Exhibit No.:	_____
Issue(s):	Rate of Return (ROR)/ Capital Structure
Witness/Type of Exhibit:	Murray/Rebuttal
Sponsoring Party:	Public Counsel
Case No.:	WR-2020-0275

REBUTTAL TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

ELM HILLS UTILITY OPERATING COMPANY

FILE NO. WR-2020-0275

** **

Denotes Confidential Information that has been Redacted

November 10, 2020

NON-PROPRIETARY

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of the Application of Elm Hills Operating Company, Inc.'s Request for a Sewer And Water Increase	)))	Case Nos. WR-2020-0275

VERIFICATION OF DAVID MURRAY

David Murray, under penalty of perjury, states:

1. Attached hereto and made a part hereof for all purposes is my rebuttal testimony in the above-captioned case.

2. My answer to each question in the attached rebuttal testimony is true and correct to the best of my knowledge, information, and belief.

/s/David Murray
David Murray
Utility Regulatory Manager
Office of the Public Counsel

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REBUTTAL TESTIMONY

OF

DAVID MURRAY

ELM HILLS UTILITY OPERATING COMPANY

FILE NOS. SR-2020-0274 AND WR-2020-0275

Q. Please state your name and business address.

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

Q. Are you the same David Murray who previously filed Direct Testimony in this case?

A. Yes.

Q. What it the purpose of your testimony?

A. To respond to the direct testimonies of Elm Hills Utility Operating Company (Elm Hills) witnesses' Josiah Cox and Martin Moore. I will also respond to Staff witness James Busch's direct testimony as it relates to his summary and representation of Staff's rate of return ("ROR") recommendation, which was provided by Staff expert, Peter Chari.

Q. Which company witness provides information to support Elm Hills' and Staff's use of a cost of debt range of 7.5% to 8.0% for purposes of determining Elm Hills' revenue requirement?

A. Mr. Moore.

Q. What information does Mr. Moore provide to suggest a 7.5% to 8.0% cost of debt is reasonable?

A. Mr. Moore attaches Letters of Intent ("LOI") from two banks, American Bank of Missouri and Enterprise Bank & Trust, indicating that both banks are willing to provide credit facilities that have terms of five years or less. Both banks propose to charge an annual interest rate of no less than 9% on these credit facilities.

Q. Do the credit facilities outlined in the two LOI match Elm Hills' current long-term debt financing needs?

A. No. Based on the terms outlined in the LOI, the proposed loans are more appropriate for a company that is just starting its construction projects and expects to need continued financing to provide capital as the construction projects progress. A credit facility that allows for periodic draws for proceeds to fund capital expenditures associated with a finite construction project is more similar to a construction financing facility. These types of facilities are typically used as a bridge until the company can refinance the credit facility draws with more permanent long-term debt.

Q. Was this shorter-term credit facility the type of financing CSWR sought from potential lenders?

A. Yes. Based on information Elm Hills provided in response to OPC DR No. 3050 (*see* Schedule DM-R-1), CSWR's proposal to the banks was a request for a "warehouse line of credit," which is simply a line of credit to fund the capital expenditures required to upgrade the various systems acquired by CSWR. After the construction of the plant is completed, placed into service, and reflected in new rates, then CSWR's proposal indicates that it would be its intent to refinance the credit facility borrowings with permanent long-term debt.

Q. Is the Elm Hills' system at the stage in which it needs a credit line or a long-term loan?

A. The Elm Hills' system is at the stage in which it should finance its assets with a long-term loan, balanced with some equity. It is not logical or financially sound to borrow from a short-term credit facility to capitalize Elm Hills' already upgraded system. CSWR's pitch to the prospective banks was to procure a financing facility to fund construction of improvements for recently acquired entities. CSWR has already completed these activities for Elm Hills.

Q. Are the interest rates contained in the LOI consistent with what you would expect for a short-term financing vehicle?

A. No. They are much higher than what I would expect. As I explained in my Direct testimony, a similarly situated small water and sewer company, Terre Du Lac Utilities Company ("TDL"), has been able to procure debt at a much lower cost than 9%, despite the fact that TDL has a permanent, long-term loan. Some of the key differences between the LOI and TDL's loans are as follows:

(1) TDL's loans have tenors of 10-years and 15-years as compared to less than 5-years for the two LOI. Shorter-tenor loans generally have lower interest rates than longer-tenor loans, which is not reflected in Elm Hills's proffered LOI;

(2) The interest rates on the TDL loans are variable, resetting once a year. According to the LOI, the interest rates charged on these loans will also be variable, with no indication of how often the interest rates will be reset. Variable interest rate loans have lower interest rates than fixed-rate loans, assuming the same tenor; and

(3) The loans offered under the LOI are balloon- type loans that have interest only payments for the first twelve months, and then amortize over up to the next four years based on a 20-year amortization schedule. Balloon loans typically carry a lower interest rate than conventional amortizing loans.

The aforementioned factors would cause one to expect the short-term line of credit to have lower interest rates than permanent, conventional long-term amortizing debt.

Q. Did TDL's loan have any guarantees from other parties?

A. Yes. The owners of TDL, Mike Tilley and Paul Tilley, and their wives, Kathy Tilley and Judy Tilley, are named guarantors.

Q. Do the LOI for Elm Hills request a loan guarantee from any parties?

A. Yes. The LOI indicate CSWR LLC will guarantee the loans.

Q. Do you know how much consideration the lender to TDL or the potential lenders for Elm Hills gave to the guarantees in determining a fair interest rate to charge on the loans?

A. No.

Q. Are you aware of any other small water and sewer companies that have a much more reasonably priced line of credit than indicated in the LOI?

A. Yes. Although the rate is still much higher than I have observed for other utility companies, Raytown Water Company's $200,000 line of credit rate is based on the Prime Rate plus 1%, for an overall rate of 4.25%.

Q. Mr. Moore indicates that Elm Hills cannot attract reasonably priced debt because it is a financially distressed utility with past environmental issues. Is Elm Hill's sister company, Confluence Rivers Utility Operating Company (Confluence), currently requesting the Commission approve its request to acquire TDL at a premium, even though Confluence considers TDL to be a non-viable utility?

A. Yes. Elm Hills' sister company, Confluence, filed an Application in Case No. WM-2020-0403 requesting the Commission classify TDL as a non-viable utility because of its past environmental issues and its need for additional investment to resolve litigation pending with the Department of Natural Resources. If Elm Hills and TDL are both non-viable utilities, then Elm Hills' position in this case contradicts Confluence's position in Case No. WM-2020-0403. Not only can TDL procure debt at a reasonable cost, but Confluence's equity investors are willing to pay a significant premium for the TDL system.

Q. Does Elm Hills have a sizeable rate base that will allow for significant cash flow regardless of whether the ROR is adjusted to a more reasonable level?

A. Yes. I demonstrated this in the pro-forma estimates I provided in my direct testimony. Based on Elm Hills' expected EBITDA levels, it could be capitalized with over 100% debt at 7x EBITDA.

Q. Would a reduction to the ROR cause a lower expected EBITDA?

A. Yes. Therefore, this would reduce the debt capacity for Elm Hills.

Q. Would it be more prudent to have debt levels less than 7x EBITDA?

A. Yes. I provided the 7x scenario in order to show how much debt capacity CSWR's Missouri utilities could be providing to Sciens to allow it to enhance its equity returns. I did not intend to suggest utility companies should target leverage ratios this high.

Q. If the Commission approves the Non-Unanimous Stipulation and Agreement, what debt capacity could Elm Hills support at 5x EBITDA?

A. Even at 5x EBITDA, Elm Hills' capital structure could be supported by up to 82% of debt capital based on the ratemaking parameters provided in the Non-Unanimous Stipulation & Agreement.

Q. Do banks understand that revenues for investor-owned small water and sewer utility companies will not increase until after a rate increase is authorized by a rate-making body such as the Missouri Public Service Commission?

A. Yes, but only if the bank has previously been willing to consider providing such loans. As has been proven in past rate cases involving Elm Hills' affiliates, many banks' loan rejection letters simply indicate they do not issue loans to utilities because this isn't an area of commercial lending their bank performs. Therefore, they would not provide a loan regardless of the financial soundness of the proposal.

Q. Did Mr. Mike Tilley of TDL have to negotiate a creative solution with his lender, First State Community Bank ("FSCB"), to consider the realities of ratemaking?

A. Yes. In conjunction with discovery performed in TDL's rate case in 2017, Case No. WR-2017-0110, and recently in Case No. WM-2020-0403, Mr. Tilley verbally informed me that because an employee with FSCB had experience with the United Stated Department of Agriculture ("USDA") financing programs, he/she understood structuring financing vehicles to account for the regulatory ratemaking process. Consequently, FSCB structured the loan to require interest-only payments for the first three months with the anticipation that TDL would be able to increase its rates in sufficient time to support principal and interest payments after the interest-only period.

Q. Did Mr. Tilley disclose to FSCB all of the environmental and drinking water safety issues associated with TDL?

A. Yes.

Q. Did TDL have access to a Wall Street firm, such as Sciens Capital, to assist with pursuing reasonably priced debt?

A. No.

Q. Did TDL maintain other business accounts with First State Community Bank prior to TDL receiving reasonably priced commercial loans from FSCB?

A. Yes. To my knowledge, TDL had used FSCB for its business accounts for several years. It is my understanding that TDL and Mike Tilley's ability to forge a good relationship with FSCB assisted his ability in raising reasonably priced debt capital from FSCB. However, it is noteworthy that TDL's receipts and disbursement are a fraction of the amount of funds Enterprise manages for CSWR.

Q. Can you provide some context as to the size of TDL's banking business with FSCB compared to the size of CSWR's banking business with Enterprise?

A. Yes. CSWR's monthly flows of deposits and disbursements were in the range of **————————** for the first three months of 2020. TDL's monthly flow of deposits and disbursements for August, September and October of 2016 were in the $50 to $60 thousand range.

Q. What conclusion do you draw from this comparison between CSWR and TDL cash flows in their respective banks?

A. Although I do not know the details of the profits the banks make on the CSWR and the TDL accounts, considering the size of the account CSWR has with Enterprise (which doesn't even consider all of the accounts CSWR's operating utilities maintain with Enterprise) compared to TDL's account with FSCB, it simply defies plausibility that CSWR cannot obtain terms at least similar to TDL on a loan from Enterprise.

Q. Are banks willing to provide debt financing to a company if they know the company has an equity investor that is committed to providing capital for temporary funding shortfalls?

A. Yes. This was clearly evident when Elm Hills' affiliate, Indian Hills, was attempting to raise debt financing for improvements necessary for that system. Mr. Cox corresponded with Peoples Bank in Cuba, Missouri (*see* Scheduled DM-R-2). Although Peoples Bank ultimately rejected providing a loan to Indian Hills, it appears that Peoples Bank was willing to provide a loan for up to ** ———— ** and allow interest to accrue on the loan until the Commission approved a rate increase. Based on correspondence Mr. Cox had with Peoples Bank, the representative at Peoples Bank requested whether Indian Hills had an equity sponsor that could contribute up to ** ———— ** of equity capital until the rates were allowed to be increased. If the equity sponsors at the time would have been willing to contribute this capital, it appears that at least half of Indian Hills' rate base could have been funded by a loan from Peoples' Bank.

Q. Can you provide an example of reasonable long-term debt terms achieved by a Missouri utility that specialized in construction of utility infrastructure in smaller, rural areas?

A. Yes. In 2010 CoBank was willing to provide a 20-year term loan to Missouri's small natural gas utility, Missouri Gas Utility ("MGU") (later merged with Southern Missouri Natural Gas to form Summit Natural Gas of Missouri). The interest rates offered on this loan were in the 5% range, which was during an interest rate environment that was much higher than it is today.[1] It is also noteworthy that MGU also had an equity sponsor at the time (private equity investor), JP Morgan Infrastructure Investment Fund, supporting its equity capital needs.

Q. Can you identify and explain CoBank in more detail?

A. Yes. CoBank is a member of the Farm Credit System specializing in providing credit solutions for rural utilities, whether non-profit or investor-owned. CoBank used to be a primary creditor for small rural telephone companies' infrastructure needs before the evolution of the wireless industry. I reviewed several Missouri rural local exchange finance applications during the first few years of the beginning of my employment with the Missouri Public Service Commission in 2000.

Q. Do you have concerns about a conflict of interest between CSWR and the banks that provided LOI for loans to Elm Hills?

A. Yes. American Bank is the bank the previous owners, Robert and David Glarner, used for CSWR's main capital accounts that were in turn used to contribute capital to its subsidiaries. The previous owners may also have used American Bank for holding and contributing capital to Fresh Start, but I cannot confirm such because I was never able to review Fresh Start financial records. While it was never disclosed how much business the previous owners had with American Bank, considering the fact that they invested approximately ** ———— ** into the utilities through CSWR and Fresh Start, it was

[1] https://www.efis.psc.mo.gov/mpsc/commoncomponents/viewdocument.asp?DocId=935511545

likely quite sizeable. Based on CSWR bank statements, it was clear that the previous owners had at least one other business account with American Bank because large fund transfers occurred between this other business account and the CSWR account. Through various news articles, I am also aware that the previous owners had significant commercial real estate investments in the St. Louis area. Therefore, to the extent they used American Bank for these investments, they may have considerable sway in influencing actions of some personnel at American Bank. However, as of February 2019, CSWR closed all of the American Bank accounts it used for its subsidiaries for capital contributions and working capital needs.

CSWR had historically used Enterprise Bank & Trust (Enterprise) only for its utility operating subsidiaries', including Elm Hills, lockbox deposits and receipt of customer payments. In February of 2019, when CSWR closed its American Bank accounts, it started using Enterprise for all of its banking needs, including receiving and contributing capital to the CSWR subsidiaries for its investments. Enterprises' LOI was signed by Brian Glarner, a cousin of the previous owners, Robert and David Glarner. Considering this relationship and the fact that Enterprise has a financial conflict of interest, I am concerned about Mr. Glarner's and Enterprise's participation in providing a LOI with terms that support Elm Hills' requested high debt interest rate.

Q. Are you aware if Robert Glarner or David Glarner have any continuing financial interest in CSWR or Fresh Start?

A. I do not believe they have any continued financial interest. However, if the Glarners represented to Sciens Capital that it could expect a certain level of cash flows based on past ratemaking parameters at the time Sciens Capital purchased their interest in CSWR, then the Glarners would certainly have at least a reputational interest in later supporting such representations.

STAFF TESTIMONY

Q. What areas of Staff's testimony will you address?

A. I will address Mr. Busch's identification and attachment of the Staff's ROR recommendation. I will specifically address the Staff's errors in determining Elm Hills' business risk profile ("BRP") and Financial Risk Profile ("BRP"), which caused Staff to significantly overstate Elm Hills' cost of capital.

Q. Did Mr. Busch identify Staff's recommended ROR for Elm Hills?

A. Yes. Mr. Busch identified Staff's recommended ROR of 9.51% based on a hypothetical capital structure containing 50% common equity and 50% long-term debt. Mr. Busch identified Staff's recommended ROR was based on applying an ROE of 11.51% and a hypothetical debt cost of 7.51% to the hypothetical capital structure.

Q. Did Mr. Busch identify the Staff expert who provided Staff's ROR recommendation?

A. Yes. Mr. Busch identified Peter Chari as Staff's ROR expert. Although Mr. Chari did not sponsor direct testimony, Mr. Busch indicates Mr. Chari provided the recommendation and explanation for Staff's ROR recommendation in the Staff's "Auditing Department Review and Audit" (pages 13 to 14 of Schedule JAB-d2).

Q. What was the basis for Mr. Chari's recommended ROR for Elm Hills?

A. In response to OPC's EFIS Data Request No. 124, Staff indicated that Mr. Chari followed the Staff's Financial Analysis Department's "Small Utility Return on Equity (ROE)/Rate of Return (ROR) Methodology" ("Staff Methodology"). I am familiar with the Staff Methodology because I co-authored the Staff Methodology with two other previous Financial Analysis Department employees, Shana Griffin and Zephania Marevangepo. The Staff Methodology's underlying principles are guided by Standard & Poor's Global Ratings ("S&P") credit ratings methodology. Additionally, in the Staff's Auditing

Department Review and Audit, Mr. Chari cites S&P's documents to support certain aspects of his recommendation.[2]

Q. How did Mr. Chari estimate Elm Hills' overall risk profile?

A. Mr. Chari evaluated Elm Hill's business risk profile ("BRP") and financial risk profile ("FRP") to determine a credit rating he believed S&P's guidelines would imply for Elm Hills.

Q. How does Staff's Methodology advise it to assign a BRP to a small water and sewer utility?

A. Staff's Methodology recommends the BRP be assigned based on a company's ability to issue debt and/or obtain a loan. If a company cannot obtain a loan or it can only do so by means of the owner pledging his/her own personal assets, then the company is assigned a 'Satisfactory' BRP. If a company can procure a commercial loan without pledging personal assets, then the company is assigned a 'Strong' BRP. If the company or its parent company can issue debt directly to investors by issuing bonds, then the company is assigned an 'Excellent' BRP.

Q. Does it appear Mr. Chari estimated Elm Hills' BRP consistent with Staff's Methodology?

A. No. Mr. Chari did not use this method in assigning a BRP. Mr. Chari stated the following in Staff's Auditing Department Review and Audit:

> Determination of BRP being mostly qualitative, some perspective from S&P Credit ratings was important in guiding Staff's analysis. S&P Credit Ratings assigns a BRP of 'Excellent' to major Water and Wastewater utilities. Regulated utilities and holding companies that are utility-focused virtually always fall in the upper range ("Excellent" or "Strong") of business risk profile.[3] In Staff's reasonable estimation, a BRP of "Satisfactory" is consistent with Elm Hills' overall business risk. (footnote omitted)[3]

[2] James A Busch Direct Testimony, Schedule JAB-d2, p. 14.
[3] *Id.*

Mr. Chari's assignment of a 'Satisfactory' BRP seems to be based on Mr. Chari's judgment that because S&P assigns 'Excellent' and 'Strong' BRPs to larger utilities, it would seem to be logical to assign a lower BRP of 'Satisfactory' to Elm Hills. My experience with S&P's BRP assignments has been that purely regulated utility companies typically are assigned 'Excellent' BRPs and utility holding companies with significant exposure to non-regulated operations are assigned a lower BRP of 'Strong.' Therefore, because Elm Hills is a 100% regulated utility monopoly, in which it has captive customers, if Staff is making a qualitative assessment that Elm Hills has more business risk than 100% regulated larger water and sewer utility companies, then a one notch reduction to 'Strong' would be reasonable. Staff has gone beyond this, however, and instead lowered the BRP to only 'satisfactory.' This was not reasonable.

Q. Based on Staff's Methodology, what BRP would you assign?

A. I would assign a 'Strong' BRP because absent Sciens providing evidence to the contrary, I presume that Sciens is raising debt capital at the investment level. In addition, as I demonstrated in my direct testimony, the rate relief granted to Elm Hills' sister subsidiaries, Hillcrest, Raccoon Creek and Indian Hills, has allowed for very healthy financial performance. The steady and high EBITDA levels generated by Elm Hills' affiliates should easily attract reasonably priced debt capital without the need for guarantees. Elm Hills' pro forma financial projections are expected to be consistent with its sister subsidiaries.

Q. Is Staff's Methodology of assigning a BRP based on a company's ability to attract debt capital consistent with the specific nuances outlined in S&P's ratings methodology?

A. No. As a co-author of the Staff's Methodology, I can attest that Staff's intent was not to necessarily mirror the specifics of S&P's methodology, but to recognize the practical issues typically encountered in assessing a small water and sewer company's risk profile. At the time we drafted the Staff Methodology, we believed it was important to incorporate a practical and objective characteristic in assigning a BRP.

Q. Have you reviewed S&P's current specific corporate ratings criteria as it relates to assigning regulated utility companies a BRP?

A. Yes. S&P provides information about its method of assigning a BRP to corporations in its November 19, 2013, General Corporate Ratings Criteria. On the same date, S&P published an accompanying utility-industry specific document, "Key Credit Factors for the Regulated Utilities Industry," to be used specifically for purposes of determining an appropriate BRP for regulated utilities. A review of the guidance for assigning a BRP for regulated utilities indicates that the utility industry is considered as a "very low risk" industry, which when combined with operating in a "very low risk" country such as the United States, this would require a very poor regulatory jurisdiction to cause a BRP to be as low as "satisfactory." In my opinion, based on the financial results of Elm Hill's sister companies and the pro forma estimates for Elm Hills' based on the Non-Unanimous Stipulation and Agreement, Missouri's regulatory environment would be considered favorable by debt investors, resulting in a "Strong/Adequate" regulatory advantage assessment, which would allow for at least a 'Strong' BRP.

Q. How did Mr. Chari determine his assigned FRP of "highly leveraged" for purposes of determining a potential credit rating for Elm Hills?

A. Mr. Chari's assigned FRP is based on his assessment of Elm Hills' actual financial risk based on his analysis of the amount of leverage implied by the Fresh Start financing agreement. Even if I agreed with Mr. Chari that the Fresh Start financing agreement should be viewed as a debt obligation, because Mr. Chari recommends using a hypothetical capital structure to set Elm Hill's allowed ROR, it is the risk of this imputed capital structure that should be used to estimate the cost of equity. If Mr. Chari had used his estimated 'highly leveraged' capital structure containing 94% long-term debt, then certainly Elm Hills would have a higher cost of debt and equity than if it had a 50/50 capital structure. The logic for recommending a hypothetical capital structure is to ensure some accuracy, reliability, fairness and reasonableness to a ROR under a more stable and conservative capitalization strategy. Therefore, the capital costs applied to the hypothetical structure should match the risk of the hypothetical capital structure itself.

Q. Should Mr. Chari have viewed the Fresh Start financing as leverage in Elm Hills' capital structure?

A. No. The Commission correctly established in its decision in the Indian Hills' rate case, Case No. WR-2017-0259, that this financing agreement was not a debt obligation because the equity investors (CSWR) were the same party as the debt investors (Fresh Start). Sciens' acquisition of CSWR and Fresh Start has not changed this circumstance. In fact, Sciens purchased both companies based on a gross purchase price according to the November 1, 2018 Unit Purchase Agreement. According to Elm Hill's responses to OPC DRs, CSWR and Fresh Start are owned by US Water Systems LLC.

Q. Does the fact that CSWR and Fresh Start are owned by the same party help illustrate the error in Mr. Chari's logic of applying capital costs consistent with his assumed highly leveraged capital structure to a hypothetical capital structure?

A. Yes. If Mr. Chari had correctly dismissed the Fresh Start financing agreement as not constituting a financial obligation to a third-party lender, then he would have deemed Elm Hills' FRP as being consistent with a 'minimal' FRP because Elm Hills has no debt. Combining a 'minimal' FRP with a 'satisfactory' BRP, results in an estimated credit rating of 'A/A-'. Based on Mr. Chari's logic of applying his actual estimated risk profile to his hypothetical capital structure, this would result in a cost of debt of 3.34% being applied to 50% debt in the capital structure and an ROE of 7.34% being applied to 50% equity in the capital structure. The application of cost of capital estimates for a less leveraged capital structure to a more leveraged capital structure causes an underestimation of the cost of capital for the more leveraged capital structure. Clearly, there needs to be an increase in the risk premium for both the debt and equity in the capital structure to reflect the additional financial risk in the recommended capital structure. Conversely, there needs to be a decrease in the risk premium for both debt and equity in the recommended capital structure to reflect the lower amount of financial risk of such capital structure. Even with Mr. Chari's higher assumed BRP, the 50/50 capital structure is consistent with an 'intermediate' FRP, which is consistent with a 'BBB' credit rating as opposed to the 'B+' credit rating underlying Mr. Chari's recommended ROR. Mr. Chari's error results in a 4.14% higher

hypothetical cost of debt than that of a 'BBB'-rated company (7.51% - 3.37% = 4.14%). Because Mr. Chari used the bond yield plus risk premium method to estimate the cost of equity, this also caused a 4.14% overestimation in the cost of equity (11.51% - 7.37% = 4.14%).

Q. Does this exercise illustrate the potential significant ratemaking consequences caused by not having full transparency as to how Sciens may be capitalizing its investment?

A. Yes. The use of hypothetical debt capital cost is prone to as much error as a recommended ROE. In fact, because Staff's ROE recommendation is dependent on the estimated credit rating (as is mine), the fact that 100% of the capital costs are based on judgment rather than actual costs, this results in a much higher chance of awarding a higher than reasonable allowed ROR. Hopefully, Sciens and its affiliates' disclosure of its capitalization strategies will allow a more specific, accurate and reliable determination of an appropriate proportion of debt and cost of debt to include in an authorized ROR.

SUMMARY AND CONCLUSIONS

Q. Can you summarize your main conclusions as it relates to your rebuttal testimony?

A. Yes. Despite the fact that Company witness, Mr. Moore purports to provide third-party market bids for Elm Hills' debt, these "market" bids are well outside the zone of reasonableness one would expect. Because these bids are so far outside the zone of reasonableness for short-term lines of credit, this causes OPC to be suspicious of the past and current affiliations these banks have had with individuals and entities that have profited and will profit from the CSWR business model. I personally was excited about Sciens purchase of CSWR and Fresh Start because Sciens' representative, Tom Rooney, had indicated he would be directly involved with finding more cost efficient capital for CSWR and its subsidiaries. My optimism was based on the fact that another equity sponsor's, JP Morgan IIF, ownership of Summit Natural Gas of Missouri (indirectly through its parent company, Summit Utilities) resulted in affordable debt financing terms either directly at the subsidiary level or at a parent company level. JP Morgan IIF's financial support directly benefited SNGMO's ability to raise debt at its level when JP Morgan IIF pledged

to contribute additional equity capital if SNGMO's credit metrics fell below certain thresholds. Unfortunately, I have not seen evidence of similar support from Sciens. Being that the CSWR financing model has been opaque since its very first acquisition in 2014, it is only natural to be concerned about potential financial and relationship affiliations, which causes financial conflicts of interest. The fact that CSWR and Sciens have not fully cooperated with our discovery efforts certainly has not helped ease this concern.

It is quite clear what is at stake if CSWR and/or its subsidiaries issue legitimate debt at their levels. A real and reasonable cost of debt is recognized in the authorized ROR, which would result in lower rates for customers, but less profits and cash flow to the investors. The lower the profits and cash flows to the investors, the less debt they can support on their balance sheet. This causes a lower achieved return for their investors. OPC is not suggesting private equity investors shouldn't be able to use financial engineering to boost their profits. But the OPC is insisting that once private equity buys public utility companies that are granted monopoly power, the private equity investor no longer deserves secrecy of its financing strategies.

As is clear from Staff's subjective assessment of Elm Hill's risk profile, there is the potential for a large margin of error when regulators are put in a position to estimate a ROR for 100% of the capital structure. Staff chose to give weight to a debt instrument that has been deemed illegitimate due to past affiliation concerns of the previous investors. Although Sciens purchased CSWR and Fresh Start, the Fresh Start financing obligation remains on Elm Hill's books. This obligation has no economic impact on the equity investors since they own both companies. However, even if Staff had recognized the Fresh Start contract as illegitimate, it still would have been in a position where it had to estimate Elm Hills' debt costs. Staff certainly hasn't had to estimate debt costs for other small water and sewer companies with much more simplified ownership structures. It defies reason that an individual such as Mike Tilley at TDL can achieve more affordable debt costs than a company that is owned by a sophisticated Wall Street private equity group.

Q. Does this conclude your testimony?

A. Yes.

Case No. WR-2020-0275

Schedule DM-R-1 to David Murray's Rebuttal Testimony has been deemed "Confidential" in its entirety

Case No. WR-2020-0275

Schedule DM-R-2 to David Murray's Rebuttal Testimony has been deemed "Confidential" in its entirety

Small Utility

Return on Equity (ROE)/Rate of Return (ROR)

Methodology

Prepared by

Financial Analysis Department
(Shana Griffin, Zephania Marevangepo and David Murray)
Utility Services Division
Missouri Public Service Commission
September 2010
(updated January 2016)

Financial Analysis Small Water and Sewer Return on Equity (ROE) Determination

Financial Analysis' (FA) small water and sewer (W&S) procedure is based on the basic risk and return principle that investors should require a return on equity (ROE) that is higher than a current market-implied yield on a debt investment in the same company (the current required return on debt is not the same as an embedded cost of a debt to a company in which the required return on those debt instruments was based on the risk and return environment at that time). Because FA's methodology uses current cost of debt information to estimate a current required ROE, this allows estimates for small water and sewer companies to be responsive, current and specific. FA's procedure is based on a generic risk premium estimate observed in US capital markets.[1] Staff applies this "standard" risk premium to a reasonable estimate of the current cost of debt for the subject company to arrive at an estimated cost of equity. Because small water and sewer companies typically don't issue debt that is actively traded, FA must rely on its estimate of the subject company's credit rating and then determine a recent average cost of utility debt for this rating based on public utility bond yield data published in the Mergent Bond Record.[2] The Department then adds the "standard" risk premium to this current cost of debt to estimate the cost of common equity. These capital costs are then applied to the appropriate weights in the recommended capital structure to estimate a fair and reasonable rate of return.

Recommended Formula:

Recommended Return on Common Equity = Moody's Public Utility Bond Yield average of the past three months from Mergent[3] + 3-4% risk premium.

This formula is based on the bond yield risk premium method for estimating the cost of equity. According to the textbook *Analysis of Equity Investments: Valuation* (2002) by John D. Stowe, Thomas R. Robinson, Jerald E. Pinto and Dennis W. McLeavey (used as part of the curriculum in the Chartered Financial Analyst Program), a typical risk premium added to the yield-to-maturity (YTM) of a company's long-term debt is in the 3 to 4 percent range. For purposes of estimating the cost of common equity for Missouri's larger electric, gas and water utilities, FA believes at least the low end of this risk premium range is appropriate considering publicly-traded utility stocks exhibit investment characteristics very similar to bonds. Consequently, the low end of the risk premium estimate will be considered for companies that are not privately held or are subsidiaries of

[1] John D. Stowe, Thomas R. Robinson, Jerald E. Pinto and Dennis W. McLeavey, *Analysis of Equity Investments: Valuation*, 2002, p. 54.

[2] Staff had been using Bondsonline, but as of August 2015, BondsOnline reduced the amount and specificity of utility bond yield data it reports. Staff had used Moody's public utility bond yields before subscribing to BondOnline. Because Moody's public utility bond yields are widely published and relied upon by others in the utility industry, Staff is now using these yields for purposes of evaluating changes in utility capital costs. This change is the primary reason Staff was required to update the explanation of its methodology in January 2016. Staff will discuss the changes in greater detail later in this study.

[3] If Staff estimates a company's credit rating as 'BB' or 'B' then Staff uses Bank of America Merrill Lynch corporate bond yield spread information to impute the corresponding implied utility bond yield by adding/subtracting these spreads to Moody's utility bond yield data.

publicly-traded parent companies. However, the high end of the risk premium estimate may be used for privately owned small water and sewer companies that are not considered to be marketable from an acquisition standpoint.

Estimated Bond Rating:

In order to estimate the cost of debt for the subject company (assuming there is no current reasonable yield on the subject company's cost of debt), FA must estimate the credit rating of the subject company. FA's estimate of the subject company's credit rating will be restricted to credit ratings within the range of 'AAA' to 'B'. Because most regulated small water and sewer companies in Missouri do not issue debt either directly or indirectly (through a parent company), they do not have a published credit rating. Therefore, in such cases FA will use Standard & Poor's (S&P) corporate rating methodology as a guide to estimate the small water and sewer utility's credit rating. This guide allows FA to estimate a credit rating based on an assessment of the business and financial risks of the small water and sewer utility.

On November 19, 2013, S&P published its revised Corporate Ratings Methodology, which superseded its previous utility ratings' methodology, published on May 27, 2009. Because the May 27, 2009 report provided guidance on typical capital structures for the various rating categories and since capital structure is a key input in developing a rate of return recommendation, Staff will continue to use S&P's corporate rating methodology that was published on May 27, 2009 as a supplemental guide.[4] In the 2009 methodology, the "debt/ capital' ratio was a core financial ratio used to determine a subject company's Financial Risk Profile (FRP). S&P's updated (November 19, 2013) FRP assignment approach relies primarily on cash flow leverage ratios rather than the "debt/ capital" ratio as a core FRP determinant.

In light of the inherent subjectivity in estimating a credit rating, coupled, with insufficient financial data and/or unaudited/unreliable financial statements typically received from small water and sewer companies during discovery, FA believes relying on the simple and straight-forward "debt/ capital" ratio for purposes of assessing an appropriate "FRP" is the most objective, and consequently, fair and reasonable approach. However, if there is compelling conflicting financial information that would imply a different FRP than the benchmark using only the debt/capital ratio, FA will consider this information.

Based on S&P data available for the water companies it rates, these companies have a FRP no lower than "Aggressive" and business risk profiles ("BRP") of "Excellent."[5] Although S&P assigns an "Excellent" BRP to all of the water and sewer companies it rates, Staff believes that due to the fact that some small water and sewer companies have trouble receiving debt financing, this should be considered in assigning BRPs for purposes of estimating the cost of equity for small water and sewer companies. Staff will determine the BRP of a company by assessing the company's access or potential access to debt capital. If a company proves to Staff that they cannot obtain a loan or the company can obtain a loan but has to pledge personal assets in order to do so, then Staff would classify

[4] Staff's first edition of this "Small Utility ROE/ROR Methodology" was based on S&P's corporate rating methodology that was published on May 27, 2009.
[5] "Excellent" is considered to be the least risky of all of S&P's business risk profiles.

the company's BRP as "Satisfactory." If the company can obtain a commercial loan without having to pledge personal assets, then Staff would classify the company as having a "Strong" BRP. If a company or its parent can issue debt directly to capital providers, then Staff would classify the company as having an "Excellent" BRP. The FRP of a company will be estimated by determining the company's "debt/capital" ratio and comparing it to the following S&P's benchmark ratios:

Financial Risk Indicative Ratios (Corporates)

	Debt/Capital (%)
Minimal	less than 25
Modest	25-35
Intermediate	35-45
Significant	45-50
Aggressive	50-60
Highly Leveraged	greater than 60

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Based on S&P's credit rating methodology, a subject company's BRP and FRP are combined to determine a credit rating which can range from "AAA" to "B-". Unfortunately, starting August 2015 BondsOnline (the source FA had used for utility bond yield information) ceased the comprehensive publication of debt yields for securities with a rating of greater than "A" and less than "BBB". As a result, Staff is now using Moody's public utility bond yields for purposes of evaluating changes in utility capital costs.

Moody's coverage also has a data limitation problem as it does not publish bond yields for securities with a rating of greater than "AA" and less than "BBB." Therefore, in cases in which Staff estimates a credit rating lower than a "BBB" rating, Staff will use the appropriate Bank of America Merrill Lynch corporate bond spread data which is readily available on the Federal Reserve Bank of St. Louis' website[7] to extrapolate the utility bond yield for those respective categories. For example, if Staff estimated a subject company to have a 'B' rating, Staff would take the most recent 3 month average spread between 'BBB' corporate bond yields and 'B' corporate bond yields and add it to the 'BBB' Moody's public utility bond yield published in the Mergent Bond Record to impute the 'B' utility bond yield.

See the attached matrix that shows the indicated bond rating Staff will use based on the intersection of the BRP and the FRP.

Capital Structure Determination:

[6] S&P RatingsDirect, May 27, 2009, "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded" (Attachment A).
[7] https://research.stlouisfed.org/

In situations in which a small water and sewer utility has debt capital in excess of 75%, FA believes it is appropriate to use a hypothetical capital structure that limits debt to 75% of total capital. Although it could be argued that Staff should also use a hypothetical capital structure if a company's capital structure is not cost efficient due to a high equity ratio, FA decided not to limit the amount of equity in the capital structure. If a company shows that its capital structure consists of more than 75% debt, then a hypothetical capital structure of 75% debt and 25% equity will be assumed. For all situations wherein a small water and sewer company has debt capital less than 75%, the company's actual capital structure will be used in determining the company's ROR. In all situations, Staff will evaluate whether the actual cost of debt seems reasonable for the given rating used to estimate the cost of equity. If not reasonable, then Staff may use a hypothetical cost of debt.

FA will rely on the company's financial statements to estimate the ratemaking capital structure if these financial statements provide an accurate and reliable representation of the capital that supports the company's investment in the utility's assets. However, if a company's rate base is not consistent with the carrying value of the assets in the financial statements, Staff will impute the capital structure by subtracting the amount of debt from rate base to estimate the amount of equity in the capital structure.

Cost of Common Equity:

FA recognizes that the estimation of the cost of common equity for a utility is not an exact science. Therefore, FA will recommend a reasonable ROE range based on the specific circumstances of each case. For example, absent specific circumstances, FA usually recommends an ROE range of no more than 100 basis points in major rate cases. Staff may recommend the higher end of its range if the company is privately held and not marketable. Staff may recommend the low end of its range if the water and sewer operations are owned by a larger parent company that is publicly-traded or the company is considered to be marketable from an acquisition perspective.

Receivership Cases:

Due to the uncertainty of how utility systems in receivership are or will be capitalized after the systems are no longer under the control of the receiver, Staff will use a hypothetical capital structure and rate of return in such situations. However, the intent of allowing a rate of return for utility operations in receivership is not to allow monies to be distributed to any owners and/or receivers.

Disclaimer:

This procedure may be subject to change at any time based on Staff's research on other approaches to address small water and sewer ROE recommendations and the availability

of additional and/or better resources that may allow for improvement to the determination of appropriate rates of return for small water and sewer.

Case Examples for WACC Recommendation Using an Actual Capital Structure and a Hypothetical Capital Structure

Actual Capital Structure Example:

Test year of Dec. 31, 200X for this case indicates the following regarding capital structure:

XYZ Sewer Systems, Inc.
12/31/20XX

Common Stock	$102,000	51%
Debt	$98,000	49%
Total Capital	$200,000	100%

Most of the time the amount of common stock will be broken down by par value of common stock, other paid in capital and retained earnings. One should make sure to include all components of common equity in this balance.

The weighted cost of debt is as follows:

Debt Issuance	Amount	Cost	Percent	Weighted Cost of Debt
N/P United Bank of Union	$55,000	6.25%	56.12%	3.51%
N/P Jane Doe Corp.	$25,000	5.50%	25.51%	1.40%
N/P Doe Construction, Inc.	$18,000	5.50%	18.37%	1.01%
	$98,000		**100.00%**	**5.92%**

Based on the S&P ratings matrix the company has a "Significant" FRP; and based on the company's ability to obtain a commercial loan from United Bank of Union, the BRP is considered "Strong". Based on Staff's determination of a "Significant" FRP and a "Strong" BRP, XYZ Sewer Systems credit profile is indicative of a 'BBB' rating as shown in the attached matrix.

Now that we have an estimated credit rating we need to determine a current yield on debt of the same rating. Staff currently uses Moody's public utility bond yields for at least the base starting yield. Because yields can fluctuate from month-to-month, Staff believes it is appropriate to use a 3-month average yield.

Although the following example is only based on the debt yield for one month, September 2015, simply use the same methodology for the other two months and average the 3 yields to determine the appropriate reference yield.

Based on the methodology discussed above, the risk premium would be added to the reference yield consistent with a 'BBB' rating. The Moody's BBB utility bond yield for September 2015 was 5.42%. Because the company is a privately-owned enterprise that doesn't issue its own debt or its parent company doesn't issue debt, you add a 4% risk premium to arrive at a cost of equity recommendation of 9.42%(see table below). The rate of return is as follows:

XYZ Sewer Systems, Inc.
Cost of Capital as of 12/31/201X

Capital Component	Amount	%Capital	Cost	Weighted Cost
Common equity	$102,000	51.00%	9.42%	4.80%
Long-term debt	$ 98,000	49.00%	5.92%	2.90%
	$200,000	100.00%		7.70%

Hypothetical Capital Structure Example:

ABC Water & Sewer Company is a company that is in receivership.

A hypothetical capital structure based on the proxy group capital structure from the most recent Missouri American Water Company (MAWC) case will be used. The hypothetical capital structure is as follows:

ABC Water & Sewer
Company

Common Stock 49.75%

Debt	50.25%
Total Capital	100%

The most recent MAWC case was Case No. WR-2011-0337. The proxy group capital structure in that case was 49.75% common equity and 50.25% debt.

Based on the S&P ratings matrix, the hypothetical capital structure presents an "Aggressive" FRP. The company is also viewed as having a "Satisfactory" BRP due to its inability to access commercial loan(s). Based on Staff's determination of an "Aggressive" FRP and a "Satisfactory" BRP, ABC Water & Sewer Company's credit profile is indicative of a 'BB' rating as shown in the attached matrix.

Because Moody's does not publish utility bond yield data for 'BB' rated bonds, Staff will use the spread between a 'BBB' corporate bond and a 'BB' corporate bond[8] and apply the spread to the 'BBB' rated Moody's utility bond yield data to impute the 'BB' rated bond yield average. Because yields can fluctuate from month-to-month, Staff believes it is appropriate to use a 3-month average yield.

Although the following example is only based on the debt yield for one month, September 2015, simply use the same methodology for the other two months and average the 3 yields to determine the appropriate reference yield.

The September 2015 Bank of America Merrill Lynch BBB and BB Corporate Bond yields were 4.07% and 5.65%, respectively. This equals a spread of 1.58%.

Based on the methodology discussed above, the risk premium and the spread between BBB and BB corporate bond yields would be added to the reference yield consistent with a 'BBB' rating to impute the 'BB' rated utility bond yield. The BBB Moody's public utility bond yield was 5.42% as of September 2015. We then add the 158 basis point spread between BBB and BB BAML corporate bond yields to estimate a BB utility bond yield of 7.00% (see table below). Because the company is a privately-owned enterprise that doesn't issue its own debt or its parent company doesn't issue debt, you add a 4% risk premium to arrive at a cost of equity recommendation of 11.00%. The rate of return recommendation based on the hypothetical capital structure of 75% debt and 25% equity is as follows:

ABC Water & Sewer Company
Hypothetical Cost of Capital

Weighted

[8] Corporate bond spread data can be found at the Federal Reserve Bank of St. Louis' website: https://research.stlouisfed.org/

Capital Component	%Capital	Cost	Cost
Common equity	49.75%	11.00%	5.47%
Long-term debt	50.25%	7.00%	3.52%
	100.00%		8.99%