

**Technical Proposal of  
Snively King Majoros & O'Connor, Inc.  
In Response to  
North Dakota Public Service Commission  
RFP Number: 408.06.11.003  
Montana-Dakota Utilities Company & Otter Tail Power Company  
Advance Determination of Prudence Application  
Case No. PU-11-163**

Snively King Majoros & O'Connor, Inc. ("Snively King") respectfully submits the following technical proposal in response to the Request for Proposal, dated June, 30 2011, by the North Dakota Public Service Commission. The solicitation by the North Dakota Public Service Commission requests the assistance of technical expert consulting services in the investigation and litigation of Montana-Dakota Utilities Company and Otter Tail Power Company's advanced determination of prudence application. The case is docketed with the North Dakota Public Service Commission in Case No. PU-11-163.

There are no conflicts of interest by Snively King or any of its staff that would inhibit in any way its representation of the North Dakota Public Service Commission in the forthcoming advance determination of prudence application. Snively King confirms that it will comply with all provisions of this RFP.

Please accept for filing the original and three (3) copies of Snively King's proposal and supporting documentation in the above-referenced matter. We have also submitted an electronic copy of the same.

**Offeror:**

Snively King Majoros & O'Connor, Inc.  
8100 Professional Place, Suite 306  
Landover, MD 20785

**Contact:**

Donna Jeffries  
8100 Professional Place, Suite 306  
Landover, MD 20785  
(202) 371-1111  
[djeffries@snively-king.com](mailto:djeffries@snively-king.com)

**Signature of Officer:** \_\_\_\_\_

**Dr. Karl R. Pavlovic, PhD.**



## **I. UNDERSTANDING THE PROJECT**

The Economic Regulation Division of the North Dakota Public Service Commission requires a thorough analysis of the advance determination of prudence applications submitted by Montanan-Dakota Utilities Company (“MDU”) and Otter Tail Power Company (“Otter Tail”) with expert written and oral testimony and assistance in the preparation of pre- and post-hearing submissions. The consultant selected in to provide these services will work with ratepayer advocacy staff in their representation of the interests of the ratepayers of MDU and Otter Tail with regard to the necessity and economic prudence of MDU and Otter Tail’s proposed air quality control system investment at their Big Stone Generating Station under NDCC Chapter 49-05-16, “Advance Determination of Prudence.”

Snaveley King staff members Michael Majoros and Karl Pavlovic are currently, on behalf of the Citizens’ Utility Rate Board, involved in a similar advanced determination case in Kansas Corporation Commission (“KCC”) Docket Number 11-KCPE-581-PRE, “In the Matter of the Petition of Kansas City Power & Light Company (“KCP&L”) for Determination of the Ratemaking Principles and Treatment that Will Apply to Recovery in Rates of the Cost to be Incurred by KCP&L for Certain Electric Generation Facilities Under K.S.A. 66-1239.”<sup>1</sup> The KCC proceeding involves the proposed installation of air quality control systems at KCP&L’s La Cygne Plant Units 1 and 2 in compliance with the Kansas Regional Haze State Implementation Plan currently pending approval by the US Environmental Protection Agency. Please see Attachment A for copies of Michael Majoros’ direct testimony and Karl Pavlovic’s direct and cross-answering testimonies regarding Docket Number 11-KCPE-581-PRE.

## **II. METHODOLOGY USED FOR THE PROJECT**

Snaveley King will perform an initial review and evaluation of the MDU-Otter Tail application and exhibits thereto and MDU’s 2011 Integrated Resource Plan to determine the reasonableness of (1) the alternatives considered, (2) the estimated construction and operating costs, (3) the planning scenarios analyzed, and (4) the modeling inputs and sensitivity analyses.

---

<sup>1</sup> K.S.A. 66-1239 is the Kansas Statute that deals with the “determination of the rate-making principles and treatment” that a public utility may seek “Prior to undertaking the construction of, or participation in, a generating facility or prior to entering into a new contract.”

Specifically with regard to control and alternative technologies Snavely King in consultation with an environmental engineer and appropriate EPA staff will evaluate the appropriateness of the proposed technology, the assumed performance of the technology, and the estimated costs.

With regard to resource and financial analyses Snavely King will determine whether an appropriate range of alternatives and planning scenarios have been considered, evaluate forecast inputs for reasonableness and bias, and evaluate the models' ability to identify and demonstrate substantive differences among the alternatives and scenarios considered. In the event that unreasonable or biased inputs and assumptions are identified, Snavely King will undertake to quantitatively estimate appropriate compensating adjustments to modeling and financial analysis results. Snavely King will also undertake to estimate ratepayer impacts under alternative discount rates.

In consultation with ratepayer advocacy staff, Snavely King will prepare a report identifying issues and analysis flaws, which will form the basis for additional analyses to be performed (if any), Snavely King's written and oral testimony and assistance on pre- and post-hearing hearing documents.

### **III. EXPERIENCE AND QUALIFICATIONS**

#### **A. Executive Summary**

Snavely King Majoros & O'Connor, Inc. ("Snavely King") was founded in 1970 as a consulting firm focusing on regulated utility and transportation industries. Most of its utility clients are state-funded consumer advocate agencies or commission staffs. Snavely King is proposing that Michael J. Majoros, Jr., and Karl R. Pavlovic be the principal consultants and expert witnesses regarding MDU-Otter Tail's Advanced Determination of Prudence Application. Mr. Majoros and Dr. Pavlovic have participated in numerous proceedings before the Public Service Commission of the District of Columbia. In addition, they have appeared as expert witnesses before the Federal Energy Regulatory Agency ("FERC") and a majority of the state regulatory commissions. The principal consultants will be assisted by the Snavely King's professional staff.

#### **B. Statement of Experience**

Snavely King was established by the late Carl M. Snavely, Jr. and Charles W. King in 1970 to conduct research on a consulting basis into the rates, costs, services and regulation of the utility and

transportation industries. Much of the firm's work has involved the preparation and submission of sworn testimony before state and federal regulatory agencies. Over the course of the firm's 40-year history, senior members of the firm have appeared in over 1,000 proceedings before almost all of the state commissions and all federal regulatory commissions that deal with the utility and transportation industries.

Most of Snavely King's representations before regulatory agencies have been on behalf of consumers of utility or transportation services. A large portion of the firm's electric utility-related representations has been on behalf of state-funded consumer advocate agencies. These agencies include the consumer advocate offices of California, Connecticut, the District of Columbia, Hawaii, Kentucky, Maryland, Michigan, Missouri, New Jersey, Pennsylvania, Tennessee, Utah, Washington, and West Virginia. Additionally, Snavely King has provided expert services to state commission staffs and other consumer groups.

Snavely King is one of the very few consulting firms representing consumers that are capable of evaluating the capital recovery (depreciation) programs associated with major utility investments. The firm's Snavely Comprehensive Investment Analysis System ("SCIAS") is a proprietary analytical tool that can identify and forecast the patterns of capital consumption of utility plant by FERC account and calculate with considerable precision the appropriate depreciation rates.

Snavely King is also one of the very few consulting firms with complete rate case capability, that is, the ability to provide expert analysis of all of the issues that conventionally arise in utility rate proceedings. Those issues include cost of capital, depreciation, accounting adjustments, cost allocation and rate design. Other issues within the purview of Snavely King's experts include utility mergers, fuel costs, integrated resource planning, load forecasting and financial viability analysis. Members of the firm have testified on all these issues.

### **C. Project Organization**

The project manager is responsible for the management, reporting, coordination and accountability for the entire project. The expert witnesses will report to the project manager and be responsible for the technical analysis for the project. The analytical support staff will handle all necessary tasks given them by either the project manager or expert witnesses.

## **D. Personnel Summary**

### **Project Manager**

Karl R. Pavlovic will be the project manager for this proposal.

### **Expert Witnesses**

Karl R. Pavlovic – Senior Consultant, with over 25 years' experience in issues relating to the operations, costs and revenues of gas and electric utilities, the impacts of restructuring wholesale and retail electric markets, the operation and competitiveness of petroleum and electric markets, the market valuation of crude oil, and electric and gas reliability.

Michael J Majoros, Jr. – President, with over 30 years' experience in issues relating to depreciation, utility accounting, revenue requirement calculation and other regulatory issues relating to gas and electric utilities, telecommunications companies, energy pipelines, and energy markets.

### **Analytical Support**

Kim Hillenbrand – Senior Consultant, will assist in the evaluation of the IRP and other financial modeling. Mr. Hillenbrand has extensive experience in computerized analysis of utility data, including cost of service models, rate of return, depreciation studies and financial statements.

Ed Christian – Consultant, will assist Mr. Majoros with analyzing issues relating to the revenue requirement.

James Garren – Analyst, will assist in data input, number checking, research and proofreading.

Mitch Semanik – Analyst, will assist in data input, number checking, research and proofreading.

**Estimated Work Hours**

<b>Name</b>	<b>Hours</b>
Michael J. Majoros	84
Karl R. Pavlovic	96
Analyst Engineer	34
Kim Hillenbrand	42
Ed Christian	42
James Garren	88
Mitch Semanik	88

**E. Resumes**

Please see Attachment B.

**IV. COST PROPOSAL**

**Estimated Labor Cost:**

<b>Name</b>	<b>Billing Rate</b>	<b>Hours</b>	<b>Fees</b>	<b>Expenses</b>	<b>Total</b>
Michael J. Majoros	\$ 202.35	84	\$ 16,997	0	\$ 16,997
Karl R. Pavlovic	\$ 202.35	96	\$ 19,426	0	\$ 19,426
Analyst Engineer	\$ 150.00	34	\$ 5,100	0	\$ 5,100
Kim Hillenbrand	\$ 132.87	42	\$ 5,581	0	\$ 5,581
Ed Christian	\$ 132.87	42	\$ 5,581	0	\$ 5,581
James Garren	\$ 57.07	88	\$ 5,022	0	\$ 5,022
Mitch Semanik	\$ 57.07	88	\$ 5,022	0	\$ 5,022
Total					\$ 62,728

Please see Attachment C for detailed Work Plan Budget.

**Other Costs:**

Supplies	\$ 0
Overhead	\$ 0
Travel	\$ 3,000
Other Pertinent Expenditures	\$ 0
<b>Total Labor and Other Costs:</b>	<b>\$65,728</b>

This proposed budget is based on Snavely King's GSA Schedule Rates which are subject to negotiated discount.

2011.06.03 14:09:13  
Kansas Corporation Commission  
/S/ Thomas A. Day

BEFORE THE CORPORATION COMMISSION  
OF THE STATE OF KANSAS



**'JUN 03 2011**

IN THE MATTER OF THE PETITION ]  
OF KANSAS CITY POWER AND LIGHT ]  
COMPANY FOR DERMINATION OF THE ]  
RATEMAKING PRINCIPLES AND ]  
TREATMENT THAT WILL APPLY TO THE ]  
RECOVERY IN RATES OF THE COST TO ]  
BE INCURRED BY KCP&L FOR CERTAIN ]  
ELECTRIC GENERATION FACILITIES ]  
UNDER K.S.A. 66-1239 ]

by  
State Corporation Commission  
of Kansas

KCC Docket No. 11-KCPE-581-PRE

DIRECT TESTIMONY OF  
KARL RICHARD PAVLOVIC

ON BEHALF OF  
THE CITIZENS' UTILITY RATEPAYER BOARD

PUBLIC VERSION

June 3, 2011

## TABLE OF CONTENTS

	Page
I. Introduction	3
II. Subject of Testimony	3
III. Qualifications	3
IV. Purpose of Testimony	5
V. Summary of Conclusions	6
VI. Resource Planning	7
A. Input and Procedural Flaws in KCPL's Resource Planning Analysis	9
B. Output Flaws in KCPL's Resource Planning Analysis	22
VII. Prudence	24
Appendix A Qualification	
Appendix B Projects and Appearances	
Appendix C Confidential Exhibits (Not Provided in Public Version)	
Exhibit 1 KCP&L Response to CURB 84 - CONFIDENTIAL	
Exhibit 2 KCP&L Response to CURB 68 and 73 and KCC 14 - CONFIDENTIAL	
Exhibit 3 Comparison of Forecast Natural Gas Differentials - CONFIDENTIAL	
Exhibit 4 Scenario Probability Distribution - CONFIDENTIAL	
Exhibit 5 KCP&L Response to CURB 80 - CONFIDENTIAL	
Exhibit 6 Impact of 25% Discount Rate - CONFIDENTIAL	
Exhibit 7 KCP&L Resource Plan NPVRRs - Descriptive Statistics - CONFIDENTIAL	
Exhibit 8 KCP&L Resource Plans - Distribution of Scenario NPVRRs - CONFIDENTIAL	
Exhibit 9 T-Test of Significance of KCP&L Resource Plan Analysis NPVRR Results - CONFIDENTIAL	

1 **I. INTRODUCTION**

2 **Q. Please state your name and summarize your position and qualifications.**

3 A. My name is Karl Richard Pavlovic. I am a Senior Consultant with Snavelly King Majoros &  
4 O'Connor, Inc. ("Snavelly King"), an economic consulting firm with offices at 8100  
5 Professional Place, Suite 306, Landover, Maryland 06877. Appendix A to my testimony is a  
6 brief description of my qualifications and experience. Appendix B contains a list of the  
7 regulatory projects and proceedings in which I have participated and/or made an appearance.  
8 I am submitting this testimony on behalf of the Citizens' Utility Ratepayer Board ("CURB").

9

10 **II. SUBJECT OF TESTIMONY**

11 **Q. What is the subject of your testimony?**

12 A. My testimony addresses (1) the results of my review of the Resource Planning Analysis  
13 Kansas City Power & Light ("KCP&L") has submitted in support of its predetermination  
14 petition in this docket and (2) my recommendation about whether the investment in the La  
15 Cygne station for which KCP&L seeks predetermination has been shown to be prudent.

16

17 **III. QUALIFICATIONS**

18 **Q. Please summarize your qualifications?**

19 A. I received undergraduate and graduate degrees in Philosophy from Yale College and Purdue  
20 University. By education and professional experience I have expertise in formal and  
21 mathematical logic, statistics, economics, financial analysis, econometrics, and computer

1 modeling. I have gained knowledge in the areas of commercial and industrial operations in  
2 the energy, transportation, and telecommunications industries and familiar with a wide range  
3 of experimental and investigative methods in science and engineering. For over 25 years I  
4 have served as a consultant on the economics of regulated industries to clients in the public  
5 and private sectors. In that capacity I have been responsible for the design and execution of  
6 statistical, economic and financial analyses of discrete commercial operations, individual  
7 firms, and industry sectors for use by management and counsel in formulating and  
8 implementing commercial and litigation strategy. In a number of cases, these analyses have  
9 been the basis for testimony by me or others in regulatory and court proceedings. My  
10 consulting assignments in the energy field have included analyses of crude oil and petroleum  
11 product markets, the operations and costs of petroleum pipelines, investigations of the  
12 operating and plant investment costs and least cost planning of electric and natural gas  
13 systems, and all aspects of the restructuring of electric markets.

14 **Q. Have you previously testified in regulatory proceedings?**

15 A. Yes. I have submitted testimony to the Federal Communications Commission, the Federal  
16 Energy Regulatory Commission, and the Public Service Commission of the District of  
17 Columbia.

1 **IV. PURPOSE OF TESTIMONY**

2 **Q. What is the purpose of your testimony?**

3 A. On February 23, 2011 Kansas City Power & Light Company (KCP&L”) applied to the  
4 Kansas Corporation Commission (“KCC”) for predetermination of the ratemaking principles  
5 and treatment that would apply to recovery in rates of \$1.23 billion of environmental retrofit  
6 expenditures at its La Cygne power plant. In its petition KCP&L specifically requests that  
7 KCC issue an order finding, *inter alia*:

- 8 • “that KCP&L’s decision to construct and install the La Cygne Environmental Project,  
9 i.e., wet scrubber, baghouses, and a common chimney for both La Cygne Units 1 and  
10 2, and an SCR, low-NO<sub>x</sub> burners and an OFA system for Unit 2, is reasonable,  
11 reliable, efficient and prudent” and  
12 • “that 1.23 billion (total project, excluding AFUDC and property taxes) is a  
13 reasonable and prudent cost to construct and install the La Cygne Environmental  
14 Project.”<sup>1</sup>

15 With regard to the questions of reasonableness, reliability, efficiency and prudence, KCP&L  
16 witness Giles asserts that the results of the Resource Planning Analysis described and  
17 presented in the Direct Testimony of KCP&L witness Crawford show that the La Cygne  
18 Environmental Project is the most cost-effective alternative to continue to meet KCP&L’s  
19 customer’s needs.<sup>2</sup> CURB retained Snavely King to evaluate the Resource Planning Analysis

---

1. Petition at 7.  
2. Giles at 13.

1 and, if possible, verify that the analysis in fact demonstrates that the La Cygne Environmental  
2 Project is reasonable, reliable, efficient and prudent.

3  
4 **V. SUMMARY OF CONCLUSIONS**

5 **Q. What are your conclusions and recommendations?**

6 A. I conclude that KCP&L's Resource Planning Analysis is not reasonable and fails to  
7 conclusively demonstrate that the proposed La Cygne Environmental Project is prudent. My  
8 recommendation is that the Commission find the La Cygne Environmental Project as  
9 presented in KCP&L's petition has not, at this time, been shown to be reasonable and  
10 prudent and that the Commission deny KCP&L's petition. Specifically, I find that:

- 11 • The analysis does not demonstrate conclusively that the La Cygne Environmental  
12 Project is the least cost method of meeting customer demand.
- 13 • The analysis does not consider the full range of possible dispositions of La Cygne  
14 Units 1 and 2 and is therefore incomplete.
- 15 • The analysis contains forecasts with an assumed fuel cost differential that is  
16 unreasonable and biased in favor of coal-fired generation and the La Cygne  
17 Environmental Project.
- 18 • The analysis uses an erroneous procedure to estimate scenario probabilities which,  
19 exacerbates the fuel cost differential bias.
- 20 • The analysis uses a discount rate that fails to take account of its customers cost of  
21 money.

- 1           •       There is no statistically significant difference between the NPVRR's for the resource  
2                   plans presented by KCP&L in support of its petition. Therefore, KCP&L is unable to  
3                   conclusively demonstrate, and the Commission is unable to conclusively determine  
4                   that the La Cygne Environmental Project is the least cost method of meeting  
5                   customer demand.

6  
7   **VI.   Resource Planning**

8   **Q.    What is the purpose of a resource planning analysis?**

9   A.    Generically, utilities routinely conduct resource planning analyses in order to select an  
10           overall plan of operation for the utility for a future period that usually spans several decades.

11           The analysis tries to take into account all aspects of the utility's operation and the future  
12           conditions that will impact that operation. The primary focus of the analysis is to determine  
13           the mix of generation resources that will meet the demand for electricity at the lowest cost to  
14           its customers.

15   **Q.    How does a resource planning analysis do this?**

16   A.    Conceptually, there are four steps or phases to a resource planning analysis: (1) development  
17           of forecasts of future demand and costs, (2) selection of the resource plans to be analyzed, (3)  
18           calculation of the costs of the resource plans selected, and (4) evaluation and selection of a  
19           resource plan. The engine of a resource planning analysis is a mathematical model that  
20           simulates the operation of the utility's generation, transmission and distribution facilities.  
21           Such models are referred to generically as "production cost" models. Forecasts of future

1 customer demand, facility unit operation and unit construction costs, financial parameters,  
2 and a schedule of generation sources, i.e., a resource plan, are input to the model. The model  
3 then optimizes the dispatch of the generation resources to meet the forecasted demand and  
4 calculates total costs as an overall revenue requirement for each of the future years covered in  
5 the analysis.

6 **Q. Does KCP&L's Resource Planning Analysis follow the steps you outlined?**

7 A. Yes. KCP&L witness Crawford characterizes the KCP&L analysis as consisting of two  
8 steps,<sup>3</sup> but the process he describes is consistent with the process I just described and the  
9 workpaper discovery I examined confirmed this fact.

10 **Q. Are there guidelines or standards for conducting a resource planning analysis?**

11 A. Some jurisdictions incorporate by statute or regulation guidelines or standards for the  
12 conduct of a resource planning analysis. Kansas does not.

13 **Q. Did KCP&L follow any guidelines or standards in its analysis?**

14 A. Yes. KCP&L witness Crawford states that KCP&L's analysis was conducted in  
15 conformance with Missouri ERP rules set forth in Missouri Rule CSR 240 Chapter 22.<sup>4</sup> My  
16 examination of workpaper discovery found that KCP&L's analysis was in fact conducted in  
17 conformance with the Missouri ERP rules.

18 **Q. What production cost model did KCP&L use in its analysis?**

19 A. KCP&L used a production cost model called MIDAS<sup>TM</sup> ("model").<sup>5</sup>

---

3. Crawford at 4-5.  
4. Crawford at 4.  
5. Crawford at 5.

1 **Q. How did you conduct your evaluation of KCP&L's Resource Planning Analysis?**

2 A. I submitted data requests requesting, *inter alia*, all workpapers showing the development of  
3 the forecast inputs to the model including the resource plans analyzed, the documentation for  
4 the model, and all input and output reports generated by the model. I also asked a number of  
5 specific questions regarding KCP&L's interpretation and evaluation of the model results.  
6 KCP&L was forthcoming in their responses to all of these data requests. I used this  
7 information and my expertise to assess each of the four steps of the analysis for  
8 reasonableness and bias.

9  
10 **A. Input and Procedural Flaws in KCPL's Resource Planning Analysis**

11 **Q. In your evaluation did you find any flaws in KCP&L's resource planning analysis?**

12 A. Yes. I found several flaws in the inputs and procedures used by KCP&L.

13 **Q. What did you determine with regard to KCP&L's development of the forecast inputs in  
14 its analysis?**

15 A. There are six forecast inputs used in KCP&L's analysis: (1) technology costs, (2) price  
16 forecasts for coal, natural gas, CO<sub>2</sub>, (3) energy efficiency and demand side management  
17 ("EE/DSM") forecasts, (4) construction cost forecasts, (5) demand/load forecasts, and (6)  
18 interest/finance forecasts. Because the procedure KCP&L uses to evaluate the model results  
19 for the resource plans requires a range of forecasts, KCP&L developed base, high and low  
20 forecasts for coal, natural gas, CO<sub>2</sub>, construction costs, and load, and base and high forecasts  
21 for interest and finance. I found these forecast inputs in and of themselves to be reasonable.

1           However, as I discuss below, the price forecasts for natural gas and coal, when taken  
2           together, create bias in the analysis that favors the proposed retrofit of La Cygne.

3           **Q.    What did you determine with regard to KCP&L's development of the resource plans**  
4           **used in its analysis?**

5           A.    KCP&L developed and analyzed fourteen resource plans, which reflect various permutations  
6           of environmental retrofit of its coal-fired generation versus replacement with gas-fired  
7           combustion turbines or combined cycle units. In four of the resource plans, both La Cygne  
8           Units 1 and 2 are retired and replaced with gas-fired generation. In two of the resource plans,  
9           both La Cygne Units 1 and 2 are retired and replaced with coal-fired generation. In five of  
10          the resource plans, both La Cygne Units 1 and 2 are environmentally retrofitted. In two of  
11          the resource plans, La Cygne Unit 1 is retrofitted and Unit 2 is replaced with gas-fired  
12          generation. In two of the plans, La Cygne Unit 2 is retrofitted and Unit 1 is replaced with  
13          gas-fired generation.

14          **Q.    Did KCP&L leave out any important resource plans from the perspective of its petition**  
15          **for predetermination?**

16          A.    None of the fifteen resource plans considers either (1) retirement of La Cygne Units 1 and 2  
17          and replacement with purchased power or (2) delayed implementation of the environmental  
18          retrofit of La Cygne Units 1 and 2. The issue posed by KCP&L's petition is not the  
19          disposition of its facilities taken as a whole, but rather the disposition of La Cygne Units 1  
20          and 2 and which potential disposition is the reasonable, reliable, efficient and prudent

1 disposition. A reasonable and to-the-point analysis would have analyzed the full range of  
2 potential dispositions.

3 **Q. Have you determined what the result of adding resource plans reflecting retirement  
4 and purchased power replacement and delayed implementation of the environmental  
5 retrofit would be?**

6 A. No. I do not have access to the model and only by running those resource plans through the  
7 model can their impact be determined.

8 **Q. What did you determine with regard to calculation of the annual revenue requirements  
9 associated with the selected resource plans?**

10 A. I do not have access to the model and I have not been able to either examine or test the  
11 algorithms in the model. My examination of the model documentation and the model reports  
12 provided by KCP&L gives me no reason to doubt that the model is correctly calculating the  
13 annual revenue requirements of the resource plans analyzed. It does appear, however, that  
14 the model does not generate a report showing the inputs for a given resource plan. This is a  
15 serious deficiency, since it means that there is no means of confirming the inputs have been  
16 correctly entered into the model.

17 **Q. How does the model evaluate the annual revenue requirements of the resource plans  
18 considered in the analysis?**

19 A. The model evaluates the model results, i.e., the annual revenue requirement calculations,  
20 using a second separate module within the MIDAS model that is referred to in the MIDAS  
21 documentation as the “Decision Framework.” The Decision Framework evaluates each of

1 the resource plans under a set of scenarios, referred to as the “Risk Tree.” The Risk Tree  
2 represents a measure of the uncertainty of the forecasts for critical inputs – in KCP&L’s  
3 analysis the critical inputs are the forecasts for coal prices, natural gas prices, CO<sub>2</sub> prices,  
4 construction costs, demand, and interest/finance parameters.<sup>6</sup> The Risk Tree used in  
5 KCP&L’s Resource Planning Analysis is shown graphically in Confidential Schedule  
6 BLC2011-10 and consists of 64 scenarios. Each scenario represents a unique combination of  
7 the base, high and low forecasts for the forecast inputs with a probability assigned to each  
8 base, high and low input and a scenario probability calculated from the assigned input  
9 probabilities. In KCP&L’s analysis, the model calculates the annual revenue requirement  
10 stream under each scenario for each resource plan. The 64 scenario driven revenue  
11 requirement streams are then each discounted to calculate a single net present value of the  
12 revenue requirement (“NPVRR”) for each scenario. A single probability-weighted NPVRR  
13 for each resource plan is then calculated by applying the 64 scenario probabilities to the  
14 resource plan’s 64 scenario NPVRRs. Finally, the resource plan that has the lowest  
15 probability-weighted NPVRR is selected as, in KCP&L witness Crawford’s words, “[t]he  
16 plan that ... shows the greatest potential of cost effectiveness over a wide range of future  
17 risks.”<sup>7</sup>

18 **Q. How does determining the plan with greatest potential for cost effectiveness over a wide**  
19 **range of future risks demonstrate that the La Cygne Environmental Project is the most**  
20 **cost effective alternative for La Cygne?**

---

6. Crawford at 6.

1 A. In KCP&L’s analysis, the resource plan with the lowest weighted NPVRR, KP05B “Retire  
2 Montrose – CC Replace,” includes the Retrofits of La Cygne Units 1 and 2.<sup>8</sup> The resource  
3 plans that include the alternative dispositions of La Cygne (i.e., retrofit of one unit and  
4 replacement with a gas-fired units and replacement of both units with either natural gas or  
5 coal-fired units) all have higher NPVRRs.<sup>9</sup> On the assumption that all possible dispositions  
6 of La Cygne are represented in the resource plans considered in the analysis, the La Cygne  
7 retrofit’s presence in the lowest NPVRR would demonstrate that the La Cygne  
8 Environmental Project is the most cost effective alternative to meet KCP&L’s customer  
9 demand.

10 **Q. Does KCP&L’s Resource Planning Analysis in fact demonstrate that 1) resource plan**  
11 **KP05B shows the greatest potential of cost effectiveness, and 2) demonstrate that the La**  
12 **Cygne Environmental Project is the most cost effective alternative to meet KCP&L’s**  
13 **customer demand?**

14 A. No. Because the evaluation and selection process does not produce a reasonable and  
15 unbiased estimate of the total cost of the alternative resource plans considered in the analysis  
16 and because the analysis does not produce results that are distinguishable from each other,  
17 KCP&L’s analysis does not demonstrate either of those two propositions.

18 **Q. Why does the evaluation and selection process used by KCPL not produce reasonable**  
19 **and unbiased estimates of the total cost of the resource plans?**

---

7. Crawford at 7.

8. See Exhibit 1 - KCP&L response to CURB 84.

9. Crawford, Schedule BLC2011-12.

1 A. The scenario probability weightings and the discount rate used by KCP&L are both  
2 unreasonable and biased.

3 **Q. Explain why the probability weightings used by KCP&L are unreasonable and biased?**

4 A. The goal of the probability weighting process is to produce an estimate of the most likely  
5 total cost of the resource plan by weighting the individual scenario NPVRRs by the  
6 probability of each scenario's occurrence. If the scenario probabilities reflect reasonable  
7 estimates of the probability of each scenario's occurrence, then the weighted NPVRR will  
8 represent a reasonable estimate of the likely total cost of resource plan. The probabilities  
9 assigned to the scenarios by KCP&L, however, are not reasonable.

10 **Q. How did KCP&L select and assign probabilities to the scenarios?**

11 A. KCP&L explained the process of assignment and selection in response to data requests from  
12 CURB and Staff.<sup>10</sup> KCP&L takes the six input forecasts I discussed earlier for which  
13 KCP&L developed base, high and low forecasts to be "critical uncertainties:" coal prices,  
14 natural gas prices, CO<sub>2</sub> prices, construction costs, demand, and interest/finance parameters.  
15 For the five uncertain inputs for which base, high and low forecasts were developed (i.e.,  
16 coal prices, natural gas prices, CO<sub>2</sub> prices, construction costs, and load growth), KCP&L  
17 assigned independent probabilities of 50% to the base forecast and 25% to each of the high  
18 and low forecasts. For the uncertain input interest/finance, for which only base and high  
19 forecasts were developed, KCP&L assigned independent probabilities of 67% to the base  
20 forecast and 33% to the high forecast. KCP&L then compiled 486 possible scenarios

1 representing all possible permutations of the base, high and low forecast for the uncertain  
2 inputs and calculated the independent probability of each scenario by calculating the product  
3 of the probabilities, e.g., Coal high 25% times gas low 25 % times CO<sub>2</sub> base 50% times load  
4 growth base 50% times construction cost high 25% times interest/finance base 67% =  
5 0.3906%. Next, KCP&L eliminated all possible scenarios with a calculated probability of  
6 less than 0.5%, but retained the two extreme scenarios (all high forecasts and all low and  
7 base interest/finance) which have probabilities of less than 0.5%. This produced a total of 64  
8 scenarios. Finally, the probabilities of the 64 scenarios were normalized to produce a set of  
9 what KCP&L incorrectly refers to as ‘conditional’ probabilities summing to 100%.<sup>11</sup> (See  
10 Confidential Schedule BLC2011-10)

11 **Q. Is this a reasonable procedure for developing and assigning probabilities to the 64**  
12 **scenarios?**

13 A. No. The principle error is the assumption that the probabilities of the individual critical  
14 factors in each scenario are independent. Only on that false assumption is it reasonable to  
15 calculate the product of the individual factor probabilities (base, high and low) as an estimate  
16 of the probability of the scenario that comprises those probabilities. The six critical  
17 uncertainties used by KCP&L are all economic factors or variables and, being linked via the  
18 regional and global economies, economic variables are rarely if ever truly independent of  
19 each other. KCP&L’s procedure assumes, contrary to fact, complete independence.

---

10 See Exhibit 2 - KCP&L responses to CURB 68 and 73 and KCC 14.

11. KCP&L provided in response to CURB 68 a spreadsheet showing the development of these ‘conditional’ probabilities, “Q68 - CURB\_20110331-68-Att-CURB\_DR68\_DDecisionTree.xls.”

1 **Q. Please give an example.**

2 A. Natural gas and coal prices are an excellent and thoroughly apposite example. It is true that,  
3 as KCP&L witness Blunk notes in his testimony, the short term fundamentals of natural gas  
4 are different from those of coal, resulting in natural gas prices being much more volatile than  
5 coal prices. There is over the medium to long-term, however, a market relationship between  
6 the demand and supply of both coal and natural gas. The mechanism of this relationship is  
7 fairly straightforward. The major portion of the demand for boiler coal and a large portion of  
8 the demand for natural gas come from the electric utility sector. Long-term demand for the  
9 two fuels is determined by individual utility decisions whether to construct coal-fired  
10 generators or gas-fired generators. Short-term to medium-term demand is determined by  
11 individual utility decisions to dispatch gas- or coal-fired generation. Both sets of decisions  
12 are made largely on the basis of the price differential between natural gas and coal. I say  
13 largely because, in those parts of the country that face air-quality challenges, the dispatch  
14 decision is also made on that basis, with coal generation at times cut-back and gas generation  
15 increased so as not to exceed governing air-quality standards. The common link between the  
16 price and demand for coal and the price and demand for natural gas in the utility sector acts  
17 as a check on the price differential between coal and natural gas. The Energy Information  
18 Administration (“EIA”) of the Department of Energy forecasts delivered gas and coal prices  
19 using the National Energy Modeling System (“NEMS”), which models, inter alia, the  
20 demand links I just discussed. As can be seen in Exhibit 3 of my testimony, EIA’s 2011  
21 Reference Case forecasts of the delivered prices for natural gas and coal show that for 2011

1 the price for natural gas is 1.9 times the price for coal on an mMBtu basis. For 2020 the EIA  
2 forecast is for natural gas to be 2.2 times the price of coal, for 2030 2.7 times the price of  
3 coal, and for 2034 2.8 times the price of coal.

4 **Q. How do the natural gas and coal forecasts KCP&L used in its Resource Planning**  
5 **Analysis compare with EIA's forecast?**

6 A. As can be seen in Exhibit 3 of my testimony, KCP&L's base forecast for natural gas and coal  
7 assume natural gas prices that, compared to EIA's 1.9, 2.2, 2.7, and 2.9, are 2.3, 3.3, 4.3 and  
8 4.7 times that of coal. KCP&L's high forecast for natural gas versus its base, high and low  
9 coal forecasts assume even higher differentials: approximately 4 times coal in 2020,  
10 approximately 6.5 times in 2030 and approximately 8 times in 2034.

11 **Q. Why is there such a great discrepancy between KCP&L's base forecast and EIA's**  
12 **Reference Case forecast?**

13 A. To develop its base case forecasts, KCP&L takes the simple average of forecasts from a  
14 number of sources. For natural gas, KCP&L uses forecasts from CERA, EVA, EIA, Global  
15 Insight and PIRA; for coal KCP&L uses forecasts from EVA, EIA, JD Energy and Wood  
16 McKenzie.<sup>12</sup> For natural gas only two out of five forecast sources overlap with the coal  
17 forecast sources and for coal only two out of four overlap with the natural gas forecast  
18 sources. Had the CERA, PIRA and Global Insight forecasts of coal and Wood McKenzie  
19 and JD Energy forecasts for natural gas been included in the development of the base

---

12. Blunk at 5.

1 forecasts for natural gas and coal the discrepancy between the KCP&L forecasts and the EIA  
2 forecasts would likely have been less.

3 **Q. Why is this important?**

4 A. It is important for two reasons. First, KCP&L's Resource Planning Analysis analyzes 14  
5 resource plans that differ only with regard to the mix of coal fired and gas-fired generation.  
6 The simple test of comparing KCP&L's base forecast differentials to EIA's Reference Case  
7 forecast differentials indicates that KCP&L's forecasts are biased on a fuel cost basis in favor  
8 of coal-fired generation. Second, the way in which KCP&L developed the 64 scenarios  
9 further exacerbates this bias

10 **Q. How does the way KCP&L developed the 64 scenarios further exacerbate the bias?**

11 A. The market mechanism I discussed earlier acts to hold down the price differential between  
12 natural gas and coal. This means that the probability of price combinations that produce a  
13 low price differential should be higher than the probability of price combinations that  
14 produce high differentials – the probability distribution should be left skewed. However,  
15 KCP&L's procedure gives equal probability to the various combinations of natural gas and  
16 coal prices. For example, in Exhibit 4 to my testimony it can be seen that KCP&L gives  
17 equal probability, 0.6% , to both a high price differential (i.e., the case of high gas price and  
18 low coal price) and a low price differential (i.e., the case of a low gas price and high coal  
19 price). Because the high differential advantages coal and is less likely than a low differential,  
20 giving the high differential a weight equal to that of a low differential further advantages  
21 coal.

1 **Q. Is the method of discounting revenues and expenses in KCP&L's NPVRR analysis also**  
2 **unreasonable and biased?**

3 A. Yes. KCP&L's analysis is biased in two ways. The first way is inherent in the discounting  
4 procedure. Discounting is a standard way of reducing a stream of future expenses or  
5 revenues to a single number that can be used for purposes of comparison to a similarly  
6 discounted but different stream of future expenses or revenues in order to choose between the  
7 two alternative courses of action that produce the two streams. It is also commonly  
8 understood that discounting places a greater weight on near-term expenses and revenues over  
9 the more distant ones – that the procedure is biased against up-front expenses and biased  
10 towards up-front revenues. In the context of utility least-cost resource planning, this bias has  
11 traditionally been an issue in the comparison between construction of gas-fired plants and  
12 coal-fired plants. It has manifested itself in a bias in favor of gas-fired plants which have  
13 lower up-front costs than coal-fired plants. In this case, however, where new gas-fired  
14 construction is being compared to retrofit of existing coal-fired plants, the bias is in favor of  
15 coal-fired plants because the up-front costs of coal-retrofit are less than the up-front costs of  
16 new gas-fired construction.

17 **Q. What is the second way in which KCP&L's methodology for discounting revenues and**  
18 **expenses in its analysis biased?**

19 A. The actual discount rate used in the analysis determines the magnitude of the inherent bias in  
20 discounting that I just discussed. A lower discount rate results in a lower the bias towards  
21 present dollars because future dollars are discounted less and therefore represent a higher

1 proportion of the total dollars. A higher discount rate results in a higher bias towards present  
2 dollars because the future dollars are discounted more and therefore represent a smaller  
3 proportion of the total. In this case, KCPL uses a low discount rate which magnifies the fuel  
4 cost bias which is greatest in the later years of the forecast period.

5 **Q. What discount rate did KCP&L use in its analysis?**

6 A. KCP&L used a discount rate of **\*\*\*Begin CONFIDENTIAL [REDACTED] End**  
7 **CONFIDENTIAL\*\*\***. This is a low discount rate of an order of magnitude appropriate for  
8 the cost of money of a large corporate enterprise like KCP&L. In its analysis, KCP&L made  
9 the following cost of capital assumptions in its base interest/finance forecast: preferred stock  
10 dividend yield – **\*\*\*Begin CONFIDENTIAL [REDACTED] End CONFIDENTIAL\*\*\***, short-term  
11 debt interest rate – **\*\*\*Begin CONFIDENTIAL [REDACTED] End CONFIDENTIAL\*\*\***, and long-  
12 term debt interest rate – **\*\*\*Begin CONFIDENTIAL [REDACTED] End CONFIDENTIAL\*\*\***. In  
13 its high interest/finance forecast it assumed short term debt at **\*\*\*Begin CONFIDENTIAL**  
14 **[REDACTED] End CONFIDENTIAL\*\*\*** and long-term debt at **\*\*\*Begin CONFIDENTIAL [REDACTED]**  
15 **End CONFIDENTIAL\*\*\***.<sup>13</sup>

16 **Q. Should KCP&L have used a higher discount rate?**

17 A. Yes. The discount rate bias is in fact a virtue when the discount rate accurately estimates the  
18 cost of money of the decision maker. From an economic standpoint, future dollars are worth  
19 less and should be discounted using the cost of money of the person on whose behalf the  
20 comparison and decision is being made. As Mr. Majoros explains in his testimony, the cost

1 of money for most of KCP&L's customers is much higher than the cost of money for  
2 KCP&L as a corporate entity. Because the cost of the La Cygne Environmental Project will  
3 be borne by KCP&L's customers, in its discounting of the scenario NPVRRs, KCP&L  
4 should have used a discount rate reflecting its customers' higher cost of money.

5 **Q. What would be the impact of using a higher discount rate reflecting KCP&L's**  
6 **customers' higher cost of money?**

7 A. The NPVRR differential between the resource plans that include retrofit of La Cygne and the  
8 resource plans that include gas replacement of one or both of La Cygne Units 1 and 2 would  
9 decrease. In effect, using a higher customer based discount rate would counteract some of  
10 the price-differential, probability-weighting and discounting bias inherent in the KCP&L  
11 methodology, as I discussed above. The differentials could even reverse.

12 **Q. Did you evaluate whether using a higher discount rate does in fact reverse the NPVRR**  
13 **differential between certain resource plans?**

14 A. Yes. In Exhibit 6 to my testimony, I applied a discount rate of 25% to all the scenarios of all  
15 the resource plans in KCP&L's analysis and found that it did reverse the NPVRR differential  
16 between resource plan KP05B and resource plans KP03A – "Retire L2 – CT Replace" and  
17 KP03B – "Retire L2 – CC Replace," which became the lowest and second lowest NPVRR  
18 plans. Without the natural gas/coal price differential bias, the reversal would occur at a  
19 significantly lower discount rate.  
20

---

13. See Exhibit 5 – KCP&L response to CURB 80.

1 **Q. What is your conclusion regarding KCP&L's Resource Planning Analysis?**

2 A. Based on the input and procedural flaws described above I conclude that KCP&L's Resource  
3 Planning Analysis is not reasonable and fails to conclusively demonstrate that the proposed  
4 La Cygne Environmental Project is prudent.

5  
6 **B. Output Flaws in KCPL's Resource Planning Analysis**

7 **Q. Does KPC&L's Resource Planning Analysis produce plans that are quantitatively**  
8 **indistinguishable from each other?**

9 A. Yes. If you examine KCP&L's summary of the analysis results,<sup>14</sup> which I have sorted on rank  
10 and included as Exhibit 7 to my testimony, you can see that the range of the results for the 15  
11 resource plans is quite narrow - 1,100 compared to a mean of 25,120 – 4%. If resource plan  
12 KP06C – “Retire All – Coal Replace” is eliminated the range drops to 592 compared to a  
13 mean of 25,058 – 2%. If the plans considered are further restricted to the 11 resource plans  
14 that include only the cases that involve retrofit and/or gas-fired replacement of either one or  
15 both La Cygne units, the range drops further to 216 compared to a mean of 24,984 – less than  
16 1%. The last set of results for just those cases that consider alternative dispositions of La  
17 Cygne Units 1 and 2 are intuitively indistinguishable. The underlying distributions of the 64  
18 scenario NPVRRs are also intuitively indistinguishable from each other. The graph in  
19 Exhibit 8 to my testimony allows a visual comparison of the weighted NPVRRs and scenario  
20 NPVRR distributions for the 15 resource plans.

1 **Q. Did you statistically test whether there is a significant difference between the NPVRR's**  
2 **of the resource plans presented by KCP&L in support of its petition?**

3 A. For the 15 resource plans I performed a simple standard statistical test of significance. The  
4 results of the test, shown in Exhibit 9, indicate that there is no statistically significant  
5 difference between the NPVRRs for the 11 resource plans that cover the alternative  
6 dispositions of La Cygne Units 1 and 2 – retrofit versus gas-fired replacement of one or both  
7 units.

8 **Q. Why is this fact important?**

9 A. It means that with the input and procedural flaws and analysis biases I previously discussed  
10 and outputs that are statistically indistinguishable, KCP&L is simply unable to demonstrate,  
11 contrary to KCP&L witness Crawford's assertions, that when compared to gas-fired  
12 replacement, retrofitting the coal units is the least cost option for La Cygne.

13 **Q. What is your conclusion regarding the output of KCP&L's Resource Planning**  
14 **Analysis?**

15 A. KCP&L is unable to conclusively demonstrate, and the Commission is unable to  
16 conclusively determine that the La Cygne Environmental Project is the least cost method of  
17 meeting customer demand.

18 **Q. Is it possible to revise the analysis to avoid this indeterminate result?**

19 A. It is possible that the natural gas and coal price forecasts combined into a set of scenarios  
20 with correctly computed conditional probabilities and an appropriate discount rate would

---

14. Crawford, Schedule BLC2011-12

1 produce results capable of distinguishing among the alternative dispositions for La Cygne  
2 Units 1 and 2. I think it unlikely, but only correcting the analysis would definitively answer  
3 the question.

4  
5 **VII. Prudence**

6 **Q. In addressing the issue of prudence are you rendering a legal opinion?**

7 A. No. Rendering a legal opinion is outside my competence and expertise. The governing  
8 statute on the issue of prudence is K.S.A. 66-128g. Subsection (a), which I reproduce below  
9 in its entirety, lays out 12 factors to be considered by the Commission in determining  
10 prudence. My testimony will address the subset of those factors that I am competent to  
11 address.

12 **66-128g:**

- 13 (a) The factors which shall be considered by the commission in making  
14 the determination of "prudence" or lack thereof in determining the  
15 reasonable value of electric generating property, as contemplated by  
16 this act shall include without limitation the following:
- 17 (1) A comparison of the existing rates of the utility with rates that would  
18 result if the entire cost of the facility were included in the rate base for  
19 that facility;
  - 20 (2) a comparison of the rates of any other utility in the state which has no  
21 ownership interest in the facility under consideration with the rates  
22 that would result if the entire cost of the facility were included in the  
23 rate base;
  - 24 (3) a comparison of the final cost of the facility under consideration to  
25 the final cost of other facilities constructed within a reasonable time  
26 before or after construction of the facility under consideration;
  - 27 (4) a comparison of the original cost estimates made by the owners of the  
28 facility under consideration with the final cost of such facility;
  - 29 (5) the ability of the owners of the facility under consideration to sell on  
30 the competitive wholesale or other market electrical power generated

1 by such facility if the rates for such power were determined by  
2 inclusion of the entire cost of the facility in the rate base;

3 (6) a comparison of any overruns in the construction cost of the facility  
4 under consideration with any cost overruns of any other electric  
5 generating facility constructed within a reasonable time before or after  
6 construction of the facility under consideration;

7 (7) whether the utility having an ownership interest in the facility being  
8 considered has provided a method to ensure that the cost of any  
9 decommissioning, any waste disposal or any cost of clean up of any  
10 incident in construction or operation of such facility is to be paid by  
11 the utility;

12 (8) inappropriate or poor management decisions in construction or  
13 operation of the facility being considered;

14 (9) whether inclusion of all or any part of the cost of construction of the  
15 facility under consideration, and the resulting rates of the utility  
16 therefrom, would have an adverse economic impact upon the people  
17 of Kansas;

18 (10) whether the utility acted in the general public interest in management  
19 decisions in the acquisition, construction or operation of the facility;

20 (11) whether the utility accepted risks in the construction of the facility  
21 which were inappropriate to the general public interest to Kansas;

22 (12) any other fact, factor or relationship which may indicate prudence or  
23 lack thereof as that term is commonly used.  
24

25 **Q. Which of these 12 factors will you address?**

26 A. As I read the list, all of the factors are post facto and assume explicitly or implicitly that  
27 construction of the facilities under consideration is complete, the final costs are known and  
28 the complete record of construction and placing into service of the facilities can be  
29 scrutinized by the Commission and interested parties. That is not the case here. I believe  
30 that factors 8, 9, 10, and 11 can be generalized to this case by applying them to the Resource  
31 Planning Analysis that KCP&L offers in support of its petition for predetermination. My  
32 testimony addresses those factors in the context of the Resource Planning Analysis.

1 **Q. What do you conclude under your generalization of Factors 8, 9, 10 and 11?**

2 A. As I explained above, the analysis (1) does not consider the full range of possible  
3 dispositions of La Cygne Units 1 and 2, (2) contains an assumed fuel cost differential that  
4 KCP&L did not test for reasonableness and bias, (3) uses an erroneous procedure to estimate  
5 scenario probabilities that exacerbates the fuel cost differential bias, (4) uses a discount rate  
6 that fails to take account of its customers cost of money and (5) does not in the final analysis  
7 conclusively demonstrate that the La Cygne Environmental Project is the least cost method of  
8 meeting customer demand. In my opinion, these facts are indicative of inappropriate and  
9 poor management decisions and a failure to consider the public interest, and general  
10 imprudence with regard to the La Cygne Environmental Project for which KCP&L is seeking  
11 predetermination.

12 **Q. Does this conclude your testimony?**

13 A. Yes.

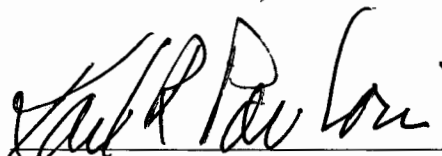
14

VERIFICATION

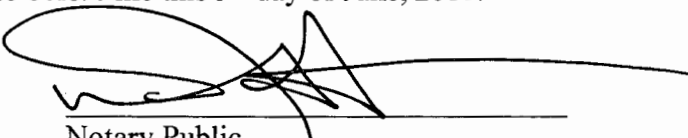
STATE OF MARYLAND )

COUNTY OF PRINCE GEORGES ) ss:

Karl Richard Pavlovic, being duly sworn upon his oath, deposes and states that he is a consultant for the Citizens' Utility Ratepayer Board, that he has read the above and foregoing document, and, upon information and belief, states that the matters therein appearing are true and correct.

  
\_\_\_\_\_  
Karl Richard Pavlovic.

SUBSCRIBED AND SWORN to before me this 3<sup>rd</sup> day of June, 2011.

  
\_\_\_\_\_  
Notary Public

My Commission expires:

**DONNA ANN JEFFRIES**  
**NOTARY PUBLIC DISTRICT OF COLUMBIA**  
**My Commission Expires July 14, 2015**

BEFORE THE CORPORATION COMMISSION  
OF THE STATE OF KANSAS

Received  
on

**JUN 17 2011**

by  
State Corporation Commission  
of Kansas

IN THE MATTER OF THE PETITION ]  
OF KANSAS CITY POWER AND LIGHT ]  
COMPANY FOR DETERMINATION OF THE ]  
RATEMAKING PRINCIPLES AND ]  
TREATMENT THAT WILL APPLY TO ]  
RECOVERY IN RATES OF THE COST TO ]  
BE INCURRED BY KCP&L FOR CERTAIN ]  
ELECTRIC GENERATION FACILITIES ]  
UNDER K.S.A. 66-1239 ]

KCC Docket No. 11-KCPE-581-PRE

CROSS-ANSWERING TESTIMONY OF

KARL RICHARD PAVLOVIC

ON BEHALF OF

THE CITIZENS' UTILITY RATEPAYER BOARD

June 17, 2011

## TABLE OF CONTENTS

	Page
I. Introduction	3
II. Subject of Testimony	3
III. Purpose of Testimony	3
IV. Summary of Conclusions	4
V. Staff's Least Cost Analysis	5

1 **I. INTRODUCTION**

2 **Q. Please state your name and summarize your position and qualifications.**

3 A. My name is Karl Richard Pavlovic. I am a Senior Consultant with Snavelly King Majoros &  
4 O'Connor, Inc. ("Snavelly King"), an economic consulting firm with offices at 8100  
5 Professional Place, Suite 306, Landover, Maryland 20785. I am the same Karl Richard  
6 Pavlovic who submitted direct testimony in this proceeding on June 3, 2011 on behalf of the  
7 Citizens' Utility Ratepayer Board ("CURB"). Appendices A and B to my direct testimony  
8 contain, respectively, a brief description of my qualifications and experience and a list of the  
9 regulatory projects and proceedings in which I have participated and/or made an appearance.  
10 I am submitting this cross-answering testimony on behalf of CURB.

11

12 **II. SUBJECT OF TESTIMONY**

13 **Q. What is the subject of your testimony?**

14 A. My testimony addresses (1) the direct testimony and confidential supplemental testimony of  
15 KCC Staff witness Nicolas Puga and Exhibits BW-1 and BW-1S and (2) KCC Staff's  
16 recommendation as presented at pages 8 – 13 of the direct testimony and page 1 of the  
17 supplemental testimony of KCC Staff witness Robert Glass.

18

19 **III. PURPOSE OF TESTIMONY**

20 **Q. What is the purpose of your testimony?**

21 A. Staff witness Glass testifies in his direct testimony that Staff concludes that "retrofitting of

1 La Cygne Station is the least cost alternative” disposition of La Cygne Units 1 and 2.<sup>1</sup>  
2 CURB requested that Snavely King evaluate and, if possible, verify the analysis underlying  
3 Staff’s conclusion.  
4

5 **IV. SUMMARY OF CONCLUSIONS**

6 **Q. What are your conclusions and recommendations?**

7 A. Based on my evaluation of Staff’s analysis described below, I conclude:

- 8 • Staff presents no support for its selection of the Waxman-Markey Delayed CO<sub>2</sub>  
9 scenario as the most probable.
- 10 • The Bates White (BW) Supplemental Report provides no support for the Waxman-  
11 Markey Delayed CO<sub>2</sub> scenario as the most probable.
- 12 • Given its CO<sub>2</sub> price sensitivity analysis, BW’s analysis is unable to demonstrate  
13 which disposition of La Cygne is least cost.
- 14 • Neither Staff’s analysis nor BW’s analysis demonstrates that the La Cygne  
15 Environmental Project is the least-cost alternative for La Cygne Units 1 and 2.

16 My recommendation is that the Commission find that the La Cygne Environmental Project as  
17 presented in Staff’s analysis and the BW Supplemental Report has not, at this time, been  
18 shown to be reasonable and prudent and that the Commission deny KCP&L’s petition.  
19

---

1. Glass Direct at 8.

1 **V. Staff's Least-Cost Analysis**

2 **Q. Please summarize Staff's least-cost analysis.**

3 A. Staff's least-cost analysis rests on the conclusion that La Cygne's capacity/energy is required  
 4 for KCP&L to meet SPP's margin requirements.<sup>2</sup> The analysis supporting this conclusion is  
 5 presented at pages 4 – 8 of Staff witness Glass' direct testimony. Staff then frames the least-  
 6 cost issue as a comparison of the investment and operating costs of retrofitting La Cygne  
 7 versus the investment and operating costs of replacing La Cygne with a natural gas fired  
 8 combined cycle unit.<sup>3</sup> Next Staff notes that the investment costs of retrofit and replacement  
 9 with a combined cycle are about the same<sup>4</sup> and that the operating costs of retrofit will be less  
 10 than those of a combined cycle under the most likely future natural gas and CO<sub>2</sub> price  
 11 scenario.<sup>5</sup> On that basis, Staff then concludes that retrofit of La Cygne is the least-cost  
 12 option.<sup>6</sup> The detailed logical steps in the analysis are outlined in Staff witness Glass' direct  
 13 testimony,<sup>7</sup> which I reproduce below revised per his supplemental testimony.<sup>8</sup>

- 14 1. The peak load and generation forecasts demonstrate that the capacity/energy of  
 15 La Cygne is needed.<sup>9</sup> Therefore, the question becomes what is the least cost  
 16 alternative: retrofitting La Cygne or replacing it with new generation?<sup>10</sup>  
 17  
 18 2. The capital cost of investment in either the La Cygne retrofit or a natural gas  
 19 combined cycle is about the same.<sup>11</sup>

---

2 Glass Direct at 8.  
 3 *Id.*  
 4 Glass Direct at 9.  
 5 Glass Supplemental at 1.  
 6 *Id.*  
 7 Glass Direct at 13.  
 8 Glass Supplemental at 1.  
 9 Glass Direct at 8, 13.  
 10 Glass Direct at 8.  
 11 Glass Direct at 13.

- 1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23
3. The operational costs of running La Cygne are significantly lower than the operational costs of a natural gas combined cycle because the price of PRB coal is substantially lower than the price of natural gas and is expected to remain lower.<sup>12</sup>
  4. The future uncertainty of only two exogenous factors is important to consider in the La Cygne retrofit decision: the price of C02 and the price of natural gas.<sup>13</sup>
  5. The price of C02 is the dominant uncertainty and an increase in the price of C02 should probably also drive up the price of natural gas.<sup>14</sup>
  6. If the Waxman-Markey price path for C02 emissions begins in 2015, then the optimal resource plan is to retire La Cygne and build a new combined cycle plant. On the other hand, if the Waxman-Markey price path for C02 emissions is delayed until 2021, then retrofitting La Cygne is the optimal resource plan.<sup>15</sup>
  7. Staff finds the second scenario, with the C02 price path beginning later, the more probable scenario.<sup>16</sup>
  8. Therefore, in Staff's opinion, retrofitting La Cygne is the least cost option considering the most significant risk involved, C02 pricing.<sup>17</sup>

24 **Q. Were you able to verify the steps in this analysis?**

25 A. I was able to verify Steps 2 through 6. I am highly critical of Steps 1 and 7 and, therefore, I  
26 am also highly critical of Step 8, Staff's conclusion.

27 **Q. How did you verify Steps 2 through 6?**

28 A. For Steps 2 through 6, Staff relies primarily on the BW Report<sup>18</sup> and Supplemental Report.<sup>19</sup>

---

12 *Id.*  
13 *Id.*  
14 *Id.*  
15 Glass Supplemental at 1.  
16 *Id.*  
17 *Id.*  
18 Puga Exhibit BW-1.  
19 Puga Exhibit BW-1S.

1 I have reviewed both reports without yet the benefit of discovery and find nothing  
2 exceptional or questionable in either the analyses or the conclusions. Should my assessment  
3 change, once I have been able to review responses to discovery, I will seek approval to  
4 submit supplemental testimony.

5 **Q. What are your criticisms of Step 1?**

6 A. Concluding that KCP&L needs the capacity/energy of La Cygne does not logically mean that  
7 the only alternatives to meeting that need are either retrofit La Cygne or replacement with  
8 natural gas combined cycle. As I pointed out in my direct testimony, there are at least two  
9 other alternatives: (1) replacement with purchased power and (2) delayed implementation of  
10 environmental retrofit.<sup>20</sup> The BW Supplemental Report reports that its modeling Case 5  
11 showed that off-system purchases could provide a cost effective means of meeting load,<sup>21</sup>  
12 producing NPV savings of \$334 million.<sup>22</sup> While Case 5 did not model capacity payments,  
13 the report concludes “that power purchase agreements may be a viable and economic  
14 alternative to self-build capacity should La Cygne be retired.”<sup>23</sup>

15 **Q. What are your criticisms of Step 7?**

16 A. Staff witness Glass does not indicate in his supplemental testimony the basis of Staff’s  
17 conclusion that delayed Waxman-Markey price path for CO<sub>2</sub> is more probable than the  
18 implementation in 2015 Waxman-Markey price path. More importantly, however, the  
19 predicate of this conclusion is a false dichotomy. The BW Supplemental Report modeled

---

20 Pavlovic Direct at 10.

21 Exhibit BW-1S at ¶ (40)c.

22 Exhibit BW-1 at ¶ (16).

23 Exhibit BW-1 at ¶ (16).

1 five CO<sub>2</sub> price scenarios and considered, but did not model a sixth: (1) Zero CO<sub>2</sub> Price, (2)  
2 Waxman-Markey Basic with prices beginning in 2015, (3) Waxman-Markey Delayed with  
3 prices beginning in 2021, (4) Full Model Period, in which BW estimated the CO<sub>2</sub> price over  
4 the entire forecast period that would produce equal NPVs for both retrofit and gas  
5 replacement, (5) Delayed CO<sub>2</sub> Price, in which BW estimated the CO<sub>2</sub> price over the forecast  
6 period beginning in 2021 that would produce equal NPVs for both retrofit and gas  
7 replacement, and (6) delayed Waxman-Markey with prices increased to achieve the target  
8 levels of reduction.<sup>24</sup> The CO<sub>2</sub> prices and resulting NPV differences in each of the five cases  
9 are shown in Table 7 of the BW Supplemental Report.<sup>25</sup> The relevant question here is the  
10 relative probabilities of all six scenarios.

11 **Q. How does the BW Supplemental Report assess the probability of these scenarios?**

12 A. The BW Supplemental Report assesses the probability of zero CO<sub>2</sub> prices as “vanishingly  
13 small.”<sup>26</sup> The BW Supplemental Report does not directly assess the probability of the other  
14 five cases, but does conclude that its analysis results underscore the risk associated with CO<sub>2</sub>  
15 prices.

16 “Our estimate of CO<sub>2</sub> breakeven prices indicates that CO<sub>2</sub> prices  
17 significantly below the Waxman-Markey level series would be needed to  
18 equalize the NPV costs of the retrofit and retirement alternatives, if prices  
19 were implemented beginning in 2015. But, if CO<sub>2</sub> price implementation were  
20 delayed until 2021, the inflation-adjusted Waxman-Markey price series  
21 would have to be increased to equalize the NPV costs of the retrofit and retire  
22 cases. As noted above, delayed implementation of CO<sub>2</sub> prices may, in fact,  
23 warrant such price increases to produce effective reductions in emissions.

24 Exhibit BW-1 at ¶¶ (9) – (19).

25 Exhibit BW-1 at ¶ (19).

26 Exhibit BW-1S at ¶ (27).

1                    *These results further underscore the risk associated with investing in a*  
2                    *technology that would be made uneconomic under plausible CO2 price*  
3                    *scenarios.”<sup>27</sup> (emphasis added)*  
4

5                    I infer from BW’s underscoring of the “risk associated with investing in a technology that  
6                    would be made uneconomic under plausible CO2 price scenarios” that, relative to the  
7                    Waxman-Markey Delayed price scenario, BW puts an equal or greater probability on the  
8                    Waxman-Markey scenario and Waxman-Markey Delayed with higher prices scenario.

9                    **Q. How do you assess the probabilities?**

10                  A.                  What CO<sub>2</sub> price series will be implemented and when are political decisions. As a  
11                  consequence, at best one can only make an informed but subjective assessment of the  
12                  probability. I agree with BW that probability of zero CO<sub>2</sub> prices is vanishingly small and I  
13                  would rank the probability of Waxman-Markey in 2015 as low, but higher than Waxman-  
14                  Markey delayed to 2021. I would rank the probability of delayed Waxman-Markey with  
15                  higher prices above either of the latter two.

16                  **Q. What do you conclude?**

17                  A.                  I conclude that there is no basis in the BW Supplemental Report to select one of the CO<sub>2</sub>  
18                  price scenarios over any other and that Staff has presented no reasons to support their  
19                  selection of the Delayed Waxman-Markey scenario. Further, I note that of the scenarios  
20                  modeled by BW only the extreme scenarios Zero CO<sub>2</sub> Price and Waxman-Markey in 2015  
21                  produce anything like a decisive NPVRR differential – approximately 5% for Waxmen-  
22                  Markey and approximately 10% for Zero CO<sub>2</sub>. Delayed Waxman-Markey’s NPVRR

---

27                  Exhibit BW-1S at ¶ (40)f.

1 differential is only 2%, well within any reasonable estimate of the margin of error. On that  
2 basis, I conclude as I did in my direct testimony with regard to KCP&L's analysis, that  
3 neither the BW analysis nor Staff's analysis demonstrates that the La Cygne Environmental  
4 Project is the least-cost alternative for La Cygne Units 1 and 2.

5 **Q. Do you draw any methodological conclusions from BW's CO<sub>2</sub> sensitivity analysis?**

6 A. Yes. The BW Supplemental Report demonstrates that CO<sub>2</sub> is the dominant uncertainty here.  
7 And risk of compliance with CO<sub>2</sub> regulation is the decisive risk. The prudent response to  
8 this finding would be to explore resource plans that eliminate or mitigate this risk.  
9 Retirement and replacement with purchased capacity would eliminate this risk, but, as the  
10 BW Supplemental report points out, might not be least cost.<sup>28</sup> Such a resource plan should  
11 be included in any analysis of the least-cost disposition of La Cygne. Delaying the  
12 retrofit/replace decision for La Cygne until a future time when CO<sub>2</sub> prices are known would  
13 mitigate the risk. We do not know whether such a resource plan would be least cost, but  
14 such a resource plan should be included in any analysis of the least cost disposition of La  
15 Cygne.

16 **Q. What is your recommendation?**

17 A. My recommendation is that the Commission find that the La Cygne Environmental Project as  
18 presented in Staff's analysis and BW's analysis has not, at this time, been shown to be  
19 reasonable and prudent and that the Commission deny KCP&L's petition.  
20

---

28 Exhibit BW-1S at ¶ (40)f.

1 **Q. Does this conclude your testimony?**

2 A. Yes.

VERIFICATION

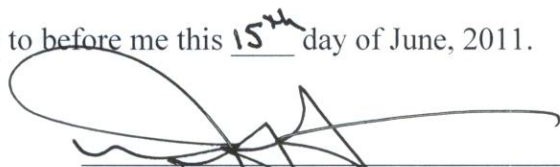
STATE OF MARYLAND )

COUNTY OF PRINCE GEORGES ) ss:

I, Karl R. Pavlovic, being duly sworn upon his oath, deposes and states that he is a consultant for the Citizens' Utility Ratepayer Board, that he has read the above and foregoing document, and, upon information and belief, states that the matters therein appearing are true and correct.

  
Karl R. Pavlovic

SUBSCRIBED AND SWORN to before me this 15<sup>th</sup> day of June, 2011.

  
Notary Public



My Commission expires:

**DONNA ANN JEFFRIES**  
**NOTARY PUBLIC DISTRICT OF COLUMBIA**  
My Commission Expires July 14, 2015

BEFORE THE CORPORATION COMMISSION  
OF THE STATE OF KANSAS

Received  
on

JUN 03 2011

by  
State Corporation Commission  
of Kansas

IN THE MATTER OF THE PETITION ]  
OF KANSAS CITY POWER AND LIGHT ]  
COMPANY FOR DERMINATION OF THE ]  
RATEMAKING PRINCIPLES AND ]  
TREATMENT THAT WILL APPLY TO THE ]  
RECOVERY IN RATES OF THE COST TO ]  
BE INCURRED BY KCP&L FOR CERTAIN ]  
ELECTRIC GENERATION FACILITIES ]  
UNDER K.S.A. 66-1239 ]

KCC Docket No. 11-KCPE-581-PRE

DIRECT TESTIMONY OF  
MICHAEL J. MAJOROS, JR.

ON BEHALF OF  
THE CITIZENS' UTILITY RATEPAYER BOARD

June 3, 2011

## TABLE OF CONTENTS

	Page
I. Introduction	1
II. Subject of Testimony	1
III. Qualifications	1
IV. CURB's Objective	2
V. Summary of KCP&L's Request	3
VI. Prudence from the Customers' Perspective	5
VII. Proposed 22-Year Life	11
VIII. Summary	17
Appendix A Qualifications and Experience	
Appendix B Exhibits	
Exhibit___ (MJM-1)	
Exhibit___ (MJM-2)	
Exhibit___ (MJM-3)	
Exhibit___ (MJM-4)	
Exhibit___ (MJM-5)	
Exhibit___ (MJM-6)	

**KCP&L**  
**Case: 11-KCPE-581-PRE**

**TESTIMONY OF MICHAEL J. MAJOROS, JR.**

**I. INTRODUCTION**

**Q. Please state your name and summarize your position and qualifications.**

A. My name is Michael J. Majoros, Jr. I am president of Snavely King Majoros & O'Connor, Inc. ("Snavely King"), an economic consulting firm with offices at 8301 Professional Place, Suite 306, Landover (New Carrollton) Maryland, 20785. Appendix A is a brief description of my qualifications and experience. It also contains a listing of my appearances before state and federal regulatory bodies. I am submitting this testimony on behalf of the Citizens' Utility Ratepayer Board ("CURB").

**II. SUBJECT OF TESTIMONY**

**Q. What is the subject of your testimony?**

A. My testimony addresses prudence from the customers' perspective and the depreciation aspects of KCP&L's pre-authorization petition.

**III. QUALIFICATIONS**

**Q. What are your qualifications to present this testimony?**

A. I have over twenty-five years' experience in public utility depreciation and related issues. I studied and debated the use of the customers' discount rate revenue requirement comparisons in a presentation to the Iowa State Regulatory Conference in 1986. Those comments are relevant in this proceeding. Also, my firm specializes in public utility depreciation. Our clients have ranged from consumer organizations and utility

1 commissions to large companies that purchase regulated utility services. We have  
2 appeared as expert witnesses on depreciation before the regulatory commissions of more  
3 than half of the states in the country. I have testified in well over 100 proceedings on the  
4 subject of public utility depreciation. I have made several appearances in Kansas  
5 stretching back into the 1980s. I have also negotiated on behalf of clients in fifteen of the  
6 Federal Communications Commission's ("FCC") triennial depreciation rescription  
7 conferences.

#### 8 **IV. CURB'S OBJECTIVE**

##### 9 **Q. What is CURB's objective in this proceeding?**

10 A. CURB's wants to ensure that rate payers are not required to bear more risk than normally  
11 associated with KCP&L's proposed expenditures. CURB is concerned with the  
12 extraordinary pre-approval of a plant addition in general. Utilities typically make these  
13 types of expenditures based on their own evaluations of prudence and cost. They accrue  
14 an allowance for funds used during construction ("AFUDC") to recover their capital cost,  
15 or alternately, they include construction work in progress ("CWIP") in rate base during a  
16 rate case and begin depreciating them in the next rate case. If they accrue AFUDC, they  
17 add it to rate base and the depreciation base for recovery in the next rate case.

18 In other words, utilities are protected against the risk of non-recovery. To the best of my  
19 knowledge, there is no requirement for KCP&L to obtain an additional certificate of  
20 convenience and necessity in order to make the environmental upgrades at issue here. So  
21 it is unusual for a utility in general to make such a request. If approved, KCP&L's

1 request puts the Kansas Corporation Commission in the role of a utility manager instead  
2 of the utility's regulator, and the two positions inherently conflict.

3 **V. SUMMARY OF KCP&L'S REQUEST**

4 **Q. Please summarize the Company's request.**

5 A. On February 23, 2011, Kansas City Power & Light Company (KCP&L") petitioned the  
6 Kansas Corporation Commission ("KCC") for a *preauthorization* (preapproval) of \$1.23  
7 billion of environmental retrofit expenditures at its LaCygne power plant, and a  
8 determination of the ratemaking treatment that will apply to the recovery in rates of the  
9 costs to be incurred by KCP&L for the environmental upgrades.<sup>1</sup> The Citizens' Utility  
10 Ratepayer Board ("CURB") retained Snavelly King Majoros & O'Connor, Inc. ("Snavelly  
11 King") to review the filing and, if possible, verify KCP&L's assertions regarding the  
12 necessity and prudence of these expenditures at this time as well as the depreciation  
13 aspects of its proposed ratemaking principles and treatment that will apply to the  
14 environmental upgrades.

15 **Q. What expenditures does KCP&L propose to make?**

16 A. KCP&L proposes to install the following Best Available Retrofit Technology ("BART"):

- 17 • Wet scrubbers, baghouses and a common dual-fuel chimney for both LaCygne Units 1  
18 and 2.
- 19 • A selective catalytic reduction ("SCR") system, low-nitrogen oxide ("NOx") burners,  
20 ("LNBS"), and an over-fire air ("OFA") system for La Cygne Unit 2.
- 21 • BART also requires an SCR for Unit 1, but that was installed by May 2007 and  
22 incorporated into KCP&L's base rates in Dkt. 07-KCPE-905-RTS.<sup>2</sup>

---

<sup>1</sup> Petition, page 1.

<sup>2</sup> Direct Testimony of Chris B. Giles ("Giles") page5.

1 **Q. Why does KCP&L plan to make these expenditures?**

2 A. KCP&L is installing this equipment to comply with an agreement it made with the  
3 Kansas Department of Health and Environment (“KDHE”) and it is requesting  
4 *preauthorization* to provide certainty that KCP&L will recover the costs in order to  
5 attract capital on reasonable terms.<sup>3</sup>

6 **Q. Is this request for preauthorization tantamount to a guarantee?**

7 A. Yes, it is. KCP&L seeks a guarantee that it will be allowed to recover these costs in its  
8 service rates. Specifically, KCP&L seeks a ruling that:

- 9 • Confirms that the decision to make these expenditures is prudent.
- 10 • Confirms that the \$1.23 billion cost estimate is prudent.
- 11 • Confirms that amounts in excess of \$1.23 billion, other than AFUDC and property  
12 tax, would be recoverable subject to further prudence review during a future rate  
13 proceeding wherein KCP&L requests recovery of such costs.
- 14 • Provides recovery through a rider.
- 15 • Finds the applicable initial life is 22 years, consistent with the remaining depreciable  
16 life of LaCygne Station recently approved in the 415 Docket.
- 17 • Finds cost of capital is consistent with KCP&L’s jurisdictional business.<sup>4</sup>

18 **Q. Which of these requests are you addressing?**

19 A. I am addressing prudence from the customer’s perspective. I am also addressing  
20 KCP&L’s request for a preauthorization of a 22-year life.

21

---

<sup>3</sup> Petition page 3.

<sup>4</sup> Giles pages 12 – 13.

1 **VI. PRUDENCE FROM THE CUSTOMERS' PERSPECTIVE**

2 **Q. Are you CURB's principal prudence witness?**

3 A. Dr. Pavlovic is CURB's principal prudence witness. I am addressing prudence from the  
4 customer's perspective to introduce a concept I debated at the 25<sup>th</sup> Annual Iowa State  
5 Regulatory Conference in 1986: the subject was "The Use of Customer Discount Rate in  
6 Revenue Requirement Comparisons." The customers' discount rate is relevant in this  
7 proceeding.

8 **Q. Do you have a copy of your presentation to the 1986 Iowa State regulatory**  
9 **conference?**

10 A. Yes, Exhibit\_\_\_ (MJM-1) is a copy of the presentation. It was presented as a speech  
11 within the context of a debate. I have corrected a few typographical and grammatical  
12 errors.

13 **Q. Why is the customers' discount relevant in this proceeding?**

14 A. The customer's discount rate is relevant because KCP&L has presented a series of  
15 iterative scenarios which allegedly present the least-cost alternatives based in turn on a  
16 series of revenue requirement comparisons discounted to their net present value.<sup>5</sup> It is  
17 my understanding that KCP&L only used a 7.885 percent discount rate to make these  
18 calculations; however its customers' discount rates are far different than a regulated  
19 monopoly's discount rate.

---

<sup>5</sup> Direct Testimony of Burton L. Crawford ("Crawford") page 7.

1    **Q.    What is a discount rate?**

2    A.    A discount rate is a compound interest factor used to determine the net present value of a  
3       stream of future cash flows. It embodies the user's time preference, inflation and risk  
4       expectations. When a utility evaluates new investments, it must assume they are as risky  
5       as current investments such as embedded plant; hence, the utility's discount rate is its  
6       cost of capital.

7    **Q.    What is a customer discount rate?**

8    A.    KCP&L has two broad classes of customers – individuals and firms. A firm's discount  
9       rate is hypothetically derived the same way as is KCP&L's cost of capital, that is,  
10       through an analysis of the composite effect of business and financial risk. Large heavily-  
11       capitalized customers will likely have composite risk factors quite similar to that of  
12       utilities. Smaller firms, however, particularly those with limited capitalization--like  
13       mine, for example--have a higher cost of capital and hence, higher discount rates than the  
14       utility that serves them.

15   **Q.    What about the individual customer's discount rate?**

16   A.    The individual's discount rates vary significantly; there is no single rate. At one extreme,  
17       there are consumers living at or below the poverty level. For these people with no  
18       discretionary income at all, the discount rate is prohibitive, because deferral of a single  
19       dollar of income to pay for KCPL's new environmental equipment will deprive that  
20       customer of one of the basic necessities of life: food, clothing, or shelter. As income  
21       increases, the opportunity cost of the incremental dollar falls. For low-to-moderate  
22       income customers, who are likely to be net debtors, the discount rate is represented by

1 the finance charge rate on consumer credit, which can be 18 percent or higher. At the  
2 high income end of the spectrum, the discount rate is equivalent to the marginal return  
3 from individual investments – stocks, bonds, real estate, and tax shelters. Therefore, the  
4 customers' discount rate is not equal to the utility's cost of capital, and for most  
5 customers here in Kansas and elsewhere throughout this country, it is substantially  
6 higher. The Kansas customers most hurt by a huge rate increase are those with the  
7 highest personal discount rates: 18 percent for example.

8 **Q. Your speech to the Iowa State Regulatory conference says it is “arguably impossible**  
9 **to determine a composite individual and small firm discount rate.” Do you still**  
10 **believe it is arguably impossible?**

11 A. Someone might argue that it is impossible, but over the last 24 years since 1986 I have  
12 learned that almost nothing is impossible, so that person will not be me.

13 **Q. Is it impossible to estimate a single customer's discount rate?**

14 A. No, it would be quite simple. For example, one could assign a reasonably estimated  
15 consumer discount rate to different classes of customers and then calculate a direct-  
16 weighted value. Alternatively, one could judgmentally select a number that most  
17 reasonable people would agree is representative of a majority of customers, as I did in the  
18 Iowa State presentation examples.

1 **Q. Do Kansas utility statutes recognize the concept of the customers' discount rate in**  
2 **prudence determinations?**

3 A. Yes, I believe they do--implicitly if not explicitly. K.S.A. 66-128g describes the factors  
4 which shall be considered by the Commission in making the determination of "prudence"  
5 or lack thereof in determining the reasonable value of electric generating property, as  
6 contemplated by the act. Those factors include the following:

7 (1) A comparison of the existing rates of the utility with rates that would result if the  
8 entire cost of the facility were included in the rate base for that facility [revenue  
9 requirement comparison];

10 (9) Whether inclusion of all or any part of the cost of construction of the facility under  
11 consideration, and the resulting rates [*i.e., revenue requirement*] of the utility therefrom,  
12 would have an adverse economic impact upon the people of Kansas;

13 (10) Whether the utility acted in the general public interest in management decisions in  
14 the acquisition, construction or operation of the facility; [*and*]

15 (11) Whether the utility accepted risks in the construction of the facility which were  
16 inappropriate to the general public interest to Kansas. [*Items in italics not in original*  
17 *text*].

18 **Q. Is it your testimony that the provisions summarized above constitute statutory**  
19 **recognition of the concept of the customer's discount rate and its use in prudence**  
20 **determinations?**

21 A. Yes.

22 **Q. How so?**

23 A. Consider how the Commission can measure the interests of the people of Kansas or the  
24 interests of KCPL's customers in a prudence proceeding. In directing the Commission  
25 to consider the comparison of the current rates with the rates that would result, this statute  
26 is clearly contemplating an analysis of the impact on customers. Recognizing a customer

1 discount rate and comparing it to that of the utility is a valid way to do so. When one is  
2 going to analyze the “adverse economic impact on the people of Kansas”, I believe that  
3 consideration of the customer’s discount rate is not only appropriate but necessary.  
4 Empirically, it’s one of the few methods to quantify that impact in a meaningful way.  
5 Further, if management does not consider the public interest when making decisions, how  
6 can management be deemed prudent? Wouldn’t imprudent decisions increase the risk to  
7 the company as well as its customers and the general public, which depend on public  
8 utilities generally, regardless of whether they are direct customers of a given utility?  
9 Lastly, if the utility has accepted too much risk in construction, that risk will no doubt be  
10 reflected in higher discount rates for the utility—and that risk will flow down to  
11 customers in the form of higher rates. To measure to what extent higher rates have a  
12 significant or truly adverse impact, considering the customer discount rate is an  
13 invaluable tool. The statute clearly implies that the Commission should make an effort to  
14 analyze and quantify the potential impacts on customers and the public. Customer  
15 discount rates provide a way of empirically measuring such impacts.

16 **Q. Is this a legal opinion?**

17 A. No, it is my personal non-legal opinion based on my experience and analysis. I have  
18 raised the customer discount rate issue here because it is applicable and to my  
19 knowledge, use of the rate in analyzing prudence has not been addressed any time in the  
20 recent past in Kansas. It should be addressed here and now, regardless of any other  
21 showings the company must make to support a prudence claim.

1 **Q. Did KCP&L properly consider the interests of the people of Kansas in its studies?**

2 A. No. KCP&L conducted revenue requirement comparisons as contemplated in factor 1,  
3 however it failed the Factors (9), (10) and (11) requirement to evaluate the adverse  
4 consequences of its proposals not only on the poor and middle class people of Kansas  
5 who will pay the bulk of the cost, but on the public interest in general. Otherwise, it  
6 would have given at least some recognition to the customer's discount rates in its  
7 evaluation of alternatives. In order to properly decide prudence from the customers'  
8 perspective, KCP&L should have evaluated its scenarios using the customer's discount  
9 rate. The conclusions would undoubtedly be different than KCP&L has shown, and  
10 given the consumer's discount rate almost any scenario which delayed or reduced the  
11 upfront cash costs of these expenditures would be more desirable.

12 **Q. Does that mean you are asserting that KCP&L's proposals are not prudent?**

13 A. I am not asserting that KCP&L's proposals are not prudent. Dr. Pavlovic is addressing  
14 the prudence of the individual alternatives. I am addressing KCP&L's failure to conduct  
15 a reasonable and complete analysis of the alternatives as it is statutorily required to do.

16 **Q. Are you opposed to environmental expenditures?**

17 A. I wholly endorse the clean-up of our air and environment. If KCP&L believes that its  
18 proposed expenditures at LaCygne are the most efficient means to achieve those goals, it  
19 should pursue them, but the KCC should not pre-approve them without a more complete  
20 economic analysis.

1 **VII. PROPOSED 22-YEAR LIFE**

2 **Q. Does the Company provide any additional elaboration concerning its request to**  
3 **adopt 22 years as the initial depreciable life of the environmental equipment?**

4 A. Yes, Mr. Giles states that “For the purposes of this analysis, the Company assumed a 22-  
5 year remaining depreciable life for the environmental control equipment. The initial  
6 depreciable life will need to be part of the predetermination docket.”<sup>6</sup> KCP&L used a 22-  
7 year remaining life to recognize “that depreciation rates and lives change over time.”<sup>7</sup>

8 **Q. Does the initial depreciable life need to be part of this predetermination docket?**

9 A. No, the KCC is not required to nor should it address the depreciable life of the proposed  
10 environmental expenditures in this proceeding. KCP&L is free to make the investment,  
11 add it to LaCygne depreciable plant in service and depreciate the investment using the  
12 Commission’s most recently approved depreciation rate(s) applicable to LaCygne. Those  
13 rates are specifically identified in Exhibit III to the Commission’s November 11, 2010  
14 Order in Docket No. 10-KCPE-415-RTS.

15 **Q. Have you attached that exhibit to your testimony?**

16 A. Yes, my Exhibit\_\_\_ (MJM-2) is Exhibit III to the KCC’s Order in Docket No. 10-KCPE-  
17 415-RTS.

18 **Q. If KCP&L were to apply its currently approved depreciation rates to the LaCygne**  
19 **environmental expenditures, would those depreciation rates recognize a 22-year**  
20 **remaining life for LaCygne?**

---

<sup>6</sup> Giles, p.17.

<sup>7</sup> Giles, p.18.

1 A. Yes, KCP&L is correct that the KCC approved a depreciation rate that reflected a 22-year  
 2 remaining life for LaCygne, thus the environmental expenditures would be treated no  
 3 differently than the rest of the LaCygne plant investment. No extraordinary treatment is  
 4 required in this proceeding.

5 **Q. Please summarize the Commission's findings regarding LaCygne's depreciation life.**

6 A. The following shows the assumptions underlying KCP&Ls steam production  
 7 depreciation rates:

8 **LaCygne Depreciation Rates**

	Probable Retirement Year	Remaining Life	Depreciation Rate
9			
10			
11			
12	311 – Structures and Improvements		
13	LaCygne Common	2032	22.8
14	LaCygne Unit 1	2032	22.5
15	LaCygne Unit 2	2032	22.4
16	312 – Boiler Plant Equipment		
17	LaCygne Common	2032	21.6
18	LaCygne Unit 1	2032	21.8
19	LaCygne Unit 2	2032	21.9
20	314 – Turbogenerator Units		
21	LaCygne Common	2032	22.1
22	LaCygne Unit 1	2032	21.6
23	LaCygne Unit 2	2032	21.3
24	315 – Accessory Electric Equipment		
25	LaCygne Common	2032	20.6
26	LaCygne Unit 1	2032	20.0
27	LaCygne Unit 2	2032	19.3
28	316 – Miscellaneous power Plant Equipment		
29	LaCygne Common	2032	21.5
30	LaCygne Unit 1	2032	20.7
31	LaCygne Unit 2	2032	20.2
32			
33			

1 Q. Do you agree with the 22-year remaining life?

2 A. No, the 22-year remaining life assumption is too short for several reasons. As a result,  
3 LaCygne is being over-depreciated at current depreciation rates.

4 Q. Please explain why you state that the 22-year remaining life assumption is too short?

5 A. The remaining-life assumption is too short because:

- 6 • KCP&L's implied 2015 shut-down only means they may shut LaCygne down  
7 temporarily in 2015 to install the controls, not retire and abandon the plant.
- 8 • KCP&L does not have any plans to retire LaCygne.
- 9 • KCP&L does not have any legal obligation to retire LaCygne in 22 years, or ever.
- 10 • LaCygne is not economically or financially impaired; hence there is no economic  
11 rationale to retire the plant.
- 12 • The design life of the proposed environmental equipment is 30 years, not 22 years,  
13 consequently the minimum remaining life is 32 years

14 Q. Based on the Company's filing, it appears they at least imply that if the KCC does  
15 not grant pre-approval, they will retire the plant in 2015. For example, Mr. Giles  
16 asserts "Under the KDHE and SIP requirements, the equipment must be in place no  
17 later than June 1, 2015 or the units will not be in compliance and must be shut  
18 down."<sup>8</sup> Is that a true statement?

19 A. Not in my opinion. The supposed 2015 shut-down assertion only means if KCP&L does  
20 not install the controls prior to June 1, 2015, it may shut LaCygne down in 2015 to install  
21 the controls. The shut-down requirement inferred in Mr. Giles statement is misleading at  
22 best.

---

<sup>8</sup> Giles page 10.

1 **Q. Please explain why you say that KCP&L has no plans to retire LaCygne.**

2 A. Exhibit\_\_\_ (MJM-3) is a copy of the Company's response to CURB 143. We asked  
3 KCP&L to support its existing 22-year remaining life assumption with a) Economic  
4 studies, b) Retirement Plans, c) Forecasts, d) Studies of Technical Obsolescence, e)  
5 Studies of Adequacy of Capability, f) Studies of Competitive Pressure, g) The  
6 relationship of the type of construction to the 22-year remaining life span, i) The  
7 relationship of observed features and conditions at the time of field visit to the 22-year  
8 remaining life span, and j) The relationship of specific management plans to the 22-year  
9 remaining life span. KCP&L responded "There have not been any Formal Unit  
10 Retirement Studies prepared for KCP&L steam generating units." It is obvious that  
11 KCP&L has not even studied the probability of retiring its LaCygne plant.

12 **Q. Please explain why you say the KCP&L does not have any legal obligation to retire**  
13 **the plant?**

14 A. It is my understanding that KCP&L and all companies subject to generally accepted  
15 accounting principles ("GAAP") are required to study their long-lived assets to determine  
16 whether they have any legal asset retirement obligations associated with those assets. If  
17 they do, they are required to measure the fair value of the related asset retirement costs  
18 and capitalize those amounts. In this context, a "legal obligation" is defined as an  
19 obligation that a party is required to settle as a result of an existing or enacted law,  
20 statute, ordinance, or written or oral contract or by legal construction of a contract under  
21 the doctrine of promissory estoppel.<sup>9</sup> Hence, even a promise to retire the LaCygne plant,

---

<sup>9</sup> SFAS No. 143.

1 or any unit within the plant would constitute a legal obligation consistent with that  
2 definition. As demonstrated in the Company's response to CURB 122, which I have  
3 attached as Exhibit \_\_\_ (MJM-4), KCP&L only has legal obligations associated with the  
4 ash pond and fuel storage tank included in account 311 – Structures and Improvements,  
5 and the asbestos contained in account 312 – Boiler Plant Equipment. KCP&L does not  
6 have any obligation to retire, dismantle or remove the LaCygne Units.

7 **Q. Please explain why you say that LaCygne is not financially impaired, hence there is**  
8 **no economic rationale to retire the plant.**

9 A. Similar to a legal asset retirement obligation review, KCP&L and all companies subject  
10 to GAAP must evaluate the carrying value of their long-term assets to be retained and  
11 used. This evaluation begins with a “recoverability test,” which is conducted when it is  
12 deemed that the carrying value of the asset group may lack recoverability, as when:

- 13 • An operating or cash flow loss for the reporting period occurs, coupled with either a  
14 past history of such losses or anticipated future losses for the asset group.
- 15 • There is a material negative development in how the asset group is being utilized
- 16 • A major impairment occurs in the physical condition of the asset group.
- 17 • A probability of more than 50% exists that the asset group will be sold or disposed of  
18 much earlier than its expected useful life.
- 19 • The market value of the asset group drastically declines.
- 20 • The total costs incurred for the asset group (e.g., actual construction costs) far exceed  
21 the expected costs.
- 22 • A major business-related government or legal development could have a significant  
23 adverse effect on the value of the asset group. An example is new government  
24 regulations restricting the business use of the long-lived assets.<sup>10</sup>

---

<sup>10</sup> SFAS No. 144.

1 **Q. Did KCP&L conduct a recoverability test that included LaCygne?**

2 A. No, in response to CURB 119, which I have included as Exhibit\_\_\_ (MJM-5), the  
3 Company states “KCP&L has not prepared an asset impairment analysis that included the  
4 LaCygne plant.” That means that KCP&L never deemed that LaCygne had any potential  
5 recoverability issues, notwithstanding the environmental expenditures. At this point,  
6 LaCygne is not financially impaired and there is no valid economic or financial reason to  
7 assume it will be retired at any time in the next 30 to 50 years.

8 **Q. What is the design life of KCP&L’s proposed environmental expenditures?**

9 A. Exhibit\_\_\_ (MJM-6) is KCP&L’s responses to KCC 64, and CURB 132. They  
10 demonstrate that all of the proposed environmental expenditures have a 30-year design  
11 life. Using the design life as an anchor point would suggest a 32-year remaining life  
12 instead of a 22-year remaining life.

13 **Q. Do you think a 32-year remaining life based on a 30-year design life of the  
14 incremental environmental equipment is the upper limit of the remaining life?**

15 A. No. Based on my experience, design lives of electric plants are often under-stated.

16 **Q. Are you proposing a longer life in this proceeding?**

17 A. No, I am proposing that KCP&L apply the existing depreciation rates to the  
18 environmental expenditures, if and when it makes them. KCP&Ls customers are paying  
19 service rates based on the 22-year remaining life recently approved by the KCC. An  
20 extension in this proceeding would reduce the depreciation rate and hence result in an  
21 overcharge to customers.

1 **VIII. SUMMARY**

2 **Q. Please summarize your testimony.**

3 A. KCP&L's failure to consider its customers discount rate in its discounted revenue  
4 requirement models results in its not having met its burden to adequately demonstrate  
5 prudence. KCP&L's request for extraordinary treatment of the environmental  
6 expenditures is not necessary, and its current depreciation rates are appropriate to apply  
7 to the expenditures when they are made and go into service.

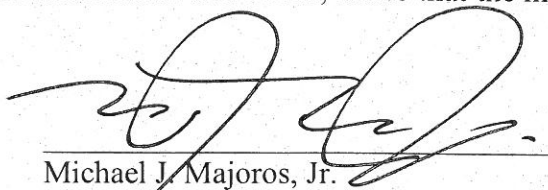
8 **Q. Does this conclude your testimony?**

9 A. Yes, it does.

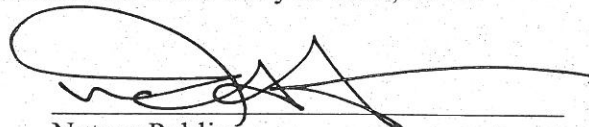
VERIFICATION

STATE OF MARYLAND )  
COUNTY OF PRINCE GEORGES ) ss:

Michael J. Majoros, Jr., being duly sworn upon his oath, deposes and states that he is a consultant for the Citizens' Utility Ratepayer Board, that he has read the above and foregoing document, and, upon information and belief, states that the matters therein appearing are true and correct.

  
\_\_\_\_\_  
Michael J. Majoros, Jr.

SUBSCRIBED AND SWORN to before me this 3<sup>rd</sup> day of June, 2011.

  
\_\_\_\_\_  
Notary Public

My Commission expires:

**DONNA ANN JEFFRIES**  
**NOTARY PUBLIC DISTRICT OF COLUMBIA**  
**My Commission Expires July 14, 2015**

## Experience

### **Snavelly King Majoros O'Connor & Bedell, Inc.**

#### ***Senior Consultant (2010-Present)***

Dr. Pavlovic provides clients with economic and policy analyses of commercial operations and expert testimony in support of litigation, negotiation and strategic planning. His analyses and testimony are distinguished by systematic articulation and testing of assumptions, thorough evaluation of data, innovative application of statistical tools and economic principles, and clarity and precision of presentation.

Dr. Pavlovic has provided expert testimony on the operations, costs and revenues of gas and electric utilities, the impacts of restructuring wholesale and retail electric markets, the operation and competitiveness of petroleum and electric markets, the market valuation of crude oil, and electric and gas reliability.

Major projects directed by Dr. Pavlovic have included: analytical assistance to counsel and testimony on all aspects of the restructuring of wholesale and retail electric markets in the Eastern Interconnection; analysis of petroleum markets, expert testimony, and coordination of technical testimony in the Trans-Alaska Pipeline quality bank litigation; Independent Technical Review of the economic models used by the US Army Corps of Engineers for the Ohio River System Investment Plan; assistance to a major independent telephone company in the formulation and implementation of corporate strategic plans, applications for long-distance authority, and settlement negotiations with major domestic and foreign carriers.

By education and professional experience Dr. Pavlovic has expertise in formal and mathematical logic, statistics, economics, financial analysis, econometrics, and computer modeling. With over 25 years' experience as a consultant and expert witness, Dr. Pavlovic has in-depth knowledge of commercial and industrial operations in the energy, transportation, and telecommunications industries and is familiar with a wide range of experimental and investigative methods in science and engineering.

### **FTI Consulting, Inc., Director (2008-2010)**

Responsible for consulting engagements in the energy industry.

### **DOXA, Inc., President (1994-2008)**

Management and Direction of small consulting firm; responsible for the design and execution of statistical, economic and financial analyses of discrete commercial operations, individual firms, and industry sectors for use by management and counsel in formulating and implementing commercial and litigation strategy.

### **Snavelly, King & Associates, Inc.**

#### ***Vice President (1988-1994), Consultant (1983-1987)***

Responsible for economic analysis in civil court and regulatory proceedings, and consulting assignments in corporate strategic planning including investigations of rate structures, cost of service studies, market identification, and economic projections.

### **University of Florida, Gainesville FL**

#### ***Associate Director, Center for Applied Philosophy (1982-1983)***

Responsible for implementation and management of daily operations of the Center. Major projects included reorganization of finances of the Humanities and Agriculture Project, assembly and direction of a multi-disciplinary team in design of the Caribbean Inter-Sector Forecasting Project, and conception and direction of the Applied Philosophy Feasibility and Implementation Project.

#### ***Research Associate, Civil Engineering (1980-1983)***

Responsible for direction of the Caribbean Agricultural Transportation Study, design of the planning component of the Honduran Water Port Project, and redesign and completion of the Florida Domestic and Export Agricultural Transportation Projects.

#### ***Associate Professor, Philosophy (1978-1983)***

Responsible for undergraduate and graduate courses in scientific methodology, epistemology, hermeneutics and ethics and professionalism as well as research on the social context and impact of scientific and technological growth.

## Education

Purdue University – Ph.D. and MA in Philosophy  
Karl-Ruprecht Universität, Heidelberg, Germany  
Yale University – BA in Philosophy

Dr. Pavlovic was an active member of the Board of Trustees of the Legal Aid Society of the District of Columbia from 1994 to 2008 and served as Treasurer from 1999 to 2008.

## **PROJECTS AND APPEARANCES**

Southern California Edison Company Transmission Owners Tariff  
Federal Energy Regulatory Commission Docket No. ER11-2061-000 (2011 - )

In the Matter of the Petition of Kansas City Power & Light Company for Determination of the Ratemaking Principles and Treatment that Will Apply to the Recovery in Rates of the Cost to be Incurred by KCP&L for Certain Electric Generation Facilities under K.S.A. 66-1239  
Kansas Corporation Commission Docket No. 11-KCPE-581-PRE (2011)

Tampa Electric Company Wholesale Power Tariff  
Federal Energy Regulatory Commission Docket No. ER10-2061-000 (2010 - )

Pacific Gas & Electric Company, Transmission Owner Tariff  
Federal Energy Regulatory Commission Docket No. ER10-2026-000 (2010-2011)

Impact Evaluation Study of the District of Columbia Department of the Environment's Two-Year Pilot Reliable Energy Trust Fund Programs (2007 - 2008)  
D.C. Public Service Commission Formal Case No. 945

In the Matter of the Application of the Potomac Electric Power Company for Authority to Increase Existing Retail Rates and Charges for Electric Distribution Service (2007 - 2008)  
D.C. Public Service Commission Formal Case No. 1053

In the Matter of the Investigation of Interconnection Standards in the District of Columbia (2006 - )  
D.C. Public Service Commission Formal Case No. 1050

In the Matter of the Investigation into the Omnibus Utility Emergency Amendment Act of 2005, Specifically Regarding the Establishment of the Natural Gas Trust Fund Programs (2006 - )  
D.C. Public Service Commission Formal Case No. 1037

Emergency Application of the Potomac Electric Power Company For A Certificate of Public Convenience and Necessity To Construct Two 69kV Overhead Transmission Lines and Notice of The Proposed Construction of Two Underground 230kV Transmission Lines (2005 - 2006)  
D.C. Public Service Commission Formal Case No. 1044

Investigation Into Potomac Electric Power Company's Distribution Service Rates (2003 - 2005)  
D.C. Public Service Commission Formal Case No. 1032

Investigation of the Feasibility of Removing Pre-Existing Aboveground Utility Lines and Cables and Relocating Them Underground in the District of Columbia (2003 - )  
D.C. Public Service Commission Formal Case No. 1026

Guadalupe L. Garcia v. Ann Veneman, Secretary, US Department of Agriculture (2003 - )  
U.S. District Court for the District of Columbia

Mirant Corporation, et al., Debtors (2003 - 2005)  
U.S. District Court for the Northern District of Texas

Complaint: Office of the People's Counsel of the District of Columbia v. Mirant Americas Energy Marketing, L.P. (2003)  
Federal Energy Regulatory Commission

Investigation into the Effect of the Bankruptcy of Mirant Corporation on Retail Electric Service in the District of Columbia (2003 - 2005)  
D.C. Public Service Commission Formal Case No. 1023

Development and Designation of Standard Offer Service in the District of Columbia (2003 - 2007)  
D.C. Public Service Commission Formal Case No. 1017

Independent Review Panel, Project Management Plan, Ohio River Main Stem Study (2003 - 2005)  
U.S. Army Corps of Engineers

Investigation into Affiliated Activities, Promotional Practices, and Codes of Conduct of Regulated Gas and Electric Companies (2002 - 2004)  
D.C. Public Service Commission Formal Case No. 1009

Independent Review Panel, Ohio River Main Stem Study, System Investment Plan (2001)  
U.S. Army Corps of Engineers

Joint Application of PEPCO and New RC, Inc. for Authorization and Approval of Merger Transaction (2001 - 2002)  
D.C. Public Service Commission Formal Case No. 1002

Investigation into Explosions Occurring in Underground Distribution Systems of PEPCO (2001 - 2006)  
D.C. Public Service Commission Formal Case No. 991

Trans Alaska Pipeline System 1996 Quality Bank Complaint Remand (2000 - )  
Federal Energy Regulatory Commission

Ohio River Main Stem Study, Independent Technical Review (1999)  
U.S. Army Corps of Engineers

Investigation of January 1999 Electric Service Interruption (1999 - 2004)  
D.C. Public Service Commission Formal Case No. 982

Trans Alaska Pipeline System 1996 Quality Bank Complaint Appeal (1998 -2000)  
U.S. Court of Appeals for the District of Columbia

Electric Retail Competition Investigation (1997 - )  
D.C. Public Service Commission Formal Case No. 945

Trans Alaska Pipeline System 1996 Quality Bank Complaint (1996 - 1998)  
Federal Energy Regulatory Commission

Trans Alaska Pipeline System 1989 Quality Bank Complaint Remand (1995 - 1998)  
Federal Energy Regulatory Commission

Prudhoe Bay Unit Operating Agreement Hearings (1995)  
Alaska Oil and Gas Conservation Commission

Prudhoe Bay Unit Natural Gas Liquids Hearings (1995)  
Alaska Department of Natural Resources/Department of Revenue (1995)

Potomac Electric Power Co. 3rd Integrated Least-Cost Plan (1995)  
D.C. Public Service Commission Formal Case No. 917, Phase II

All American Pipeline Quality Bank Complaint (1994-1995)  
Federal Energy Regulatory Commission

Trans Alaska Pipeline System 1989 Quality Bank Complaint Appeal (1994-1995)  
U.S. Court of Appeals for the District of Columbia

Investigation of the January 1994 Energy Crisis (1994)  
D.C. Public Service Commission Formal Case No. 936

Washington Gas Light Co. Gas Rate Case (1994)  
D.C. Public Service Commission Formal Case No. 934

Washington Gas Light Co. 3rd Integrated Least-Cost Plan (1994)  
D.C. Public Service Commission Formal Case No. 921

Potomac Electric Power Co. Electric Rate Case (1993)  
D.C. Public Service Commission Formal Case No. 929

Washington Gas Light Co. Gas Rate Case (1993)  
D.C. Public Service Commission Formal Case No. 922

Trans Alaska Pipeline System Pumpability Complaint (1992)  
Federal Energy Regulatory Commission

Potomac Electric Power Co. 2nd Integrated Least-Cost Plan (1992)  
D.C. Public Service Commission Formal Case No. 917

Potomac Electric Power Co. Electric Rate Case (1992)  
D.C. Public Service Commission Formal Case No. 912

Potomac Electric Power Co. Fuel Clause Audit and Productivity Improvement Plan (1991- 2008)  
D.C. Public Service Commission Formal Case No. 766

Potomac Electric Power Co. Electric Rate Case (1991)  
D.C. Public Service Commission Formal Case No. 905

Anchorage Telephone Utility (1991-1995)  
Federal Communications Commission

Trans Alaska Pipeline System 1989 Quality Bank Complaint (1990-1993)  
Federal Energy Regulatory Commission

Telefonica Larga Distancia de Puerto Rico International Service Tariffs (1990-1992)  
Federal Communications Commission

Southern Bell Intrastate Depreciation Study (1989-1990)  
Florida Public Service Commission

Lake Erie Iron Ore Antitrust Litigation: Erie-Western Pennsylvania Port Authority v.  
Penn Central et al. (1988-1989)  
U.S. District Court for the Eastern District of Pennsylvania

Unimar International Chapter 11 Reorganization (1988)  
U.S. Bankruptcy Court for the Western District of Washington at Seattle

National Forest Road Cost Analysis System (1986)  
U.S. Department of Agriculture, Forest Service

Puerto Rico Telephone Company Long Distance Facilities and Service Applications (1985-1990)  
Federal Communications Commission

All American Cable and Radio/ AT&T de Puerto Rico International Rate Complaint (1985-1990)  
Federal Communications Commission

Caribbean Telecommunications Facilities Planning Docket (1984-1990)  
Federal Communications Commission

# Michael J. Majoros, Jr.

## Experience

### **Snavelly King Majoros O'Connor & Bedell, Inc.**

***Vice President and Treasurer (1988 to Present)***  
***Senior Consultant (1981-1987)***

Mr. Majoros provides consultation specializing in accounting, financial, and management issues. He has testified as an expert witness or negotiated on behalf of clients in more than one hundred thirty regulatory federal and state regulatory proceedings involving telephone, electric, gas, water, and sewerage companies. His testimony has encompassed a wide array of complex issues including taxation, divestiture accounting, revenue requirements, rate base, nuclear decommissioning, plant lives, and capital recovery. Mr. Majoros has also provided consultation to the U.S. Department of Justice and appeared before the U.S. EPA and the Maryland State Legislature on matters regarding the accounting and plant life effects of electric plant modifications and the financial capacity of public utilities to finance environmental controls. He has estimated economic damages suffered by black farmers in discrimination suits.

### **Van Scoyoc & Wiskup, Inc., Consultant (1978-1981)**

Mr. Majoros conducted and assisted in various management and regulatory consulting projects in the public utility field, including preparation of electric system load projections for a group of municipally and cooperatively owned electric systems; preparation of a system of accounts and reporting of gas and oil pipelines to be used by a state regulatory commission; accounting system analysis and design for rate proceedings involving electric, gas, and telephone utilities. Mr. Majoros provided onsite management accounting and controllership assistance to a municipal electric and water utility. Mr. Majoros also assisted in an antitrust proceeding involving a major electric utility. He submitted expert testimony in FERC Docket No. RP79-12 (El Paso Natural Gas Company), and he co-authored a study entitled Analysis of Staff Study on Comprehensive Tax Normalization that was submitted to FERC in Docket No. RM 80-42.

### **Handling Equipment Sales Company, Inc.** ***Controller/Treasurer (1976-1978)***

Mr. Majoros' responsibilities included financial management, general accounting and reporting, and income taxes.

### **Ernst & Ernst, Auditor (1973-1976)**

Mr. Majoros was a member of the audit staff where his responsibilities included auditing, supervision, business systems analysis, report preparation, and corporate income taxes.

### **University of Baltimore - (1971-1973)**

Mr. Majoros was a full-time student in the School of Business.

During this period Mr. Majoros worked consistently on a part-time basis in the following positions: Assistant Legislative Auditor – State of Maryland, Staff Accountant – Robert M. Carney & Co., CPA's, Staff Accountant – Naron & Wegad, CPA's, Credit Clerk – Montgomery Wards.

### **Central Savings Bank, (1969-1971)**

Mr. Majoros was an Assistant Branch Manager at the time he left the bank to attend college as a full-time student. During his tenure at the bank, Mr. Majoros gained experience in each department of the bank. In addition, he attended night school at the University of Baltimore.

## Education

University of Baltimore, School of Business, B.S. –  
 Concentration in Accounting

## Professional Affiliations

American Institute of Certified Public Accountants  
 Maryland Association of C.P.A.s  
 Society of Depreciation Professionals

## Publications, Papers, and Panels

*"Analysis of Staff Study on Comprehensive Tax Normalization," FERC Docket No. RM 80-42, 1980.*

*"Telephone Company Deferred Taxes and Investment Tax Credits – A Capital Loss for Ratepayers," Public Utility Fortnightly, September 27, 1984.*

*"The Use of Customer Discount Rates in Revenue Requirement Comparisons," Proceedings of the 25th Annual Iowa State Regulatory Conference, 1986*

*"The Regulatory Dilemma Created By Emerging Revenue Streams of Independent Telephone Companies," Proceedings of NARUC 101st Annual Convention and Regulatory Symposium, 1989.*

*"BOC Depreciation Issues in the States," National Association of State Utility Consumer Advocates, 1990 Mid-Year Meeting, 1990.*

*"Current Issues in Capital Recovery" 30<sup>th</sup> Annual Iowa State Regulatory Conference, 1991.*

*"Impaired Assets Under SFAS No. 121," National Association of State Utility Consumer Advocates, 1996 Mid-Year Meeting, 1996.*

*"What's 'Sunk' Ain't Stranded: Why Excessive Utility Depreciation is Avoidable," with James Campbell, Public Utilities Fortnightly, April 1, 1999.*

*"Local Exchange Carrier Depreciation Reserve Percents," with Richard B. Lee, Journal of the Society of Depreciation Professionals, Volume 10, Number 1, 2000-2001*

*"Rolling Over Ratepayers," Public Utilities Fortnightly, Volume 143, Number 11, November, 2005.*

*"Asset Management – What is it?," American Water Works Association, Pre-Conference Workshop, March 25, 2008.*

**Michael J. Majoros, Jr.**

**Date**                      **Jurisdiction / Agency**                      **Docket**                      **Utility**

**Federal Courts**

2005	US District Court, Northern District of AL, Northwestern Division <u>55/56/57/</u>	CV 01-B-403-NW	Tennessee Valley Authority
------	---	----------------	----------------------------

**State Legislatures**

2006	Maryland General Assembly <u>61/</u>	SB154	Maryland Healthy Air Act
2006	Maryland House of Delegates <u>62/</u>	HB189	Maryland Healthy Air Act

**Federal Regulatory Agencies**

1979	FERC-US <u>19/</u>	RP79-12	EI Paso Natural Gas Co.
1980	FERC-US <u>19/</u>	RM80-42	Generic Tax Normalization
1996	CRTC-Canada <u>30/</u>	97-9	All Canadian Telecoms
1997	CRTC-Canada <u>31/</u>	97-11	All Canadian Telecoms
1999	FCC <u>32/</u>	98-137 (Ex Parte)	All LECs
1999	FCC <u>32/</u>	98-91 (Ex Parte)	All LECs
1999	FCC <u>32/</u>	98-177 (Ex Parte)	All LECs
1999	FCC <u>32/</u>	98-45 (Ex Parte)	All LECs
2000	EPA <u>35/</u>	CAA-00-6	Tennessee Valley Authority
2003	FERC <u>48/</u>	RM02-7	All Utilities
2003	FCC <u>52/</u>	03-173	All LECs
2003	FERC <u>53/</u>	ER03-409-000, ER03-666-000	Pacific Gas and Electric Co.

**State Regulatory Agencies**

1982	Massachusetts <u>17/</u>	DPU 557/558	Western Mass Elec. Co.
1982	Illinois <u>16/</u>	ICC81-8115	Illinois Bell Telephone Co.
1983	Maryland <u>8/</u>	7574-Direct	Baltimore Gas & Electric Co.
1983	Maryland <u>8/</u>	7574-Surrebuttal	Baltimore Gas & Electric Co.
1983	Connecticut <u>15/</u>	810911	Woodlake Water Co.
1983	New Jersey <u>1/</u>	815-458	New Jersey Bell Tel. Co.
1983	New Jersey <u>14/</u>	8011-827	Atlantic City Sewerage Co.
1984	Dist. Of Columbia <u>7/</u>	785	Potomac Electric Power Co.
1984	Maryland <u>8/</u>	7689	Washington Gas Light Co.
1984	Dist. Of Columbia <u>7/</u>	798	C&P Tel. Co.
1984	Pennsylvania <u>13/</u>	R-832316	Bell Telephone Co. of PA
1984	New Mexico <u>12/</u>	1032	Mt. States Tel. & Telegraph
1984	Idaho <u>18/</u>	U-1000-70	Mt. States Tel. & Telegraph

**Michael J. Majoros, Jr.**

1984	Colorado <u>11/</u>	1655	Mt. States Tel. & Telegraph
1984	Dist. Of Columbia <u>7/</u>	813	Potomac Electric Power Co.
1984	Pennsylvania <u>3/</u>	R842621-R842625	Western Pa. Water Co.
1985	Maryland <u>8/</u>	7743	Potomac Edison Co.
1985	New Jersey <u>1/</u>	848-856	New Jersey Bell Tel. Co.
1985	Maryland <u>8/</u>	7851	C&P Tel. Co.
1985	California <u>10/</u>	I-85-03-78	Pacific Bell Telephone Co.
1985	Pennsylvania <u>3/</u>	R-850174	Phila. Suburban Water Co.
1985	Pennsylvania <u>3/</u>	R850178	Pennsylvania Gas & Water Co.
1985	Pennsylvania <u>3/</u>	R-850299	General Tel. Co. of PA
1986	Maryland <u>8/</u>	7899	Delmarva Power & Light Co.
1986	Maryland <u>8/</u>	7754	Chesapeake Utilities Corp.
1986	Pennsylvania <u>3/</u>	R-850268	York Water Co.
1986	Maryland <u>8/</u>	7953	Southern Md. Electric Corp.
1986	Idaho <u>9/</u>	U-1002-59	General Tel. Of the Northwest
1986	Maryland <u>8/</u>	7973	Baltimore Gas & Electric Co.
1987	Pennsylvania <u>3/</u>	R-860350	Dauphin Cons. Water Supply
1987	Pennsylvania <u>3/</u>	C-860923	Bell Telephone Co. of PA
1987	Iowa <u>6/</u>	DPU-86-2	Northwestern Bell Tel. Co.
1987	Dist. Of Columbia <u>7/</u>	842	Washington Gas Light Co.
1988	Florida <u>4/</u>	880069-TL	Southern Bell Telephone
1988	Iowa <u>6/</u>	RPU-87-3	Iowa Public Service Company
1988	Iowa <u>6/</u>	RPU-87-6	Northwestern Bell Tel. Co.
1988	Dist. Of Columbia <u>7/</u>	869	Potomac Electric Power Co.
1989	Iowa <u>6/</u>	RPU-88-6	Northwestern Bell Tel. Co.
1990	New Jersey <u>1/</u>	1487-88	Morris City Transfer Station
1990	New Jersey <u>5/</u>	WR 88-80967	Toms River Water Company
1990	Florida <u>4/</u>	890256-TL	Southern Bell Company
1990	New Jersey <u>1/</u>	ER89110912J	Jersey Central Power & Light
1990	New Jersey <u>1/</u>	WR90050497J	Elizabethtown Water Co.
1991	Pennsylvania <u>3/</u>	P900465	United Tel. Co. of Pa.
1991	West Virginia <u>2/</u>	90-564-T-D	C&P Telephone Co.
1991	New Jersey <u>1/</u>	90080792J	Hackensack Water Co.
1991	New Jersey <u>1/</u>	WR90080884J	Middlesex Water Co.
1991	Pennsylvania <u>3/</u>	R-911892	Phil. Suburban Water Co.
1991	Kansas <u>20/</u>	176, 716-U	Kansas Power & Light Co.
1991	Indiana <u>29/</u>	39017	Indiana Bell Telephone
1991	Nevada <u>21/</u>	91-5054	Central Tele. Co. – Nevada
1992	New Jersey <u>1/</u>	EE91081428	Public Service Electric & Gas
1992	Maryland <u>8/</u>	8462	C&P Telephone Co.
1992	West Virginia <u>2/</u>	91-1037-E-D	Appalachian Power Co.
1993	Maryland <u>8/</u>	8464	Potomac Electric Power Co.
1993	South Carolina <u>22/</u>	92-227-C	Southern Bell Telephone
1993	Maryland <u>8/</u>	8485	Baltimore Gas & Electric Co.
1993	Georgia <u>23/</u>	4451-U	Atlanta Gas Light Co.

**Michael J. Majoros, Jr.**

1993	New Jersey <u>1/</u>	GR93040114	New Jersey Natural Gas. Co.
1994	Iowa <u>6/</u>	RPU-93-9	U.S. West – Iowa
1994	Iowa <u>6/</u>	RPU-94-3	Midwest Gas
1995	Delaware <u>24/</u>	94-149	Wilm. Suburban Water Corp.
1995	Connecticut <u>25/</u>	94-10-03	So. New England Telephone
1995	Connecticut <u>25/</u>	95-03-01	So. New England Telephone
1995	Pennsylvania <u>3/</u>	R-00953300	Citizens Utilities Company
1995	Georgia <u>23/</u>	5503-0	Southern Bell
1996	Maryland <u>8/</u>	8715	Bell Atlantic
1996	Arizona <u>26/</u>	E-1032-95-417	Citizens Utilities Company
1996	New Hampshire <u>27/</u>	DE 96-252	New England Telephone
1997	Iowa <u>6/</u>	DPU-96-1	U S West – Iowa
1997	Ohio <u>28/</u>	96-922-TP-UNC	Ameritech – Ohio
1997	Michigan <u>28/</u>	U-11280	Ameritech – Michigan
1997	Michigan <u>28/</u>	U-112 81	GTE North
1997	Wyoming <u>27/</u>	7000-ztr-96-323	US West – Wyoming
1997	Iowa <u>6/</u>	RPU-96-9	US West – Iowa
1997	Illinois <u>28/</u>	96-0486-0569	Ameritech – Illinois
1997	Indiana <u>28/</u>	40611	Ameritech – Indiana
1997	Indiana <u>27/</u>	40734	GTE North
1997	Utah <u>27/</u>	97-049-08	US West – Utah
1997	Georgia <u>28/</u>	7061-U	BellSouth – Georgia
1997	Connecticut <u>25/</u>	96-04-07	So. New England Telephone
1998	Florida <u>28/</u>	960833-TP et. al.	BellSouth – Florida
1998	Illinois <u>27/</u>	97-0355	GTE North/South
1998	Michigan <u>33/</u>	U-11726	Detroit Edison
1999	Maryland <u>8/</u>	8794	Baltimore Gas & Electric Co.
1999	Maryland <u>8/</u>	8795	Delmarva Power & Light Co.
1999	Maryland <u>8/</u>	8797	Potomac Edison Company
1999	West Virginia <u>2/</u>	98-0452-E-GI	Electric Restructuring
1999	Delaware <u>24/</u>	98-98	United Water Company
1999	Pennsylvania <u>3/</u>	R-00994638	Pennsylvania American Water
1999	West Virginia <u>2/</u>	98-0985-W-D	West Virginia American Water
1999	Michigan <u>33/</u>	U-11495	Detroit Edison
2000	Delaware <u>24/</u>	99-466	Tidewater Utilities
2000	New Mexico <u>34/</u>	3008	US WEST Communications, Inc.
2000	Florida <u>28/</u>	990649-TP	BellSouth -Florida
2000	New Jersey <u>1/</u>	WR30174	Consumer New Jersey Water
2000	Pennsylvania <u>3/</u>	R-00994868	Philadelphia Suburban Water
2000	Pennsylvania <u>3/</u>	R-0005212	Pennsylvania American Sewerage
2000	Connecticut <u>25/</u>	00-07-17	Southern New England Telephone
2001	Kentucky <u>36/</u>	2000-373	Jackson Energy Cooperative
2001	Kansas <u>38/39/40/</u>	01-WSRE-436-RTS	Western Resources
2001	South Carolina <u>22/</u>	2001-93-E	Carolina Power & Light Co.
2001	North Dakota <u>37/</u>	PU-400-00-521	Northern States Power/Xcel Energy

**Michael J. Majoros, Jr.**

2001	Indiana 29/41/	41746	Northern Indiana Power Company
2001	New Jersey 1/	GR01050328	Public Service Electric and Gas
2001	Pennsylvania 3/	R-00016236	York Water Company
2001	Pennsylvania 3/	R-00016339	Pennsylvania America Water
2001	Pennsylvania 3/	R-00016356	Wellsboro Electric Coop.
2001	Florida 4/	010949-EL	Gulf Power Company
2001	Hawaii 42/	00-309	The Gas Company
2002	Pennsylvania 3/	R-00016750	Philadelphia Suburban
2002	Nevada 43/	01-10001 &10002	Nevada Power Company
2002	Kentucky 36/	2001-244	Fleming Mason Electric Coop.
2002	Nevada 43/	01-11031	Sierra Pacific Power Company
2002	Georgia 27/	14361-U	BellSouth-Georgia
2002	Alaska 44/	U-01-34,82-87,66	Alaska Communications Systems
2002	Wisconsin 45/	2055-TR-102	CenturyTel
2002	Wisconsin 45/	5846-TR-102	TelUSA
2002	Vermont 46/	6596	Citizen's Energy Services
2002	North Dakota 37/	PU-399-02-183	Montana Dakota Utilities
2002	Kansas 40/	02-MDWG-922-RTS	Midwest Energy
2002	Kentucky 36/	2002-00145	Columbia Gas
2002	Oklahoma 47/	200200166	Reliant Energy ARKLA
2002	New Jersey 1/	GR02040245	Elizabethtown Gas Company
2003	New Jersey 1/	ER02050303	Public Service Electric and Gas Co.
2003	Hawaii 42/	01-0255	Young Brothers Tug & Barge
2003	New Jersey 1/	ER02080506	Jersey Central Power & Light
2003	New Jersey 1/	ER02100724	Rockland Electric Co.
2003	Pennsylvania 3/	R-00027975	The York Water Co.
2003	Pennsylvania /3	R-00038304	Pennsylvania-American Water Co.
2003	Kansas 20/ 40/	03-KGSG-602-RTS	Kansas Gas Service
2003	Nova Scotia, CN 49/	EMO NSPI	Nova Scotia Power, Inc.
2003	Kentucky 36/	2003-00252	Union Light Heat & Power
2003	Alaska 44/	U-96-89	ACS Communications, Inc.
2003	Indiana 29/	42359	PSI Energy, Inc.
2003	Kansas 20/ 40/	03-ATMG-1036-RTS	Atmos Energy
2003	Florida 50/	030001-E1	Tampa Electric Company
2003	Maryland 51/	8960	Washington Gas Light
2003	Hawaii 42/	02-0391	Hawaiian Electric Company
2003	Illinois 28/	02-0864	SBC Illinois
2003	Indiana 28/	42393	SBC Indiana
2004	New Jersey 1/	ER03020110	Atlantic City Electric Co.
2004	Arizona 26/	E-01345A-03-0437	Arizona Public Service Company
2004	Michigan 27/	U-13531	SBC Michigan
2004	New Jersey 1/	GR03080683	South Jersey Gas Company
2004	Kentucky 36/	2003-00434,00433	Kentucky Utilities, Louisville Gas & Electric
2004	Florida 50/ 54/	031033-EI	Tampa Electric Company

**Michael J. Majoros, Jr.**

2004	Kentucky 36/	2004-00067	Delta Natural Gas Company
2004	Georgia 23/	18300, 15392, 15393	Georgia Power Company
2004	Vermont 46/	6946, 6988	Central Vermont Public Service Corporation
2004	Delaware 24/	04-288	Delaware Electric Cooperative
2004	Missouri 58/	ER-2004-0570	Empire District Electric Company
2005	Florida 50/	041272-EI	Progress Energy Florida, Inc.
2005	Florida 50/	041291-EI	Florida Power & Light Company
2005	California 59/	A.04-12-014	Southern California Edison Co.
2005	Kentucky 36/	2005-00042	Union Light Heat & Power
2005	Florida 50/	050045 & 050188-EI	Florida Power & Light Co.
2005	Kansas 38/ 40/	05-WSEE-981-RTS	Westar Energy, Inc.
2006	Delaware 24/	05-304	Delmarva Power & Light Company
2006	California 59/	A.05-12-002	Pacific Gas & Electric Co.
2006	New Jersey 1/	GR05100845	Public Service Electric and Gas Co.
2006	Colorado 60/	06S-234EG	Public Service Co. of Colorado
2006	Kentucky 36/	2006-00172	Union Light, Heat & Power
2006	Kansas 40/	06-KGSG-1209-RTS	Kansas Gas Service
2006	West Virginia 2/	06-0960-E-42T, 06-1426-E-D	Allegheny Power
2006	West Virginia 2/	05-1120-G-30C, 06-0441-G-PC, et al.	Hope Gas, Inc. and Equitable Resources, Inc.
2007	Delaware 24/	06-284	Delmarva Power & Light Company
2007	Kentucky 36/	2006-00464	Atmos Energy Corporation
2007	Colorado 60/	06S-656G	Public Service Co. of Colorado
2007	California 59/	A.06-12-009, A.06-12-010	San Diego Gas & Electric Co., and Southern California Gas Co.
2007	Kentucky 36/	2007-00143	Kentucky-American Water Co.
2007	Kentucky 36/	2007-00089	Delta Natural Gas Co.
2008	Kansas 40/	08-ATMG-280-RTS	Atmos Energy Corporation
2008	New Jersey 1/	GR07110889	New Jersey Natural Gas Co.
2008	North Dakota 37/	PU-07-776	Northern States Power/Xcel Energy
2008	Pennsylvania 3/	A-2008-2034045 et al	UGI Utilities, Inc. / PPL Gas Utilities Corp.
2008	Washington 63/	UE-072300, UG-072301	Puget Sound Energy
2008	Pennsylvania 3/	R-2008-2032689	Pennsylvania-American Water Co. - Coatesville
2008	New Jersey 1/	WR08010020	NJ American Water Co.
2008	Washington 63/ 64/	UE-080416, UG-080417	Avista Corporation
2008	Texas 65/	473-08-3681, 35717	Oncor Electric Delivery Co.
2008	Tennessee 66/	08-00039	Tennessee-American Water Co.
2008	Kansas	08-WSEE-1041-RTS	Westar Energy, Inc.
2009	Kentucky 36/	2008-00409	East Kentucky Power Coop.

**Michael J. Majoros, Jr.**

2009	Indiana 29/	43501	Duke Energy Indiana
2009	Indiana 29/	43526	Northern Indiana Public Service Co.
2009	Michigan 33/	U-15611	Consumers Energy Company
2009	Kentucky 36/	2009-00141	Columbia Gas of Kentucky
2009	New Jersey 1/	GR00903015	Elizabethtown Gas Company
2009	District of Columbia 7/	FC 1076	Potomac Electric Power
2009	New Jersey 1/	GR09050422	Public Service Gas & Electric Co.
2009	Kentucky 36/	2009-00202	Duke Energy Kentucky Co.
2009			
2010	Kentucky 36/	2009-00549	Louisville Gas and Electric Co.
2010	Kentucky 36/	2009-00548	Kentucky Utilities Co.
2010	New Jersey	GR10010035	Southern New Jersey Gas Co.

**Michael J. Majoros, Jr.****PARTICIPATION AS NEGOTIATOR IN FCC TELEPHONE DEPRECIATION  
RATE REPRESRIPTION CONFERENCES**

<u>COMPANY</u>	<u>YEARS</u>	<u>CLIENT</u>
Diamond State Telephone Co. <u>24/</u>	1985 + 1988	Delaware Public Service Comm
Bell Telephone of Pennsylvania <u>3/</u>	1986 + 1989	PA Consumer Advocate
Chesapeake & Potomac Telephone Co. - Md. <u>8/</u>	1986	Maryland People's Counsel
Southwestern Bell Telephone – Kansas <u>20/</u>	1986	Kansas Corp. Commission
Southern Bell – Florida <u>4/</u>	1986	Florida Consumer Advocate
Chesapeake & Potomac Telephone Co.-W.Va. <u>2/</u>	1987 + 1990	West VA Consumer Advocate
New Jersey Bell Telephone Co. <u>1/</u>	1985 + 1988	New Jersey Rate Counsel
Southern Bell - South Carolina <u>22/</u>	1986 + 1989 + 1992	S. Carolina Consumer Advocate
GTE-North – Pennsylvania <u>3/</u>	1989	PA Consumer Advocate

**Michael J. Majoros, Jr.**

**PARTICIPATION IN PROCEEDINGS WHICH WERE  
SETTLED BEFORE TESTIMONY WAS SUBMITTED**

<u>STATE</u>	<u>DOCKET NO.</u>	<u>UTILITY</u>
Maryland <u>8/</u>	7878	Potomac Edison
Nevada <u>21/</u>	88-728	Southwest Gas
New Jersey <u>1/</u>	WR90090950J	New Jersey American Water
New Jersey <u>1/</u>	WR900050497J	Elizabethtown Water
New Jersey <u>1/</u>	WR91091483	Garden State Water
West Virginia <u>2/</u>	91-1037-E	Appalachian Power Co.
Nevada <u>21/</u>	92-7002	Central Telephone - Nevada
Pennsylvania <u>3/</u>	R-00932873	Blue Mountain Water
West Virginia <u>2/</u>	93-1165-E-D	Potomac Edison
West Virginia <u>2/</u>	94-0013-E-D	Monongahela Power
New Jersey <u>1/</u>	WR94030059	New Jersey American Water
New Jersey <u>1/</u>	WR95080346	Elizabethtown Water
New Jersey <u>1/</u>	WR95050219	Toms River Water Co.
Maryland <u>8/</u>	8796	Potomac Electric Power Co.
South Carolina <u>22/</u>	1999-077-E	Carolina Power & Light Co.
South Carolina <u>22/</u>	1999-072-E	Carolina Power & Light Co.
Kentucky <u>36/</u>	2001-104 & 141	Kentucky Utilities, Louisville Gas and Electric
Kentucky <u>36/</u>	2002-485	Jackson Purchase Energy Corporation
Kentucky <u>36/</u>	2009-00202	Duke Energy Kentucky
New Jersey <u>1/</u>	ER09080664	Atlantic City Electric Co.
New Jersey <u>1/</u>	ER09080668	Rockland Electric Co.

## Michael J. Majoros, Jr.

### Clients

<u>1/</u> New Jersey Rate Counsel/Advocate	<u>34/</u> New Mexico Attorney General
<u>2/</u> West Virginia Consumer Advocate	<u>35/</u> Environmental Protection Agency Enforcement Staff
<u>3/</u> Pennsylvania OCA	<u>36/</u> Kentucky Attorney General
<u>4/</u> Florida Office of Public Advocate	<u>37/</u> North Dakota Public Service Commission
<u>5/</u> Toms River Fire Commissioner's	<u>38/</u> Kansas Industrial Group
<u>6/</u> Iowa Office of Consumer Advocate	<u>39/</u> City of Wichita
<u>7/</u> D.C. People's Counsel	<u>40/</u> Kansas Citizens' Utility Rate Board
<u>8/</u> Maryland's People's Counsel	<u>41/</u> NIPSCO Industrial Group
<u>9/</u> Idaho Public Service Commission	<u>42/</u> Hawaii Division of Consumer Advocacy
<u>10/</u> Western Burglar and Fire Alarm	<u>43/</u> Nevada Bureau of Consumer Protection
<u>11/</u> U.S. Dept. of Defense	<u>44/</u> GCI
<u>12/</u> N.M. State Corporation Comm.	<u>45/</u> Wisc. Citizens' Utility Rate Board
<u>13/</u> City of Philadelphia	<u>46/</u> Vermont Department of Public Service
<u>14/</u> Resorts International	<u>47/</u> Oklahoma Corporation Commission
<u>15/</u> Woodlake Condominium Association	<u>48/</u> National Assn. of State Utility Consumer Advocates
<u>16/</u> Illinois Attorney General	<u>49/</u> Nova Scotia Utility and Review Board
<u>17/</u> Mass Coalition of Municipalities	<u>50/</u> Florida Office of Public Counsel
<u>18/</u> U.S. Department of Energy	<u>51/</u> Maryland Public Service Commission
<u>19/</u> Arizona Electric Power Corp.	<u>52/</u> MCI
<u>20/</u> Kansas Corporation Commission	<u>53/</u> Transmission Agency of Northern California
<u>21/</u> Public Service Comm. – Nevada	<u>54/</u> Florida Industrial Power Users Group
<u>22/</u> SC Dept. of Consumer Affairs	<u>55/</u> Sierra Club
<u>23/</u> Georgia Public Service Comm.	<u>56/</u> Our Children's Earth Foundation
<u>24/</u> Delaware Public Service Comm.	<u>57/</u> National Parks Conservation Association, Inc.
<u>25/</u> Conn. Ofc. Of Consumer Counsel	<u>58/</u> Missouri Office of the Public Counsel
<u>26/</u> Arizona Corp. Commission	<u>59/</u> The Utility Reform Network
<u>27/</u> AT&T	<u>60/</u> Colorado Office of Consumer Counsel
<u>28/</u> AT&T/MCI	<u>61/</u> MD State Senator Paul G. Pinsky
<u>29/</u> IN Office of Utility Consumer Counselor	<u>62/</u> MD Speaker of the House Michael Busch
<u>30/</u> Unitel (AT&T – Canada)	<u>63/</u> Washington Office of Public Counsel
<u>31/</u> Public Interest Advocacy Centre	<u>64/</u> Industrial Customers of Northwestern Utilities
<u>32/</u> U.S. General Services Administration	<u>65/</u> Steering Committee of Cities
<u>33/</u> Michigan Attorney General	<u>66/</u> City of Chattanooga

## Kim N. Hillenbrand – Resume

**Experience****Snavely King Majoros & O'Connor****Washington, DC****Senior Consultant (2003 to Present)**

Mr. Hillenbrand provides analytical support to SK clients and principals. His responsibilities include economics and cost modeling, operations simulation, financial analysis and reporting, database management and research.

Mr. Hillenbrand's work has primarily been in SK's Transportation group. His projects have included extensive cost and revenue analyses of rail freight logistics, along with preparation of databases for use in rate negotiations with railroads. He has conducted benchmark and market analysis of rail transportation for over 50 different companies.

Mr. Hillenbrand has also evaluated litigation options involving many of the STB rate reasonableness methodologies. He has performed rail feasibility studies for a coal fired utility plant; analyzed railroad abandonment filings; developed cost of capital and return on investment analyses; performed fuel surcharge analyses in both the trucking and rail industries. Mr. Hillenbrand has prepared action plans and presentations for clients on projects including merger analyses, plant site locations, and logistics issues. Additionally, he conducts research in the chemical, petroleum and transportation industries.

Mr. Hillenbrand has assisted in the preparation of client presentations and has prepared testimony for submission to the Surface Transportation Board and State Courts. For a state court proceeding he developed a cost model simulating costs of movements of Medicaid service vans, which was key to the successful outcome in the case.

His telecommunications and public utility experience includes preparation of complex regulatory reports for submission to state and federal regulatory agencies. Mr. Hillenbrand also supports other company witnesses and prepares exhibits for use in the depreciation aspects of regulatory proceedings. These exhibits range from a comparison of depreciation reserves for various accounts to the generation of life curves using in-house developed

software, and development of cost of removal estimates. In addition, Mr. Hillenbrand has assisted in preparing testimony involving issues including rate of return, rate design, and cost allocation studies. For a major government agency, Mr. Hillenbrand led a review and development of recommendations resulting in a 20 percent reduction in costs for wireless devices.

**Acsys, Inc (2002-2003)****Law Resources (2001-2003)****Washington DC**

Mr. Hillenbrand provided short and long term contract work for law, financial, and real-estate firms. Mr. Hillenbrand assisted in the migration of a client's patent and trademark portfolio from in house counsel outside counsel. Mr. Hillenbrand managed the distribution of incoming documents including EEO and FCC filings from clients and assisted in all aspects of the firms broadcasting, media, and satellite practices. Mr. Hillenbrand coordinated a 750,000 page document production and privilege log for a Department of Justice antitrust filing. He also compiled and managed privilege logs and prepared document productions on behalf of clients for SEC investigations. Mr. Hillenbrand conducted first review of client documents for SEC and Congressional investigations.

He assisted state security regulators in the first settlement between New York State and Merrill Lynch regarding conflict of interest between their research groups and investment banking groups. Mr. Hillenbrand conducted verification and complaint checks of stockbrokers and Certified Financial Advisors for investors and answered questions regarding the Series 6 and 63 Exams.

**RVC (formerly Reuters Venture Capital)****London, England (2000)****Analyst, Intern**

Mr. Hillenbrand assisted on a survey of Asia venture capital markets in preparation for future venture capital and fund of fund investments in the region. The survey included analysis of sources of capital, major investors, and destinations of capital in Asia.

Kim N. Hillenbrand – Resume

---

**Education**

Connecticut College

B.A. Economics

B.A. International Relations

Georgetown University

Summer Course Work

**Citizenship**

United States

United Kingdom

**Professional Organizations**

Association of Transportation Law Professionals

Transportation Research Forum

Kim N. Hillenbrand – Resume

---

## Testimony and Expert Reports

### Surface Transportation Board

<i>April 27, 2006</i>	Ex Parte 661, Rail Fuel Surcharges
<i>May 1, 2006</i>	Ex Parte 657 (Sub-No.1), Major Issues in Rail Rate Cases
<i>October 2, 2006</i>	Ex Parte 661, Rail Fuel Surcharges
<i>October 24, 2006</i>	Ex Parte 646 (Sub-No.1), Simplified Standards for Rail Rate Cases
<i>November 22, 2006</i>	NOR 42098, Williams Olefins LLC v Grand Trunk Corporation
<i>November 30, 2006</i>	Ex Parte 646 (Sub-No.1), Simplified Standards for Rail Rate Cases
<i>January 11, 2007</i>	Ex Parte 646 (Sub-No.1), Simplified Standards for Rail Rate Cases
<i>February 26, 2007</i>	Ex Parte 646 (Sub-No.1), Simplified Standards for Rail Rate Cases
<i>April 2, 2007</i>	Ex Parte 661 (Sub-No.1), Rail Fuel Surcharges
<i>August 24, 2009</i>	U.S. Magnesium, LLC v. Union Pacific Railroad Company
<i>September 22, 2009</i>	U.S. Magnesium, LLC v. Union Pacific Railroad Company
<i>October 24, 2009</i>	U.S. Magnesium, LLC v. Union Pacific Railroad Company

# Edward D. Christian, CPA

---

## Experience

### **Snavelly King Majoros & O'Connor, Inc.**

#### ***Consultant (2011-Present)***

Perform detail analysis of financials and supporting calculations in performance of rate based audits and examinations for public utilities.

Coordinated/participated in special projects including capital reconciliation for real estate joint ventures, consolidation of real estate joint venture, analytical review of real estate operations, and emerging accounting issues.

Performed the analytics and review of the quarterly financial reporting package for the company. This included guarantee assets including buy up, guarantee obligations, and FAS 140/ FIN 45 income statement.

### **The Siegfried Group LLP**

#### ***Consultant (August 2010 – May 2011)***

Senior Auditor on a nine month internal audit assignment with PwC. Project involved IT auditing, SOX Compliance, Operational Auditing and Core Assurance for clients specializing in government contracting.

### **Mendelson and Mendelson, P.C.**

#### ***Senior Auditor/Tax Accountant (June 2004 – May 2007)***

Supervised and reviewed various audits and attest engagements for a wide array of clients in the following sectors- non-for-profit, manufacturing, and closely held, law firms, restaurants, construction firms, real estate entities, and medical practices.

### **Legg Mason, Inc.**

#### ***Senior Internal Auditor (June 2007 – August 2010)***

Participated as a team member for the implementation of internal control assessment and testing for domestic and international subsidiaries. Developed new accounting policies to address the correction and adjustments process of financial statements.

Additional responsibilities included corporate, personal, partnership, trust and estate tax preparation and outsourced Controllorship for various companies, corporate financing for startups, due diligence for purchase acquisitions, and business development.

Sarbanes Oxley team member. Primary duties included the identification and testing of critical hand-offs of entity processes, sub-process, and applications.

### **Lindsey and Associates CPAs, LLC**

#### ***Entry Level Staff Auditor (August, 1999 – July 2000)***

#### ***Staff Auditor (July 2000-July 2002)***

#### ***Senior Auditor (July 2002- May 2004)***

Assisted in the performance of various audit and attest engagements for small to midsize companies, governmental entities, and non-for profit entities.

Documentation, analysis and validation of accounting policy for numerous processes related to SFAS 140 and SFAS 115 which included analyzing new products that may have an operational risk assessment and advised management of the impact to the corporate accounting policies. Additionally, produced and reconciled various reports to meet GAAP and statutory requirements including FAS 144-Impairment Analysis, FAS 115-Market Valuations, and FIN46.

Additional responsibilities include reviews, compilations, and tax preparation of corporate and individual tax returns.

# Edward D. Christian, CPA

---

## **T. Rowe Price Associates**

***Accounting Assistant (December 1996- January 1998)***

***Senior Accounting Assistant (January 1998- July 1999)***

Performed general ledger accounting and assisted with the month end close process.

Additional duties included assisting with SEC quarterly reviews, annual 10K audit, and regulatory compliance audits.

## **Education**

University of Baltimore - Baltimore, Maryland

B.S. Accounting

## **Professional Affiliations:**

Member American Institute of Certified Public Accountants (AICPA) and Institute of Internal Auditors (IIA)

# James Shay Garren

---

## Experience

### **Snavelly, King, Majoros, O'Connor & Bedell, Inc.**

#### ***Analyst (2010-Present)***

Mr. Garren provides analytical support to SK clients and principals. His responsibilities include quantitative and qualitative analysis, preparation of client presentations, and case management. Mr. Garren works primarily in the areas of depreciation and also supports company witnesses and prepares exhibits for use the revenue requirement, cost-allocation, rate design, and rate of return aspects of regulatory proceedings. He is also responsible for internal administration of the Firm's GSA Multiple Award Schedule contract.

## Issue Advocacy Organization

### ***State Policies Assistant- Temp position 01/2009-11/2009***

Assisting with a wide variety of tasks including, but not limited to research, updating organization website with current news, extensive member/supporter communication, and database maintenance.

### **Binder and Binder, LLC**

#### ***Client Advocate/Non-Attorney Representative 01/2007-08/2008***

Mr. Garren's primary duties at Binder were legal writing; producing client and ALJ correspondence, case memoranda, expert witness interrogatories, and arguments in favor of appeal. From July 2007 acted the company president's primary legal writer. In June of 2007, Mr. Garren became certified as a non-attorney representative. From that time, responsibilities included performing three to five Social Security Disability hearings per week.

Mr. Garren was also responsible for thoroughly developing medical and vocational evidence from the initial filing phase, through Administrative hearing.

## Education

Marlboro College, Marlboro, Vermont, B.A. - Literature and Philosophy

Mr. Garren fulfilled Marlboro College's graduation requirement with a thesis on ethical issues in the works of Dostoevsky and Nietzsche. Exploring early post-modern ethical thinking in literature and philosophy.

## **Experience**

### **Snavelly, King, Majoros & O'Connor, Inc.**

#### ***Analyst (2010-Present)***

Mr. Semanik provides analytical support to SK clients and principals. His main responsibilities include research and quantitative analysis for cases in depreciation and rate of return. Mr. Semanik's work consistently requires the in-depth use of Microsoft Excel for the creation and manipulation of detailed spreadsheets. In addition to MS Excel, he also uses SK's unique analysis system to perform further calculations in the field of depreciation.

Mr. Semanik is familiar with navigating and searching many different State and Federal government websites for specific information in the course of researching cases.

## **CFA Institute**

#### ***Staff - temporary position 2008***

Mr. Semanik provided quality control in the grading of CFA (Chartered Financial Analyst) examinations. This included a detailed check of individual examinations in addition to the electronic input of grades. In addition to quality control, he performed the sorting, processing, and distribution of the confidential examinations.

Mr. Semanik was also responsible for general administrative and organizational tasks when the need arrived.

## **Education**

College of William and Mary, Williamsburg, VA

B.A. Economics

**Snavely King Majoros & O'Connor, Inc.**  
**Montana-Dakota Utilities Company & Otter Tail Power Company Advance Determination of Prudence Application**

The proposed budget is based on Snavely King's GSA Schedule Rates which are subject to negotiated discount.

Description	Hours					Fees/ Expenses
	Senior Professional Majoros	Senior Professional Pavlovic	Analyst Engineer	Professional	Research Assistant I	
1 Snavely King will review and evaluate Case No. PU-11-163 Application Exhibits Attachment	20	30	30	40	80	
2 Prepare a report identifying issues and flaws in cost estimates and planning analyses	8	10	4	20	40	
3 Provide assistance on prehearing documents	4	4		8	20	
4 Provide written testimony	20	20		8	16	
5 Provide oral testimony and attendance at hearing (three days)	24	24				
6 Provide assistance in preparing post-hearing documents	8	8		8	20	
7 Total Hours	84	96	34	84	176	
8 Rate per Hour*	\$ 202	\$ 202	\$ 150	\$ 133	\$ 57	
9 Total Fees	16,997	19,426	5,100	11,161	10,044	\$ 62,728
10 Travel to North Dakota - One Trip	1,500	1,500				3,000
11 Total Cost	\$ 18,497	\$ 20,926	\$ 5,100	\$ 11,161	\$ 10,044	\$ 65,728

\*Per Snavely King Majoros & O'Connor GSA Schedule GS-10F-0071W:

[https://www.gsadvantage.gov/advantage/contractor/contractor\\_detail.do?mapName=/s/search/&contractNumber=GS-10F-0071W](https://www.gsadvantage.gov/advantage/contractor/contractor_detail.do?mapName=/s/search/&contractNumber=GS-10F-0071W)