

Exhibit No.
Issue: Cost of Capital
Witness: Dr. S. Keith Berry
Type of Exhibit: Direct Testimony
Sponsoring Party: City of Kansas City
Case No.: HR-2011-0241

BEFORE THE PUBLIC SERVICE COMMISSION

STATE OF MISSOURI

DIRECT TESTIMONY

OF

DR. S. KEITH BERRY

CITY OF KANSAS CITY

SEPTEMBER, 2011

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Veolia Energy Kansas City, Inc.'s) File No. HR-2011-0241
Tariffs to Increase Rates) Tracking Nos. YH-2011-0532 and 0533

AFFIDAVIT OF S. KEITH BERRY

STATE OF ARKANSAS)
COUNTY OF Pulaski) ss.

I, Dr. S. Keith Berry, of lawful age, and being duly sworn, do hereby depose and state:

1. My name is Dr. S. Keith Berry. I am Professor of Economics and Business at Hendrix College in Conway, Arkansas. I am also a principal in the firm of Economic and Financial Consulting Group, Inc.

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

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my personal knowledge, information and belief.

Dr. S. Keith Berry
Dr. S. Keith Berry

Subscribed and sworn to before me, a Notary Public, this 23 day of August, 2011.

Robert Tankersley
Notary Public



1 **I. INTRODUCTION AND QUALIFICATIONS**

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. My name is S. Keith Berry and my business address is 1600 Washington Avenue,
4 Hendrix College, Conway, AR 72032.

5 Q. WHERE ARE YOU EMPLOYED?

6 A. My academic affiliation is Professor of Economics and Business at Hendrix College in
7 Conway, Arkansas. I am also a principal in the firm of Economic and Financial
8 Consulting Group, Inc.

9 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

10 A. I received my B.A. in mathematics from Hendrix College, and my Ph.D. in economics
11 from Vanderbilt University. I was an instructor in statistics at Vanderbilt in 1976-77 and
12 was an instructor/assistant professor at Hendrix College from 1977-79. In July 1979, I
13 joined the Staff of the Arkansas Public Service Commission as Manager of the Finance
14 Section. The primary responsibility of that Section was the preparation and presentation
15 of testimony concerning the cost of capital in utility rate cases. I assumed the duties of
16 Manager of both the Finance and Rate Sections in July 1980. I was promoted to Director
17 of Research and Policy Development in September 1986. Beginning in September 1989,
18 I returned to teaching at Hendrix College.

19
20 I have submitted testimony in more than seventy different proceedings before public
21 service commissions or other regulatory agencies, including testimony in the area of cost
22 of capital. My publications include articles in the *American Economic Review*, *Journal*
23 *of Regulatory Economics*, *Land Economics*, the *Energy Journal* (coauthor), the *Journal*

1 *of Economics and Business, The Quarterly Review of Economics and Business, The*
2 *Financial Review, the Eastern Economic Journal, Managerial and Decision Economics,*
3 *Public Choice, and the Review of Industrial Organization.* I have made presentations
4 concerning utility regulation and the cost of capital at the National Association of
5 Regulatory Utility Commissioners ("NARUC") Advanced Studies Program, the Eastern
6 NARUC Utility Rate Seminar, the Western NARUC Utility Rate Seminar, the National
7 Conference of Regulatory Utility Commission Engineers, and the Annual Conference of
8 the Institute of Public Utilities. While on the Staff of the Arkansas Public Service
9 Commission, I served on the NARUC Subcommittee on Electricity and the Research
10 Advisory Committee of the National Regulatory Research Institute (Deputy Chairman,
11 1988-89). I am currently a member of the American Economic Association and the
12 Southern Economic Association. A copy of my *Curriculum Vita* is provided in Exhibit__
13 (SKB-1).

14 Q. ON WHOSE BEHALF ARE YOU APPEARING?

15 A. I am appearing on behalf of the City of Kansas City.

17 **II. SUMMARY OF TESTIMONY**

18 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS
19 PROCEEDING?

20 A. I have been asked to evaluate the justness and reasonableness of the cost of capital, cost
21 of equity, and capital structure of Veolia Energy Kansas City, Inc. (Veolia).

22 Q. HAS THE STAFF OF THE COMMISSION SUBMITTED ITS OWN
23 RECOMMENDATIONS ON THESE ISSUES?

1 A. Yes. In the Staff's Report - Cost of Service - Revenue Requirement filed in this case on
2 August 8, 2011, Staff expert Zephania Marevangepo provided recommendations from his
3 capital structure and rate of return analyses as inputs to the revenue requirement
4 calculation and they appear as part of Accounting Schedule 12 in the Staff Report. His
5 findings are also in the Staff's Cost of Service section of the report. Mr. Marevangepo's
6 participation in this process is described in the written direct testimony of Staff witness
7 Cary G. Featherstone filed the same day. Having the benefit already of Mr.
8 Marevangepo's analysis I elected to use my direct testimony, rather than waiting until a
9 rebuttal round, as a means of evaluating Staff's position, and reaching recommendations.

10 Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

11 A. I agree that Mr. Marevangepo's recommendations are just and reasonable with two
12 exceptions. First, I recommend that the midpoint of his unadjusted cost of equity range,
13 8.3% (Staff Schedule 11-2), be used *without* an upward adjustment for allegedly higher
14 risk. Second, I recommend that the capital structure used should mirror his risk-
15 comparable sample, including a component for short-term debt (Staff Schedule 7). My
16 overall cost of capital is 6.41%, as shown in Exhibit__(SKB-2).

17
18 **III. CAPITAL STRUCTURE FOR VEOLIA**

19 Q. HOW DID YOU CALCULATE THE OVERALL RATE OF RETURN, OR
20 WEIGHTED AVERAGE COST OF CAPITAL?

21 A. I utilized the weighted average cost of capital approach wherein the various components'
22 capital costs are weighted by their proportions in the capital structure and then summed.

1 Q. WHAT CAPITAL COMPONENTS DID YOU EMPLOY?

2 A. Common equity, long-term debt, and short-term debt in the proportions of 49.341%,
3 38.567%, and 12.072%, respectively, as shown in Exhibit ____ (SKB-2).

4 Q. PLEASE EXPLAIN THE DETERMINATION OF THE RELATIVE PROPORTIONS
5 OF THESE CAPITAL COMPONENTS.

6 A. I used the same capital structure, as reflected in Staff's average capital structure for its
7 Risk-Comparable Proxy Group (Staff Schedule 7), with the exception that I excluded
8 preferred stock since it was such a small proportion and because only one company in the
9 seven-company sample had any preferred stock. Since this risk comparable proxy group
10 was used for determination of the cost of equity and cost of long-term debt it is important
11 for consistency to use the same capital structure. For some unexplained reason Staff
12 failed to include short-term debt in the capital structure of Veolia, although it is a
13 significant portion, approximately 12%, of the capitalization of the proxy group.
14 Although labeled "short-term debt" because of its short-term maturity, it is nevertheless
15 used on an ongoing basis by utilities to support the financing of the utility's rate base.
16 Consequently, it should be included in the capital structure.

17

18 **IV. COST OF LONG-TERM DEBT FOR VEOLIA**

19 Q. HOW DID YOU DETERMINE THE COST OF LONG-TERM DEBT FOR VEOLIA?

20 A. I used the same cost of long-term debt, 5.93%, as used by Staff.

21

22 **V. COST OF SHORT-TERM DEBT FOR VEOLIA**

23 Q. HOW DID YOU DETERMINE THE COST OF SHORT-TERM DEBT FOR VEOLIA?

1 A. I used the average of the three-month commercial paper rates for the six-month period
2 February, 2011 through July, 2011 as reported by the Federal Reserve. That average is
3 0.19% and is shown in Exhibit__(SKB-3).
4

5 **VI. COST OF EQUITY FOR VEOLIA**

6 Q. WHAT ARE THE FINANCIAL AND ECONOMIC TENETS USED IN ESTIMATING
7 A UTILITY'S COST OF EQUITY?

8 A. The cost of, or required return on, equity is a valid cost just as other more explicit
9 expenses incurred by the utility in the provision of utility service to ratepayers. The
10 difficulty with estimating the cost of equity is that it is nowhere explicitly stated in a
11 utility's accounts, and must be inferred from market data.
12

13 If the return allowed by the regulatory authority is set higher than the required return on
14 equity, then monopoly profits will inure to the benefit of the shareholders, at the expense
15 of customers. If the return is set too low, then the financial position of the shareholders
16 will be eroded and the utility will be unable to adequately attract necessary capital. When
17 the allowed return on equity is set equal to the cost of equity, stockholders will be given
18 the opportunity to earn a fair return on equity, which will also afford the utility the
19 opportunity to viably attract capital. Thus, from the perspective of balancing the interests
20 of ratepayers and shareholders, and simulating the competitive market model, a cost-
21 based allowed return on equity is a desirable goal. Note that in the case of the cost of
22 equity that is estimated with current data, the cost of equity is also the marginal cost of
23 equity. The decisions that consumers make will be based on those price signals, which

1 reflect the economic costs, including the marginal cost of equity, to society of providing
2 utility service. In that sense, an allowed return based on the cost of equity is
3 economically efficient.

4 Q. WHAT IS YOUR ESTIMATE OF THE COST OF EQUITY FOR VEOLIA?

5 A. I did not have the opportunity to perform a comprehensive analysis of the cost of equity
6 for Veolia. However, I have reviewed the analysis of Staff witness Marevangepo, and it
7 is my opinion that his unadjusted cost of equity range of 7.80% - 8.80% is reasonable
8 (Staff Schedule 11-2). However, Staff made an upward adjustment of 43 basis points to
9 that range to obtain a risk-adjusted range of 8.25% - 9.25%. I disagree with that
10 adjustment. Therefore my cost of equity recommendation is the unadjusted mid-point of
11 Staff's range of 8.30%.

12 Q. WHY DID STAFF MAKE THAT UPWARD ADJUSTMENT OF 43 BASIS POINTS?

13 A. Apparently, Staff made that adjustment because Veolia's ultimate parent company,
14 Veolia Environment, is rated BBB+, while the average bond rating of his risk-comparable
15 group is rated A (Staff Schedule 6). Staff presumes that this bond rating would also
16 apply to its subsidiaries, both regulated and unregulated, including Veolia.
17 Consequently, according to Staff's logic, Veolia is more risky than the risk-comparable
18 proxy sample and a 43 basis point upward adjustment to the cost of equity is appropriate.

19 Q. DO YOU AGREE WITH THE BASIS FOR THAT UPWARD ADJUSTMENT?

20 A. No, I do not. Staff developed the risk-comparable proxy group on the assumption that
21 that group is *comparable in risk to Veolia*. It is methodologically contradictory to develop
22 a proxy group comparable in risk to the subject utility, Veolia, and then turn around and
23 make some sort of risk adjustment. By definition a risk comparable proxy sample is

1 equivalent in risk to the subject utility, and concomitantly the estimated cost of equity of
2 the proxy group represents a reasonable estimate of the cost of equity of the subject
3 utility. In my opinion, no further adjustment is necessary.

4
5 Additionally, the ultimate parent company, Veolia Environment, has a wholly-owned
6 subsidiary, Veolia North American Holdings, Inc. (VENAH), which is also the parent of
7 Veolia. Veolia is a regulated utility, while much of VENAH's business activities are in
8 unregulated areas such as:

- 9 • combined heat and power/cogeneration;
- 10 • district energy (heating and cooling networks);
- 11 • facility operations and management;
- 12 • renewable energy;
- 13 • energy management and advisory services;
- 14 • engineering, electrical systems, automation, mechanical and boiler-making
15 services for steam production, cooling, compressed air, vacuum, and power
16 networks;
- 17 • facility operations and management solutions for thermal, electrical, and
18 mechanical equipment;
- 19 • upkeep, cleaning, security, and visitor reception;
- 20 • building management;
- 21 • building electricity and technical management heating and air conditioning
22 services; and

- industrial system maintenance, cleanroom management, sterilization, installation work, process maintenance, and urban lighting services.

VENAH also manages district and local heating or cooling in various European countries. It serves the sectors of education and research; government; healthcare; housing; industry; office building; retail, hotels, and leisure, and transport and telecommunications.

Veolia Environment is involved in unregulated activities such as:

- outsourced management of water and wastewater services;
- the design, build and operation of facilities for water and wastewater systems using a wide variety of technologies;
- delivering customized end-to-end solutions for efficient energy supply and use;
- management of heating networks and energy and fluid production plants;
- energy plant engineering and maintenance services;
- environmental and logistics services;
- pipe systems maintenance;
- urban cleaning services; and
- waste flow management.

Regulated utilities generally have less risk than unregulated companies. Consequently, Veolia has less risk than do VENAH's and Veolia Environment's unregulated businesses.

VENAH's BBB rating and Veolia Environment's BBB+ rating reflect the risks of those unregulated operations, and it is inappropriate to assume that Veolia, a regulated utility, has the higher risk associated with its parents. That higher parents' risk is reflective of the above-mentioned unregulated operations, not the lower risk associated with the regulated subsidiary Veolia. Thus, no upward adjustment should be made to the cost of equity for Staff's risk-comparable proxy sample.

Q. WHAT IS YOUR OVERALL COST OF CAPITAL RECOMMENDATION FOR VEOLIA IN THIS CASE?

A. My overall recommendation is 6.41% as shown in Table 1 below.

TABLE 1

COST OF CAPITAL FOR VEOLIA

Capital Component	Proportion	Cost	Weighted Cost
Common Equity	49.341%	8.30%	4.10%
Long-Term Debt	38.587%	5.93%	2.29%
Short-Term Debt	12.072%	0.19%	0.02%

OVERALL WEIGHTED COST OF CAPITAL = 6.41%

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.