Exhibit No.: ______________
Issue(s): Rate of Return (ROR)/Capital Structure
Witness/Type of Exhibit: Murray/Surrebuttal
Sponsoring Party: Public Counsel
Case No.: GR-2024-0106

SURREBUTTAL TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

LIBERTY UTILITIES (MIDSTATES NATURAL GAS) CORP.
D/B/A LIBERTY UTILITIES'

FILE NO. GR-2024-0106

*** ____ ***
Denotes Highly Confidential Information that has been redacted

September 19, 2024

PUBLIC

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SURREBUTTAL TESTIMONY

OF

DAVID MURRAY

LBERTY UTILITIES (MIDSTATES NATURAL GAS) CORP D/B/A LIBERTY

CASE NO. GR-2024-0106

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

2 A. My name is David Murray and my business address is P.O. Box 2230, Jefferson City,
3 Missouri 65102.

4 **Q. Are you the same David Murray who previously filed direct and rebuttal testimony in**
5 **this case?**

6 A. Yes.

7 **Q. What is the purpose of your testimony?**

8 A. This testimony will respond to the rebuttal testimony of Liberty Utilities (Midstates Natural
9 Gas) Corp. ("Liberty Midstates") witness, John Cochrane, as it relates to rate of return
10 ("ROR"), which encompasses capital structure, return on common equity ("ROE") and
11 cost of debt.

12 **Q. How will you approach the presentation of your rebuttal testimony?**

13 A. First, I will address Mr. Cochrane's criticisms about my cost of long-term debt
14 recommendation. Next, I will address his rebuttal testimony regarding my recommended
15 capital structure. Finally, I'll respond to his critique of my estimated cost of common
16 equity ("COE") and its relation to my recommended authorized ROE.

1 **COST OF LONG-TERM DEBT**

2 **Q. Mr. Cochrane testified that he does not understand your statement that LUCo's**
3 **embedded cost of long-term debt should be adopted "because it is based on all third-**
4 **party debt issuances."[1] Can you explain what you meant by this statement?**

5 A. My recommended embedded cost of long-term debt is based on terms and costs (e.g.
6 interest rates and issuance expenses) required on third-party debt issuances, which were a
7 function of arms-length transactions. I did not include any affiliate-financing agreements
8 in my recommended embedded cost of long-term debt. In contrast, Mr. Cochrane's
9 embedded cost of long-term debt recommendation is based entirely on inter-company
10 Promissory Notes (*i.e.* affiliate-financing agreements).

11 **Q. Mr. Cochrane testified that you did not cite any Missouri Public Service Commission**
12 **("Commission") Report & Orders to support your embedded cost of long-term debt**
13 **recommendation.[2] Has the Commission adopted Liberty Utilities Co.'s ("LUCo")**
14 **embedded cost of long-term debt and capital structure in past rate cases involving**
15 **Liberty Midstates and its Missouri affiliates?**

16 A. Yes. As I cited in my rebuttal testimony, the Commission adopted LUCo's embedded cost
17 of long-term debt and capital structure in the following cases:

18 (1) Liberty Midstates, Case No. GR-2014-0152;

19 (2) Liberty Utilities (Missouri Water) Corp. ("Liberty Water"), Case No. WR-
20 2018-0170; and

21 (3) The Empire District Electric Company, Case No. ER-2019-0374.[3]

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[1] Cochrane Rebuttal, p. 20, lns. 12-22.
[2] *Id.*
[3] Murray Rebuttal, p. 18, lns. 20-24.

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1 **Q. Mr. Cochrane testified that the terms of Liberty Midstates' $90.6 million affiliate**
2 **Promissory Note "…reflected the current market costs of LUCo issuing new debt in**
3 **the market at those times."[4] Did LUCo issue debt on December 14, 2023, the day**
4 **Liberty Midstates executed affiliate Promissory Notes with LUCo?**

5 A. No.

6 **Q. When did LUCo last issue debt to third party investors?**

7 A. January 12, 2024.

8 **Q. Then how did LUCo determine the interest rate it charged Liberty Midstates for the**
9 **affiliate Promissory Notes issued on December 14, 2023?**

10 A. As I discussed in detail in my rebuttal testimony, J.P. Morgan provided APUC with an
11 "indicative pricing sheet" to estimate a possible price for a range of tenors if LUCo issued
12 bonds as of that date.[5] LUCo did not issue bonds on the same date it executed the affiliate
13 Promissory Notes with Liberty Midstates.

14 **Q. Mr. Cochrane testified that the Commission approved the "pricing mechanism"**
15 **assigned to the Liberty Midstates' Promissory Notes.[6] What is Mr. Cochrane's basis**
16 **for his testimony?**

17 A. Mr. Cochrane appears to base this statement on the Commission's approval of the Liberty
18 Midstates' Promissory Notes in Case No. GF-2023-0280.

19 **Q. Was the Commission's approval of Liberty Midstates' Promissory Notes in GF-2023-**
20 **0280 an "approval" of APUC's internal pricing mechanism for affiliate Promissory**
21 **Notes as Mr. Cochrane states?**

22 A. No it was not. Section 393.190 requires Liberty Midstates, as a Missouri corporation, to
23 receive Commission authority to issue long-term debt (whether affiliate long-term debt or
24 third-party long-term debt). However, the Commission approving a company's financing

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[4] Cochrane Rebuttal, p. 21, ln. 23 – p. 22, ln. 1.
[5] Murray Rebuttal, p. 6, lns. 1-24.
[6] Cochrane Rebuttal., pg. 22, lns. 1-2.

1 does not equate to the pre-approval of a company's capital structure or cost of debt for
2 ratemaking purposes. In GF-2023-0280, the Commission specifically qualified its
3 approval of Liberty Midstates' financing authority request with the following condition:

> 4 Nothing in this order shall be considered a finding by the Commission of
> 5 the value of this transaction for rate making purposes, specifically
> 6 including, but not limited to, the placement fee, and the Commission
> 7 reserves the right to consider the rate making treatment to be afforded the
> 8 financing transaction and its impact on cost of capital, in any later
> 9 proceeding.[7]

10 The ordered condition makes clear that the Commission's approval did not extend to any
11 other proceedings.

12 **Q. Is the aforementioned condition standard for Commission financing authorities?**

13 A. Yes. In fact, this same condition has been included in all the Commission's conditional
14 approvals of past Liberty Midstates and Liberty Water financing applications. The
15 Commission has never explicitly approved APUC's internal pricing mechanism. The
16 Commission's decisions to adopt LUCo's embedded cost of long-term debt in past Liberty
17 Midstates and Liberty Water rate cases shows that the Commission does not construe its
18 financing authority as binding for ratemaking.

19 **Q. Mr. Cochrane criticizes your inclusion of utility operating company legacy third-**
20 **party debt in your recommended embedded cost of long-term debt. Can you explain**
21 **his issue with this inclusion?**

22 A. I can. Mr. Cochrane states that the operating subsidiaries directly issued the legacy debt
23 before LUCo acquired these companies, preventing LUCo from using proceeds from these
24 debt issuances to invest in Liberty Midstates. Therefore, he believes that the cost of this
25 legacy debt should not be included in the determination of an embedded cost of long-term
26 debt for Liberty Midstates.

[7] Case No. GF-2023-0280, "Order Approving Financing Application," July 26, 2023.

P

1 **Q. When did APUC acquire the natural gas distribution systems owned by Liberty**
2 **Midstates?**

3 A. July 2012.

4 **Q. What entity owned these systems prior to Liberty Midstates?**

5 A. Atmos Energy Corporation ("Atmos").

6 **Q. Did the Commission authorize this acquisition?**

7 A. Yes. The Commission issued an order on March 14, 2012 in Case No. GM-2012-0037
8 conditionally approving Liberty Midstates' acquisition of the natural gas distribution
9 systems from Atmos.

10 **Q. Was this transaction an asset acquisition or a company acquisition?**

11 A. The transaction was an asset acquisition. Atmos directly owned the natural gas distribution
12 system (hereinafter referred to as the "Mid-States System") as part of its Kentucky/Mid-
13 States Division (*i.e.,* not a separate legal corporation).[8]

14 **Q. Did the Mid-States System issue its own debt before Liberty Midstates acquired it in**
15 **July 2012?**

16 A. No. As a division of Atmos, the Mid-States System could not issue its own debt.

17 **Q. How did Atmos provide debt financing to the Mid-States System?**

18 A. Atmos provided debt financing to the Mid-States System through its consolidated capital
19 structure.

20 **Q. What cost of debt was associated with the Mid-States System when it was owned by**
21 **Atmos?**

22 A. Atmos' consolidated cost of long-term debt. It was impractical to attempt to assign Atmos'
23 third-party debt to any specific use. Therefore, both Staff and Atmos recommended

[8] Case No. GM-2012-0037, Direct Testimony of Mark A. Martin, August 1, 2011, p. 1.

P

1 Atmos' consolidated cost of long-term debt (over $2 billion outstanding at the time of its
2 2006 and 2010 Missouri rate cases) be used to set the ROR for the Mid-States System.[9]

3 **Q. If Atmos still owned the Mid-States System, what cost of debt would likely be used to**
4 **set the ROR for the Mid-States System?**

5 A. Approximately 4.25%. Although Atmos' debt issuances cannot be reconciled to any
6 specific use, this cost of debt would have been consistent with the approach Staff and
7 Atmos had used to determine a reasonable cost of debt to charge ratepayers.

8 **Q. Is it even more important to base a utility's authorized cost of debt on the entire**
9 **portfolio of debt issuances if the subject utility is acquired through an asset**
10 **acquisition, as occurred between Atmos and Liberty Midstates?**

11 A. Yes. Because Liberty Midstates purchased the Mid-States System from Atmos as an "asset
12 acquisition," it did not assume any of Atmos' outstanding debt. Therefore, the capital
13 supporting the Mid-States System immediately after Liberty Midstates acquired it, was the
14 capital raised to purchase the system. Clearly, the capital used to acquire the Mid-States
15 System differs from the capital used to initially fund original investments in the system.

16 **Q. How did APUC raise the capital needed to purchase the Mid-States System?**

17 A. I am not sure. In connection with its application to acquire the Mid-States System from
18 Atmos, Liberty Midstates had initially requested Commission authority to issue long-term
19 debt to partially fund the acquisition. However, Liberty Midstates later withdrew its
20 request for Commission authority to issue long-term debt because it represented it could
21 finance the acquisition "in a manner that does not require Commission approval."[10]

[9] Case Nos. GR-2006-0387 and GR-2010-0192.
[10] Case No. GM-2012-0037, "Unanimous Stipulation and Agreement," February 17, 2012, Condition 12 (EFIS Item No. 16).

1 **Q. What did this representation mean?**

2 A. APUC and/or intermediate subsidiaries, such as LUCo or Liberty Utilities Finance GP1
3 ("LUF"), could issue the capital and transfer it to Liberty Midstates as an intercompany
4 payable (not a long-term Promissory Note) and/or an equity infusion.

5 **Q. Did LUF issue long-term debt at the time in an amount sufficient to fund the**
6 **approximate $124 million purchase price?**[11]

7 A. Yes. LUF issued $225 million in long-term debt in July 2012.[12]

8 **Q. What cost of long-term debt did Staff recommend in Liberty Midstates' first rate**
9 **case, Case No. GR-2014-0152, after it acquired the Mid-States System from Atmos?**

10 A. Staff recommended 4.37% based on LUCo's consolidated cost of long-term debt.[13]

11 **Q. What weighted cost of long-term debt did APUC assign to Liberty Midstates' for**
12 **purposes of its requested ROR in Case No. GR-2014-0152?**

13 A. 4.78%.[14]

14 **Q. Does Mr. Cochrane's concern regarding the funds from Liberty Midstates' sister**
15 **subsidiaries' debt issuances not being used to fund organic investment in Liberty**
16 **Midstates' system also apply to internally assigned debt?**

17 A. Yes. As I described above, acquisition financing did not fund the original investment in
18 Liberty Midstates' infrastructure. Atmos supplied this capital prior to Liberty Midstates'
19 acquisition. Before Atmos acquired these systems, other companies, such as United Cities
20 Gas Company, Associated Natural Gas, Greeley Gas Company, etc. supplied the capital
21 for organic investment.

[11] *Id.,* Joint Application And, If Necessary, Motion for Waiver, August 1, 2011, Paragraph 24, p. 12.
[12] Case No. GR-2014-0152, Staff Report – Revenue Requirement Cost of Service, June 6, 2014, Appendix 2, Schedule 6-3.
[13] *Id.,* p. 21.
[14] *Id.,* Liberty Midstates Accounting Schedules, Schedule COS-9 (WP 9-2-1).

1 **Q. If you excluded LUCo's operating subsidiaries' legacy debt issuances from your**
2 **calculation of LUCo's embedded cost of long-term debt, what was the cost as of**
3 **December 31, 2023?**

4 A. 3.48%.

5 **Q. Does LUCo's debt assignment process violate affiliate transaction rules?**

6 A. Yes. Regardless of whether I include LUCo's operating subsidiaries' legacy debt, LUCo's
7 embedded cost of long-term debt is lower than the cost LUCo requests the Commission
8 allow it to charge Liberty Midstates.

9 **CAPITAL STRUCTURE**

10 **Q. Mr. Cochrane complains that you did not perform a comparison of APUC's, LUCo's**
11 **and Liberty Midstates' capital structures as you had "in all past rate cases for**
12 **Liberty's Missouri utility companies."[15] Did he specify the cases in which you had**
13 **performed this comparison?**

14 A. No.

15 **Q. In which of Liberty's Missouri rate cases had you performed a detailed comparison**
16 **of the capital structures of APUC, LUCo and the petitioning operating company**
17 **subsidiary?**

18 A. The 2019 and 2021 Empire District Electric Company ("Empire") rate cases (ER-2019-
19 0374 and ER-2021-0312).

20 **Q. Why did you compare these capital structures in the Empire rate cases?**

21 A. Because, Empire did not provide this analysis in its direct testimony as it was required to
22 in the 2019 rate case, pursuant to the Commission's conditional approval of APUC's
23 acquisition of Empire. Financing Condition 5 in Case No. EM-2016-0213 specifically
24 stated the following:

[15] Cochrane Rebuttal, p. 13, lns, 22-23.

1 5. If Empire's per books capital structure is different from that of the entity
2 or entities in which Empire relies for its financing needs, Empire shall be
3 required to provide evidence in subsequent rate cases as to why Empire's
4 per book capital structure is the most economical for purposes of
5 determining a fair and reasonable allowed rate of return for purposes of
6 determining Empire's revenue requirement.

7 **Q. Did you perform the same comparison of APUC's, LUCo's and Liberty Midstates'**
8 **capital structures in Liberty Midstates' 2018 rate case, Case No. GR-2018-0013?**

9 A. No. I provided financial data in my schedules regarding APUC's and LUCo's capital
10 structures over a historical period, but I did not provide the same information for Liberty
11 Midstates' capital structures.

12 **Q. Why not?**

13 A. Because the Commission had already found, in Liberty Midstates' 2014 rate case, Case
14 No. GR-2014-0152, that because the Company did not issue its own third-party capital, but
15 rather relied on LUCo to supply it with capital through affiliate financing transactions—
16 equity infusions, affiliate payables and promissory notes—Liberty Midstates' capital
17 structure should not be used to set its allowed ROR. The Commission adopted LUCo's
18 capital structure as appropriate for ratemaking because it issued its own debt (either directly
19 or through its financing affiliate LUF), had a credit rating, and the cost of LUCo's third-
20 party debt was a function of its capital structure and business risk.

21 **Q. Did Liberty Midstates recommend its own internally-assigned capital structure in the**
22 **2018 rate case?**

23 A. No. Liberty Midstates' ROR witness, Keith Magee, recommended the Commission adopt
24 a hypothetical capital structure to set Liberty Midstates' ROR.

25 **Q. Did you compare APUC's and LUCo's capital structures in Liberty Midstates' 2018**
26 **rate case?**

27 A. Yes.

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1 **Q. Did you encounter any peculiarities in analyzing LUCo's capital structure in the 2018**
2 **rate case?**

3 A. I did. LUCo's per books capital structure implied it had a common equity ratio of 50.37%
4 as of September 30, 2017. However, after I examined LUCo's notes to financial
5 statements, rating agency reports and Liberty Midstates' responses to data requests, I
6 discovered LUF had executed intercompany promissory notes with intermediate holding
7 companies between APUC and LUCo. These intermediate holding companies then infused
8 this debt capital into LUCo as equity infusions, despite the fact that LUCo still guaranteed
9 the third-party debt. Additionally, APUC transferred a LUCo credit facility to the
10 intermediate holding company, Liberty Utilities (America) Holdco Inc. ("America
11 Holdco") and infused these credit facility borrowings as equity contributions into LUCo.

12 **Q. What was the effect of these internal capital transfers?**

13 A. These internal capital transfers masked LUCo's true long-term debt ratio. Effectively, they
14 made LUCo appear to have an approximate 50% long-term debt ratio rather than the
15 approximate 60% long-term debt ratio its credit supported.

16 **Q. Why are these past capital structure manipulations relevant to this rate case?**

17 A. Because the manipulations establish APUC's pattern of attempting to misguide regulators
18 as to the economic realities related to LUCo's actual capital structure.

19 **Q. What capital structures had APUC communicated to the Missouri Public Service**
20 **Commission it would maintain to assure Liberty Midstates had continuous access to**
21 **capital at reasonable costs?**

22 A. In its application to acquire the Mid-States System from Atmos, APUC stated the
23 following:

24 Liberty Energy Midstates [previous name] plans to use a reasonable and
25 prudent capital structure with a 45/55 debt/equity ratio. As for maintaining
26 access to capital, Liberty Energy Midstates will be able to access the capital
27 markets on its own or through its corporate structure—as a publicly listed
28 corporation, Liberty Energy Midstates' parent Algonquin is readily able to
29 access the capital markets on reasonable terms. Liberty Energy Midstates

1 intends to maintain investment grade status to insure ready access to capital
2 on reasonable terms. The fifty-five (55%) equity component of its initial
3 capital structure indicates Algonquin's strong commitment to ensure ready
4 access to the capital markets.[16]

5 **Q. Does Liberty Midstates' capital structure matter for purposes of raising third-party**
6 **capital?**

7 A. Yes and no. Because Liberty Midstates' does not directly access third-party capital
8 markets, its capital structure has no relevance to the required market cost of capital.
9 However, if Liberty Midstates is authorized a higher-cost capital structure for purposes of
10 setting its ROR, then doing so provides higher revenues to the entity(ies) that raise third-
11 party capital.

12 **Q. Why did you disregard consideration of APUC's capital structure for purposes of this**
13 **case?**

14 A. Because of its complexity and transitory nature. In fact, as APUC stated during its
15 February 29, 2024, Board of Directors Meeting, ***________________________________
16 ____
17 ____ *** (*see* page 3 of
18 Schedule DM-S-1).

19 **Q. Have you attempted to review information related to APUC's own view of its common**
20 **equity ratio associated with its consolidated capital structure?**

21 A. Yes. In reviewing select APUC board of directors ("BOD") and Audit Committee
22 materials, which Liberty Midstates provided as a partial response to OPC Data Request
23 No. 3009, I discovered a "Treasury Dashboard" document, which identified APUC's own
24 determination of its common equity ratio. According to this document, *** ___________
25 ____
26 ___ _*** (*see* Schedule DM-S-2)).

[16] Case No. GM-2012-0037, Joint Application And, If Necessary, Motion for Waiver, August 1, 2011, p. 6. (emphasis added)

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1 **Q. Did you ask Liberty Midstates to provide the underlying calculations that supported**
2 **the capital structure ratios shown on the "Treasury Dashboard?"**

3 A. Yes I have. Liberty Midstates responded on September 17, 2024, to my DR 3049 issued
4 on August 27, 2024, indicating it would "make available for on-site review any calculations
5 that were already performed and are available" (Schedule DM-S-3). However, I have yet
6 to coordinate a review of any potential underlying calculations supporting the selected
7 metrics shown on the "Treasury Dashboard" update at the time I drafted this testimony.

8 **Q. Mr. Cochrane claims that you did not perform a comparative analysis of APUC's,**
9 **LUCo's and Liberty Midstates' capital structures because the data is not consistent**
10 **with your past recommended common equity ratios. What caused you to alter your**
11 **approach in this case for purposes of recommending a fair and reasonable**
12 **ratemaking capital structure?**

13 A. APUC's financial difficulties, capital structure complexities, and state of transition. ***
14 ____
15 ____
16 ______________________________ ***

17 **Q. Are rating agencies and investors expecting APUC's capital structure to be**
18 **capitalized with more debt due to the lower business-risk associated with APUC's**
19 **regulated utility operations?**

20 A. Yes. Because of APUC's non-regulated generation operations, rating agencies required
21 APUC to achieve a higher funds-from-operations-to-debt ("FFO/debt") ratio (14%) to be
22 assigned a 'BBB' credit rating. After APUC divests its non-regulated generation segment,
23 rating agencies will have a less stringent FFO/debt threshold of 11% to maintain a 'BBB'
24 credit rating.[17] APUC and its investors expected this more flexible FFO/debt threshold
25 would allow APUC the potential ability to use some of its proceeds from the sale of its
26 non-regulated operation to repurchase APUC stock.

[17] Nelson Ng and Trevor Bryan, "Algonquin Power & Utilities Corp.: Working toward mid-year Renewables Sale," RBC Capital Markets, March 11, 2024.

1 **Q. Have investors expressed frustration with assessing APUC's financial condition due**
2 **to the complexities of its operations and capital structure?**

3 A. Yes. The following are a couple of excerpts from equity analysts describing the difficulty
4 in assessing APUC's operations and capital structure:

> 5 This initiative [divesting the non-regulated segment] is motivated by several
> 6 factors: simplifying AQN's operating and capital structures around its core
> 7 regulated utilities…[18]

> 8 Many of the typical low-risk utility investors have generally avoided AQN
> 9 due to the company's complex structure, and we believe that a simplified
> 10 business will attract a broader utility investor base.[19]

11 **Q. Did you address APUC's complexities in The Empire District Electric Company's**
12 **2021 rate case, Case No. ER-2021-0374?**

13 A. Yes. I testified as follows:

> 14 While I am not implying APUC's capital structure is intentionally
> 15 deceptive, it is very complex. APUC's Regulated Services Group is
> 16 invested in Canada, United States, Chile, and Bermuda. APUC's
> 17 Renewable Energy Group is mainly invested in projects in North America,
> 18 but through its 44.2% ownership interest in Atlantica Yield LLC, it is also
> 19 indirectly invested throughout Europe, South America and Africa. APUC
> 20 has the following forms of capital on its balance sheet: common equity, 60-
> 21 year subordinated debt, short-term debt, mandatory convertible equity units,
> 22 related-party equity, project level debt, redeemable non-controlling
> 23 interests (project level tax equity), and non-redeemable non-controlling
> 24 interests (project level tax equity).[20]

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[18] Sean Stuart and John Mould, "Algonquin Power & Utilities Corp.: Pushing Ahead with Renewables Sale; Tempered 2023 Guidance," TD Cowen a division of TD Securities, November 13, 2013.

[19] Nelson Ng and Trevor Bryan, "Algonquin Power & Utilities Corp.: Starting the Renewables Sale Process," RBC Capital Markets, August 10, 2023.

[20] Case No. ER-2021-0374, Murray Surrebuttal Testimony

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Q. Mr. Cochrane claims that the current capital structures of APUC and LUCo support a more equity-rich capital structure to set Liberty Midstates' authorized ROR. ***

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[21] Shannon P. Pratt and Roger J. Grabowski, "Cost of Capital – Applications and Examples," Fifth Edition, John Wiley & Sons, 2014, pgs. 247-248.

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Q. What do you mean by "permitted to review?"

A. As part of discovery, OPC requested access to APUC's BOD materials. Liberty Midstates objected to OPC's request. The BOD documents that Liberty did provide did not discuss APUC's investing and financing strategies until the OPC pushed the issue. I sought this information so that I could evaluate APUC's financing strategies, capital budgeting, and cost of capital views. Eventually, Liberty Midstates agreed to provide Finance and Treasury Updates from APUC's Audit Committee materials for the 2022 calendar year and the Finance and Treasury Updates from APUC's BOD materials for the 2023 calendar year. It is the analysis and information within these materials that I cited to and attached to my

1 rebuttal and surrebuttal testimony in this case. Although these specific materials provided
2 relevant and meaningful information as to APUC's managements' views on *** ________
3 ________________________ *** these company records are only a minor portion of APUC's
4 BOD materials. For example, based on APUC's BOD agendas and Audit Committee
5 agendas, APUC's BOD also receives "Investor Relations" reports, annual budgets, long-
6 term investment/business outlooks, long-term strategy considerations, dividend policy
7 considerations, etc. Attached to my testimony as Schedule DM-S-5 are the specific agenda
8 topics OPC requested the ability to review. After each listed agenda topic, Liberty
9 Midstates provided its response as to whether it would voluntarily make this information
10 available for OPC's review. For many of these topics, Liberty Midstates claimed the
11 documents were privileged. As is evident from my lengthy analysis and discussion of
12 APUC's Finance and Treasury updates, these internal records are highly relevant and
13 important to consider for purposes of evaluating the credibility of a utility company's
14 requested ROR from its ratepayers. Material and substantive decisions are made at the
15 parent company level, not the utility operating subsidiary level, especially as it relates to
16 financing strategies for a company that centralizes and consolidates its financial
17 management.

18 **Q. Had you pursued this APUC-level information in past rate cases involving Liberty's**
19 **Missouri utilities?**

20 A. Not as assertively.

21 **Q. Why not?**

22 A. Because I was not as concerned about the potential impact APUC's financial performance
23 was having on the cost of capital supplied to Missouri's utilities. Additionally, considering
24 the amount of time and effort I had to expend on deciphering APUC's and LUCo's capital
25 structure schemes in past Liberty Missouri rate cases, I believed reviewing APUC's
26 internal records and decision-making processes and procedures would likely lead to
27 discovery of relevant information. It is my opinion that utility regulators should not have
28 to jump through hoops to be afforded the opportunity to review and understand how parent
29 companies manage their monopoly utility subsidiaries.

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1 **Q. Has OPC and Staff had the same difficulty in reviewing parent-company level**
2 **information for other utilities operating in Missouri?**

3 A. Not to this extent. While in its 2022 rate case, Missouri-American Water Company had
4 hesitated to facilitate Staff and OPC requests to access American Water Works Company
5 Inc's corporate documents, Ameren Missouri, Evergy Missouri West, Evergy Metro and
6 Spire Missouri have cooperated with such requests.

7 **Q. Mr. Cochrane's testimony points out that you relied on a 2017 Liberty Utilities Fixed**
8 **Income presentation to support your capital structure recommendation.[22] Did Mr.**
9 **Cochrane provide any more recent information to refute the company's own**
10 **information?**

11 A. No.

12 **Q. Are you aware of any more recent company materials that communicate APUC's**
13 **intended target for LUCo's capital structure?**

14 A. Yes. Over the last couple of years, APUC has been less precise in its public
15 communications as to its targeted capital structure for its regulated utility operations. The
16 materials I reviewed simply indicate that APUC will target a capital structure for LUCo
17 that does not contain more than 55% debt.[23]

18 **Q. Based on your analysis of LUCo's capital structures since December 31, 2021, what**
19 **is the major cause for LUCo's higher than typical common equity ratio, in your view?**

20 A. APUC expected two major acquisitions in 2022. The first acquisition was of New York
21 American Water Company ("NYAWC") from American Water Works Company Inc.
22 APUC closed on this approximately $610 million acquisition on January 3, 2022. On
23 October 26, 2021, APUC announced its planned acquisition of Kentucky Power Company
24 and AEP Kentucky Transmission Company, Inc. (together the "KY Assets") from

[22] Cochrane Rebuttal, p. 11, ln. 20 – p. 12, ln. 3.
[23] Liberty Utilities Co. Fixed Income Presentation, January 9, 2024, p. 5.

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1 American Electric Power Company Inc. ("AEP") for $2.846 billion.[24] APUC believed it
2 would close on the acquisition of the KY Assets in mid-2022.

3 In order to fund these anticipated acquisitions, APUC needed to raise approximately $2.2
4 billion of financing. On January 3, 2022, LUCo borrowed $610.386 million from its
5 delayed draw term credit facility to fund the purchase of NYAWC.[25] For purposes of
6 funding its planned acquisition of the KY Assets, APUC issued approximately $617
7 million of common equity in the fourth quarter of 2021 and approximately $1.07 billion of
8 junior subordinated notes in January 2022. APUC then transferred approximately $1.24
9 billion of these proceeds to LUCo as common equity contributions. APUC's purchase
10 agreement with AEP also included an assumption of $1.221 billion in debt.[26] Because the
11 acquisition of the KY Assets, and the anticipated assumption of long-term debt, was
12 terminated in early 2023, LUCo's balance sheet had a disproportionate equity ratio of
13 around 60%.

14 Based on this public information and my review of APUC's BOD materials, ***______
15 ____
16 ____
17 ____
18 ____ ***

19 **Q. What other significant issues developed during 2022 and 2023?**

20 A. As I previously described, APUC's non-regulated generation business segment
21 significantly underperformed financial expectations in the third quarter of 2022, which
22 caused APUC to create a Strategic Review committee in May 2023 to evaluate strategic
23 options to attempt to stabilize APUC's financial condition and maximize shareholder
24 value.

[24] Note 3 to Liberty Utilities Co.'s September 30, 2021 Financial Statements.
[25] Which APUC renamed Liberty Utilities (New York Water) Corp. ("Liberty NY Water").
[26] Eric Eng, "DBRS Morningstar Places Algonquin Power & Utilities Corp. Under Review with Developing Implications on the Announcement of the Agreement to Acquire Kentucky Power Company," Morningstar/DBRS, October 28, 2021.

1 **Q. Considering APUC's highly uncertain financial and business strategy since 2022, does**
2 **it make sense to place any weight on capital structure ratios over this period?**

3 A. No. LUCo's debt issuances prior to this highly active and uncertain period occurred when
4 LUCo's adjusted capital structure had a common equity ratio of 50% or less. LUCo's
5 capital structure at that time was consistent with its assigned BBB credit ratings. It's
6 common equity ratio of around 60% during 2022 to 2023 is more consistent with a much
7 stronger credit rating. However, LUCo's credit rating has not been upgraded because
8 rating agencies recognized these events are transitory. Liberty Midstates' ratepayers
9 should not pay for a higher-cost capital structure or cost of debt due to higher risks
10 associated with APUC's acquisition and divestment activities.

11 **Q. How much debt did LUCo issue in early 2024?**

12 A. $850 million.

13 **Q. What impact did the issuance of this debt have on LUCo's adjusted capital structure?**

14 A. Including short-term debt in LUCo's capital structure, its common equity ratio was 51.38%
15 at March 31, 2024. Excluding short-term debt in LUCo's capital structure, its common
16 equity ratio was 52.85% at March 31, 2024.

17 **Q. Mr. Cochrane criticizes your adjustment to LUCo's common equity to eliminate non-**
18 **controlling interests.[27] Why did you make this adjustment?**

19 A. Because these non-controlling interests do not represent common equity investments in
20 LUCo, but rather tax equity investments in LUCo's subsidiaries, Empire and Calpeco. The
21 tax equity investors' returns are defined in their tax equity agreements with Empire and
22 Calpeco. As I testified in Empire's 2021 rate case, because tax equity investors purchase
23 direct equity interest in the special purpose entities that own the projects, LUCo's and
24 APUC's debt and common equity investors are subordinated to the tax equity investors.[28]

[27] Cochrane Rebuttal, p. 13, lns. 11 – 18.
[28] Case No. ER-2021-0312, Murray Surrebuttal, p. 18, ln. 15 – p. 21, ln. 20.

1 Therefore, from corporate debt investors' perspective, the tax equity arrangements add to
2 the risk related to the performance on LUCo's bonds.

3 **Q. Although you do not consider LUCo's recent actual capital structures as appropriate**
4 **for ratemaking, can you please address Mr. Cochrane's concerns with your**
5 **calculations of LUCo's capital structure?**

6 A. Yes. Mr. Cochran's first concern was that I mistakenly excluded long-term debt maturing
7 within one year from LUCo's long-term debt balance. He is incorrect. My calculations
8 were included in my workpapers, attached as Schedule DM-S-6. However, I will also
9 explain how I calculated LUCo's December 31, 2023 capital structure to ensure the record
10 is clear.

11 Note 9 to LUCo's December 31, 2023 financial statements identifies $2,286,861,000 of
12 total third-party long-term debt outstanding, of which $606,730,000 is due within one year
13 (*i.e.* current maturities). The long-term debt ratios I show on my Schedule DM-D-3, p. 1,
14 are based on calculations I performed in my workpapers.

15 First, I started with the indicated total debt balance of $2,286,861,000 shown in Note 7 to
16 LUCo's December 31, 2023 financial statements (this balance includes long-term debt due
17 within one year). Next, I added the affiliate long-term debt (debt loaned to LUCo from
18 LUF) balance of $807,729,000 also shown in Note 9 to LUCo's financial statements. This
19 implies $3,094,590,000 in total long-term debt. Then, I subtracted LUCo's commercial
20 paper balance ($481,720,000) and unsecured revolving credit facility balance
21 ($496,000,000) to arrive at a net long-term debt balance of $2,116,870,000. I did not
22 subtract the $606,730,000 of long-term debt due within one year.

23 Mr. Cochrane's second concern was that I did not deduct outstanding commercial paper
24 and credit facility debt from long-term debt for purposes of determining LUCo's capital
25 structures. This concern derives from Mr. Cochran's misunderstanding of the context
26 surrounding my calculations of LUCo's capital structures. As I indicated in the previous
27 paragraph, I deducted LUCo's outstanding commercial paper and revolving credit facility
28 debt from long-term debt to determine LUCo's capital structure ratios. However, I

intentionally did not deduct from long-term debt the $610,386,000 outstanding on the delayed draw term facility.

Q. Why not?

A. Because the delayed draw term facility has been outstanding since January 2022. While APUC had intended to refinance the delayed draw credit facility with LUCo long-term bonds within the year, *** ______ dit ______ _***

Q. Mr. Cochrane testified that 60%+ common equity ratios signify just the opposite of a financially unstable company.[29] *** ______

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______ eria ______

[29] Cochrane Rebuttal, p. 18, lns. 12-14.

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4 ____________
5 ____ _ ***

6 **Q. Was Staff and the OPC concerned about the potential impact of APUC's non-**
7 **regulated operations on Empire's access to reasonably-priced capital when deciding**
8 **to support a conditional stipulation and agreement for the Commission to approve**
9 **APUC's acquisition of Empire?**

10 A. Yes. That is why the stipulation and agreement executed in Case No. EM-2016-0213
11 contained several conditions, which would require Empire to provide additional
12 information to Staff and OPC if the company on which Empire relied for debt financing
13 had its S&P Corporate Credit Rating downgraded (this company is generally understood
14 to be LUCo even though LUF had historically been directly issuing debt to third-party debt
15 investors). If this company's credit rating downgrade impacted Empire's ability to access
16 reasonably priced capital, then the stipulation and agreement required Liberty to take steps
17 to ensure that the entity on which Empire relied on for financings was ring-fenced from
18 APUC so it could maintain its investment-grade credit rating.

19 **Q. What will the capital structure situation of APUC and LUCo be after this**
20 **transitionary period?**

21 A. I do not know.

22 **Q. What will Liberty Midstates' per books capital structure be during this period of**
23 **uncertainty?**

24 A. Approximately 52% to 53% common equity because achieving this capital structure is just
25 a matter of recording internal capital transfers as common equity, intercompany
26 Promissory Notes or Payables. As discussed on page 3 of Schedule DM-S-8, *** _____
27 ____
28 ____
29 ____

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1 ____
2 ________________________________ ***

3 **Q. After considering all of the complexities and uncertainties caused by Liberty**
4 **Midstates' affiliation with APUC's financial and operational risks, do you still**
5 **consider your recommended ratemaking capital structure as fair and reasonable?**

6 A. Yes.

7 **<u>RETURN ON COMMON EQUITY</u>**

8 **Q. Mr. Cochrane testified that your position that utilities' COE is lower than authorized**
9 **ROEs is not based on "empirical evidence or finance literature."[30] Did you provide**
10 **empirical evidence from investors in your direct testimony?**

11 A. Yes. I provided corroborating information from equity analysts who estimate a fair value
12 for LDC common stocks using cost of common equity in the range of 7.5% to 8.5%.[31] I
13 am not sure why Mr. Cochrane does not consider these examples as empirical evidence.

14 **Q. *** ____**
15 ______________________

16 _ ____

17 ____
18 ____
19 ____
20 ____
21 ____
22 ____ ***

[30] Cochrane Rebuttal, p. 37, lines 3-5.
[31] Murray Direct, p. 22, ln. 24 – p. 23, ln. 19.

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1 **Q. Do you have other empirical examples that support your position that authorized**
2 **ROEs are higher than utilities' COE?**

3 A. Yes. In reviewing the equity research published on APUC and the utility industry in
4 general, I regularly discover equity research analysis that apply a COE in the range of 8%
5 to 9% to value utility stocks in the current higher interest rate environment. For example,
6 in estimating a fair value for APUC's stock as recently as July 2024, BMO Capital used an
7 8.0% COE.[32] Also, in October of 2023 Bank of America stated the following about recent
8 increases in the cost of equity as compared to authorized ROEs:

9 **On a spot basis with 9.5-9.6% after-tax authorized ROEs in 3Q23, this**
10 **is meaningfully higher than the cost of equity from the capital asset**
11 **pricing model for most utilities in the 8.5-9.0% range.** The 5% 30Yr US
12 Treasury has compressed returns for utilities which have back-levered but
13 we do not foresee a meaningful increase in allowed ROEs back above 10%.
14 We continue to believe that California will not increase the allowed rate of
15 return for the electric utilities due to the continuation of the extraordinary
16 event from covid and the related policy responses.[33] (bold in the original).

17 **Q. What about Mr. Cochrane's claim that financial literature does not support your**
18 **position that authorized ROEs are higher than the COE?**

19 A. Financial literature recognizes that if a company achieves market-to-book ratios above one,
20 such a situation generally supports that the company is earning more than its cost of capital.
21 Typically, and as supported by APUC's own internal capital budgeting parameters, a
22 company will not invest in projects unless they expect to earn at least their cost of capital.
23 Otherwise, the company would destroy shareholder value.

24 **Q. Can you provide the formula used to determine justified market-to-book ratios?**

25 A. Yes. Justified price-to-book ratios are determined through the following formula, which
26 is premised on using discounted cash flow analysis:[34]

[32] Ben Pham and Collin Wang, "Algonquin Power & Utilities: Top 10 Questions on Upcoming Renewables Sale; Maintain Outperform Rating," BMO Capital Markets, July 8, 2024.
[33] Julien Dumoulin-Smith, et. al, "Utilities in a 5% Treasury World: Who has a plan to withstand the pain? 3Q Preview," Bank of America Securities, October 20, 2023.
[34] Refresher Reading, 2024 CFA® Program, Level 2, p. 45.

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$$P_0/B_0 = (ROE - g)/(r - g)$$

Where:

P_0	=	price/market value at period 0
B_0	=	book value at period 0
ROE	=	expected return on common equity
g	=	growth in earnings
r	=	cost of common equity

If expected earnings are higher than the cost of common equity, then the justified market/book ratio is greater than one and vice versa.

Q. Which companies in your LDC proxy group are appropriate for evaluating market-to-book ratios?

A. Atmos, OneGas, Spire and Northwest Natural Gas.

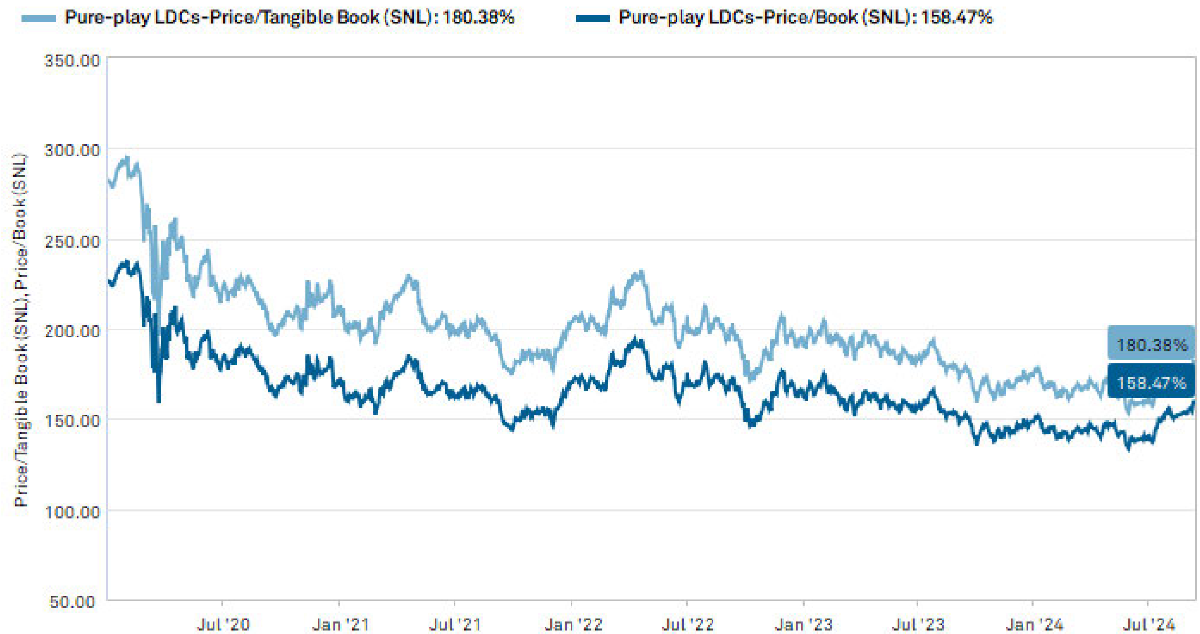
Q. Why?

A. Because those companies are the most pure-play (confined to regulated natural gas distribution operations) LDC companies in my proxy group.

Q. What are recent market-to-book ratios for the companies in your proxy group which are predominately LDC companies?

A. The following chart shows market-to-book and market-to-tangible book ratios since January 1, 2020 for the companies in my proxy group which are mostly confined to LDC operations:

1



2

3 As illustrated above, while both the market-to-book and market-to-tangible book ratios
4 have declined since before Covid-19, they are still approximately 1.6x and 1.8x,
5 respectively. The market-to-tangible book ratio is the purest measure of market value over
6 original book value because it deducts intangible assets, such as goodwill, from the book
7 value of common equity. Goodwill is not included in the utility's rate base, so it does not
8 generate a ROR. Based on the justified market-to-book ratios, the financial literature
9 supports my position that LDC companies are authorized returns higher than their cost of
10 capital.

11 **Q. Mr. Cochrane criticizes your comparison of the LDC industries and the electric utility**
12 **industries.[35] Why?**

13 A. Mr. Cochrane claims that my testimony in the EMW rate case is irrelevant to this case
14 because the Commission has not issued an order for the EMW case. Additionally, Mr.
15 Cochrane states that LDCs and electric utilities face very different risks.

[35] Cochrane Rebuttal, p. 38, lns. 19-23.

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1 **Q. Does the fact that the Commission has not issued an order in the EMW rate case**
2 **undercut your comparative analysis of the reasonableness of a COE and**
3 **recommended ROE for Liberty Midstates?**

4 A. Absolutely not. Investors constantly compare and contrast relative valuations of the
5 various subsectors of the utility industry, specifically electric, natural gas and water. In
6 Liberty Utilities (Missouri Water) LLC ("Liberty Water") concurrent rate case, Case No.
7 WR-2024-0104, I expanded my comparison to the three regulated subsectors of the utility
8 industry.

9 **Q. Does Mr. Cochrane analyze and explain why he believes the LDC subsector and the**
10 **electric utility subsector face "very different risks?"**

11 A. No.

12 **Q. If the Commission were to authorize differing ROEs for EMW, Liberty Midstates**
13 **and Liberty Water, is it important for the Commission to justify the need to do so?**

14 A. Yes. I recommended a 9.25% authorized ROE for Liberty Water as compared to my 9.5%
15 recommended authorized ROEs for Liberty Midstates and EMW. I did so because my
16 COE estimates lower for the water utility industry and comparing the valuation ratios of
17 the electric/LDC/water industries corroborates the results of my COE analysis. If an
18 analyst does not explore/analyze the potential reasons why one subsector of the utility
19 industry may be valued higher than the other, then the outputs derived from applying COE
20 methods cannot be tested for logical consistency.

21 **Q. Did APUC's activist investor, Starboard Value LP ("Starboard"), compare and**
22 **contrast the valuations of the various utility subsectors for purposes of providing is**
23 **opinion on the best path forward to increase APUC's shareholder value?**

24 A. Yes. Starboard encouraged APUC to sell/separate its water utility assets from the LDC
25 and electric utilities because of the significant valuation premium assigned to the water
26 utility subsector relative to electric and gas utilities.

1 **Q. Why would it be in the best interest of APUC's shareholders to sell the water utility**
2 **systems at a higher valuation?**

3 A. Because APUC can raise more capital per unit of earnings generated by its water utility
4 systems. Starboard viewed the risk-adjusted potential returns achieved from investing in
5 the electric and LDC utility systems to be undervalued as compared to the water utility.

6 **Q. Do you agree with Mr. Cochrane's indication that LDCs and electric utilities have**
7 **"very different risks"?**

8 A. No. Both subsectors of the utility industry are regulated monopolies with rates set by utility
9 commissions. Both subsectors provide essential services for society. And both subsectors
10 have been allowed various rate adjustment mechanisms, such as fuel and purchased power
11 clauses for electric utilities and purchased gas adjustment clauses for LDCs, as well as
12 investment riders and trackers. Notably, each subsector has typically been awarded fairly
13 similar ROEs.

14 **Q. Do LDCs and electric utilities have some differing characteristics?**

15 A. Yes. I testified to these differences at length in the pre-filed testimony I sponsored in
16 Ameren Missouri's electric and natural gas distribution rate cases in 2021, Case No. GR-
17 2021-0241 and ER-2021-0240. In those cases, I recommended the Commission authorize
18 Ameren Missouri's electric utility operations a 9.0% ROE based on a range of 8.5% to
19 9.25%, whereas I recommended the Commission authorize Ameren Missouri's natural gas
20 distribution operations an ROE of 9.25% based on a rage of 8.5% to 9.5%.[36]

21 **Q. Why did you recommend a higher ROE for Ameren Missouri's natural gas**
22 **distribution operations?**

23 A. Because my multi-stage DCF COE estimate for the LDC proxy group in that case was
24 7.5% compared to my multi-stage DCF COE estimate for the electric utility proxy group
25 of 7.0%. My CAPM COE estimates for each subsector were approximately the same, with

[36] Case Nos. ER-2021-0240 and GR-2021-0241, Murray Direct Testimonies.

1 electric utility COE estimates of around 6.8% to 6.9% and LDC COE estimates of around
2 6.65% to 6.8%.[37]

3 **Q. It appears you placed more weight on your multi-stage DCF COE estimates for**
4 **purposes of deciding to recommend a higher ROE for Ameren Missouri's LDC**
5 **operations. Why?**

6 A. Because DCF analyses directly incorporate the subject companies' stock prices into the
7 formula for estimating the COE. As I testified in Ameren Missouri's natural gas
8 distribution rate case, comparing the LDC industry's P/E ratios to the electric utility
9 industry's P/E ratios allowed context for evaluating whether it was logical for my multi-
10 stage DCF COE estimates to imply that LDC's had a higher COE than electric utilities.

11 **Q. Did you analyze and explain the potential reasons why LDCs were trading at a**
12 **discount at that time?**

13 A. Yes. While a higher COE was a contributing factor to LDCs trading at a discount to electric
14 utilities, at the time the investment community was also debating whether LDC companies
15 should be assigned any terminal value for perpetual growth, let alone the 5.5% to 6.5%
16 perpetual growth rate Mr. Cochrane assumes for his COE analysis. Therefore, as it relates
17 to potential differences in growth prospects for each subsector, there is a difference, which
18 Mr. Cochrane did not articulate in his testimony. Where Mr. Cochrane simply states there
19 are "very different risks" between the subsectors, I actually compared and contrasted these
20 differences to understand potential explanations for the valuation differences between the
21 subsectors.

22 **Q. Can the assumption of lower terminal values for companies in the LDC industry also**
23 **explain changes in their P/E ratios?**

24 A. Yes. Therefore, it is important to consider differing perpetual growth rates to evaluate
25 whether justified P/E ratios seem to be better explained by changes in industry growth
26 fundamentals or changes in the COE.

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[37] *Id.,* Murray Direct Testimonies, Schedule DM-5-2.

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1 **Q. Did you consider differing perpetual growth rates in your COE analysis of the LDC**
2 **industry?**

3 A. Yes. While I did not evaluate a scenario of no terminal value, which some equity analysts
4 had done in 2020 to 2021, I assumed a scenario in which LDCs grew at a perpetual growth
5 rate consistent with inflation of around 2%. Under this lower perpetual growth rate
6 scenario, my COE estimate was approximately 8.5%. This compares to my multi-stage
7 DCF COE estimate of approximately 8.6% at a 3.3% perpetual growth rate. Therefore, I
8 it appears that changes in LDC P/E ratios have recently been impacted more by changes in
9 the COE rather than changes in growth fundamentals.

10 **Q. Did Mr. Cochrane assume differing perpetual growth scenarios in his multi-stage**
11 **DCF?**

12 A. No. He assumed the LDC industry would grow at a CAGR of 5.5% in perpetuity.

13 **Q. What about his constant-growth DCF analysis?**

14 A. Yes. For the low-end of his COE estimates, Mr. Cochrane assumed his LDCs' DPS would
15 grow in perpetuity at an average CAGR of 5.37%. For the high-end of his COE estimates,
16 he assumed his LDCs' DPS would grow in perpetuity at an average CAGR of 7.86%.
17 Because Mr. Cochrane's constant-growth DCF did not adjust the anticipated dividend
18 payout ratio for his wide range of assumed growth rates, his assumed growth rates caused
19 a 1-to-1 impact on his COE estimates.

20 **Q. What mid-growth rate did Mr. Cochrane assume for his "mid ROE" constant-growth**
21 **COE estimates?**

22 A. Mr. Cochrane assumed the LDCs' DPS would grow at a CAGR of 6.42% (mean) or a 6.5%
23 (median) CAGR in perpetuity.

Q. What constant-growth rate did Mr. Cochrane assume for the water utility industry's DPS for his "mid ROE" constant-growth DCF analysis in Liberty's concurrent water utility rate case?

A. 6.4% for the mean and 6.57% for the median.[38]

Q. Is it logical to assume the same constant growth rate for both subsectors of the utility industry?

A. No. As I testified extensively in recent MAWC rate cases, equity analysts assign higher perpetual growth rates to the water utility industry because investors understand that massive investment is necessary to upgrade and extend the life of water utility infrastructure. Therefore, investors often assign a perpetual growth rate to the water industry that is consistent with long-term GDP growth of around 4%. The fact that Mr. Cochrane assumes that each subsector of the utility industry can grow in perpetuity at the same rate as short-term projections for CAGR in EPS shows a lack of critical analysis.

Q. Does Mr. Cochrane's application of the constant-growth DCF to the water utility industry prove that his approach is unreliable?

A. Yes. Mr. Cochrane's constant-growth DCF COE estimates in Liberty's water utility rate case (8.85%) are approximately 1.5% lower than his constant-growth DCF COE estimates for the LDC industry (10.34%). Mr. Cochrane does not explain why his constant-growth DCF COE estimates for the two subsectors should be so widely different.

Q. What is the range of individual COE estimates for Mr. Cochrane's constant-growth DCF analysis (90-day average stock price scenario) in Liberty's water rate case?

A. They range from as low as 4.68% to as high as 13.00%. Clearly Mr. Cochrane's assumptions for his constant-growth DCF are mis-specified.

[38] Case No. WR-2024-0104, Cochrane Direct, Schedule JC-4.

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Q. Mr. Cochrane notes that you did not provide citations to the Commission's Report & Orders in the 2015 rate cases which determined 9.5% authorized ROEs were fair and reasonable for Missouri's major electric utilities.[39] What rate cases did the Commission decide an approximate 9.5% ROE was fair and reasonable?

A. Ameren Missouri's rate case, which was assigned Case No. ER-2014-0258 and Evergy Metro's rate case, which was assigned Case No. ER-2014-0370. Although these rate cases were assigned 2014 docket numbers, the Commission issued its Report & Orders for these cases in 2015.

Q. Mr. Cochrane claims that you did not provide "precise analysis or other explanations to justify [your] 8.5% COE" estimate.[40] Is his assertion correct?

A. No. Schedules DM-D-4 through DM-D-7 attached to my direct testimony provide the details of my COE analysis. Typically, it is rare for my COE estimates using various methodologies, such as the CAPM and DCF, to have such a narrow range of results. However, in this case, even when I use a variety of scenarios for my multi-stage DCF, specifically as it relates to the perpetual growth rates, and for my CAPM analysis, my results are tightly clustered. My lowest COE estimate for my proxy group using the multi-stage DCF method was 8.46%. The highest was 8.67%. As it relates to my CAPM analysis, my lowest proxy group COE estimates was 7.97% with my highest being 8.8%. In this case, the generic BYPRP advised in the CFA Program curriculum to determine if an estimate from a more complicated COE methodology is in the ballpark, also implies Liberty Midstates' COE is not higher than 8.87%.

Q. What was the range of COE estimates in Mr. Cochrane's testimony?

A. 9.2% to 12.61%.[41] Therefore, I am not sure why Mr. Cochrane claims my COE analysis is not "precise" considering his wide range. In fact, I am surprised Mr. Cochrane did not

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[39] Cochrane Rebuttal, p. 37, ln. 20 – p. 38, ln. 2.
[40] *Id.,* p. 39, lns. 14-17.
[41] Cochrane Direct, Schedule JC-2.

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dismiss his CAPM COE estimates in the 12% range considering they were not reasonable compared to his other results.

Q. Mr. Cochrane testified that "how the S&P 500 performs versus utility stocks in different interest rate environments is not remotely meaningful to determining the cost of common equity for Liberty today."[42] Do you agree?

A. I do not. Mr. Cochrane's view appears to be that utility ROR witnesses should simply plug and chug variables in COE methods and models and accept the results. This type of approach provides no context for whether a ROR witnesses' COE estimates are logical based on relative valuations.

In my opinion, the approach Mr. Cochrane supports does not provide decision-makers with data points that may help them sort through the various technical/complex issues involved in estimating the cost of capital. It is for this reason that certain authoritative entities/sources, such as the CFA Program curriculum, provide simple, yet objective suggestions to determine if practitioners are "in the ballpark" in estimating the COE using more complex methods.

Estimating the COE for low-risk, regulated utility companies with stable credit profiles should not be complicated. The CFA Program curriculum's suggestion to add a 3% to 4% risk premium to a company's own bond yield provides a sanity check for COE estimates. Clearly, this simple test of reasonableness (a contextual comparative data point), which implies Liberty Midstates' COE should be in the 8% range, demonstrates Mr. Cochrane's CAPM COE estimates in the 12% range should be disregarded.

Q. Do investors consistently evaluate utility stock valuation levels as compared to interest rates and the broader markets?

A. Yes. Doing this type of analysis assists investors in determining the potential opportunity cost of investing in the S&P 500 compared to utility stocks and in bonds as compared to utility stocks. As discussed in my direct testimony, utility investors evaluate commissions'

[42] Cochrane Rebuttal, p. 39, lns. 22-24.

1 authorized ROEs as compared to changes in long-term bond yields. Investors recognized
2 that utility commissions did not reduce authorized ROEs as much as the reduction in the
3 cost of capital justified from 2010 to 2020. Without considering and understanding that
4 period, the Commission would not have context as to why it is fair and reasonable to
5 maintain authorized ROEs at around 9.5% based on current market conditions.

6 Additionally, understanding the atypical period corresponding to the Covid-19 pandemic
7 is important because utility stock valuations typical inverse correlations to long-term bond
8 yields broke down. Consequently, I did not drastically reduce my recommended ROEs
9 during the period of all-time low long-term bond yields in 2020 to 2021, just as I did not
10 recommend increases in authorized ROEs during 2022, when long-term bond yields
11 increased. In my opinion, it is important to evaluate, analyze and understand why these
12 past typical relationships did not hold true to understand if a specific ROE recommendation
13 is logical in the current market environment.

14 **Q. Mr. Cochrane testified that the "the electric and LDC industries have significantly**
15 **different risks today and these risks have varied over the years which is the reason**
16 **average allowed ROEs for each industry have varied."[43] Did Mr. Cochrane provide**
17 **supporting evidence for his claim?**

18 A. No.

19 **Q. Can you provide information on average authorized ROEs for the LDC and electric**
20 **utility industries**?

21 A. Yes. The below graph shows the mean and median spread between electric and natural gas
22 utility authorized ROEs since 2010:

[43] *Id.,* p. 40, lns. 2-4.atios

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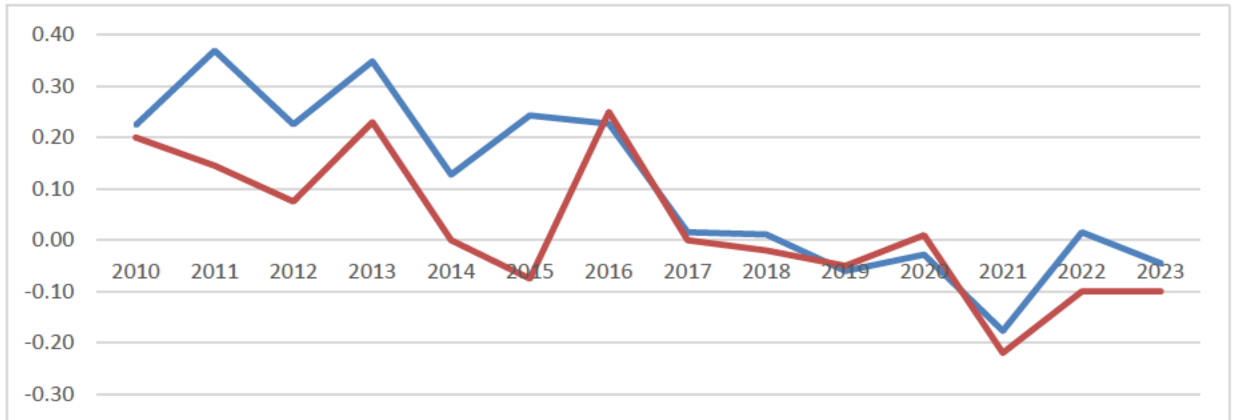

2
3 A positive spread indicates that electric utility authorized ROEs were higher than LDC
4 authorized ROEs, whereas a negative spread indicates that electric utility authorized ROEs
5 are lower than LDCs. The spread in authorized ROEs corresponds to changes in P/E ratios
6 over this same period. Therefore, my charts and graphs comparing utility subsector
7 valuation comparisons should assist the Commission in determining if ROEs are being
8 authorized consistent with these changes. In ROR testimony I sponsored in electric and
9 gas utility rate cases in the 2021 to 2022 period, I concluded that LDCs should be awarded
10 a slightly higher ROE based of COE differences, where were supported by the fact that the
11 LDC industry was trading at a discount to the electric utility industry. Apparently other
12 states were attributing the discounted valuation of the LDC industry as an indication that
13 LDC's had more risk due to these dynamics.

14 **Q. Mr. Cochrane testified that your "tales of past history" provide unsupported**
15 **conclusions and should be ignored by the Commission.[44] Are the examples you**
16 **provide explanatory, factual, and insightful?**

17 A. Yes. Additionally, the information provided by Mr. Cochrane further validates the
18 relevance of the factual information/data I provide for purposes of assessing the
19 reasonableness and fairness of authorized ROEs today, even if the cost of capital has
20 increased since 2022. Mr. Cochrane correctly states that LDC's P/E ratios were higher
21 than electric utility ROEs during the middle of the last decade. As shown on page 21 of

[44] *Id.*, p. 40, lns. 19-22.

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my direct testimony, LDC companies had been trading at significant premiums to electric utilities for much of the past decade. Therefore, it is not surprising that in general LDC authorized ROEs were typically lower than electric utilities for much of this period. For a brief period in 2020 to 2021 LDCs traded at a discount to electric utilities, which corresponds to LDCs being authorized ROEs higher than that of electric utilities.

Q. Does the fact that LDCs and electric utility P/E ratios have been recently trading similarly seem to be corroborated by a lowering in the spread of average authorized ROEs for LDCs compared to electric utilities?

A. Yes. After the 2020 to 2021 period, LDCs traded more similar to electric utilities. As is demonstrated by the narrowing of the spread between authorized ROEs, the closer parity in their valuations support the logical expectation that COE estimates for the two subsectors of the utility industry would be similar.

Q. Why did you choose to compare today's LDC and electric utility P/E ratios to electric utilities' P/E ratios during the middle of the last decade when the Commission authorized its major electric utilities' 9.5% authorized ROEs?

A. Because, as Mr. Cochrane identified, LDCs were trading at higher P/E ratios to electric utilities at that time and higher to current electric and LDC P/E ratios. Therefore, both subsectors P/E ratios are currently more similar to electric utility P/E ratios during the middle of the past decade, which allows for context of a reasonable authorized ROE based on current utility valuation levels.

Q. Mr. Cochrane indicates that by recommending a 9.5% ROE you are implying that your 8.5% COE estimate is too low by 100 basis points.[45] Is your COE underestimated?

A. No.

[45] *Id.,* p. 41, lns. 21-22.

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1 **Q. Then why did you recommend an authorized ROE higher than your COE estimate?**

2 A. Because the Commission has maintained authorized ROEs over the COE for well over a
3 decade. In fact, until long-term interest rates increased since 2022, the spread between
4 authorized ROEs and the COE had gradually expanded because authorized ROEs remained
5 "sticky." I frequently cite investment banks, financial advisors and equity research analysts
6 that hold the same opinion. In recommending a 9.5% ROE, I recognized the Commission's
7 authorized ROEs in past rate cases to provide context as to an authorized ROE that may be
8 considered fair and reasonable relative to those past decisions.

9 **Q. Mr. Cochrane seems to believe that ROR witnesses must provide COE estimates**
10 **similar to authorized ROEs in order for these COE estimates to be credible and**
11 **adopted by the Commission. Is this not an "end-results" oriented approach to**
12 **estimating the COE?**

13 A. Yes. In fact, based on the assumptions he uses in his COE methodologies, it would appear
14 that Mr. Cochrane's goal is to achieve higher COE estimates, because he believes that the
15 Commission must set an authorized ROR based on cost of capital evidence. If Mr.
16 Cochrane's opinion is correct, it would the ramifications would go far beyond this rate
17 case.

18 **Q. Mr. Cochrane claims that the perpetual growth rates you assume in your multi-stage**
19 **DCF are too low and rely on outdated information.** [46] **What is the basis for this**
20 **assertion?**

21 A. Mr. Cochrane claims that the high-end of my assumed perpetual growth rates of 2% to
22 3.3% relies on an outdated Wells Fargo report in this Wells Fargo performed its own multi-
23 stage DCF.[47] He testified that the significant changes since 2019 in the LDC industry and
24 broader macroeconomic environment render past perpetual growth rate estimates "makes
25 no sense."

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[46] *Id.,* p. 44, lns. 3-18.
[47] Wells Fargo correctly classifies its valuation approach as a multi-stage dividend discount model (DDM).

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1 **Q. Did Mr. Cochrane identify, analyze and explain the significant changes in the LDC**
2 **industry or the macroeconomic environment?**

3 A. No.

4 **Q. Did Mr. Cochrane consider investors' concerns about whether the LDC industry**
5 **could have any terminal value, let alone a generic 5.5% perpetual growth rate he**
6 **assumes?**

7 A. No.

8 **Q. Did you?**

9 A. Yes. I assumed as low as a 2% inflationary growth rate, which is consistent with projected
10 long-term inflation.

11 **Q. Should perpetual growth rates change dramatically over time?**

12 A. No. Especially not if the subject industry is expected to be a constant proportion of the
13 economy over time. However, as I already testified, the LDC industry's future is more
14 uncertain than other utility subsectors. Consequently, if anything, I would argue that a
15 3.3% perpetual growth rate used in 2019 for the LDC industry is now likely too high.

16 **Q. Mr. Cochrane testified that he was not aware that Liberty Midstates filed a rate case**
17 **in 2018.[48] Did Liberty Midstates file a rate case in 2018?**

18 A. Yes. It was assigned Case No. GR-2018-0013. I sponsored ROR testimony in that case.

[48] *Id.,* p. 45, lines 21-23.

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1 **Q. As it relates to your CAPM analysis, Mr. Cochrane testified that "Mr. Murray has**
2 **made sure he used inputs that would achieve his desired low results."[49] What are the**
3 **implications of Mr. Cochrane's accusations?**

4 A. That not only am I biased in performing my COE analysis, but so is APUC, Bank of
5 America, Wells Fargo, etc. I will let the corroboration of my COE estimates from these
6 other sources be my defense against Mr. Cochrane's accusations.

7 **Q. Mr. Cochrane claims that the CFA Program's curriculum that suggests a company's**
8 **COE should be in the ballpark of 3% to 4% risk premium over its own bond yield as**
9 **irrelevant.[50] Does he explain why?**

10 A. No, he does not. However, in order to ensure the record is clear, the excerpt from the CFA
11 Program curriculum is provided below:

12 4.3.2 *Bond Yield Plus Risk Premium*
13 For companies with publicly traded debt, the **bond yield plus risk**
14 **premium method** [bold in original] provides a quick estimate of the cost
15 of equity. The estimate is

16 BYPRP cost of equity = YTM on the company's long-term debt +
17 Risk premium

18 The YTM on the company's long-term debt includes
19 - a real interest rate and a premium for expected inflation, which are
20 also factors embodied in a government bond yield; and
21 - a default risk premium.
22 The default risk premium captures factors such as profitability, the
23 sensitivity of profitability to the business cycle, and leverage (operating and
24 financial) that also affect the returns to equity. The risk premium in
25 Equation 13 [above] is the premium that compensates for the additional risk
26 of the equity issue compared with the debt issue (recognizing that debt has
27 a prior claim on the cash flows of the company). In US markets, the typical
28 risk premium added is 3%–4%, based on experience.[51]

29 The only judgment I have applied to the above suggestion is my opinion that the risk
30 premium applied to utility bonds should be at the low end of the range. The investment

[49] *Id.,* p. 46, lines 18-19.
[50] *Id.,* p. 47, lns. 15 – 19.
[51] Refresher Reading, 2021 CFA Program, Level II, Reading 25, p. 35.

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1 community recognizes that utility stocks are viewed as pseudo bonds/bond substitutes.
2 Therefore, my position is supported by practical investment views about the characteristics
3 of utility stocks.

4 **SUMMARY AND CONCLUSIONS**

5 **Q. Can you summarize your main conclusions related to your surrebuttal testimony in**
6 **this case?**

7 A. Yes. Mr. Cochrane's opinions are not corroborated by APUC, investors, rating agencies
8 or equity analysts. My analysis and opinions are. After having the ability to review at least
9 some additional APUC internal records related to its financing and business strategies to
10 transition to a pure-play regulated utility, I am even more confident in the fairness and
11 reasonableness of my recommended ratemaking capital structure, cost of debt and
12 recommended authorized ROE.

13 **Q. Does this conclude your testimony?**

14 A. Yes.

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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Request of Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Areas of the Company	))))))	Case No. GR-2024-0106

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

David Murray, of lawful age and being first duly sworn, deposes and states:

1. My name is David Murray. I am a Utility Regulatory Manager for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

David Murray
Utility Regulatory Manager

Subscribed and sworn to me this 17th day of September 2024.

TIFFANY HILDEBRAND
NOTARY PUBLIC - NOTARY SEAL
STATE OF MISSOURI
MY COMMISSION EXPIRES AUGUST 8, 2027
COLE COUNTY
COMMISSION #15637121

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2027.