



September 29, 2025

Ms. Lisa Felice  
Michigan Public Service Commission  
7109 W. Saginaw Hwy.  
Lansing, MI 48909

*Via E-File*

RE: MPSC Case No. U-21870

Dear Ms. Felice:

Attached please find the enclosed documents for filing:

- Direct Testimony and Exhibits of Matthew Bandyk on behalf of Citizens Utility Board of Michigan (CUB-1 through CUB-10); and
- Proof of Service.

Thank you for your assistance in this matter. If you have any questions, please feel free to contact me.

Sincerely,

Holly L. Hillyer  
[holly@tropospherelegal.com](mailto:holly@tropospherelegal.com)

CC: Parties to Case No. U-21870

STATE OF MICHIGAN  
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the Application of  
CONSUMERS ENERGY COMPANY for  
authority to increase its rates for the generation  
and distribution of electricity and for other  
relief.

U-21870

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**DIRECT TESTIMONY OF  
MATTHEW BANDYK**

**ON BEHALF OF**

**CITIZENS UTILITY BOARD OF MICHIGAN**

**September 29, 2025**

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1           **I.       INTRODUCTION AND PURPOSE OF TESTIMONY**

2           **Q       Please state your name and occupation.**

3           **A**My name is Matthew Bandyk. I am a Principal Associate at Synapse Energy Economics  
4           Inc., located at 485 Massachusetts Ave, Suite 3, Cambridge, MA 02139.

5           **Q       Please describe Synapse Energy Economics.**

6           **A**Synapse is a research and consulting firm specializing in energy and environmental issues,  
7           including electric generation, transmission and distribution system reliability, ratemaking  
8           and rate design, electric industry restructuring and market power, electricity market prices,  
9           stranded costs, efficiency, renewable energy, environmental quality, and nuclear power.

10          Synapse’s clients include state consumer advocates, public utilities commission staff,  
11          attorneys general, environmental organizations, federal government agencies, and utilities.

12          **Q       Please summarize your work experience and educational background.**

13          **A**At Synapse, I focus on cost of capital testimony. I was previously a consultant at 5 Lakes  
14          Energy, a Michigan-based energy policy consulting firm. My experience is summarized in  
15          my resume, attached as Exhibit CUB-1.

16          In 2025 I successfully completed a comprehensive written exam to be awarded the  
17          Certified Rate of Return Analyst (CRRA) designation from the Society of Utility and  
18          Regulatory Financial Analysts (SURFA).

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1    **Q    Have you previously testified before state regulatory commissions?**

2    **A    Yes. I have previously testified before the Michigan Public Service Commission in the**  
3       following cases:

- 4       • Case No. U-21860 (DTE Electric rate case);
- 5       • Case No. U-21806 (Consumers Energy gas rate case);
- 6       • Case No. U-21585 (Consumers Energy electric rate case);
- 7       • Case No. U-21534 (DTE Electric rate case);
- 8       • Case No. U-21555 (UPPCO rate case);
- 9       • Case No. U-21540 (Michigan Gas Utilities rate case);
- 10      • Case No. U-21490 (Consumers Energy gas rate case);
- 11      • Case No. U-21389 (Consumers Energy electric rate case);
- 12      • Case No. U-21048 (Consumers Energy 2022 PSCR Plan case); and
- 13      • Case No. U-21291 (DTE Energy gas rate case).

14       I have also testified before the California Public Utilities Commission in:

- 15      • Case No. A.2503013 (San Diego Gas & Electric Cost of Capital for Test Year 2026)

16    **Q    On whose behalf are you testifying in this case?**

17    **A    I am testifying on behalf of the Citizens Utility Board of Michigan.**

18    **Q    What is the purpose of your testimony in this proceeding?**

19    **A    In this proceeding, I will give my expert opinion as to an appropriate return on equity**  
20       (ROE), capital structure, and overall rate of return for Consumers Energy (the Company).

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1    **Q    How is your testimony structured?**

2    **A**In Part II, I summarize my findings and recommendations. In Part III, I discuss the  
3            overarching principles of a fair cost of capital that guide my testimony. In Part IV, I discuss  
4            the methodology and results of the financial models that I use to estimate the Company's  
5            ROE. Finally, in Part V, I discuss my recommendations for a fair capital structure for the  
6            utility.

7    **Q    Are you sponsoring any exhibits?**

8    **A**Yes, I am sponsoring the following exhibits:

- 9            CUB-1:        Resume of Matthew Bandyk
- 10          CUB-2:        Proposed Capital Structure
- 11          CUB-3:        Equity Risk Premium
- 12          CUB-4:        Beta
- 13          CUB-5:        CAPM Analysis
- 14          CUB-6:        Long-Term Growth Rate Sources
- 15          CUB-7:        DCF (with Earnings Growth Rates)
- 16          CUB-8:        DCF (with Dividend Growth Rates)
- 17          CUB-9:        Interest Coverage Ratios
- 18          CUB-10:       CAPM for U.S. Stock Market

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1    **Q**    **Have you in good faith attempted to locate the forecasted return on equity for the**  
2           **United States stock market and the reported average ROE authorized for regulated**  
3           **utilities in the United States for the last two or more years in accordance with the**  
4           **amended scheduling memorandum in this case?**

5    **A**    Yes. I have in good faith attempted to locate the requested information in public resources  
6           or resources available to me. I provide my calculation of the forecasted return on equity  
7           for the U.S. stock market in the section of my testimony about the CAPM. To my  
8           knowledge, the primary source for average authorized ROE is a report published by  
9           Regulatory Research Associates (RRA), which is accessible only through a costly  
10          subscription that I do not have. I did, however, locate an article published by the Rocky  
11          Mountain Institute reporting that the average authorized ROE for 2024 was 9.7%.

12           **II.    FINDINGS AND RECOMMENDATIONS**

13    **Q**    **Please summarize your findings.**

14    **A**    My primary findings are:

- 15           1. Company witness Ann Bulkley has proposed an excessive return on equity of  
16           10.25%, well above the current authorized ROE (9.9%), the 2024 national average  
17           for authorized ROEs (9.7%), and the cost of equity of the U.S. stock market as  
18           calculated by me later in my testimony (9.02%). This proposed ROE would  
19           increase costs to ratepayers by approximately \$70 million annually relative to a  
20           market-based ROE of 9.22%.
- 21           2. The Company's calculation of the Equity Risk Premium is flawed, as it assumes  
22           unsustainably high long-term growth rates.

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- 1           3. The Company inappropriately uses only short-term earnings projections as the  
2           perpetual growth rate in the Discounted Cash Flow model.
- 3           4. The Company inappropriately uses adjusted betas in its Capital Asset Pricing  
4           Model analysis that do not account for regulated utilities' lower systematic risk.
- 5           5. The Company uses the circular Risk Premium method, which anchors the risk  
6           premium to previously authorized ROEs that are themselves excessive, and has  
7           been rejected by FERC for being redundant and circular.
- 8           6. The Company uses unsubstantiated risk adders that do not reflect rating agencies'  
9           views, as shown by Consumers Energy's credit ratings, which are in line with or  
10          better than those for the proxy group.
- 11          7. The Company's proposed equity ratio is also excessive and would not minimize  
12          costs to ratepayers.

13   **Q     Please summarize your recommendations.**

14   **A     Based on my findings, I offer the following recommendations:**

- 15          1. The Commission should authorize an ROE of 9.22%, which represents the  
16          midpoint between 8.63%, as calculated using objective financial methods that  
17          correct for the flaws in the Company's analysis, and the Company's current  
18          authorized ROE of 9.9% and would serve to more gradually reduce the Company's  
19          ROE.
- 20          2. The Commission should reject the use of the Risk Premium Model by Ms. Bulkley.  
21          It is circular and lacks support in Commission precedent, and its inclusion only  
22          serves to inflate ROE results.

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1           3. The Commission should reject any risk adders advanced by Ms. Bulkley, as they  
2           are unsupported by objective financial evidence.

3           4. The Commission should adopt a capital structure for the Company of 50% equity  
4           and 50% debt, as it ensures financing costs are minimized while preserving the  
5           Company’s ability to maintain strong credit metrics.

6           **III. COST OF CAPITAL - PRINCIPLES**

7           **Q     Please explain the concept of cost of capital and its significance.**

8           **A**The cost of capital is the return demanded by investors on the capital they supply to the  
9           Company.<sup>1</sup> It is the weighted average of the costs of the various classes of capital supplied  
10          by investors — in this case, debt and equity. The cost of debt and cost of equity are each  
11          weighted by the respective amounts of debt and equity in the Company’s total capital  
12          structure, so the ratio of equity to debt is another important component of the cost of capital.  
13          The cost of debt can be relatively easily observed through the interest rates lenders demand  
14          on debt issued by the Company. The cost of equity, however, is the product of market  
15          expectations that can only be estimated by examining a number of factors.

16          Estimating the cost of equity for a regulated utility must be done carefully so as to arrive  
17          at a return that ensures rates that are “just and reasonable,” a principle elaborated on in the  
18          landmark U.S. Supreme Court cases that set the legal standards governing public utility  
19          regulation, *Bluefield Water Works & Improvement Co. v. Public Service Commission of*  
20          *West Virginia* and *Federal Power Commission v. Hope Natural Gas Co.*

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<sup>1</sup> Roger A, Morin, PhD. Modern Regulatory Finance. PUR Books, 2021, p. 27.

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1 For example, in *Hope*, the Court found that the “just and reasonable” standard implies that  
2 “the return to the equity owner should be commensurate with returns on investments in  
3 other enterprises having corresponding risks.<sup>2</sup> That return, moreover, should be sufficient  
4 to assure confidence in the financial integrity of the enterprise, so as to maintain its credit  
5 and to attract capital.”<sup>3</sup>

6 But the Court was also clear that the determination of what return is “sufficient” in that  
7 regard must also involve a consideration of the interests of the company’s  
8 customers.<sup>4</sup> Indeed, just as a return for a utility that is set below the amount  
9 “commensurate with returns on investments in other enterprises having corresponding  
10 risks” causes the utility to lose wealth relative to what it should earn with a more  
11 appropriate return, a return that is set above this amount will cause the utility’s customers  
12 to be overcharged and lose wealth relative to what they would be charged with a lower and  
13 more appropriate return. In this latter case, that wealth is instead transferred from  
14 customers to the utility holding company’s shareholders.

15 **Q What methods may be employed to determine the cost of capital?**

16 **A** In *Hope*, the Supreme Court explained that it is the result reached, not the method  
17 employed, which is controlling, and that result should be a rate that people would  
18 reasonably consider to be commensurate with the risk of the investment.<sup>5</sup> In practice,

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<sup>2</sup> *Fed Power Com v Hope Natural Gas Co*, 320 US 591 (1944).

<sup>3</sup> *Id.* at 603.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at 602.

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1 reaching that result involves using methods that are widely accepted in the financial  
2 community to estimate investor perceptions of risk. I rely on these methods in my  
3 testimony to estimate the Company’s cost of equity, which informs my recommendation  
4 for the authorized ROE.

5 **Q How have public regulatory commissions historically fared at estimating returns on**  
6 **equity for utilities that are commensurate with risk?**

7 **A** There is strong evidence from multiple observers and peer-reviewed academic research  
8 that public regulatory commissions have tended to set electric utility ROEs above the  
9 “market-based ROE,” as I describe more below.

10 **Q What is the “market-based ROE”?**

11 **A** The “market-based ROE” is the ROE that economists would arrive at using widely  
12 accepted methods for estimating cost of equity. These methods gauge how the market rates  
13 the risk of a utility investment to determine the return required. The trend in commissions  
14 approving ROEs that exceed a market-based ROE has resulted in a transfer of wealth from  
15 ratepayers to shareholders and resulted in a skewed average authorized ROE.

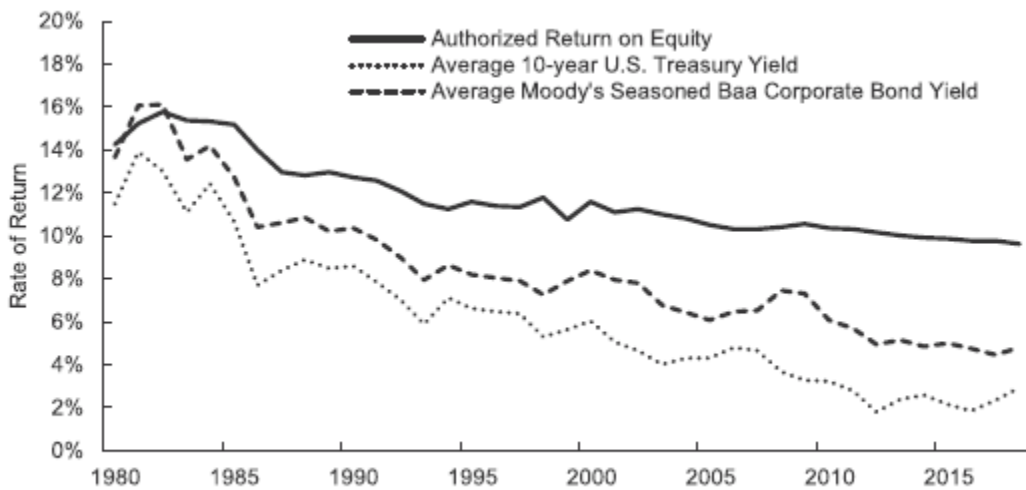
16 **Q Is there any empirical evidence supporting your claim that approved ROEs tend to**  
17 **exceed the market-based ROE?**

18 **A** Yes. Academics have observed a growing premium of regulatory commission-awarded  
19 ROEs over the rate of return on long-term U.S. Treasury bonds (the risk-free rate), and  
20 research has found that this premium cannot statistically be explained by financial

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1 fundamentals, such as a change in the equity or debt risk of the utilities in question.<sup>6</sup> In  
2 other words, statistical evidence shows that the utility ROEs are increasingly being set  
3 above the actual cost of equity. This can be observed in the graph below, which shows how  
4 the authorized ROE premium over the 10-year treasury yield has grown from  
5 approximately 3 percent in the mid-1980s to nearly 8 percent in recent years.<sup>7</sup>

6 **Figure 1. Annual average authorized return on equity vs. Treasury yield and investment-**  
7 **grade corporate bond rates**



8 **Fig. 4. Annual average authorized return on equity vs. U.S. Treasury and Investment grade corporate bond rates.**

8

9 The growing premium unreasonably increases costs to consumers because it ensures that  
10 utilities collect a greater return from consumers than would be justified by a market-based

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<sup>6</sup> “This growing premium does not appear to be explained by traditional asset-pricing models, often in direct contrast to regulators’ stated intent... However, absent some normative justification for this premium, it would appear that regulators are authorizing excessive returns on equity to utility investors and that these excess returns translate into tangible profits for utility firms.” David Rode and Paul Fischbeck. “Regulated equity returns: A puzzle.” *Energy Policy*, Oct. 2019. Available at <https://www.sciencedirect.com/science/article/abs/pii/S0301421519304690?via%3Dihub>

<sup>7</sup> *Id.* at 5.

<sup>8</sup> *Id.*

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1 ROE and strengthens utilities' incentive to make more capital investments than necessary.<sup>9</sup>

2 A 2023 paper published by the Energy Institute at the University of California Berkeley's  
3 Haas School of Business found that rates of return for electric and gas utilities being set  
4 above a market-based return costs U.S. consumers around \$7 billion per year.<sup>10</sup>

5 Experts such as utility attorney Steve Huntoon have also examined the record of authorized  
6 ROEs and found that regulators tend to set ROEs above the return for investments that are  
7 riskier than utilities.<sup>11</sup>

8 A higher return implies higher risk, so approving ROEs that are higher than market returns  
9 would imply that regulated utilities are riskier investments than the market as a whole. But  
10 they are not. Regulated utility returns tend to be less risky than the market as a whole,  
11 indicating that regulatory decisions are not in line with the economic reality that lower risk  
12 means lower return.

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<sup>9</sup> When a utility's rate of return is greater than the cost of borrowing, utilities have a financial incentive to maximize their capital expenditures in order to increase rate base and thereby increase profits. This is often referred to as the Averch-Johnson effect. *See: Averch, Harvey, and Leland L. Johnson. "Behavior of the Firm Under Regulatory Constraint." The American Economic Review 52, no. 5 (1962): 1052-69. Available at: <http://www.jstor.org/stable/1812181>.*

<sup>10</sup> Karl Dunkle Werner and Stephen Jarvis. "Rate of Return Regulation Revisited." Energy Institute at Haas Working Paper 329R. Revised September 2024. Available at <https://haas.berkeley.edu/wp-content/uploads/WP329.pdf>.

<sup>11</sup> Steve Huntoon. "Nice Work If You Can Get It." *Fortnightly Magazine*, August 2016. Available at <https://www.fortnightly.com/fortnightly/2016/08/nice-work-if-you-can-get-it>.

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1    **Q    What evidence do you have that utilities are less risky than the market as a whole?**

2    **A**Beta is a measurement of the sensitivity of a stock's returns relative to those of the market  
3        as a whole. Utility holding company betas tend to be less than one, meaning that those  
4        stocks are less sensitive to changes in overall market returns.

5    **Q    If regulated utilities are less risky than the market, then why have regulated utilities**  
6        **historically been awarded ROEs above market returns?**

7    **A**The remaining explanation is that public regulatory commissions have tended to accept  
8        estimates for ROE that are above fair, market-based ROE estimates.

9    **Q    What factors have contributed to commissions approving ROEs that exceed the**  
10       **market-based ROE?**

11   **A**Determining the market-based ROE is inherently an exercise in estimation, which  
12        invariably includes some degree of subjectivity. Subjective factors can influence any  
13        human decision-making process, including the decisions of public utility regulatory  
14        commissions, leading to unintended results. These factors include the influence of utilities  
15        in the regulatory process. Utilities often have more resources to advocate for higher ROEs  
16        and amplify their position more effectively than opposing groups, regardless of whether  
17        their arguments are stronger. This imbalance can skew regulatory outcomes and undermine  
18        the public interest.

19   **Q    What ROE is Consumers Energy proposing in this case?**

20   **A**Consumers Energy is proposing a 10.25% ROE, a significant increase from its current ROE  
21        of 9.9%.

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1 **Q How do these current and proposed ROEs compare to the average ROE authorized**  
2 **by regulators around the country?**

3 **A** Both the 9.9% current ROE and the 10.25% proposed ROE are significantly higher than  
4 the 9.7% average ROE authorized by state regulatory commissions in 2024.<sup>12</sup>

5 **Q How do you view the Company’s proposed ROE in light of the aforementioned**  
6 **evidence about ROEs generally being set too high?**

7 **A** The fact that a) there is evidence that nationally utility ROEs are set too high and b) the  
8 Company’s proposed ROE is higher than average strongly suggests that Consumers  
9 Energy’s proposed ROE is excessive. As I will explain, Ms. Bulkley’s application of  
10 financial models to determine her recommended ROE makes several errors that inflate the  
11 ultimate ROE range.

12 **Q Ms. Bulkley claims that “an authorized ROE significantly below authorized ROEs**  
13 **for other utilities can inhibit the utility’s ability to attract capital for investment.”<sup>13</sup>**  
14 **Do you agree?**

15 **A** No. Ms. Bulkley is conflating the cost of equity with the authorized ROE of other utilities.  
16 The cost of equity is a theoretical concept for the opportunity cost faced by investors when  
17 considering a specific investment. An ROE that is set *below the cost of equity* could be an  
18 impediment to the Company’s ability to attract financing. But ROEs authorized for peer  
19 utilities are not the same as the actual cost of equity. ROE is an accounting concept for the

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<sup>12</sup> Daniel, Foelske, and Kihm, “Rebalancing ‘Return on Equity’ to Accelerate an Affordable Clean Energy Future,” RMI, Feb. 21, 2025, <https://rmi.org/rebalancing-return-on-equity-to-accelerate-an-affordable-clean-energy-future/>.

<sup>13</sup> Direct Testimony of Ann E. Bulkley, p. 7.

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1 return generated by an equity investment. The cost of equity is what we are trying to  
2 estimate through financial models that gauge the opportunity cost. As explained above,  
3 regulatory commissions routinely set authorized ROEs well above the actual cost of equity  
4 for utilities. Thus, we cannot look to other jurisdictions to determine the opportunity cost  
5 for investors. An ROE can be set below the national average for authorized ROEs and still  
6 be above the cost of equity – meaning that ROE still provides a return to investors that is  
7 more than adequate to attract the required capital.

8 **Q Would Consumers Energy customers pay for an excessive return if the Commission**  
9 **approves Ms. Bulkeley’s proposed ROE in this case?**

10 **A** Yes, customers would pay approximately \$71 million per year more than necessary if the  
11 Commission adopts Ms. Bulkeley’s inflated ROE proposal. The ROE is a component of the  
12 overall rate of return along with the cost of debt. If the Commission were to approve  
13 Consumers Energy’s request for a rate increase without changes, the Company would  
14 collect about \$975.36 million from customers for a return on its rate base, based on an  
15 overall rate of return of 6.35%<sup>14</sup> and a total jurisdictional rate base of \$15.36 billion.<sup>15</sup> If  
16 the ROE were instead the market-based ROE of 9.22% that I am recommending in this  
17 case, along with my proposed 50/50 debt-equity ratio, the overall rate of return would fall  
18 to 5.89%<sup>16</sup>, and so the amount collected would fall from \$975.36 million to \$904.70  
19 million, resulting in savings to customers of about \$70.65 million per year.

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<sup>14</sup> Exhibit A-14, Sched. D-1.

<sup>15</sup> Exhibit A-12, Sched. B-1.

<sup>16</sup> See Exhibit CUB-2, Proposed Capital Structure.

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1           **IV.    COST OF CAPITAL – METHODS**

2    *Summary*

3    **Q       What quantitative methods did you use to estimate the utility’s ROE?**

4    **A**Arriving at an ROE commensurate with risk requires the use of methods that are widely  
5           accepted in the financial community to estimate investor perceptions of risk. My ROE  
6           estimate is based on the Capital Asset Pricing Model (CAPM) and the Discounted Cash  
7           Flow (DCF) methods, which are widely accepted methods for calculating ROE. These are  
8           also two of the methods used by Ms. Bulkley to develop her recommended ROE. I did not,  
9           however, use two of the methods she used, for reasons I will explain. These two are the  
10          Empirical Capital Asset Pricing Model (ECAPM) and the Risk Premium analysis.

11 **Q       Did you use a different proxy group than Ms. Bulkley?**

12 **A**No. I used the same proxy group as Ms. Bulkley. Therefore, the differences between our  
13          results are due to differences in how we employ financial models, rather than differences  
14          in the companies included in the models.

15 **Q       What are the results of your analysis?**

16 **A**The results of my DCF and CAPM analyses, which inform my resulting recommendation  
17          for the utility’s ROE in this case, are shown in Figure 2 below:

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1           **Fig. 2**

<b>DCF</b>	
EPS growth rates	9.65%
DPS growth rates	8.26%
Average	8.96%
<b>CAPM</b>	
with Damodaran ERP and Value Line Beta	7.97%
with Damodaran ERP and Bloomberg Beta	6.96%
with Kroll ERP and Value Line Beta	9.37%
with Kroll ERP and Bloomberg Beta	8.13%
Average	8.11%
Average of Averages	8.53%

2

3   **Q     What is your ROE recommendation?**

4   **A     I recommend an ROE for Consumers Energy of 9.22%, which represents the midpoint**  
5           between the 8.53% average result reached by my application of the DCF and CAPM  
6           models and the 9.9% ROE currently authorized for the Company.

7   **Q     Why are you recommending an ROE higher than the result identified by the financial**  
8           **models?**

9   **A     My recommendation is informed by the principle of gradualism. Any significant changes**  
10          in Consumers Energy’s ROE should be implemented gradually so as not to create

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1 unnecessary instability in the company's market value, which is based in part on the  
2 outcomes of regulatory proceedings like this one.

3 ***Capital Asset Pricing Model (CAPM)***

4 **Q What is the CAPM?**

5 **A** The CAPM is an approach to cost of equity estimation that assumes that company-specific  
6 risk, such as the risk of a specific company's product line failing, can be diversified away  
7 by an investor by investing in a market portfolio of stocks. The risk that cannot be  
8 diversified away is market (also known as systematic) risk, such as the risk created by  
9 macroeconomic fluctuations. The CAPM thus defines the risk of investing in a security as  
10 a function of systematic risk.

11 The CAPM defines the expected return of a security as follows:

12 
$$\textit{Expected Return} = \textit{Risk-free Rate} + \textit{Risk Premium}$$

13 Where the risk premium is:

14 
$$\textit{Risk Premium} = \textit{Beta} \times \textit{Equity Risk Premium}$$

15 I will describe the precise definitions of beta and the equity risk premium later in my  
16 testimony.

17 **Q Please describe your application of the CAPM to estimate the ROE.**

18 **A** My CAPM analysis follows the same basic formula as Ms. Bulkley's. However, the values  
19 we use for several important inputs to the formula – the equity risk premium (ERP), beta

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1 and the risk-free rate – differ, for reasons I explain below. I provide my CAPM estimate in  
2 Exhibit CUB-5.<sup>17</sup>

3 **Q What is the ERP?**

4 **A** The ERP is an essential component of the CAPM formula. It represents the excess return  
5 an investor would receive over the risk-free rate by investing in the broader equity market.  
6 The ERP is calculated as the estimated return on the market an investor can expect from  
7 investing in the broad stock market minus the risk-free rate.

8 It is important when estimating the ERP to not be overly reliant on historical data. While  
9 historical estimates of ERP are commonly used by the financial community, that popularity  
10 does not make them less flawed. As New York University Stern School of Business  
11 Professor Aswath Damodaran, one of the most highly respected and widely cited experts  
12 in finance and valuation, has written:

13           Given how widely the historical risk premium approach is used, it is  
14           surprising how flawed it is and how little attention these flaws have  
15           received.<sup>18</sup>

16 There are two main reasons that over-reliance on historical data is problematic. First, the  
17 historical estimate for ERP is extremely sensitive to the historical time period selected,

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<sup>17</sup> Exhibit CUB-5, CAPM Analysis.

<sup>18</sup> Aswath Damodaran, “Estimating Equity Risk Premiums,” Stern School of Business, accessed June 2025, available at <https://pages.stern.nyu.edu/~adamodar/pdfiles/papers/riskprem.pdf>.

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1 meaning that the subjective judgment by the person deciding which time period to collect  
2 market data for has an outsized impact on the result.<sup>19</sup>

3 Second, regardless of the time period selected, historical estimates of ERP are subject to  
4 the problem of survivorship bias, where returns that are counted in historical ERPs tend to  
5 be those from stocks that remain in the market, rather than those that drop out. This  
6 survivorship bias effect tends to inflate historical ERPs.<sup>20</sup>

7 **Q Are there any methods of estimating ERP not subject to these problems?**

8 **A** Yes. Dr. Damodaran suggests using an “implied equity risk premium” method. This  
9 approach values stocks in a market at the present value of dividends from each stock  
10 growing at a constant rate. Essentially, Dr. Damodaran takes the same discounted cash flow  
11 model Ms. Bulkley and I use to estimate the cost of equity for a single company and applies  
12 it to value the expected return of a broad market index, the S&P 500. Dr. Damodaran  
13 explains that this approach has the advantage of being “market-driven and current, and  
14 does not require any historical data.”<sup>21</sup>

15 Dr. Damodaran’s formula, summarized in the figure below, begins with the base level of  
16 aggregate earnings of the S&P 500 index, and then applies the basic assumption of the  
17 discounted cash flow model that the present value of an asset is the stream of cash flows it

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<sup>19</sup> *Id.* “...the risk premium estimated in the US markets by different investment banks, consultants and corporations range from 4% at the lower end to 12% at the upper end... In summary, the risk premium estimates vary across users because of differences in time periods used, the choice of treasury bills or bonds as the risk-free rate and the use of arithmetic as opposed to geometric averages.”

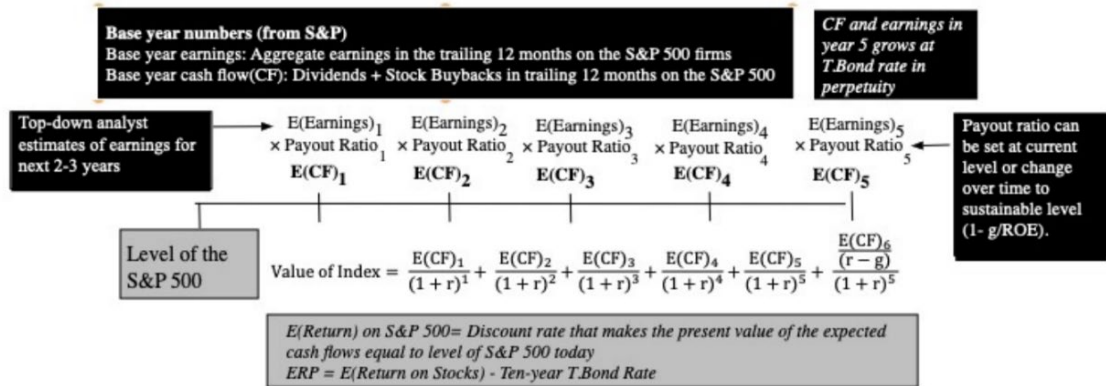
<sup>20</sup> *Id.* “...the survivor bias will result in historical premiums that are larger than expected premiums for markets like the United States, even assuming that investors are rational and factor risk into prices.”

<sup>21</sup> *Id.*

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1 is expected to generate, with each cash flow discounted at a rate that reflects the time value  
2 of money.

3 **Fig. 3<sup>22</sup>**



4  
5 In Dr. Damodaran’s approach, the cash flows are the earnings from dividends and stock  
6 buybacks that stocks in the S&P 500 generate, assumed to grow for five years at a rate  
7 derived from analyst growth forecasts, and then slowing to a perpetual growth rate that is  
8 equal to the risk-free rate. He then algebraically calculates the discount rate that allows  
9 these future cash flows to equal the current level of the index, resulting in a rate that reflects  
10 the return that investors require to invest in the market. Subtracting the risk-free rate from  
11 that required return results in the ERP.

12 Dr. Damodaran regularly publishes five estimates of the U.S. ERP based on this implied  
13 equity premium approach. The estimates are based on different assumptions, such as  
14 normalizing earnings by replacing the base year earnings with the average earnings yield

<sup>22</sup> Reproduced from Damodaran, “Equity Risk Premiums (ERP): Determinants, Estimation, and Implications – The 2025 Edition,” March 2025, p. 96. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5168609](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5168609)

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1 over the last decade. For my ERP,<sup>23</sup> I use the average of five different estimates for ERP  
2 from Dr. Damodaran calculated in June 2025. I use the highest estimate to be more  
3 conservative.

4 So as not to be reliant on one source, I also used the recommended U.S. ERP from financial  
5 research firm Kroll for 2025.<sup>24</sup> Kroll’s recommended U.S. ERP is based on risk perceptions  
6 in the market and other qualitative and quantitative inputs, such as an implied equity risk  
7 premium model.

8 **Q Is the ERP you calculate forward-looking to account for the fact that the test year for**  
9 **this proceeding is in the future?**

10 **A** Yes. Dr. Damodaran’s ERP is purposely calculated to be forward-looking in order to avoid  
11 the aforementioned pitfalls with historical approaches for ERP.<sup>25</sup> More specifically, Dr.  
12 Damodaran calculates the ERP using an expected growth rate for payouts to investors (i.e.,  
13 dividends and stock buybacks) that is the average of two-year growth forecasts of the  
14 aggregate earnings of the S&P 500 Index from analysts from Thomson Reuters, Factset,  
15 Yardeni, and S&P Capital IQ.

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<sup>23</sup> See Exhibit CUB-3, Equity Risk Premium.

<sup>24</sup> Kroll, “Kroll Recommended U.S. Equity Risk Premium and Corresponding Risk-Free Rates to be Used in Computing Cost of Capital: January 2008 - Present,” April 25, 2025. <https://www.kroll.com/en/reports/cost-of-capital/recommended-us-equity-risk-premium-and-corresponding-risk-free-rates>

<sup>25</sup> “The implied ERP is computed by using expected cash flows in the future, and what investors are paying for those cash flows today, making them forward looking.” Damodaran, “Equity Risk Premiums,” p. 93.

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1    **Q**    **Does Ms. Bulkley calculate the ERP she uses for her CAPM analysis using the same**  
2           **method as Dr. Damodaran?**

3    **A**    No. Ms. Bulkley uses a very different methodology. Her expected return on the market is  
4           the addition of a) a Bloomberg forecast of the three-to-five-year growth rate for earnings  
5           per share of companies in the S&P 500 Index and b) a Bloomberg estimate of the dividend  
6           yield of companies in the S&P 500 Index. This formula, where (cost of equity) = expected  
7           dividend yield plus  $g$  [growth rate], is essentially a simplified version of the discounted  
8           cash flow formula used by Dr. Damodaran and many others. This methodology assumes  
9           that cash flows will grow in the long term at a constant rate based on analyst expectations  
10          of the next five years, rather than settling at a more sustainable long-term rate based on the  
11          risk-free rate, as Dr. Damodaran does.

12   **Q**    **Why is Ms. Bulkley's ERP estimate so much higher than yours?**

13   **A**    Ms. Bulkley has used an inflated estimate for  $g$ , since it assumes that long-term growth  
14          rates will continue to remain high over the long run. The consequence of that choice is  
15          further amplified by her use of a more simplified discounted cash flow, which makes her  
16          result much more sensitive to the level at which  $g$  is set because  $g$  is only one of two inputs  
17          to her formula (the other input being the dividend yield).

18   **Q**    **Why is it unreasonable to assume that the long-term growth rate will remain higher**  
19          **than the risk-free rate?**

20   **A**    Ms. Bulkley's approach assumes that cash flows will grow in the long term at a constant  
21          rate based on analyst expectations of the next five years. It is unrealistic to assume that  
22          earnings can grow in perpetuity at such a high rate. Dr. Damodaran's assumption that

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1 growth will settle to a more sustainable rate is much more appropriate for a realistic  
2 application of the discounted cash flow model. This problem with Ms. Bulkley’s approach  
3 will surface again when I discuss her DCF analysis for ROE.

4 **Q What risk-free rate did you use in your CAPM formula?**

5 **A** To be consistent with my two ERPs, I used two corresponding risk-free rates. First, I used  
6 the same risk-free rate of 4.23%, representing the current yield on long-term Treasury  
7 bonds, that Dr. Damodaran used to calculate his ERP for September 2025. Second, I  
8 followed Kroll’s recommended method for the risk-free rate and used the spot 20-year  
9 Treasury yield of 4.76%. Specifically, I calculated the average of the high and low 20-year  
10 Treasury yields from September 5, 2025. My equity risk premiums and corresponding risk-  
11 free rates are shown in Exhibit CUB-3.

12 **Q Explain how you arrived at the beta used in your CAPM formula.**

13 **A** The beta coefficient is a measure of the sensitivity of a company’s returns to the returns of  
14 the market as a whole – how much the historical returns mathematically vary compared to  
15 the variance of the historical returns of the market. Its relevance for the CAPM formula is  
16 that it measures the risk associated with investing in the company’s equity that cannot be  
17 eliminated through portfolio diversification. In theory, an investor can buy other stocks in  
18 the market to compensate for the risk of any one stock, but if that stock’s returns are heavily  
19 correlated with the returns of the market, the investor is essentially not diversifying away  
20 the stock’s risk because it is merely adding more of the same kind of risk. Thus, beta is  
21 often described as a measure of “systematic risk” – the financial risk of a company that is

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1 not the result of risks from the company itself, but from its performance relative to the  
2 market as a whole (the “system”).

3 While calculating beta for publicly traded stocks is fairly straightforward due to the  
4 availability of plentiful data on a stock’s performance relative to the market, even a  
5 company that is not publicly traded, such as Consumers Energy, carries systematic risk vis-  
6 à-vis the market that can be calculated as a beta coefficient.

7 I use as beta in my CAPM formulas two different averages: First, the average of the Value  
8 Line beta estimates for the companies in my proxy group, and second, the average of the  
9 Bloomberg beta estimates for the companies in my proxy group. But for each of these two  
10 betas, I make an important adjustment that makes the beta coefficient more accurate.

11 **Q Please explain the adjustment you made to beta.**

12 **A** As shown in Exhibit CUB-4, I remove an adjustment that has been made to the Bloomberg  
13 and Value Line betas by those data sources, since this adjustment should not be applied to  
14 rate-regulated utilities.<sup>26</sup> Bloomberg and Value Line use the “Blume adjustment” equation  
15 to convert “raw” betas to “adjusted” betas. The Blume adjustment is meant to remove the  
16 bias that stems from the long-run tendency of betas to regress to 1. For stocks in most  
17 industries, this tendency of betas is thought to be a result of efforts by management to keep  
18 the systematic risk of a given firm close to that of the market.<sup>27</sup>

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<sup>26</sup> Exhibit CUB-4, Beta.

<sup>27</sup> Michelfelder, “Public Utility Beta Adjustment and Biased Costs of Capital in Public Utility Rate Proceedings,” *The Electricity Journal*, 2013. <https://www.sciencedirect.com/science/article/abs/pii/S1040619013002340>

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1 But this assumption that betas revert to the mean does not hold when it comes to the betas  
2 of rate-regulated utilities. The ability to recover costs inoculates rate-regulated utilities  
3 from systematic risk. Rate regulation protects investor-owned utilities like Consumers  
4 Energy from the risks of rising expenses, commodity price risk, and competitive risks, and  
5 they enjoy natural monopolies that mitigate market risks associated with the customer base.  
6 For example, commodity prices tend to be passed through directly to customers, and  
7 utilities can request a rate increase if sales decline. As a result, the Blume adjustment is not  
8 appropriate to apply to the betas of companies like those in the Company's proxy group.

9 **Q Is the removal of the Blume adjustment supported by any evidence?**

10 **A** Yes. There is extensive academic literature supporting the inapplicability of the Blume  
11 adjustment when it comes to utilities. The theoretical argument that the unique  
12 characteristics of rate regulation reduce systematic risk for utility stocks is well-supported.  
13 Utility stock performance tends to be countercyclical, so betas tend to be less than 1.<sup>28</sup>  
14 There is also a strong empirical record in the academic literature showing that rate-  
15 regulated utility stock betas in practice do not revert to 1. An analysis of the monthly returns  
16 of stocks of 57 publicly traded electric and gas utilities from 1962 to 2007 found that the

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<sup>28</sup> We note that it has been pointed out in the finance literature that applying the Blume adjustment can cause (rather than remedy) bias, particularly when being applied to industries where a beta of below or above unity is expected." Allen Consulting Group, "Empirical evidence on proxy beta values for regulated gas distribution activities," June 2007. <https://www.aemc.gov.au/sites/default/files/content/3016ea51-04c4-4b64-890c-845d23d2c47d/Annexure-C-Empirical-Evidence-on-Proxy-Betas.pdf>

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1 mean and median betas decline over time, rather than rise to 1, as the Blume adjustment to  
2 beta assumes.<sup>29</sup>

3 **Q Please summarize how you arrived at the ROE using the CAPM.**

4 **A** I calculated the cost of equity using four different CAPM formulas to account for two  
5 different ERPs (Damodaran and Kroll) and two different average betas (Value Line and  
6 Bloomberg). I provide the four resulting ROEs in Exhibit CUB-5.

7 **Q Did you apply the CAPM formula to estimate a cost of equity for the U.S. stock**  
8 **market?**

9 **A** Yes. The expected return of the U.S. stock market can be calculated using the same inputs  
10 as above but using a beta of 1. I show my calculation of a 9.02% return for the U.S. stock  
11 market in Exhibit CUB-10.

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<sup>29</sup> These results “strongly refute the validity of the Blume equation for public utility stocks.” Michelfelder 2013.

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1    **Q**    **Why did you not use the ECAPM?**

2    **A**    To my knowledge, the Commission has never recognized the ECAPM as a valid  
3           methodology for estimating ROE.<sup>30</sup> The MPSC Staff has also historically declined to use  
4           the ECAPM model as part of its ROE analyses.<sup>31</sup>

5    *Discounted Cash Flow (DCF) Model*

6    **Q**    **Please explain your application of the Discounted Cash Flow (DCF) model to estimate  
7           the Company's cost of equity.**

8    **A**    I add the Company's growth rate, or  $g$ , to the dividend yields of each company in my proxy  
9           group to arrive at an estimated cost of equity. My DCF result is lower than Ms. Bulkley's  
10          primarily due to correcting for Ms. Bulkley's use of an unrealistic growth rate.

11   **Q**    **Why is the growth rate you have selected superior to that selected by Ms. Bulkley?**

12   **A**    Selecting the growth rate may be the most important element of the DCF analysis. The EPS  
13          projections used by Ms. Bulkley are all in the short term: five-year consensus analyst  
14          earnings per share growth estimates. But a short-term growth rate cannot be the only  
15          growth rate used in the DCF model.

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Case No. U-21389, Notice of Proposal for Decision, Dec, 21, 2023, p. 337. "This PFD notes that Consumers has not identified an order wherein the Commission has recognized let alone adopted the use of the ECAPM model, and this ALJ is unaware of any." <https://mi-psc.my.site.com/sfc/servlet.shepherd/version/download/0688y00000BCjcrAAD>; see also Case No. U-21585, PFD, January 27, 2025, p. 341 ("The Company failed to identify any order in which the Commission recognized this approach, and for the reasons identified by Staff and the other intervenors, this PFD is not persuaded that the ECAPM approach is reliable or reasonable.").

<sup>31</sup> For example, see Case No. U-20940, Direct Testimony of MPSC Staff Witness Joseph Ufolla, 5 TR 1869, lines 9-16.

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1 The use of only short-term rates for perpetual growth leads to a wildly unrealistic outcome.  
2 Ms. Bulkley’s estimate for  $g$  is significantly higher than conservative forecasts for long-  
3 run domestic economy growth. For example, the average of her EPS growth rates is  
4 6.48%<sup>32</sup>, which is over 70% higher than the Congressional Budget Office’s forecast of  
5 3.80% for the average annual GDP growth of the U.S. economy from 2028 to 2035.<sup>33</sup> A  
6 DCF growth rate input higher than the growth rate of the economy as a whole implies that,  
7 in the long run, the Company will grow larger than the entire U.S. economy. Such an  
8 outcome is impossible.<sup>34</sup> I have corrected for this unrealistic assumption in my DCF model.

9 **Q Explain how you selected the  $g$  you use in your DCF model.**

10 **A** My DCF analysis is presented in Exhibits CUB-7 and CUB-8. I use two versions of the  
11 DCF model.<sup>35</sup>

12 First, I use a two-stage DCF model that includes a weighted average of a short-term growth  
13 rate based on investor expectations of utility earnings growth and a long-term growth rate  
14 that matches investor expectations of the growth of the domestic economy as a whole. The  
15 formula for this model is essentially the same as that in the model used by Ms. Bulkley:

16 
$$ke = (D_1/P_0) + g.$$

---

<sup>32</sup> Exhibit A-14, Sched. D-5, p. 3.

<sup>33</sup> Exhibit CUB-6, Long-Term Growth Rate.

<sup>34</sup> Aswath Damodaran. *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*, 3<sup>rd</sup> ed. John Wiley & Sons, Inc, 2012 (“If a firm is a purely domestic company, either because of internal constraints . . . or external constraints (such as those imposed by a government), the growth rate in the domestic economy will be the limiting value.”)

<sup>35</sup> Exhibit CUB-7, DCF (with Earnings Growth Rates); and Exhibit CUB-8, DCF (with Dividend Growth Rates).

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1           Where  $ke$  is the cost of equity,  $D_1$  is the dividend at time 1,  $P_0$  is the stock price at time 0,  
2           and  $g$  is the growth rate.

3           But whereas in Ms. Bulkley’s model,  $g$  is merely the short-term earnings projection, in the  
4           two-stage model  $g$  is a composite of the short-term projection and the long-term growth  
5           rate that represents the proper bound for the Company’s long-term growth, reflecting that  
6           in the long term the Company cannot grow larger than the domestic economy of which it  
7           is a part. The reason for this two-step process is that short-term and long-term growth often  
8           differ and failing to account for those differences leads to an incorrect application of the  
9           DCF model.<sup>36</sup>

10          My method follows FERC’s approved methodology used to analyze the base ROE of a  
11          public utility’s rates under the Federal Power Act using the DCF model. FERC has  
12          endorsed a two-step model in which the short-term growth rate is weighed at 80% and the  
13          long-term growth rate is weighed at 20%.<sup>37</sup> I use those same weightings in my model.  
14          Specifically, I weighed the short-term growth rates for each proxy group company from  
15          Exhibit A-14, Schedule D-5, page 3 at 80%, and the long-term growth rate at 20%.

16          Candidates for long-term growth rates are listed in Exhibit CUB-6, and they each represent  
17          conservative estimates of long-term economic growth.<sup>38</sup> I conservatively select the highest

---

<sup>36</sup> “The standard DCF model would be incorrectly specified when the investors’ expected intermediate term EPS growth rate differs from the long-term sustainable EPS growth rate.” Morin, p. 385.

<sup>37</sup> FERC, Order in Docket EL14-12-016, Oct. 17, 2024, p. 13. Available at <https://www.ferc.gov/media/e-4-el14-12-016>

<sup>38</sup> Exhibit CUB-6, Long-Term Growth Rate Sources.

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1 of these candidates, the nominal GDP growth rate from 2028 to 2035, as the value for the  
2 long-term  $g$  used in the DCF formula.

3 Second, I use another version of the DCF model that is identical to the first except the  
4 short-term growth rate is the average of the Value Line forecasts for dividend per share  
5 growth of the proxy group companies, rather than an average of forecasts for earnings  
6 growth. Regulatory jurisdictions such as the Massachusetts Department of Public Utilities  
7 have recognized that DPS growth rates carry the advantage that firms tend to keep their  
8 dividend growth stable over time, as opposed to EPS growth rates, which may vary based  
9 on firm-specific events and economic conditions.<sup>39</sup> With that advantage in mind, I include  
10 a version of the DCF model using dividend growth rates rather than earnings growth rates  
11 in order to reduce the uncertainty that comes from relying on a single version.

12 **Q How else does your DCF model differ from Ms. Bulkley's?**

13 **A** To calculate the stock prices used to arrive at dividend yields, Ms. Bulkley uses prices  
14 averaged over 30-, 90- and 180-trading-day periods. To reflect current investor  
15 expectations, the stock price should be as close to the current spot price as possible.  
16 Averaging prices over a short time period to remove the risk of picking an outlier price is  
17 appropriate, but the 90- and 180-day periods selected by Ms. Bulkley run the risk of relying  
18 on stale information.<sup>40</sup>

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<sup>39</sup> Massachusetts Department of Public Utilities, Order in DPU 23-80 and 23-81, June 28, 2024.

<sup>40</sup> Morin recommends no more than one month for an averaging period. Morin, p. 356: "To guard against the possibility that current stock price reflects abnormal conditions or constitutes a temporary aberration, while at the same time

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1 My stock prices represent the average of the high and low prices over the 30-day period  
2 ending September 4, 2025, with prices obtained from Yahoo! Finance. This ensures that  
3 my analysis uses the most up-to-date information, rather than data that is six months old  
4 and no longer reflective of investor expectations.

5 ***BYRP***

6 **Q Should the Commission consider Ms. Bulkley's Bond Yield Risk Premium (BYRP)**  
7 **analysis for estimating ROE?**

8 **A** No, it should not. It should be disregarded because it introduces into the calculation of  
9 ROE, a process that should be based on objective data as much as possible, the reliance on  
10 ROEs set by other regulatory commissions. Setting the ROE based on comparisons to other  
11 jurisdictions is both circular and unlikely to result in returns that would be set by objective  
12 financial methodology. Instead, it would likely result in the continuation of excessively-  
13 high ROEs, as shown by the research regarding trends in commissions setting excessive  
14 utility ROEs.

15 **Q Please explain how the risk premium is determined in Ms. Bulkley's analysis.**

16 **A** The risk premium used in Ms. Bulkley's BYRP analysis is the spread between those ROEs  
17 historically set by other commissions in rate cases and long-term Treasury bond yields.  
18 Therefore, the resulting risk premium she calculates is as large as it is because it reflects

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retaining the spirit of market efficiency, averaging stock prices over several recent trading days is a reasonable compromise... The average closing stock price calculated over the most recent 10 trading days period at the time of estimating the cost of equity is a reasonable procedure... A similar average computed over a one-month period rather than a 10-day period would not be unreasonable.”

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1 the extent to which regulatory commissions set ROEs at a premium to what the ROEs  
2 would be using only objective financial methods. In other words, her methodology  
3 perpetuates any excessive ROEs in her data.

4 **Q Have any other jurisdictions recognized this problem with the BYRP method?**

5 **A** Yes. This problem with similar Risk Premium models has been cited by FERC as one of  
6 the reasons to reject the use of the model. In Opinion No. 569 in a 2019 order, FERC found  
7 that “while all models, including the DCF, feature some circularity, such circularity is  
8 particularly direct and acute with the Risk Premium model because it directly relies on past  
9 Commission ROE decisions.”<sup>41</sup> In that decision, FERC also rejected the use of the Risk  
10 Premium model because it is “largely redundant with the CAPM.”

11 ***Risk Profile***

12 **Q Ms. Bulkley claims that Consumers Energy’s level of capital expenditures gives the**  
13 **Company higher risk relative to the proxy group, and that if the Company’s proposed**  
14 **infrastructure recovery mechanism is not approved, this additional risk “supports an**  
15 **ROE toward the higher end of the reasonable range of ROEs.”<sup>42</sup> Did you adjust your**  
16 **ROE results to reflect risk from capital expenditures?**

17 **A** No. In my opinion, these risks have already been accounted for in Consumers Energy’s  
18 credit rating, which, as I will show, compares favorably to the ratings of the proxy group

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<sup>41</sup> FERC Opinion 569, 169 FERC 61129 (2019), par. 343. Available at: [https://www.ferc.gov/sites/default/files/2020-04/E-11\\_1.pdf](https://www.ferc.gov/sites/default/files/2020-04/E-11_1.pdf). As the PFD in Consumers Energy’s most recent gas rate case, Case No. U-21806, noted, FERC “subsequently backtracked and reinstated the risk premium approach upon a rehearing, but on appeal the U.S. Court of Appeals for the District of Columbia Circuit vacated the order holding that FERC acted arbitrarily and capriciously by reinstating the risk premium approach without refuting its own withering criticisms of the model’s deficiencies.” Case No. U-21806, PFD, p 283 (citations omitted).

<sup>42</sup> Bulkley Direct, p. 46, lines 16-17.

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1 companies, indicating that the Company is not at higher risk due to its planned capital  
2 expenditures.

3 I agree with Ms. Bulkley that capital expenditures can affect a utility's risk in two ways:  
4 "the heightened level of investment increases the risk of under-recovery or delayed  
5 recovery of the invested capital; and (2) an inadequate return would put downward pressure  
6 on key credit metrics."<sup>43</sup> Ms. Bulkley then goes on to explain how credit rating agencies  
7 take these two risk factors into account when issuing their ratings.<sup>44</sup>

8 Therefore, we can look to the ratings received by the Company and the proxy group  
9 companies to consider how they compare to each other in terms of the level of risk related  
10 to capital expenditures.

11 **Q How does the Company's credit rating compare to the ratings of the proxy group**  
12 **companies?**

13 **A** Consumers Energy currently has an A- long-term credit rating from S&P.<sup>45</sup> That rating is  
14 higher than the ratings for all but 5 of the 19 proxy group companies. In other words,  
15 Consumers Energy has a higher rating than 73.6% of the proxy group.

16 **Q What conclusion do you draw from this comparison?**

17 **A** The Company does not appear to be regarded by the credit rating agencies as higher risk  
18 than the average proxy group company; in fact, it is regarded as lower risk. While

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<sup>43</sup> Bulkley Direct, p. 42, lines 7-10.

<sup>44</sup> Bulkley Direct, p. 43.

<sup>45</sup> Bulkley Direct, p. 19, line 7.

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1 Consumers Energy may have a more ambitious capital spending program than the average  
2 proxy group company, that program has not translated to higher risk.

3 **Q Did you adjust your recommended return on equity based on regulatory risk?**

4 **A** No. According to Ms. Bulkley, “both Moody’s and S&P have identified the supportiveness  
5 of the regulatory environment as an important consideration in developing their overall  
6 credit ratings for regulated utilities.”<sup>46</sup> Therefore, much like with the issue of capital  
7 expenditures, the issue of regulatory risk is already accounted for in the credit rating. Since  
8 Consumers Energy’s credit rating is higher than that of most of the proxy group companies,  
9 I do not adjust my ROE results for regulatory risk.

10 **V. CAPITAL STRUCTURE**

11 **Q What is the Company’s current authorized capital structure, and does the utility**  
12 **propose any changes to this structure?**

13 **A** The utility’s current authorized capital structure is 50% common equity and 50% long-  
14 term debt. In this case the Company proposes a structure of 50.75% common equity,  
15 49.11% long-term debt and 0.14% preferred stock.<sup>47</sup>

16 **Q What criteria determine the optimal division of equity and debt in the Company’s**  
17 **capital structure?**

18 **A** Deciding the optimal capital structure for a company like Consumers Energy involves  
19 weighing the different elements of risk that come with debt vs. equity. Theoretically

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<sup>46</sup> Bulkley Direct, p. 52, lines 24-26.

<sup>47</sup> Exhibit A-14, Sched. D-1.

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1 speaking, the cost of equity is always higher than the cost of debt because of two main  
2 factors. First, equity holders inherently take on more risk because they come second to debt  
3 holders when it comes to the legal ownership of the assets of the firm. For example, if the  
4 firm were to declare bankruptcy, debt holders would have priority under law to be repaid  
5 for their ownership claim, and whatever portion of assets left after debt holders are repaid  
6 may or may not be enough to satisfy the equity holders' actual claim. Second, interest  
7 payments on debt are tax deductible, reducing the cost of financing with debt.

8 As a result of the higher cost of equity, financing a firm with greater amounts of equity  
9 tends to be more expensive than financing with greater amounts of debt, and in the context  
10 of a utility, leads to higher costs for ratepayers.<sup>48</sup>

11 Debt, however, carries with it its own financial risk. As a firm adds more and more debt,  
12 the risk of it being unable to repay that debt increases, and this riskiness can be observed  
13 through the firm's credit rating. The goal of determining the optimal capital structure is to  
14 determine the point at which the cost of increasing the firm's cost of capital by adding more  
15 equity does not outweigh the additional financing costs of adding more debt, and vice  
16 versa. As Dr. Morin puts it:

17           The burning question to answer is at what level of leverage is the low-cost  
18           advantage of debt financing offset by the rising risks?<sup>49</sup>

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<sup>48</sup> Morin, p. 559. "The correct proportion of debt and equity capital for a utility to employ is particularly relevant for utility ratepayers, since equity costs exceed debt costs..."

<sup>49</sup> Morin, p. 559.

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1 **Q Is the capital structure proposed by the Company in this case the optimal capital**  
2 **structure?**

3 **A** No. My analysis shows that the Company could use less equity in its capital structure and  
4 still maintain the same credit rating. The result of my analysis shows that the Company's  
5 proposed capital structure would therefore unnecessarily burden ratepayers due to an  
6 excessive amount of equity, a more costly form of financing.

7 **Q Please explain your analysis of the optimal capital structure.**

8 **A** My analysis uses a standard approach in finance to calculate the interest coverage ratio  
9 implied by the proposed capital structure. The interest coverage ratio measures a  
10 company's ability to pay its interest obligations and is one of the most important factors  
11 used by bond rating agencies to determine the creditworthiness of a company's debt. The  
12 coverage ratio is calculated as:

13 [the weighted pre-tax cost of debt (weighted by the percent of debt in the  
14 capital structure) plus the weighted pre-tax cost of equity (weighted by the  
15 percent of equity in the capital structure)] divided by the weighted pre-tax  
16 cost of debt.

17 In Exhibit CUB-9, I have calculated the coverage ratio for the Company.<sup>50</sup>

18 This coverage ratio implies a level of financial risk that implies what bond rating a  
19 company's debt is likely to receive at that ratio. This implied rating can be observed by  
20 looking at the range of coverage ratios that are typical for companies whose debt receives  
21 a certain rating. Dr. Damodaran maintains a table of coverage ratio ranges and the

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<sup>50</sup> Exhibit CUB-9, Interest Coverage Ratios.

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1 associated bond credit rating that is frequently updated with data from all rated companies  
2 in the U.S.<sup>51</sup> This table allows me to compare the coverage ratio calculated in Exhibit CUB-  
3 9 to the ratio range of 3 to 4.2499 for A3/A- -rated debt. Consumers Energy’s long-term  
4 credit rating is A- from S&P and A3 from Moody’s.<sup>52</sup>

5 **Q Could the Company lower its proposed 50.75% equity ratio without lowering its**  
6 **coverage ratio below the range of coverage ratios required for an A3/A- rating?**

7 **A** Yes. My calculation in Exhibit CUB-9 shows that at the Company’s desired 10.25% ROE,  
8 50.75% equity ratio, 4.54% cost of debt, and 49.11% debt ratio, the coverage ratio is 4.17,  
9 at the higher end of the range of 3 to 4.2499 identified in Dr. Damodaran’s table. My  
10 calculation then shows that at the same cost of debt but using a 50/50 debt-equity ratio and  
11 my recommended ROE, the coverage ratio falls to just 4.04, still well within the range.  
12 This result suggests that the Company could lower the equity share in its capital structure,  
13 and thus lower its cost of capital, without materially increasing financial risk.

14 **Q Mr. Bleckman claims that the Company’s proposed equity ratio and ROE results in**  
15 **an “optimal outcome”<sup>53</sup> for the Company and its customers. Do you agree?**

16 **A** No. An equity ratio and ROE lower than the Company’s proposal would result in a more  
17 optimal outcome because it would minimize the cost of capital, reducing costs for  
18 customers. Mr. Bleckman does not provide any quantitative analysis as to how the

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<sup>51</sup> Aswath Damodaran. “Ratings, Interest Coverage Ratios and Default Spread.”  
[https://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/datafile/ratings.html](https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ratings.html). Accessed August 2025.

<sup>52</sup> Bulkley Direct, p. 19, lines 6-8.

<sup>53</sup> Direct Testimony of Marc R. Bleckman, p. 22, line 5.

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1 Company’s proposal is optimal. He simply asserts that the impact on customer rates is  
2 “reasonable” without explaining why customers should have to pay for a higher rate of  
3 return without a corresponding benefit.

4 **Q Mr. Bleckman asserts that “further degradation of the authorized equity ratio and**  
5 **ROE puts the Company at risk of dropping further in its regulatory environment**  
6 **rankings which could negatively impact the Company’s credit quality and credit**  
7 **rating.”<sup>54</sup> Do you agree?**

8 **A** No. Mr. Bleckman does not provide any evidence that the Company is at risk of a credit  
9 downgrade from a drop in regulatory environment rankings or why his preferred equity  
10 ratio and ROE would prevent such a drop from occurring. For example, Mr. Bleckman  
11 claims that a “supportive” equity ratio and ROE are “critical in maintaining a ‘financial  
12 cushion’ to protect against downgrade in the event of unforeseen events like the market  
13 volatility and disruption that occurred during the onset of the COVID-19 pandemic in 2020  
14 or the financial pressure caused by the dramatic increase in gas prices and interest rates in  
15 2022 or the banking crisis of 2023.”<sup>55</sup> But Mr. Bleckman provides no analysis showing  
16 that his preferred equity ratio and ROE are required to maintain the Company’s credit  
17 ratings in this sense. In addition, both Moody’s<sup>56</sup> and S&P<sup>57</sup> have a “stable” outlook for  
18 Consumers Energy, meaning they see little risk of a downgrade.

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<sup>54</sup> Bleckman Direct, p. 20, lines 12-15.

<sup>55</sup> Bleckman Direct, p. 21, lines 22-25.

<sup>56</sup> Exhibit A-37 (MRB-18), p. 1.

<sup>57</sup> Exhibit A-36 (MRB-17), p. 1.

**DIRECT TESTIMONY OF MATTHEW BANDYK ON BEHALF OF CUB  
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1    **Q**    **Mr. Bleckman also asserts that the company’s credit rating is put “at risk” from the**  
2           **lower Funds from Operations-(FFO)to-Debt ratio that would result from a lower**  
3           **equity ratio and/or ROE. <sup>58</sup> Do you agree?**

4    **A**    No. Mr. Bleckman claims that the 50.75% equity ratio and 10.25% ROE “results in an  
5           FFO-to-Debt ratio that is sufficient in striking this balance,” namely, “the balance between  
6           the Company’s equity ratio and ROE that will ensure that this key financial metric does  
7           not degrade and cause significant credit deterioration.”<sup>59</sup> But in response to a discovery  
8           question I submitted asking what this sufficient FFO-to-Debt ratio is, Mr. Bleckman  
9           responded that the calculation of this ratio was not available because “a calculation of the  
10          FFO-to-Debt ratio is not feasible using only the proposed 50.75% equity ratio and 10.25%  
11          ROE.” If he has not calculated the FFO-to-Debt ratio, Mr. Bleckman cannot possibly know  
12          if the FFO-to-Debt ratio resulting from the proposed equity ratio and ROE would be  
13          “sufficient” toward preserving the Company’s credit rating, or if a lower equity ratio and/or  
14          ROE would be insufficient.

15   **Q**    **What capital structure do you propose the Commission adopt in this case?**

16   **A**    I recommend the Commission maintain the Company’s authorized capital structure of 50%  
17          common equity and 50% long-term debt.

18   **Q**    **Does this conclude your testimony?**

19   **A**    Yes.

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<sup>58</sup> Bleckman Direct, p. 16, lines 8-9.

<sup>59</sup> Bleckman Direct, p. 13, lines 13-16.



## Matthew Bandyk, Principal Associate

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mbandyk@synapse-energy.com

### PROFESSIONAL EXPERIENCE

**Synapse Energy Economics, Inc.**, Cambridge, MA. *Principal Associate*, January 2025 – Present.

- Performs financial analysis for clients in regulatory cases involving utility cost of capital.
- Summarizes complex technical concepts to clients, regulators, and public audiences through papers, presentations, testimony, and meetings.
- Creates, uses, and maintains spreadsheet-based tools and other analytical platforms to analyze energy technologies, programs, and portfolios.

**5 Lakes Energy**, Northport, MI. *Consultant*, September 2021 – December 2024

- Provided public policy recommendations and financial analysis for nonprofit energy advocacy and government clients.
- Served as expert witness in testimony in Michigan Public Service Commission rate cases; testimony contributed to hundreds of millions of dollars in ratepayer savings from the outcome of cases.
- Frequently used Microsoft Excel for testimony and projects, such as designing financial models for the City of Ann Arbor.
- Coordinated the writing and research for major reports for clients, such as the Citizens Utility Board of Michigan's Utility Performance Report and Evergreen Collaborative's Michigan Clean Energy Framework.
- Served as communications strategist for the Michigan Energy Innovation Business Council, including writing social media, blog posts on utility regulation and policy issues, enterprise articles in publications like Utility Dive, and op-eds in newspapers like the Detroit Free Press and the Detroit News.
- Significantly expanded contract work for 5 Lakes Energy by bringing in clients from my independent consultancy.

**Bandyk Consulting LLC**, Royal Oak, MI. *Clean Energy Consultant*, January 2019 – September 2021

- Performed communications and regulatory engagement strategy, including writing comments in regulatory cases, for clients such as the Citizens Utility Board of Michigan and the Michigan Energy Innovation Business Council.

**Atwell LLC**, Southfield, MI. *Financial Services Manager*, May 2018 – January 2019.

- Purchased long-lived assets to support Atwell's work in environmental and engineering project consulting.
- Performed financial analysis to overhaul company's asset leasing policies with goal of saving up to ~\$100k per year by improving asset life.

**Environmental Defense Fund**, Toledo, OH. *Climate Corps Fellow*, Summer 2017

- Built financial valuation tool for payback, NPV and IRR of solar arrays planned by client, determining best ROI for about \$300,000 in solar investments.
- Designed energy use tracking system for the largest private low-income housing provider in Toledo, Ohio; system saved hundreds of work hours annually.

**DTE Energy**, Detroit, MI. *MBA Student Consultant*, March 2017 – April 2017

- Performed market and regulatory compliance research on original proposal for DTE to enter the corporate renewable energy space; presented to company leadership.
- Designed tariff to add wind/solar and cut rates by 20% compared to DTE's green tariff.

**S&P Global Market Intelligence/SNL Financial**, Arlington, VA. *Reporter*, June 2010 – August 2016

- Used Excel analysis of power plant output and commodity price databases to create actionable intelligence about new trends in the energy industry for clients.
- Wrote articles on utilities, power plants, energy efficiency and regulation for subscription website read daily by thousands of energy and investment professionals.

## EDUCATION

**University of Michigan Stephen M. Ross School of Business**, Ann Arbor, MI  
Master of Business Administration, 2018

**Davidson College**, Davidson, NC  
Bachelor of Arts in Political Science, 2006; *cum laude*

**Society for Utility and Regulatory Financial Analysts**  
Certified Rate of Return Analyst, 2025

## TESTIMONY

**Michigan Public Service Commission (Docket U-21860)**: Direct Testimony of Matthew J. Bandyk regarding the application of DTE Electric Company for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy. August 22, 2025.

**California Public Utilities Commission (Docket A.25-03-013)**: Direct Testimony of Matthew J. Bandyk regarding San Diego Gas and Electric Company 2026 Cost of Capital. On behalf of Utility Consumers' Action Network. July 30, 2025.

**Michigan Public Service Commission (Docket U-21806)**: Direct Testimony of Matthew J. Bandyk regarding the application of Consumers Energy Company for authority to increase its rates for the

distribution of natural gas and for other relief. On behalf of Citizens Utility Board of Michigan. April 23, 2025.

**Michigan Public Service Commission (Docket U-21585):** Direct Testimony of Matthew J. Bandyk regarding Consumers Energy Company's application for authority to increase its rates for the generation and distribution of electricity and for other relief. On behalf of Citizens Utility Board of Michigan, Natural Resources Defense Council and Michigan Environmental Council. September 27, 2024.

**Michigan Public Service Commission (Docket U-21534):** Direct Testimony of Matthew J. Bandyk regarding DTE Electric Company's application to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority. On behalf of Citizens Utility Board of Michigan and Michigan Environmental Council. July 25, 2024.

**Michigan Public Service Commission (Docket U-21555):** Direct Testimony of Matthew J. Bandyk regarding Upper Peninsula Power Company's application for authority to increase its rates for the generation and distribution of electricity and for other relief. On behalf of Citizens Utility Board of Michigan. July 19, 2024.

**Michigan Public Service Commission (Docket U-21540):** Direct Testimony of Matthew J. Bandyk regarding Michigan Gas Utilities Corporation's application for authority to increase retail natural gas rates and for other relief. On behalf of Citizens Utility Board of Michigan. June 28, 2024.

**Michigan Public Service Commission (Docket U-21291):** Direct Testimony of Matthew J. Bandyk regarding DTE Gas Company's application for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of natural gas, and for miscellaneous accounting authority. On behalf of Citizens Utility Board of Michigan. May 7, 2024.

**Michigan Public Service Commission (Docket U-21490):** Direct Testimony of Matthew J. Bandyk regarding Consumers Energy Company's application for authority to increase its rates for the distribution of natural gas and for other relief. On behalf of Citizens Utility Board of Michigan. April 22, 2024.

**Michigan Public Service Commission (Docket U-21389):** Direct Testimony of Matthew J. Bandyk, Natural Resources Defense Council, Sierra Club, and Citizens Utility Board of Michigan regarding Consumers Energy Company's application for authority to increase its rates for the generation and distribution of electricity and for other relief. On behalf of Michigan Environmental Council. August 29, 2023.

**Michigan Public Service Commission (Docket U-21048):** Direct Testimony of Matthew J. Bandyk regarding Consumers Energy Company's application for approval to implement a power supply cost recovery plan for the 12 months ending December 31, 2022. On behalf of Citizens Utility Board of Michigan. April 29, 2022.

*Resume updated September 2025*

## Exhibit CUB-2

### Overall Rate of Return

(a) Description	(b) Capital Structure Amount (\$000,000) (1)	(c) Percent Permanen t Capital (2)	(d) Percent of Total Capital	(e) Cost Rate %	(f) Weighted Cost Permanen t Capital (7)	(g) Total Cost -8%
Long-Term Debt	\$13,916	50.00%	42.40%	4.54%	2.23%	1.93%
Preferred Stock	0	0.00%	0.00%	4.50%	0.01%	0.00%
Common Shareholder's Equity	<u>13,916</u>	50.00%	42.40%	9.22%	5.20%	3.91%
Total Permanent Capital	\$27,832	<u>100.00%</u>	84.80%			
Short-Term Debt	148		0.45%	4.92%		0.02%
Deferred Income Taxes	4,692		14.30%	0.00%		0.00%
<u>Investment Tax Credit</u>						
Long-Term Debt	74		0.23%	4.54%		0.01%
Preferred Stock	0		0.00%	4.50%		0.00%
Common Equity	74		0.23%	10.25%		0.02%
Total	<u>\$32,820</u>		<u>100.00%</u>			<u>5.89%</u>

## Exhibit CUB-3

### Equity Risk Premium and Corresponding Risk-Free Rates

Damodaran <sup>1</sup>	Equity Risk Premium
Damodaran (Trailing 12 months with sustainable payout)	3.68%
Damodaran (Trailing 12 months)	3.94%
Damodaran (smoothed)	5.37%
Damodaran (normalized)	3.57%
Damodaran (net cash yield)	3.68%
<b>Average</b>	<b>4.05%</b>

#### Kroll<sup>3</sup>

Kroll	5.0%
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#### Risk-Free Rate

Damodaran	4.23%
Kroll <sup>2</sup>	4.76%

<sup>1</sup> Aswath Damodaran. "Implied ERP by month for previous months (September 2008- Current)." [https://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/home.htm](https://pages.stern.nyu.edu/~adamodar/New_Home_Page/home.htm). Accessed September 2025.

<sup>2</sup> 20-year Treasury yield as of 9/5/25. <https://www.cnbc.com/quotes/US20Y>. Kroll recommends "using the spot 20-year U.S. Treasury yield as the proxy for the risk-free rate if the prevailing spot yield as of the valuation date is higher than the Kroll normalized U.S. risk-free rate of 3.5%."

<sup>3</sup> Kroll, "Kroll Recommended U.S. Equity Risk Premium and Corresponding Risk-Free Rates to be Used in Computing Cost of Capital: January 2008 - Present," Sept. 2, 2025. <https://www.kroll.com/en/reports/cost-of-capital/recommended-us-equity-risk-premium-and-corresponding-risk-free-rates>.

## Exhibit CUB-4

### Beta

Company	[1] Bloomberg Beta Coefficient	[2] Raw Beta	[3] Value Line Beta Coefficient	[4] Raw Beta
Alliant Energy Corporation	0.77	0.66	0.95	0.92
Ameren Corporation	0.73	0.60	0.9	0.85
American Electric Power Company, Inc.	0.74	0.61	0.85	0.77
Avista Corporation	0.74	0.61	0.95	0.92
Dominion Resources, Inc.	0.69	0.54	0.9	0.85
DTE Energy Company	0.8	0.70	1	1.00
Duke Energy Corporation	0.7	0.55	0.9	0.85
Entergy Corporation	0.84	0.76	1	1.00
Evergy, Inc.	0.77	0.66	0.95	0.92
IDACORP, Inc.	0.77	0.66	0.85	0.77
NextEra Energy, Inc.	0.8	0.70	1.05	1.08
NorthWestern Corporation	0.85	0.78	1	1.00
OGE Energy Corporation	0.9	0.85	1.05	1.08
Pinnacle West Capital Corporation	0.8	0.70	0.95	0.92
TXNM Energy	0.81	0.72	0.9	0.85
Portland General Electric Company	0.77	0.66	0.95	0.92
PPL Corporation	0.91	0.87	1.1	1.15
Southern Company	0.76	0.64	0.95	0.92
Xcel Energy Inc.	0.72	0.58	0.85	0.77
Average	0.78	0.68	0.95	0.92

- [1] Exhibit A-14,  
Sched. D-5, p. 6.
- [2]  $([1]-0.33)/0.67$
- [3] Exhibit A-14,  
Sched. D-5, p. 9.
- [4]  $([3]-0.35)/0.65$

## Exhibit CUB-5

### CAPM Analysis

ERP (Damodaran) <sup>1</sup>	Risk-free rate (Damodaran) <sup>2</sup>	Value Line Beta <sup>3</sup>	Cost of Equity <sup>4</sup>
4.05%	4.23%	0.92	7.97%
ERP (Damodaran)	Risk-free rate (Damodaran)	Bloomberg Beta <sup>5</sup>	Cost of Equity
4.05%	4.23%	0.68	6.96%
ERP (Kroll) <sup>6</sup>	Risk-free rate (Kroll) <sup>7</sup>	Value Line Beta	Cost of Equity
5.00%	4.76%	0.92	9.37%
ERP (Kroll)	Risk-free rate (Kroll)	Bloomberg Beta	Cost of Equity
5.00%	4.76%	0.68	8.13%

<sup>1</sup> Exhibit CUB-3.

<sup>2</sup> Id.

<sup>3</sup> Exhibit CUB-4.

<sup>4</sup> = Risk-free rate plus (Beta times ERP)

<sup>5</sup> Exhibit CUB-4.

<sup>6</sup> Exhibit CUB-3.

<sup>7</sup> Id.

## Exhibit CUB-6

### Long-Term Growth Rate Sources

Nominal GDP annual average growth rate 2028-2035 <sup>1</sup>	3.80%
Real GDP annual average growth, 2028-2035 <sup>2</sup>	1.80%
Inflation annual average growth rate, 2028-2035 (GDP price index) <sup>3</sup>	2.0%

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<sup>1</sup> Congressional Budget Office. *The Budget and Economic Outlook: 2025 to 2035*. Table C-1. January 2025. [https://www.cbo.gov/publication/61172#\\_idTextAnchor004](https://www.cbo.gov/publication/61172#_idTextAnchor004).

<sup>2</sup> Id.

<sup>3</sup> Id



- [1] Exhibit A-14, Sched. D-5, p. 3.  
Source: Yahoo! Finance covering 30-day period ending Sept. 4,
- [2] 2025.
- [3] Id.
- [4] Average of [2] and [3]
- [5] [1] divided by [4]
- [6] [5] times  $[1+(0.5*[10])]$
- [7] Exhibit A-14, Sched. D-5, p. 3.
- [8] Id.
- [9] Value Line
- [10] Average of [7], [8] and [9]
- [11] Source: Exhibit CUB-6
- [12] [6] plus (0.8 times [10]) plus (0.2 times [11])



- [1] Exhibit A-14, Sched. D-5, p. 3.  
Source: Yahoo! Finance covering 30-day period ending Sept. 4,
- [2] 2025.
- [3] Id.
- [4] Average of [2] and [3]
- [5] [1] divided by [4]
- [6] [5] times  $[1+(0.5*[10])]$
- [7] Value Line
- [8] Source: Exhibit CUB-6
- [9] [6] plus (0.8 times [7]) plus (0.2 times [8])

## Exhibit CUB-9

### Interest Coverage Ratio

#### Tax Rate<sup>1</sup>

a)	State Tax Rate	0.0524
b)	Local Tax Rate	0.0016
c)	Federal Tax Rate	0.21
d)	Total Tax Rate	0.264

#### Interest coverage ratio with Company-proposed debt/equity ratio and cost of equity

	Weight	Cost	Wtd cost <sup>2</sup>	tax factor	pre-tax wtd cost <sup>3</sup>
debt	0.4911	0.0454	0.02229594	1	0.02229594
equity	0.5075	0.1025	0.05201875	1.358695652 <sup>4</sup>	0.070677649
				sum	0.092973589
				<b>interest coverage<sup>5</sup></b>	<b>4.169978456</b>

#### Interest coverage ratio with Bandyk-recommended debt/equity ratio and cost of equity

	Weight	Cost	Wtd cost	tax factor	pre-tax wtd cost
debt	0.5	0.0434	0.0217	1	0.0217
equity	0.5	0.097	0.0485	1.358695652	0.065896739
				sum	0.087596739
				<b>interest coverage</b>	<b>4.036716089</b>

<sup>1</sup> Exhibit A-3, Sched. C-2.

<sup>2</sup> Weight times cost.

<sup>3</sup> Weighted cost times tax factor.

<sup>4</sup> 1/(1-d)

<sup>5</sup> Sum divided by debt pre-tax weighted cost.

## Exhibit CUB-10

### CAPM for U.S. Stock Market

ERP (Damodaran) <sup>1</sup>	Risk-free rate (Damodaran) <sup>2</sup>	Beta	Cost of Equity <sup>3</sup>
4.05%		4.23%	1 8.28%
ERP (Damodaran)	Risk-free rate (Damodaran)	Beta	Cost of Equity
4.05%		4.23%	1 9.76%
Average			<b>9.02%</b>

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<sup>1</sup> Exhibit CUB-3.

<sup>2</sup> Id.

<sup>3</sup> = Risk-free rate plus (Beta times ERP)

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of  
**CONSUMERS ENERGY COMPANY** for  
 authority to increase its rates for the generation  
 and distribution of electricity and for other  
 relief.

Case No. U-21870

**PROOF OF SERVICE**

On the date below, an electronic copy of **Direct Testimony and Exhibits of Matthew Bandyk on behalf of Citizens Utility Board of Michigan (CUB-1 through CUB-10)** was served on the following:

Name/Party	E-mail Address
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[signature page below]

The statements above are true to the best of my knowledge, information and belief.

**Troposphere Legal, PLC**  
Counsel for CUB

Date: September 29, 2025

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