Earnings model?

A. I typically rely primarily on the projected ROE for the proxy companies as reported by Value Line for the period for the next 3 to 5 year period. I then adjust those projected ROEs to account for the fact that the ROEs reported by Value Line are calculated on the basis of common shares outstanding at the end of the period, as opposed to average shares

outstanding over the entire period. This is consistent with the approach used by FERC in Opinion No. 531-B.¹⁹

¹⁹ *Martha Coakley v. Bangor Hydro-Electric Co.*, Opinion No. 531-B, 150 FERC ¶ 61,165 (2015).