

Exhibit No.:  
Issue: Rate of Return  
Witness: Matthew J. Barnes  
Sponsoring Party: MoPSC Staff  
Type of Exhibit: Surrebuttal testimony  
Case No.: WR-2006-0425  
Date testimony Prepared: January 12, 2007

**MISSOURI PUBLIC SERVICE COMMISSION**  
**UTILITY SERVICES DIVISION**

**SURREBUTTAL TESTIMONY**  
**OF**  
**MATTHEW J. BARNES**

**FILED<sup>2</sup>**

FEB 08 2007

Missouri Public  
Service Commission

**ALGONQUIN WATER RESOURCES OF MISSOURI, LLC**  
**CASE NOS. WR-2006-0425 and SR-2006-0426**  
**(Consolidated)**

*Jefferson City, Missouri*  
*January 2007*

~~Staff~~ Exhibit No. 13  
Case No(s). WR-2006-0425  
Date 1-22-07 Rptr. JK

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

In the Matter of the Tariff Filing Algonquin Water )  
Resources of Missouri, LLC to Implement a )  
General Rate Increase for Water and Sewer Service )  
Provided to Customers in Its Missouri Service )  
Areas. )

Case No. WR-2006-0425

**AFFIDAVIT OF MATTHEW J. BARNES**

STATE OF MISSOURI     )  
                                      )     ss.  
COUNTY OF COLE     )

Matthew J. Barnes, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Surrebuttal Testimony in question and answer form, consisting of 10 pages to be presented in the above case; that the answers in the foregoing Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

  
Matthew J. Barnes

Subscribed and sworn to before me this 11<sup>th</sup> day of January 2007.

  
Notary Public



ASHLEY M. HARRISON  
My Commission Expires  
August 31, 2010  
Cole County  
Commission #08898978

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1 Staff recommends that the Commission adopt Staff's hypothetical capital structure for a  
2 couple of reasons. First, Staff relies on a number of financial sources to analyze the capital  
3 markets in which utility companies operate, none of which cover the Canadian financial  
4 markets. Second, Algonquin Power is incorporated in Canada and is not organized like a  
5 typical U.S. water utility company. Third, Mr. Loos' ROE is based on a comparable group of  
6 U.S. water utility companies. Staff believes it is important to match an estimated cost of  
7 common equity based on U.S. water utility companies with a capital structure that is also  
8 based on U.S. water utility companies. Staff recommends that the Commission adopt its  
9 hypothetical capital structure as this is based on comparable water utility companies that  
10 operate in the U.S., as does AlgonquinMO. This matches U.S. water utility capital costs with  
11 U.S. water utility capital structures.

12 Mr. Loos states in his Rebuttal testimony on Page 7, Line 19 through Line 21, "While  
13 there is a difference in the value of the Canadian dollar relative to the US dollar, I believe the  
14 relative costs of capital are not materially different." Mr. Loos does not provide any support  
15 that shows the "relative costs of capital are not materially different". But Staff does not  
16 disagree. Staff will provide support to show that Mr. Loos's ROE of 11.25 percent to 12.00  
17 percent is not consistent with ROE's awarded for utility companies in Canada.

18 Mr. Loos claims that Staff's DCF model consists of mixing apples and oranges,  
19 because Staff adds a projected dividend yield to the growth component of the DCF model that  
20 consists of historical and projected growth rates. This is simply not true because historical  
21 growth rates were analyzed in conjunction with projected growth rates as a proxy for  
22 estimated future growth rates. Mr. Loos does not provide any support for his claim that  
23 Staff's methodology is inappropriate to use for AlgonquinMO. Mr. Loos also mixes apples

1 and oranges as the low end of his ROE range (11.25 percent) is based on his historical growth  
2 rates, but the upper end of his ROE range (12.00 percent) is based on projected growth rates.

3 Mr. Loos adds a projected book value dividend yield to a historical growth rate to  
4 arrive at the low-end of his DCF range. But Mr. Loos provides no support for his decision to  
5 use book value – instead of market value – to calculate the dividend yield component of the  
6 DCF model. Mr. Loos does not cite any financial literature that supports his DCF  
7 methodology, and the Staff knows of none. His methodology is inappropriate. Dividend  
8 yield is the projected dividends an investor expects to receive in the future divided by the  
9 current market price per share, not the book value per share. I have recommended a  
10 reasonable capital structure and rate-of-return for AlgonquinMO in the range of 7.03 percent  
11 to 7.51 percent and an ROE in the range of 8.06 percent to 9.06 percent to be applied to  
12 AlgonquinMO's rate base.

13 **RESPONSE TO LARRY W. LOOS' REBUTTAL TESTIMONY**

14 Q. Mr. Loos states in his Rebuttal testimony on Page 7, Line 9 through Line 12,  
15 "...The fact that the Staff is not familiar with Canadian markets is no reason to abandon  
16 capital structure. If Staff is not comfortable with Canadian markets, Staff should do the  
17 research necessary to become reasonably informed." How do you respond to his statement?

18 A. The Commission needs to determine what returns are generally being made in  
19 this part of the country by companies with risks and uncertainties that are similar to those that  
20 Algonquin faces when it provides water and sewer services to its customers in Missouri. The  
21 Commission does not need to know what returns are being made in Canada. Nor does it need  
22 to know what returns are being made by companies that are organized and capitalized far  
23 differently than AlgonquinMO is organized and capitalized.

Surrebuttal Testimony of  
Matthew J. Barnes

1 Staff is not familiar with the Canadian financial markets because Staff does not have  
2 access to information about them. Staff relies on a number of sources to determine the capital  
3 structure and rate-of-return that utility companies in this general part of the country should  
4 earn. But none of these sources cover the Canadian financial markets. Staff does not need to  
5 become familiar with Canadian markets, because this Commission is setting rates for a water  
6 and sewer utility company that operates in the United States -- specifically, in Missouri.

7 Q. Please explain why Mr. Loos' capital structure is inappropriate to use in this  
8 proceeding.

9 A. The Commission relies on two cases decided by the U.S. Supreme Court when  
10 it determines the fair and reasonable rate-of-return for a utility company. Mr. Loos's capital  
11 structure (Algonquin Power) does not comply with the requirements of those two cases, as I  
12 understand them. The cases are the *Bluefield Water Works and Improvement Company*  
13 (1923) (Bluefield) and the *Hope Natural Gas Company* (1944) (Hope) cases.

14 Q. Did you cite these cases in your Direct testimony?

15 A. Yes, I did and I will repeat those cases again. Beginning on Page 5, Line 2  
16 through Page 6, Line 18, I cited the *Bluefield* and *Hope* cases:

17 Q. What legal principles do you understand constitute the basis for  
18 the assessment of the justness and reasonableness of rate-of-return  
19 recommendations?

20 A. I understand that the *Bluefield Water Works and Improvement*  
21 *Company* (1923) (*Bluefield*) and the *Hope Natural Gas Company*  
22 (1944) (*Hope*) cases have been cited as the two most influential cases  
23 for the legal framework to determine a fair and reasonable rate of  
24 return.

25 Q. What do you understand to be the teachings of the *Bluefield*  
26 case?

27 A. In the *Bluefield* case the Supreme Court ruled that a fair return  
28 would be:

1           1.     A return "generally being made at the same time" in that  
2           "general part of the country;"

3           2.     A return achieved by other companies with  
4           "corresponding risks and uncertainties;" and

5           3.     A return "sufficient to assure confidence in the financial  
6           soundness of the utility."

7           The Court specifically stated:

8                     A public utility is entitled to such rates as will permit it  
9                     to earn a return on the value of the property which it employs  
10                    for the convenience of the public equal to that generally being  
11                    made at the same time and in the same general part of the  
12                    country on investments in other business undertakings which  
13                    are attended by corresponding risks and uncertainties; but it has  
14                    no constitutional right to profits such as are realized or  
15                    anticipated in highly profitable enterprises or speculative  
16                    ventures. The return should be reasonably sufficient to assure  
17                    confidence in the financial soundness of the utility and should  
18                    be adequate, under efficient and economical management, to  
19                    maintain and support its credit and enable it to raise the money  
20                    necessary for the proper discharge of its public duties. A rate of  
21                    return may be reasonable at one time and become too high or  
22                    too low by changes affecting opportunities for investment, the  
23                    money market and business conditions generally.

24           Q.     What do you understand to be the teachings of the *Hope*  
25           case?

26           A.     In the *Hope* case, the Court stated that:

27                     The rate-making process . . . , i.e., the fixing of "just and  
28                    reasonable" rates, involves a balancing of the investor and the  
29                    consumer interests. Thus we stated . . . that "regulation does  
30                    not insure that the business shall produce net revenues" . . . it is  
31                    important that there be enough revenue not only for operating  
32                    expenses but also for the capital costs of the business. These  
33                    include service on the debt and dividends on the stock . . . . By  
34                    that standard the return to the equity owner should be  
35                    commensurate with returns on investments in other enterprises  
36                    having corresponding risks. That return, moreover, should be  
37                    sufficient to assure confidence in the financial integrity of the  
38                    enterprise, so as to maintain its credit and to attract capital.



1           The *Hope* case restates the concept of comparable returns to include those  
2 achieved by other enterprises that have “corresponding risks.” The Supreme Court  
3 also noted in this case that regulation does not guarantee profits to a utility  
4 company.

5           Q.     Is it appropriate to use the capital structure of a company that is incorporated in  
6 a different country, with an ROE that is based on a group of U.S. utility companies?

7           A.     No it is not. Mr. Loos’s ROE is based on a group of comparable U.S. water  
8 utility companies. Staff believes it is important to match an estimated cost of common equity  
9 that is based on U.S. water utility companies with a capital structure that is also based on U.S.  
10 water utility companies.

11          Q.     Are there any water utility companies in Missouri that are owned by a parent  
12 company who is incorporated in another country?

13          A.     Yes. Missouri American Water Company (MOAWC) is a subsidiary of  
14 American Water Company, whose parent is RWE AG (Essen, Germany).

15          Q.     In MOAWC’s last rate case (No. WR-2003-0500), did MOAWC recommend  
16 the use of its parent’s capital structure for rate-making purposes?

17          A.     No, they did not.

18          Q.     Did the Staff recommend the use of RWE AG’s capital structure for rate-  
19 making purposes?

20          A.     No, they did not.

21          Q.     What capital structure did Staff recommend in the MOAWC case?

1           A.     Staff recommended 37.76 percent common equity, 7.88 percent preferred  
2 stock, and 54.36 percent long-term debt for American Water Capital Corporation's (AWCC)  
3 consolidated capital structure. MOAWC is a subsidiary of AWCC.

4           Q.     Has the Commission ever adopted the capital structure of a company whose  
5 parent was incorporated in another country?

6           A.     Staff does not believe so. Staff does not know of any case where the  
7 Commission has adopted the capital structure of a company whose parent was incorporated in  
8 another country.

9           Q.     Mr. Loos states in his Rebuttal testimony on Page 7, Line 19 through Line 21:  
10 "While there is a difference in the value of the Canadian dollar relative to the US dollar, I  
11 believe the relative costs of capital are not materially different." How do you respond?

12          A.     I do not disagree with Mr. Loos' statement. However, he did not provide any  
13 evidence to support his claim.

14          Q.     Are you aware of any sources that compare the costs of capital of U.S. and  
15 Canadian utility companies?

16          A.     Yes. Staff acquired a copy of the *Notice of Application and Direct Evidence of*  
17 *NSPI* from the Nova Scotia Utility and Review Board, dated October 2006, in which  
18 Dr. Roger A. Morin testified on behalf of the utility, Nova Scotia Power, Inc., in support of a  
19 9.55 percent return on equity.

20          Q.     Please provide Dr. Morin's recommendation for Nova Scotia Power, Inc.

21          A.     On Page 131, Line 16 through Line 29 of the *Notice of Application and Direct*  
22 *Evidence of NSPI*, Dr. Morin states the following:

23                   In short, the integration and linkages between the U.S. and Canadian  
24 capital markets have greatly solidified in the last decade, and *U.S. data*

1            *are clearly relevant to both Canadian and U.S. investors.* Given the  
2            escalating degree of integration of the U.S. and Canadian capital  
3            markets, regulators should be even more cognizant of the allowed  
4            returns and allowed equity ratios for U.S. utilities. Allowed ROEs on  
5            comparable risk U.S. utilities are far more attractive than those allowed  
6            Canadian utilities; on average, they are about 150 basis points higher,  
7            averaging about 10.5 percent, while allowed common equity ratios are  
8            close to 50 percent in contrast to the 40 percent allowed Canadian  
9            utilities. Once more, the Company's request to retain the authorized  
10          ROE of 9.55 percent and deemed equity ratio of 37.5 percent pales in  
11          comparison to such benchmarks. (Emphasis supplied.)

12            It is interesting to note that Dr. Morin recommended an ROE of 9.55 percent for a  
13          company that had an equity ratio of 37.5 percent. Other things being equal, when the equity  
14          ratio increases, the required ROE decreases, because the equity holders face less risk. In the  
15          present case, Algonquin recommends an equity ratio of 58 percent. Accordingly, its required  
16          ROE should be less than it have to be if it had an equity ratio of only 40 percent, as is typical  
17          for Canadian companies, according to Dr. Morin.

18            Q.     How did Staff obtain this information?

19            A.     Staff hired Stephen G. Hill from Hill and Associates to sponsor rate-of-return  
20          testimony in the current AmerenUE Case (No. ER-2007-0002). Mr. Hill notified Staff that  
21          Dr. Morin had filed testimony that supported an ROE of 9.55 percent in a Canadian utility  
22          proceeding, *Notice of Application and Direct Evidence of NSPI* from the Nova Scotia Utility  
23          and Review Board, dated October 2006. Mr. Hill informed Staff that it could obtain  
24          Dr. Morin's testimony from Nova Scotia Power Inc.'s website [www.nspower.ca](http://www.nspower.ca).

25            Q.     Are you now recommending that the Commission adopt Mr. Loos' capital  
26          structure?

27            A.     No. I am not. I'm merely pointing out that Mr. Loos' statement that "the  
28          relative costs of capital are not materially different" between the U.S. and Canada. If so, his  
29          recommended ROE of 11.25 percent to 12.00 percent is severely overstated for a water utility

1 company, as compared to Dr. Morin's support for a ROE of 9.55 percent for a Canadian  
2 electric utility company.

3 Q. On Page 11, Line 10 through Line 13, Mr. Loos states, "Mr. Barnes combines  
4 a dividend yield based on market price (2.88%) with a growth term (5.18% to 6.18%) that is  
5 based on book measures. I develop dividend yield and growth terms on the basis of both  
6 book and market measures." Then on Page 12, Line 6 through Line 8, Mr. Loos states, "Thus  
7 by eliminating the classical mixing apples and oranges that Mr. Barnes relies upon in making  
8 his recommendation, I get a value within the relatively narrow range of 11.25% to 12.00%."  
9 How do you respond to these two statements?

10 A. Mr. Loos complains that I have mixed a term that is based on market values  
11 (the dividend yield) with a second term that is based on book values (the growth term). In his  
12 Direct testimony in this case, Mr. Loos said the following, at Page 31, Lines 19-23:

13 The [DCF] theory suggest (sic) that when an investor buys a stock, the  
14 investor expects a return derived from cash flows received in the form  
15 of dividends plus appreciation in market price (the expected growth  
16 rate). Thus the dividend (sic) yield on market price plus a growth rate  
17 equals the return on equity expected by investors.

18 In this testimony, he supported a "dividend yield on market price," just as I have. To  
19 this, he would add "a growth rate," specifically the appreciation in market price. My analysis  
20 also adds a growth rate, but relies primarily upon the historical and projected growth in  
21 earnings per share, which is a well-recognized proxy for the expected change in the stock's  
22 market value.

23 Q. Do you have any support for your claim that investors rely on historical and  
24 projected growth rates?

25 A. Yes. In his book, *The Cost of Capital - A Practitioner's Guide*,  
26 David C. Parcell states as follows, on Page 8-28:

1 Conroy and Harris (1987) found that analysts' forecasts were better  
2 predictors than historic growth over the very short term, but the  
3 advantage declined steadily over time. They conclude that  
4 combinations of analysts' forecasts and historic growth provide the best  
5 forecasting results. Avera and Fairchild (1982) and Newbolt, Zumwalt,  
6 and Kannan (1987) reached similar conclusions.

7 **SUMMARY AND CONCLUSIONS**

8 Q. Please summarize your conclusions.

9 A. Staff recommends that the Commission adopt its hypothetical capital  
10 structure, because it is similar to the capital structure of comparable water utility companies  
11 that operate in the U.S., as does AlgonquinMO. Algonquin's risks and uncertainties are  
12 similar to the risks and uncertainties that these comparable companies face. Mr. Loos does  
13 not provide any support that Staff's DCF and ROE recommendations are inappropriate to use  
14 in this proceeding. Nor does Mr. Loos provide any support for his claim that Canadian and  
15 U.S. financial markets are similar; he merely assumes that they are similar and that is one  
16 reason he chooses to use the capital structure of Algonquin's Canadian parent company.  
17 Finally, Mr. Loos does not rely on the *Hope* and *Bluefield* cases that provide legal framework  
18 for the Commission to determine a fair and reasonable rate-of-return for a company that  
19 operates in the *same general part of the country*, not Canada.

20 Staff believes that a ROE in the range of 8.06 percent to 9.06 percent and an overall  
21 rate of return in the range of 7.03 percent to 7.51 percent is just and reasonable for  
22 AlgonquinMO.

23 Q. Does this conclude your Surrebuttal testimony?

24 A. Yes it does.