BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities' Tariff Revisions Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Areas of the Company	)))))	**File No. GR-2014-0152**

REPORT AND ORDER

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weighted cost of each component of the utility's capital structure. The weighted cost of each capital component is calculated by multiplying its cost by a percentage expressing its proportion in the capital structure. Where possible, the cost used is the "embedded" or historical cost; however, in the case of common equity, the cost used is its estimated cost.

The Issues

I. Cost of capital

a. What capital structure should the Commission use in this case to determine a revenue requirement for Liberty?

Findings of Fact

4. Liberty's ultimate parent company is Algonquin Power & Utilities Corporation ("Algonquin"). One of Algonquin's business units is Liberty Utilities (Canada) Corp. ("LUC"), which owns 100% interest in Liberty Utilities Company ("LUCo"). Liberty, in turn, falls under Liberty Utilities Company. [44]

5. In the present case, Staff's recommended capital structure is the actual capital structure of Liberty's direct parent, LUCo. Liberty is part of a holding-company system; its book capital structure and capital costs are not a true reflection of the system's capital costs with respect to Liberty.[45]

6. LUCo is the entity that drives Liberty's cost of capital.[46]

7. Liberty does not have a credit rating.[47]

8. Liberty does not issue equity.[48]

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[44] Ex. 13, p. 3.
[45] Ex. 31, p. 4.
[46] Ex. 13, pp. 18-19.
[47] Id. at 16.
[48] Id. at 18-19.

9. Liberty does not issue long-term debt, and does not raise its own short-term debt.[49]

10. All of the items listed in paragraphs 7-9 above occur at the LUCo level.[50]

11. LUCo issues long-term debt to debt investors and issues equity indirectly to Algonquin. Then, it allocates portions of this capital to the operations that need capital at the time. Thus, Liberty's capital structure is an allocated capital structure or book capital structure.[51]

12. LUCo uses its internal finance department to manage and determine capital structures of its operations (including Liberty). Liberty's capital structure is an internally assigned capital structure that has no bearing on the cost of capital for Liberty.[52]

13. Liberty justifies using its book capital structure by noting Algonquin's actual capital structure is similar. However, Algonquin's operations are not similar to Liberty's; significantly, Algonquin's operations include both regulated and unregulated entities.[53]

14. DBRS (a Canadian credit rating agency) rates LUCo and APUC separately.[54]

15. DBRS gives LUCo a higher credit rating than Algonquin.[55]

16. A lower business risk subsidiary can issue more debt than the higher business risk subsidiary. Liberty's ratepayers should not have to pay an equity return on the higher equity ratio needed to offset Algonquin's higher business risk.[56]

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[49] Id. at 19.
[50] Ex. 31, p. 4.
[51] Id.
[52] Id. at 2.
[53] Ex. 13, p. 3.
[54] Ex. 32, p. 3.
[55] Id. at 4.
[56] Id. at 8.

Conclusions of Law

16. The Commission may disregard the actual book capital structure of a utility when it is deemed to be in the public interest to do so.[57]

17. There are two circumstances in which it is appropriate for the Commission to use a hypothetical capital structure.[58]

18. One circumstance is "when the utility's actual debt-equity ratio is deemed inefficient and unreasonable because it contains too much equity and not enough debt, necessitating an inflated rate of return."[59]

19. The second circumstance that justifies adopting a hypothetical construct occurs when the utility is part of a holding company system. In such situations, the utility's book capital structure and capital costs may not be a true reflection of the system's capital costs with respect to a particular operating company. Double leveraging represents one approach utilized by regulatory agencies to account for a utility's status as a subsidiary in a holding company system. Moreover, it is only the parent's alleged use of its low cost debt to purchase stock in its subsidiary that serves as the principle behind the application of double leveraging.[60]

Decision

The Commission finds this issue in favor of Staff. Liberty proposed a capital structure more like Algonquin's. But Algonquin's capital structure reflects its higher business risk due to its unregulated activities. Liberty, which is regulated, does not face the

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[57] State ex. rel. Associated Natural Gas Co. v. Public Service Com'n of Missouri, 706 S.W.2d 870, 878 (Mo.App. W.D. 1985).
[58] Id.
[59] Id.
[60] Id. at 878-79.

same business risk as Algonquin. Thus, Liberty should not be able to charge its Missouri ratepayers as if it needed a more equity rich capital structure like Algonquin's. Thus, the appropriate capital structure is that of Liberty Utility Company's structure, the company that issues debt and equity on behalf of Liberty.

b. What is the appropriate embedded cost of debt that the Commission should apply in this case to determine a revenue requirement for Liberty?

Findings of Fact

17. Liberty does not issue debt.[61]

18. Liberty proposes a 4.5% cost of debt, which is its assigned cost of debt through its parent companies.[62]

19. LUCo issues debt, and passes debt capital out to subsidiaries as needed.[63]

20. The debt and debt cost on Liberty's books are products of the debt allocation process LUCo performs for its United States operations.[64]

Conclusions of Law

There are no additional conclusions of law.

[61] Ex. 13, p. 18.
[62] Ex. 6NP, p. 46.
[63] Id., at 19.
[64] Id. at 21.

Decision

The Commission finds this issue in favor of Staff. Liberty proposed a 4.5% cost of debt, which is its assigned cost of debt through its parent companies. Having chosen Staff's capital structure, which is based on Liberty Utilities Company's capital structure, it follows that the appropriate cost of debt should be based upon Liberty Utilities Company's embedded cost of debt.

c. What is the appropriate cost of equity that the Commission should apply in this case to determine a revenue requirement for Liberty?

Findings of Fact

21. Mr. Zephania Marevangepo is Staff's return on equity witness.[65]

22. The midpoint of Mr. Marevangepo's recommended return on equity range is 8.7%, which would give Liberty a return on equity more than 60 basis points lower than any return on equity at any state Commission in at least 30 years.[66] Staff's testimony did not support such a low return on equity. Thus, the Commission does not find this testimony persuasive.

23. Liberty's cost of capital witness is Robert Hevert.[67]

24. Because all return on equity models are subject to various assumptions and constraints, equity analysts and investors tend use multiple methods to develop their return requirements. Mr. Hevert therefore appropriately relied on three widely-accepted approaches to develop his return on equity ("ROE") recommendation: (1) the Discounted

[65] Tr. 182.
[66] Ex. 6, p. 3.
[67] Ex. 5, p. 2.

Cash Flow ("DCF") model, including the Quarterly Growth, Constant Growth, and Multi-Stage forms; (2) the Capital Asset Pricing Model ("CAPM"); and (3) the Bond Yield Plus Risk Premium approach.[68]

25. Since the ROE is a market-based concept, and Liberty is not a publicly traded entity, it is necessary to establish a group of comparable publicly-traded companies to serve as its "proxy." Even if Liberty were a publicly traded entity, short-term events could bias its market value during a given period of time. A significant benefit of using a proxy group is that it serves to moderate the effects of anomalous, temporary events associated with any one company.[69]

26. To select his proxy group, Mr. Hevert began with the universe of companies that Value Line classifies as Electric or Natural Gas Utilities, which includes a group of 58 domestic U.S. utilities, and applied the following screening criteria:

- He excluded companies that do not consistently pay quarterly cash dividends;
- All of the companies in the proxy group have been covered by at least two utility industry equity analysts;
- All of the companies have investment 1 grade senior unsecured bond and/or corporate credit ratings from Standard & Poor's ("S&P");
- Companies with at least 60.00 percent of consolidated net operating income derived from regulated natural gas utility operations; and
- Companies currently known to be party to a merger, or other significant transaction were eliminated.[70]

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[68] Ex. 5, p. 3.
[69] Id. at 6.
[70] Id. at 7-8.

27. The companies that met Mr. Hevert's screening criteria, which the Commission finds Mr. Hevert chose appropriately, were:[71]

Company	Ticker
AGL Resources	GAS
Atmos Energy	ATO
Laclede Group	LG
New Jersey Resources	NJR
Northwest Natural Gas	NWN
Piedmont Natural Gas	PNY
South Jersey Industries	SJI
Southwest Gas	SWX
Washington Gas Light	WGL

28. After selecting his proxy group, Mr. Hevert used a Discounted Cash Flow model. The DCF approach is based on the theory that a stock's current price represents the present value of all expected future cash flows. In its simplest form, the DCF model expresses the Cost of Equity as the sum of the expected dividend yield and long-term growth rate.[72]

29. The DCF model assumes that the total return received by investors includes the dividend yield, and the rate of growth. Under the model's assumptions, the rate of growth equals the rate of capital appreciation. That is, the model assumes that the investor's return is the sum of the dividend yield and the increase in the stock price.[73]

30. However, most dividend-paying companies, including utilities, pay dividends on a quarterly (as opposed to an annual) basis. The yield component of the Quarterly Growth DCF model, therefore, accounts for the quarterly payment of dividends. Thus, the

[71] Id. at 8.
[72] Id. at. 11.
[73] Id. at 11.

Quarterly Growth DCF model incorporates investors' expectation of the quarterly payment of dividends, and the associated quarterly compounding of those dividends as they are reinvested at investors' required ROE.[74]

31. To calculate the expected dividends over the coming year for the proxy companies, Mr. Hevert obtained the last four paid quarterly dividends for each company, and multiplied them by one plus the growth rate. He also used three averaging periods to calculate an average stock price to ensure the model's results are not skewed by anomalous events.[75]

32. Earnings growth projections have a statistically significant relationship to stock valuation levels, while dividend growth rates do not. Investors form their investment decisions based on expectations of growth in earnings, not dividends. Consequently, earnings growth not dividend growth is the appropriate estimate for the purpose of the Constant Growth DCF model.[76]

33. Mr. Hevert's quarterly growth DCF results, which the Commission finds to be reasonable, are:[77]

	Mean Low	***Mean***	***Mean High***
30-Day Average	8.05%	9.29%	10.76%
90-Day Average	8.05%	9.28%	10.76%
180-Day Average	8.03%	9.26%	10.74%

34. Mr. Hevert also used a Constant Growth DCF model. The Constant Growth DCF model assumes: (1) a constant average annual growth rate for earnings and

[74] Id.
[75] Id.
[76] Id. at 15.
[77] Id. at 17.

dividends; (2) a stable dividend payout ratio; (3) a constant price-to-earnings multiple; and (4) a discount rate greater than the expected growth rate. Under those assumptions, dividends, earnings, book value, and the stock price all grow at the same, constant rate.[78]

35. Mr. Hevert used the same projected earnings per share growth rates and the retention growth estimate that he used in his Quarterly Growth DCF analysis.[79]

36. Mr. Hevert's constant growth DCF results, which the Commission finds to be reasonable, are:[80]

	Mean Low	***Mean***	***Mean High***
30-Day Average	7.93%	9.12%	10.55%
90-Day Average	7.92%	9.12%	10.55%
180-Day Average	7.90%	9.10%	10.53%

37. In order to address certain limiting assumptions underlying the Constant Growth form of the DCF model, Mr. Hevert also used the Multi-Stage (three-stage) DCF Model. The Multi-Stage model is an extension of the Constant Growth model. It allows the analyst to specify growth rates over three distinct stages. As with the Constant Growth model, the Multi-Stage form defines the Cost of Equity as the discount rate that sets the current price equal to the discounted value of future cash flows. Unlike the Constant Growth form, however, the Multi-Stage model must be solved in an iterative fashion.[81]

38. The Multi-Stage model sets the subject company's stock price equal to the present value of future cash flows received over three "stages". In the first two stages, "cash flows" are defined as projected dividends. In the third stage, "cash flows" equal both

[78] Id. at 17.
[79] Id. at 18.
[80] Id. at 19.
[81] Id.

dividends and the expected price at which the stock will be sold at the end of the period *(i.e.,* the "terminal price").[82]

39. Since the model provides the ability to specify near, intermediate and long-term growth rates, for example, it avoids the sometimes limiting assumption that the subject company will grow at the same, constant rate in perpetuity. In addition, by calculating the dividend as the product of earnings and the payout ratio, the model enables analysts to reflect assumptions regarding the timing and extent of changes in the payout ratio to reflect, for example, increases or decreases in expected capital spending, or transition from current payout levels to long-term expected levels.[83]

40. Mr. Hevert's multi-stage growth DCF results, which the Commission finds to be reasonable, are:[84]

	Mean Low	***Mean***	***Mean High***
30-Day Average	9.58%	9.92%	10.36%
90-Day Average	9.58%	9.91%	10.36%
180-Day Average	9.56%	9.89%	10.34%

41. Mr. Hevert also used a Capital Asset Pricing Model ("CAPM") analysis. This method of estimating the cost of equity uses a risk-free return plus a risk premium.[85]

42. Because utility assets represent long-term investments, Mr. Hevert used two different measures of the risk-free rate: the current 30-day average yield on 30-year Treasury bonds (3.87%), and the projected 30-year Treasury yield (4.15%).[86]

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[82] Id.
[83] Id. at 20-21.
[84] Id. at 19.
[85] Id. at 25.
[86] Id. at 27.

43. Due to recent economic conditions, such as the 2008 Lehman Brothers bankruptcy filing, Mr. Hevert used a forward-looking estimate of the market risk premium, rather than a historical average.[87]

44. Mr. Hevert's CAPM results, which the Commission finds to be reasonable, suggest a return on equity of 10.21 to 12.78%. A summary of his results are below:[88]

	Bloomberg Derived Market Risk Premium	*Value Line Derived Market Risk Premium*
Average Calculated Beta Coefficient		
Current 30-Year Treasury (3.87%)	12.50%	11.40%
Near Term Projected 30-Year Treasury (4.15%)	12.78%	11.68%
Average Bloomberg Beta Coefficient		
Current 30-Year Treasury (3.87%)	11.96%	10.93%
Near Term Projected 30-Year Treasury (4.15%)	12.24%	11.21%
Average Value Line Beta Coefficient		
Current 30-Year Treasury (3.87%)	11.14%	10.21%
Near Term Projected 30-Year Treasury (4.15%)	11.42%	10.49%

45. Mr. Hevert also employed a bond yield plus risk premium approach. It is based on the concept that equity holders' payments are subordinate to bondholders' payments, and, consequently, equity holders will require a premium to take on the risk of not being paid a return on investment.[89]

46. The results of Mr. Hevert's bond yield plus risk premium analysis, which the Commission finds to be reasonable, showed an estimated cost of equity between 10.19 and 10.69%.[90]

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[87] Id.
[88] Id. at 30-31.
[89] Id. at 31.
[90] Id. at 33-34.

47. Mr. Hevert's return on equity recommendation is 10.0% to 10.5%.[91]

Conclusions of Law

20. The Commission must estimate the cost of common equity capital. This is a difficult task, as academic commentators have recognized.[92] The United States Supreme Court, in two frequently cited decisions, has established the constitutional parameters that must guide the Commission in its task.[93] In the earlier of these cases, *Bluefield Water Works*, the Court stated that:

> Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the services are unjust, unreasonable and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment.[94]

21. In the same case, the Court provided the following guidance as to the return due to equity owners:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.[95]

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[91] Ex. 6, p. 3.

[92] C.F. Phillips, Jr., *The Regulation of Public Utilities*, 390 (1993); Goodman, 1 *The Process of Ratemaking*, *supra*, at 606.

[93] *Fed. Power Comm'n v. Hope Nat. Gas Co.*, 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed. 333 (1943); *Bluefield Water Works & Improv. Co. v. Pub. Serv. Comm'n of West Virginia*, 262 U.S. 679, 43 S.Ct. 675, 67 L.Ed. 1176 (1923).

[94] *Bluefield, supra,* 262 U.S. at 690, 43 S.Ct. at 678, 67 L.Ed. at 1181.

[95] *Id.*, 262 U.S. at 692-93, 43 S.Ct. at 679, 67 L.Ed. at 1182-1183.

22. The Court restated these principles in *Hope Natural Gas Company*, the later of the two cases:

> '[R]egulation does not insure that the business shall produce net revenues.' But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[96]

23. The Commission must draw primary guidance in the evaluation of the expert testimony from the Supreme Court's *Hope* and *Bluefield* decisions. Pursuant to those decisions, returns for Liberty's shareholders must be commensurate with returns in other enterprises with corresponding risks. Just and reasonable rates must include revenue sufficient to cover operating expenses, service debt and pay a dividend commensurate with the risk involved. The language of *Hope* and *Bluefield* unmistakably requires a *comparative method*, based on a quantification of risk.

24. Investor expectations are not the sole determiners of ROE under *Hope* and *Bluefield*; we must also look to the performance of other companies that are similar to Liberty in terms of risk. *Hope* and *Bluefield* also expressly refer to objective measures. The allowed return must be sufficient to ensure confidence in the financial integrity of the company in order to maintain its credit and attract necessary capital. By referring to confidence, the Court again emphasized risk.

25. The Commission cannot simply find a rate of return on equity that is "correct"; a "correct" rate does not exist. However, there are some numbers that the Commission can

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[96] *Hope Nat. Gas Co., supra,* 320 U.S. at 603, 64 S.Ct. 288, 88 L.Ed. 345 (citations omitted).

use as guideposts in establishing an appropriate return on equity. The Commission stated that it does not believe that its return on equity finding should "unthinkingly mirror the national average."[97] Nevertheless, the national average is an indicator of the capital market in which Liberty will have to compete for necessary capital.

26. The Commission has described a "zone of reasonableness" extending from 100 basis points above to 100 basis points below the recent national average of awarded ROEs to help the Commission evaluate ROE recommendations.[98] Because the evidence shows the recent national average ROE for gas utilities is 9.69%,[99] that "zone of reasonableness" for this case is 8.69% to 10.69%.

27. The Commission has wide latitude in setting an ROE within the zone of reasonableness.[100] The zone of reasonableness is simply a tool to help the Commission to evaluate the recommendations offered by various rate of return experts. It should not be taken as an absolute rule that would preclude consideration of recommendations that fall outside that zone.

28. In the final analysis, the method employed to estimate the cost of common equity is unimportant, as long as the result that is reached satisfies the constitutional requirements.[101]

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[97] *In re Missouri Gas Energy*, 12 Mo.P.S.C.3d 581, 593 (*Report and Order* issued September 21, 2004).
[98] *Id.*
[99] Ex. 6, p. 19.
[100] *State ex. rel. Public Counsel,* 274 S.W.3d at 574 (*citing In re Permian Basin Area Rate Cases*, 390 U.S. 747, 767, 88 S.Ct. 1344, 20 L.Ed.2d 312 (1968))("**courts are without authority** to set aside **any** rate selected by the Commission [that] is within a 'zone of reasonableness')(emphasis supplied).
[101] *State ex rel. Arkansas Power & Light Company v. Missouri Public Service Commission,* 736 S.W.2d 457, 462 (Mo.App., W.D. 1987); *State ex rel. Associated Natural Gas Company v. Public Service Commission of Missouri,* 706 S.W.2d 870, 879 (Mo.App., W.D. 1985).

Decision

The Commission finds this issue in favor of Liberty. The Commission will set the return on equity at 10.0%, which is the bottom of the range Liberty proposed.[102] Such a return on equity is commensurate with returns of other corporations with corresponding risks, will ensure confidence in the financial integrity of the company, and is near the midpoint of the above-mentioned zone of reasonableness.

II. Contract Customers[103]

a. Is Liberty currently authorized to enter into special contracts at non-tariffed rates with its customers in Missouri, such as Noranda and General Mills?

Findings of Fact

48. Liberty has a special contract in place with Noranda, which is in Liberty's SEMO Division.[104]

49. The Noranda contract pre-dates the 2000 Atmos acquisition of Associated Natural Gas and was in effect during the test year.[105]

50. Noranda has the option to bypass Liberty and interconnect with the interstate pipeline operated by Texas Eastern Transmission Company (TETCO). The special contract keeps Noranda from switching, and ultimately benefits Liberty's customers.[106]

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[102] Ex. 5, p. 3.
[103] Much of the evidence for this issue is Highly Confidential. This Report and Order does not contain any Highly Confidential evidence, although the evidence it cites is often Highly Confidential.
[104] Ex. 2, p. 17.
[105] Ex. 3, p. 3.
[106] Ex. 2, p. 18.