Exhibit No. _____

Issue: Cost of Capital

Witness: Dylan W. D'Ascendis

Type of Exhibit: Surrebuttal Testimony

Sponsoring Party: Indian Hills

Case No.: SR-2017-0259

Date: November 13, 2017

Missouri Public Service Commission

Surrebuttal Testimony

of

Dylan W. D'Ascendis, CRRA, CVA

On Behalf of

Indian Hills Utility Operating Company, Inc.

November 13, 2017

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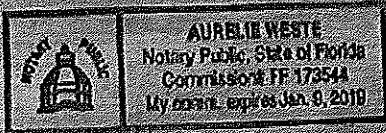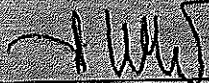## AFFIDAVIT

STATE OF Florida)

COUNTY OF Hillsborough)   ss

    I, Dylan W. D'Ascendis, state that the answers to the questions posed in the attached Surrebuttal Testimony are true to the best of my knowledge, information and belief.

Subscribed and sworn to before me this ___13th___ day of November, 2017.

Notary Public

AURELIE WESTE
Notary Public, State of Florida
Commission # FF 173544
My comm. expires Jan. 9, 2019

My Commission Expires: Jan. 9, 2019

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I. INTRODUCTION AND PURPOSE

1 **I.** **INTRODUCTION AND PURPOSE**

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

3 A. My name is Dylan W. D'Ascendis. My business address is 3000 Atrium Way,

4 Suite 241, Mount Laurel, NJ 08054.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am a Director at ScottMadden, Inc.

7 **Q. Are you the same Dylan W. D'Ascendis that provided direct and rebuttal**

8 **testimony in this proceeding?**

9 A. Yes.

10 **Q. What is the purpose of your surrebuttal testimony?**

11 A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimonies

12 of Mr. Matthew J. Barnes, witness for the Missouri Public Service Commission

13 ("MO PSC") Staff ("Staff") and Mr. Michael P. Gorman, witness for the Missouri

14 Office of the Public Counsel ("OPC") concerning the weighted average cost of

15 capital ("WACC") of Indian Hills Utility Operating Company, Inc. ("Indian Hills" or

16 the "Company").

17 **Q. Have you prepared an exhibit in support of your recommendation?**

18 A. Yes. I have prepared Schedule DWD-02, which consists of Sub-Schedule DWD-

19 1.

1   Q.   What conclusions do you reach?

2   A.   I continue to maintain that my recommended WACC of 14.28% is both

3   reasonable and conservative, given the Company's significant risks compared to

4   other water utilities, and is consistent regarding the relative riskiness of long-term

5   debt versus common equity.

6   II. **RESPONSE TO MICHAEL J. BARNES**

7   Q.   **Do you have any general comments regarding Mr. Barnes' cost of capital**

8   **recommendation in this case?**

9   A.   Mr. Barnes' recommendation is consistent with the Staff's proposal in this Case's

10   Partial Disposition and Agreement Pleading shown on Accounting Schedule 04

11   of Attachment B. As discussed at pages 3 through 6 of my direct testimony,

12   Staff's recommended weighted average cost of capital ("WACC") of 12.37% is

13   inadequate for ratemaking purposes.

14 Q.   **Mr. Barnes presents four scenarios based on the combined**

15   **recommendations of both Staff and OPC to show the differences in**

16   **proposed rate designs. What do you find relevant as to these scenarios?**

17 A.   What is relevant is what those scenarios produce in operating income and return

18   on common equity for Indian Hills. As shown on Table 1 below,[1] two scenarios

19   presented by Mr. Barnes provides very little return for Indian Hills' equity

20   investors and two scenarios which do not even cover the Company's debt

21   service. My recommendation, however, satisfies the Company's debt service

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[1]   *See* also, Schedule DWD-1SR.

1 and also provides an adequate return on equity commensurate with the risk of

2 the Company's operations.

3 **Table 1: Comparison of Mr. Barnes' WACC Scenarios and Company**
4 **Position[2]**

	WACC	Net Operating Income	Income Available for Common Shareholders	Return on Equity
Staff Filed Position	12.37%	$232,551	$29,551	6.87%
Staff Cost of Debt and OPC Capital Structure	11.67%	$219,409	$16,409	3.82%
Staff Capital Structure and OPC Cost of Debt	7.66%	$143,951	($59,049)	-13.73%
OPC Filed Position	8.05%	$151,255	($51,745)	-12.03%
Company Filed Position	14.27%	$268,378	$65,378	15.20%

5

6 **III. RESPONSE TO MICHAEL P. GORMAN**

7 **Q. On page 3 of Mr. Gorman's Rebuttal Testimony, he states that you did not**

8 **use a capital structure that reflected Indian Hills' actual capital structure.**

9 **Are you recommending an actual capital structure for Indian Hills in this**

10 **case?**

11 **A.** Yes. I provided the actual capital structure based on the agreed to rate base of

12 $1,880,112, and the agreed to level of debt principal of $1,450,000. Dividing the

13 $1,450,000 by $1,880,112, results in a debt to total capital ratio of 77.12%, which

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[2] *See* Schedule DWD-1SR for additional information.

1   is my recommended debt ratio. Furthermore, in Indian Hills' 2016 annual report

2   to the Commission a common equity balance of $234,560 was reported, which is

3   significantly different from the **$45,748** common equity balance reported by

4   Mr. Gorman.

5   Q.   Does Staff's estimated return on equity of 9.34%, on which Mr. Gorman

6   relied, reflect a reasonable premium to a below investment grade utility

7   company?

8   A.   No. In Cases Nos. GR-2017-0215 and GR-2017-0216, Staff recommended a

9   range of ROEs between 9.00% and 9.50% for Spire Missouri, an A rated public

10   utility. Recommending an ROE of 9.34% for a highly leveraged, small water

11   utility that is not rated is not consistent with the risk that Indian Hills' investors

12   face compared to what a larger, more financially viable utility like Spire faces.

13   Q.   On page 5 of his rebuttal testimony, Mr. Gorman claims that adjusted betas

14   should not be used in an Empirical Capital Asset Pricing Model ("ECAPM")

15   analysis. Is he correct?

16   A.   No. Mr. Gorman seems to believe that using adjusted betas in a Capital Asset

17   Pricing Model ("CAPM") analysis addresses the empirical issues with the CAPM,

18   by increasing the expected returns for low beta stocks and decreasing the

19   expected returns for high beta stocks, concluding that there is no need to use the

20   ECAPM. This is an incorrect understanding of the ECAPM. Using adjusted

21   betas in a CAPM analysis is not equivalent to using the ECAPM nor is it an

22   unnecessary redundancy.

4

1   Betas are adjusted because of their general regression tendency to

2 converge toward 1.0 over time, i.e., over successive calculations of beta. As

3 discussed in my direct testimony, numerous studies have determined that the

4 SML described by the CAPM formula at any given moment in time is not as

5 steeply sloped as the predicted SML. Morin states:

> 6 Some have argued that the use of the ECAPM is inconsistent with
> 7 the use of adjusted betas, such as those supplied by Value Line
> 8 and Bloomberg. This is because the reason for using the ECAPM
> 9 is to allow for the tendency of betas to regress toward the mean
> 10 value of 1.00 over time, and, since Value Line betas are already
> 11 adjusted for such trend [sic], an ECAPM analysis results in double-
> 12 counting. This argument is erroneous. Fundamentally, the ECAPM
> 13 is not an adjustment, increase or decrease, in beta. This is obvious
> 14 from the fact that the expected return on high beta securities is
> 15 actually lower than that produced by the CAPM estimate. The
> 16 ECAPM is a formal recognition that the observed risk-return
> 17 tradeoff is flatter than predicted by the CAPM based on myriad
> 18 empirical evidence. The ECAPM and the use of adjusted betas
> 19 comprised two separate features of asset pricing. Even if a
> 20 company's beta is estimated accurately, the CAPM still understates
> 21 the return for low-beta stocks. Even if the ECAPM is used, the
> 22 return for low-beta securities is understated if the betas are
> 23 understated. Referring back to Figure 6-1, the ECAPM is a return
> 24 (vertical axis) adjustment and not a beta (horizontal axis)
> 25 adjustment. Both adjustments are necessary.[3]

26   Moreover, the slope of the SML should not be confused with beta. As

27 Brigham and Gapenski state:

> 28 The slope of the SML reflects the degree of risk aversion in the
> 29 economy – the greater the average investor's aversion to risk, then
> 30 (1) the steeper is the slope of the line, (2) the greater is the risk
> 31 premium for any risky asset, and (3) the higher is the required rate
> 32 of return on risky assets.[12]

> 33 [12]Students sometimes confuse beta with the slope of the SML.
> 34 This is a mistake. As we saw earlier in connection with Figure 6-8,
> 35 and as is developed further in Appendix 6A, beta does represent
> 36 the slope of a line, but not the Security Market Line. This confusion

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[3] Morin, at 191.

1 arises partly because the SML equation is generally written, in this
2 book and throughout the finance literature, as ki = RF + bi(kM −
3 RF), and in this form bi looks like the slope coefficient and (kM −
4 RF) the variable. It would perhaps be less confusing if the second
5 term were written (kM − RF)bi, but this is not generally done.[4]

6 As noted in Appendix 6A of Brigham and Gapenski's textbook, beta, which

7 accounts for regression bias, is not a return adjustment but rather is based on the

8 slope of a different line. Hence, using adjusted betas does not address the

9 empirical issues with the CAPM. In view of the foregoing, my use of adjusted

10 betas in both the traditional and empirical applications of the CAPM is not

11 incorrect, nor inconsistent with the financial literature, nor an unnecessary

12 redundancy.

13 **Q. What have you provided in support of your recommendation?**

14 A. I have provided empirical and academic support for all of my cost of capital

15 models and adjustments to those results based on the increased risk of Indian

16 Hills compared to that of the proxy group.

17 **IV. CONCLUSIONS AND RECOMMENDATIONS**

18 **Q. What are your conclusions regarding the WACC for Indian Hills?**

19 A. I continue to recommend that the Commission allow Indian Hills the opportunity

20 to earn a WACC of 14.28%, based on its actual capital structure as of the end of

21 the test year, which consists of 77.12% long-term debt, at an embedded debt

22 cost rate of 14.00% and 22.88% common equity, at my recommended common

23 equity cost rate of 15.20%. The capital structure and common equity cost rate

24 reflect Indian Hills' significant investment risk compared to the Utility Proxy

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[4] Eugene F. Brigham and Louis C. Gapenski, Financial Management: Theory and Practice, The
Dryden Press, 1985, at 201-204. ("Brigham and Gapenski")

1   Group, due to its necessary, significant investment in the water system after its

2   acquisition on March 31, 2016, to get the system into environmental compliance,

3   and its extremely small size relative to the Utility Proxy Group.

4 **Q.   Does that conclude your surrebuttal testimony?**

5 A.   Yes, it does.

Indian Hills Utility Operating Company, Inc.
Evaluation of Scenarios Posed in Staff Witness Barnes'
Rebuttal Testimony

Scenario 1: Staff Filed Position

| | | | | | Column No. | | | |
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Type Of Capital	Ratio	Cost Rate	Weighted Cost Rate	Rate Base (1)	Operating Income (2)	Debt Service (3)	Income Available to Common Equity (4)	Book Common Equity (5)	Return on Common Equity (6)
Long-Term Debt	65.00%	14.00%	9.10%						
Common Equity	35.00%	9.34%	3.27%						
Total	100.00%		12.37%	$ 1,880,112	$ 232,551	$ 203,000	$ 29,551	$ 430,112	6.87%

Scenario 2: Staff Cost of Debt and OPC Capital Structure

Type Of Capital	Ratio	Cost Rate	Weighted Cost Rate	Rate Base	Operating Income	Debt Service	Income Available to Common	Book Common Equity	Return on Common Equity
Long-Term Debt	50.00%	14.00%	7.00%						
Common Equity	50.00%	9.34%	4.67%						
Total	100.00%		11.67%	$ 1,880,112	$ 219,409	$ 203,000	$ 16,409	$ 430,112	3.82%

Scenario 3: OPC Cost of Debt and Staff Capital Structure

Type Of Capital	Ratio	Cost Rate	Weighted Cost Rate	Rate Base	Operating Income	Debt Service	Income Available to Common	Book Common Equity	Return on Common Equity
Long-Term Debt	65.00%	6.75%	4.39%						
Common Equity	35.00%	9.34%	3.27%						
Total	100.00%		7.66%	$ 1,880,112	$ 143,951	$ 203,000	$ (59,049)	$ 430,112	-13.73%

Scenario 4: OPC Filed Position

Type Of Capital	Ratio	Cost Rate	Weighted Cost Rate	Rate Base	Operating Income	Debt Service	Income Available to Common	Book Common Equity	Return on Common Equity
Long-Term Debt	50.00%	6.75%	3.38%						
Common Equity	50.00%	9.34%	4.67%						
Total	100.00%		8.05%	$ 1,880,112	$ 151,255	$ 203,000	$ (51,745)	$ 430,112	-12.03%

Scenario 4: OPC Filed Position

Type Of Capital	Ratio	Cost Rate	Weighted Cost Rate	Rate Base	Operating Income	Debt Service	Income Available to Common	Book Common Equity	Return on Common Equity
Long-Term Debt	77.12%	14.00%	10.80%						
Common Equity	22.88%	15.20%	3.48%						
Total	100.00%		14.27%	$ 1,880,112	$ 268,378	$ 203,000	$ 65,378	$ 430,112	15.20%

Notes:
(1) Agreed to rate base by Staff and Indian Hills in Agreed to Partial Disposition and Agreement *See* Auditing Depatrment Recommendation Memorandum, Attachment A, Page 3.

(2) Weighted Average Cost of Capital from Column No. 1 multiplied by the rate base in Column No. 2.

(3) Face amount Indian Hills' debt ($1,450,000) multiplied by its debt cost rate (14%).

(4) Column No. 3 minus Column No . 4.

(5) From Indian Hills' 2016 Annual Report to the Missouri Public Service Commission.

(6) Column No. 5. divided by Column No. 6.