

**The Union Light, Heat and Power Company**  
**d/b/a Duke Energy Kentucky**  
**Case No. 2006-00172**  
**Forecasted Test Period Filing Requirements**  
**Table of Contents**

**RECEIVED**

**MAY 31 2006**

**PUBLIC SERVICE  
COMMISSION**

<b>Vol. #</b>	<b>Tab #</b>	<b>Filing Requirement</b>	<b>Description</b>	<b>Sponsoring Witness</b>
1	1	KRS 278.180	30 days' notice of rates to PSC.	Sandra P. Meyer
1	2	807 KAR 5:001 Section 8 (1)	Full name and P.O. address of applicant and reference to the particular provision of law requiring PSC approval.	Sandra P. Meyer
1	3	807 KAR 5:001 Section 8 (2)	The original and 10 copies of application plus copy for anyone named as interested party.	Sandra P. Meyer
1	4	807 KAR 5:001 Section 10 (1)(b)(1)	Reason adjustment is required.	Paul G. Smith
1	5	807 KAR 5:001 Section 10 (1)(b)(2)	Statement that utility's annual reports, including the most recent calendar year, are filed with PSC. 807 KAR 5:006, Section 3 (1).	Dwight L. Jacobs
1	6	807 KAR 5:001 Section 10 (1)(b)(3) and (5)	If utility is incorporated, certified copy of articles of incorporation and amendments or out of state documents of similar import. If they have already been filed with PSC refer to the style and case number of the prior proceeding and file a certificate of good standing or authorization dated within 60 days of date application filed.	Sandra P. Meyer
1	7	807 KAR 5:001 Section 10 (1)(b)(4)	If applicant is limited partnership, certified copy of limited partnership agreement. If agreement filed with PSC refer to style and case number of prior proceeding and file a certificate of good standing or authorization dated within 60 days of date application filed.	Sandra P. Meyer
1	8	807 KAR 5:001 Section 10 (1)(b)(6)	Certified copy of certificate of assumed name required by KRS 365.015 or statement that certificate not necessary.	Sandra P. Meyer
1	9	807 KAR 5:001 Section 10 (1)(b)(7)	Proposed tariff in form complying with 807 KAR 5:011 effective not less than 30 days from date application filed.	Jeffrey R. Bailey
1	10	807 KAR 5:001 Section 10 (1)(b)(8)	Proposed tariff changes shown by present and proposed tariffs in comparative form or by indicating additions in italics or by underscoring and striking over deletions in current tariff.	Jeffrey R. Bailey
1	11	807 KAR 5:001 Section 10 (1)(b)(9)	Statement that notice given, see subsections (3) and (4) of 807 KAR 5:001, Section 10 with copy.	Sandra P. Meyer
1	12	807 KAR 5:001 Section 10 (2)	If gross annual revenues exceed \$1,000,000, written notice of intent filed at least 4 weeks prior to application. Notice shall state whether application will be supported by historical or fully forecasted test period.	Sandra P. Meyer
1	13	807 KAR 5:001 Section 10 (4) (a)	Sewer utilities shall give the required typewritten notice by mail to all of their customers pursuant to KRS 278.185.	Sandra P. Meyer
1	14	807 KAR 5:001 Section 10 (4)(b)	Applicants with twenty (20) or fewer customers affected by the proposed general rate adjustment shall mail the required typewritten notice to each customer no later than the date the application is	Sandra P. Meyer

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Case No. 2006-00172  
Forecasted Test Period Filing Requirements  
Table of Contents**

<b>Vol. #</b>	<b>Tab #</b>	<b>Filing Requirement</b>	<b>Description</b>	<b>Sponsoring Witness</b>
			filed with the commission.	
1	15	807 KAR 5:001 Section 10 (4)(c)	Except for sewer utilities, applicants with more than twenty (20) customers affected by the proposed general rate adjustment shall give the required notice by one (1) of the following methods: 1. A typewritten notice mailed to all customers no later than the date the application is filed with the commission; 2. Publishing the notice in a trade publication or newsletter which is mailed to all customers no later than the date on which the application is filed with the commission; or 3. Publishing the notice once a week for three (3) consecutive weeks in a prominent manner in a newspaper of general circulation in the utility's service area, the first publication to be made within seven (7) days of the filing of the application with the commission.	Sandra P. Meyer
1	16	807 KAR 5:001 Section 10 (4)(d)	If notice is published, an affidavit from the publisher verifying that the notice was published, including the dates of the publication with an attached copy of the published notice, shall be filed with the Commission no later than forty-five (45) days of the filed date of the application.	Sandra P. Meyer
1	17	807 KAR 5:001 Section 10 (4)(e)	If notice is mailed, a written statement signed by the utility's chief officer in charge of Kentucky operations verifying the notice was mailed shall be filed with the Commission no later than thirty (30) days of the filed date of the application.	Sandra P. Meyer
1	18	807 KAR 5:001 Section 10 (4)(f)	All utilities, in addition to the above notification, shall post a sample copy of the required notification at their place of business no later than the date on which the application is filed which shall remain posted until the commission has finally determined the utility's rates.	Sandra P. Meyer
1	19	807 KAR 5:001 Section 10 (5)	Notice of hearing scheduled by the commission upon application by a utility for a general adjustment in rates shall be advertised by the utility by newspaper publication in the areas that will be affected in compliance with KRS 424.300.	Sandra P. Meyer
1	20	807 KAR 5:001 Section 10 (8)(a)	Financial data for forecasted period presented as pro forma adjustments to base period.	William Don Wathen, Jr.
1	21	807 KAR 5:001 Section 10 (8)(b)	Forecasted adjustments shall be limited to the 12 months immediately following the suspension period.	William Don Wathen, Jr.
1	22	807 KAR 5:001 Section 10 (8)(c)	Capitalization and net investment rate base shall be based on a 13 month average for the forecasted period.	William Don Wathen, Jr.

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Table of Contents**

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1	23	807 KAR 5:001 Section 10 (8)(d)	After an application based on a forecasted test period is filed, there shall be no revisions to the forecast, except for the correction of mathematical errors, unless such revisions reflect statutory or regulatory enactments that could not, with reasonable diligence, have been included in the forecast on the date it was filed. There shall be no revisions filed within thirty (30) days of a scheduled hearing on the rate application.	William Don Wathen, Jr.
1	24	807 KAR 5:001 Section 10 (8)(e)	The commission may require the utility to prepare an alternative forecast based on a reasonable number of changes in the variables, assumptions, and other factors used as the basis for the utility's forecast.	William Don Wathen, Jr.
1	25	807 KAR 5:001 Section 10 (8)(f)	Reconciliation of rate base and capital used to determine revenue requirements.	William Don Wathen, Jr.
1	26	807 KAR 5:001 Section 10 (9)(a)	Prepared testimony of each witness supporting its application including testimony from chief officer in charge of Kentucky operations on the existing programs to achieve improvements in efficiency and productivity, including an explanation of the purpose of the program.	All witnesses
1	27	807 KAR 5:001 Section 10 (9)(b)	Most recent capital construction budget containing at minimum 3 year forecast of construction expenditures.	Jim L. Stanley John J. Roebel
1	28	807 KAR 5:001 Section 10 (9)(c)	Complete description, which may be in prefiled testimony form, of all factors used to prepare forecast period. All econometric models, variables, assumptions, escalation factors, contingency provisions, and changes in activity levels shall be quantified, explained, and properly supported.	Brian P. Davey
1	29	807 KAR 5:001 Section 10 (9)(d)	Annual and monthly budget for the 12 months preceding filing date, base period and forecasted period.	Brian P. Davey
1	30	807 KAR 5:001 Section 10 (9)(e)	Attestation signed by utility's chief officer in charge of Kentucky operations providing: 1. That forecast is reasonable, reliable, made in good faith and that all basic assumptions used have been identified and justified; and 2. That forecast contains same assumptions and methodologies used in forecast prepared for use by management, or an identification and explanation for any differences; and 3. That productivity and efficiency gains are included in the forecast.	Sandra P. Meyer
1	31	807 KAR 5:001 Section 10 (9)(f)	For each major construction project constituting 5% or more of annual construction budget within 3 year forecast, following information shall be filed: 1. Date project began or estimated starting date;	Jim L. Stanley John J. Roebel

**The Union Light, Heat and Power Company  
d/b/a Duke Energy Kentucky  
Case No. 2006-00172  
Forecasted Test Period Filing Requirements  
Table of Contents**

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			<ol style="list-style-type: none"> <li>2. Estimated completion date;</li> <li>3. Total estimated cost of construction by year exclusive and inclusive of Allowance for Funds Used During construction ("AFUDC") or Interest During construction Credit; and</li> <li>4. Most recent available total costs incurred exclusive and inclusive of AFUDC or Interest During Construction Credit.</li> </ol>	
1	32	807 KAR 5:001 Section 10 (9)(g)	For all construction projects constituting less than 5% of annual construction budget within 3 year forecast, file aggregate of information requested in paragraph (f) 3 and 4 of this subsection.	Jim L. Stanley John J. Roebel
1	33	807 KAR 5:001 Section 10 (9)(h)	<p>Financial forecast for each of 3 forecasted years included in capital construction budget supported by underlying assumptions made in projecting results of operations and including the following information:</p> <ol style="list-style-type: none"> <li>1. Operating income statement (exclusive of dividends per share or earnings per share);</li> <li>2. Balance sheet;</li> <li>3. Statement of cash flows;</li> <li>4. Revenue requirements necessary to support the forecasted rate of return;</li> <li>5. Load forecast including energy and demand (electric);</li> <li>6. Access line forecast (telephone);</li> <li>7. Mix of generation (electric);</li> <li>8. Mix of gas supply (gas);</li> <li>9. Employee level;</li> <li>10. Labor cost changes;</li> <li>11. Capital structure requirements;</li> <li>12. Rate base;</li> <li>13. Gallons of water projected to be sold (water);</li> <li>14. Customer forecast (gas, water);</li> <li>15. MCF sales forecasts (gas);</li> <li>16. Toll and access forecast of number of calls and number of minutes (telephone); and</li> <li>17. A detailed explanation of any other information provided.</li> </ol>	Brian P. Davey Lynn J. Good  #6, #13, #16 & #17 Not applicable
1	34	807 KAR 5:001 Section 10 (9)(i)	Most recent FERC or FCC audit reports.	Dwight L. Jacobs
1	35	807 KAR 5:001 Section 10 (9)(j)	Prospectuses of most recent stock or bond offerings.	Lynn J. Good
1	36	807 KAR 5:001 Section 10 (9)(k)	Most recent FERC Form 1 (electric), FERC Form 2 (gas), or the Automated Reporting Management Information System Report (telephone) and PSC Form T (telephone).	Dwight L. Jacobs
2	37	807 KAR 5:001 Section 10 (9)(l)	Annual report to shareholders or members and statistical supplements for the most recent 5 years prior to application filing date.	Dwight L. Jacobs

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Forecasted Test Period Filing Requirements  
Table of Contents**

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3	38	807 KAR 5:001 Section 10 (9)(m)	Current chart of accounts if more detailed than Uniform System of Accounts charts.	Dwight L. Jacobs
3	39	807 KAR 5:001 Section 10 (9)(n)	Latest 12 months of the monthly managerial reports providing financial results of operations in comparison to forecast.	Brian P. Davey
3	40	807 KAR 5:001 Section 10 (9)(o)	Complete monthly budget variance reports, with narrative explanations, for the 12 months prior to base period, each month of base period, and subsequent months, as available.	Brian P. Davey
4-7	41	807 KAR 5:001 Section 10 (9)(p)	SEC's annual report for most recent 2 years, Form 10-Ks and any Form 8-Ks issued during prior 2 years and any Form 10-Qs issued during past 6 quarters.	Dwight L. Jacobs
8	42	807 KAR 5:001 Section 10 (9)(q)	Independent auditor's annual opinion report, with any written communication which indicates the existence of a material weakness in internal controls.	Dwight L. Jacobs
8	43	807 KAR 5:001 Section 10 (9)(r)	Quarterly reports to the stockholders for the most recent 5 quarters.	Dwight L. Jacobs
8	44	807 KAR 5:001 Section 10 (9)(s)	Summary of latest depreciation study with schedules itemized by major plant accounts, except that telecommunications utilities adopting PSC's average depreciation rates shall identify current and base period depreciation rates used by major plant accounts. If information has been filed in another PSC case, refer to that case's number and style.	John J. Spanos
8	45	807 KAR 5:001 Section 10 (9)(t)	List all commercial or in-house computer software, programs, and models used to develop schedules and work papers associated with application. Include each software, program, or model; its use; identify the supplier of each; briefly describe software, program, or model; specifications for computer hardware and operating system required to run program	William Don Wathen, Jr.

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Table of Contents**

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8	46	807 KAR 5:001 Section 10 (9)(u)	If utility had any amounts charged or allocated to it by affiliate or general or home office or paid any monies to affiliate or general or home office during the base period or during previous 3 calendar years, file: 1. Detailed description of method of calculation and amounts allocated or charged to utility by affiliate or general or home office for each allocation or payment; 2. method and amounts allocated during base period and method and estimated amounts to be allocated during forecasted test period; 3. Explain how allocator for both base and forecasted test period was determined; and 4. All facts relied upon, including other regulatory approval, to demonstrate that each amount charged, allocated or paid during base period is reasonable.	Carol E. Shrum
9	47	807 KAR 5:001 Section 10 (9)(v)	If gas, electric or water utility with annual gross revenues greater than \$5,000,000, cost of service study based on methodology generally accepted in industry and based on current and reliable data from single time period.	Paul F. Ochsner
10	48	807 KAR 5:001 Section 10 (9)(w)	Local exchange carriers with fewer than 50,000 access lines need not file cost of service studies, except as specifically directed by PSC. Local exchange carriers with more than 50,000 access lines shall file: 1. Jurisdictional separations study consistent with Part 36 of the FCC's rules and regulations; and 2. Service specific cost studies supporting pricing of services generating annual revenue greater than \$1,000,000 except local exchange access: a. Based on current and reliable data from single time period; and b. Using generally recognized fully allocated, embedded, or incremental cost principles.	Not applicable
10	49	807 KAR 5:001 Section 10 (10)(a)	Jurisdictional financial summary for both base and forecasted periods detailing how utility derived amount of requested revenue increase.	William Don Wathen, Jr.
10	50	807 KAR 5:001 Section 10 (10)(b)	Jurisdictional rate base summary for both base and forecasted periods with supporting schedules which include detailed analyses of each component of the rate base.	William Don Wathen, Jr.
10	51	807 KAR 5:001 Section 10 (10)(c)	Jurisdictional operating income summary for both base and forecasted periods with supporting schedules which provide breakdowns by major account group and by individual account.	William Don Wathen, Jr.

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Forecasted Test Period Filing Requirements  
Table of Contents**

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10	52	807 KAR 5:001 Section 10 (10)(d)	Summary of jurisdictional adjustments to operating income by major account with supporting schedules for individual adjustments and jurisdictional factors.	William Don Wathen, Jr.
10	53	807 KAR 5:001 Section 10 (10)(e)	Jurisdictional federal and state income tax summary for both base and forecasted periods with all supporting schedules of the various components of jurisdictional income taxes.	Keith G. Butler
10	54	807 KAR 5:001 Section 10 (10)(f)	Summary schedules for both base and forecasted periods (utility may also provide summary segregating items it proposes to recover in rates) of organization membership dues; initiation fees; expenditures for country club; charitable contributions; marketing, sales, and advertising; professional services; civic and political activities; employee parties and outings; employee gifts; and rate cases.	William Don Wathen, Jr.
10	55	807 KAR 5:001 Section 10 (10)(g)	Analyses of payroll costs including schedules for wages and salaries, employee benefits, payroll taxes, straight time and overtime hours, and executive compensation by title.	William Don Wathen, Jr.
10	56	807 KAR 5:001 Section 10 (10)(h)	Computation of gross revenue conversion factor for forecasted period.	William Don Wathen, Jr.
10	57	807 KAR 5:001 Section 10 (10)(i)	Comparative income statements (exclusive of dividends per share or earnings per share), revenue statistics and sales statistics for 5 calendar years prior to application filing date, base period, forecasted period, and 2 calendar years beyond forecast period.	Brian P. Davey
10	58	807 KAR 5:001 Section 10 (10)(j)	Cost of capital summary for both base and forecasted periods with supporting schedules providing details on each component of the capital structure.	Lynn J. Good
10	59	807 KAR 5:001 Section 10 (10)(k)	Comparative financial data and earnings measures for the 10 most recent calendar years, base period, and forecast period.	Brian P. Davey
10	60	807 KAR 5:001 Section 10 (10)(l)	Narrative description and explanation of all proposed tariff changes.	Jeffrey R. Bailey
10	61	807 KAR 5:001 Section 10 (10)(m)	Revenue summary for both base and forecasted periods with supporting schedules which provide detailed billing analyses for all customer classes.	Jeffrey R. Bailey
10	62	807 KAR 5:001 Section 10 (10)(n)	Typical bill comparison under present and proposed rates for all customer classes.	Jeffrey R. Bailey

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Table of Contents**

<b>Vol. #</b>	<b>Tab #</b>	<b>Filing Requirement</b>	<b>Description</b>	<b>Sponsoring Witness</b>
10	63	807 KAR 5:001 Section (10)(3)	Amount of change requested in dollar amounts and percentage for each customer classification to which change will apply. a. Present and proposed rates for each customer class to which change would apply. b. Electric, gas, water and sewer utilities-the effect upon average bill for each customer class to which change would apply. c. Local exchange companies-include effect upon average bill for each customer class for change in basic local service.	Jeffrey R. Bailey
10	64	807 KAR 5:001 Section 10 (4)(c)(d)(e)(f)	If copy of public notice included, did it meet requirements?	Sandra P. Meyer
10	65	807 KAR 5:001 Section 6(1)	Amount and kinds of stock authorized.	Lynn J. Good
10	66	807 KAR 5:001 Section 6(2)	Amount and kinds of stock issued and outstanding.	Lynn J. Good
10	67	807 KAR 5:001 Section 6(3)	Terms of preference of preferred stock whether cumulative or participating, or on dividends or assets or otherwise.	Lynn J. Good
10	68	807 KAR 5:001 Section 6(4)	Brief description of each mortgage on property of applicant, giving date of execution, name of mortgagor, name of mortgagee, or trustee, amount of indebtedness authorized to be secured thereby, and the amount of indebtedness actually secured, together with any sinking fund provisions.	Lynn J. Good
10	69	807 KAR 5:001 Section 6(5)	Amount of bonds authorized, and amount issued, giving the name of the public utility which issued the same, describing each class separately, and giving date of issue, face value, rate of interest, date of maturity and how secured, together with amount of interest paid thereon during the last fiscal year.	Lynn J. Good
10	70	807 KAR 5:001 Section 6(6)	Each note outstanding, giving date of issue, amount, date of maturity, rate of interest, in whose favor, together with amount of interest paid thereon during the last fiscal year.	Lynn J. Good
10	71	807 KAR 5:001 Section 6(7)	Other indebtedness, giving same by classes and describing security, if any, with a brief statement of the devolution or assumption of any portion of such indebtedness upon or by person or corporation if the original liability has been transferred, together with amount of interest paid thereon during the last fiscal year.	Lynn J. Good
10	72	807 KAR 5:001 Section 6(8)	Rate and amount of dividends paid during the five (5) previous fiscal years, and the amount of capital stock on which dividends were paid each year.	Lynn J. Good
10	73	807 KAR 5:001 Section 6(9)	Detailed income statement and balance sheet.	William Don Wathen, Jr.



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Table of Contents**

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11	-	807 KAR 5:001 Section 10(10) (a) through (k)	Schedule Book (Schedules A-K)	Various
12	-	807 KAR 5:001 Section 10(10) (l) through (n)	Schedule Book (Schedules L-N)	Various
13	-	-	Work papers	Various
14	-	807 KAR 5:001 Section 10(9)(a)	Testimony (Volume 1 of 2)	-
15	-	807 KAR 5:001 Section 10(9)(a)	Testimony (Volume 2 of 2)	-
16	-	KRS 278.2205(6)	Cost Allocation Manual	-
17	-	807 KAR 5:056 Section I(7)	Coal Contracts	-

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT  
OF ELECTRIC RATES OF THE UNION  
LIGHT, HEAT AND POWER COMPANY  
D/B/A DUKE ENERGY KENTUCKY

CASE NO. 2006- 00172

FILING REQUIREMENTS

**VOLUME 15**

C.JAMES O'CONNOR  
KEITH G. BUTLER  
LYNN J. GOOD  
CAROL E. SHRUM  
BRIAN J. DAVEY  
DR. ROGER A. MORIN  
PAUL F. OCHSNER  
JEFFREY R. BAILEY  
WILLIAM DON WATHEN, JR.  
PAUL G. SMITH



**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT AND POWER COMPANY ) CASE NO. 2006-00172  
D/B/A DUKE ENERGY KENTUCKY )

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**DIRECT TESTIMONY OF**  
**C. JAMES O'CONNOR**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE.....	1
II. COMPANIES' EMPLOYMENT CHARACTERISTICS.....	3
III. COMPENSATION PHILOSOPHY .....	5
IV. BASE PAY PROGRAMS .....	7
V. INCENTIVE PAY PROGRAMS.....	8
VI. PROPOSAL FOR SHARING INCENTIVE PAY EXPENSE .....	13
VII. COMPETITIVE MARKET ANALYSES – COMPENSATION .....	19
VIII. REASONABLENESS OF COMPENSATION PROGRAMS.....	19
IX. BENEFIT PLAN DESIGN.....	20
X. COST MANAGEMENT CONTROLS .....	21
XI. REASONABLENESS OF BENEFITS PROGRAM .....	22
XII. WAGE AND BENEFIT COST ESTIMATES.....	23
XIII. CONCLUSION .....	24

**ATTACHMENTS**

Attachment CJO-1 – Regulated Businesses' 2005 Annual Incentive Plan  
Goals and Actual Results

Attachment CJO-2 – Mr. Stanley's 2005 Annual Incentive Plan Goals and  
Actual Results

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is C. James O'Connor, and my business address is 139 East Fourth  
3 Street, Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by the Duke Energy Corporation ("Duke Energy") affiliated  
6 companies as Vice President, Human Resources.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION.**

8 A. I graduated from Indiana University with a Bachelor of Science degree in  
9 business management. I also earned a Master of Art degree in Executive  
10 Development from Ball State University. I have also had further education at  
11 Purdue University in management studies, at the University of Wisconsin in labor  
12 studies and from Ball State University in economic development.

13 **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.**

14 A. I joined PSI Energy, Inc. in 1976 as an Energy Consultant in Field Operations,  
15 Transmission and Distribution, Electric Operations. I advanced through various  
16 positions of increasing responsibility in sales, economic development, labor  
17 relations, safety, district management in field operations, transmission and  
18 distribution, and human resources. I was named to my current position of Vice  
19 President, Human Resources in April 2006.

20 **Q. PLEASE DESCRIBE YOUR DUTIES AS VICE PRESIDENT, HUMAN**  
21 **RESOURCES.**

1 A. I am responsible for the Human Resources function for Duke Energy's U.S.  
2 Franchised Electric & Gas ("Franchised Electric & Gas") Commercial Business  
3 Unit. My responsibilities generally include accountability to the business unit for  
4 the delivery of all Human Resource functions. To this end, Duke has three  
5 Human Resource organizations that partner to provide an end product. The three  
6 departments and their responsibilities are Corporate Human Resources, which  
7 performs the strategic design of Human Resource programs; Human Resources  
8 Operations, which oversees all administrative functions across the enterprise; and  
9 Human Resources Business Partners, which represents the business unit human  
10 resources needs to the other two Human Resources organizations. Working with  
11 these other Human Resources organizations, I am responsible for the following  
12 services: compensation and benefits, employee and labor relations, staffing and  
13 recruiting, training and organizational development, inclusion strategies and  
14 diversity programs, workforce planning and measurement, succession planning,  
15 leadership development and employee and retiree communications relating to the  
16 Franchised Electric & Gas Commercial Business Unit.

17 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
18 **PROCEEDING?**

19 A. I support the reasonableness of the Company's compensation and benefit  
20 programs. I also support the Company's proposal to share the costs of incentive  
21 compensation programs between shareholders and customers, using the same  
22 method approved in the Commission's February 2, 2006 Order on Rehearing in

1 Case No. 2005-00042, with one exception that I will discuss later. I also provided  
2 Mr. Davey with certain labor costs for the forecasted test period.

**II. COMPANIES' EMPLOYMENT CHARACTERISTICS**

3 **Q. WHERE DO THESE EMPLOYEES WORK WHEN PERFORMING**  
4 **SERVICES FOR DUKE ENERGY KENTUCKY CUSTOMERS?**

5 A. Duke Energy Kentucky's customers receive services from employees of Duke  
6 Energy Kentucky and affiliated companies. The employees work at the East  
7 Bend Generating Station ("East Bend"), the Miami Fort Unit 6 Generating Station  
8 ("Miami Fort 6") and the Woodsdale Generating Station ("Woodsdale")  
9 (collectively, "the Plants). They also work at our customer service center at 1697  
10 A Monmouth Street in Newport, and at our 19<sup>th</sup> and Augustine facility in  
11 Covington, which is dedicated to gas operations, and at our Erlanger construction  
12 and maintenance center. They also work in our Cincinnati, Ohio headquarters and  
13 in the Duke Energy headquarters in Charlotte, North Carolina.

14 **Q. WHAT TYPE OF SPECIAL SKILLS OR KNOWLEDGE IS REQUIRED**  
15 **IN ORDER TO OPERATE AN ELECTRIC UTILITY SUCH AS DUKE**  
16 **ENERGY KENTUCKY?**

17 A. The operation and maintenance of electric generating plants, transmission  
18 substations and transmission and distribution equipment requires specialized  
19 technical skills. Employees must have the requisite knowledge and technical  
20 skills to plan, design, operate and maintain electric generating plants and high  
21 voltage equipment in a manner that provides safe, adequate and reliable service.  
22 The operation and maintenance of a field office and a customer call center



1 requires a detailed knowledge of all aspects of customer service. Field office and  
2 call center employees must understand the characteristics of the electric  
3 generating and delivery service provided by Duke Energy Kentucky, the  
4 metering, billing and collection processes and various other customer service  
5 matters. At the corporate level, highly skilled managers, engineers, accountants,  
6 computer hardware and software experts, computer programmers and other  
7 highly-trained professionals are needed to support the employees who are directly  
8 responsible for generating and delivering electricity to Duke Energy Kentucky's  
9 customers.

10 **Q. HOW IMPORTANT IS THE RECRUITMENT AND RETENTION OF**  
11 **SUCH EMPLOYEES TO THE COMPANIES' SUCCESS?**

12 A. The recruitment and retention of such employees is critical to the Companies'  
13 success. The skills needed for employees to render high-quality, utility service  
14 takes several years to develop. For example, electric plant operators and control  
15 technicians are highly-skilled positions that require experience and knowledge  
16 which is acquired over several years. If we were to lose such employees, we  
17 would incur additional costs to train replacements for these positions.  
18 Consequently, we strive to be an "employer of choice" that attracts qualified  
19 employees and retains such employees, which benefits customers by providing a  
20 more highly skilled work force at a lower overall cost.

21 **Q. WHAT FACTORS AFFECT THE RECRUITMENT AND RETENTION OF**  
22 **SUCH EMPLOYEES?**

1 A. The recruitment and retention of such employees is directly related to their  
2 compensation, benefits, and career development opportunities, as well as  
3 management values, opportunities for a balanced lifestyle, and the nature of the  
4 work itself. Industry and market conditions also impact the Companies' ability to  
5 recruit and retain employees.

6 **Q. WHERE DO THE COMPANIES OBTAIN APPLICANTS FOR VACANT**  
7 **POSITIONS?**

8 A. We draw applicants from various geographic areas, depending on the job we need  
9 to fill. As a general rule, the more highly skilled the job position being filled, the  
10 broader the scope of the Companies' recruitment efforts. We generally recruit  
11 executives on a national level; exempt employees locally and regionally; and non-  
12 exempt employees locally. The Companies employ applicants drawn from other  
13 utilities and from diverse employment backgrounds in other industries.

### **III. COMPENSATION PHILOSOPHY**

14 **Q. PLEASE DESCRIBE THE COMPANIES' BASIC COMPENSATION**  
15 **PHILOSOPHY.**

16 A. The Companies' basic compensation philosophy is to design a compensation  
17 program consisting of base salary and annual incentives that provides employees  
18 with an opportunity to earn total compensation competitive with the market. This  
19 philosophy supports the Companies' goal to attract, retain and motivate the  
20 caliber of employees with the education, experience, judgment and skills  
21 necessary to carry out the responsibilities of the positions that the employees are  
22 hired to fill. The Companies' compensation strategy for executive employees is

1 to provide a compensation package consisting of a combination of fixed and  
2 variable pay, using base salary, short-term incentives and long-term incentives;  
3 these components, in the aggregate, are targeted to deliver total compensation at  
4 the 50<sup>th</sup> percentile of the applicable peer group. However, if Duke Energy  
5 delivers superior performance, our compensation program is designed to provide  
6 total compensation above market median based on performance, and conversely,  
7 if Duke Energy's performance should decline, its executives' total compensation  
8 is designed to decline to a level commensurate with such performance.

9 The Companies adopted this executive compensation strategy in order to  
10 attract, retain and motivate the executive talent required to deliver superior  
11 performance. This strategy emphasizes performance-based compensation that  
12 balances rewards for both short-term and long-term results and which aligns the  
13 executives' interests with the long-term success of Duke Energy and its  
14 subsidiaries, including Duke Energy Kentucky.

15 **Q. PLEASE DESCRIBE HOW THE COMPANIES STRUCTURE THEIR**  
16 **COMPENSATION PROGRAMS.**

17 **A.** The Companies' compensation programs consist of a base pay component and an  
18 incentive pay component. The base pay component is a set amount, reviewed by  
19 management at least annually, and established at a level that: (1) provides  
20 competitive compensation based on the nature and responsibilities of the  
21 employee's position; and (2) is fair relative to the pay for other similarly situated  
22 positions in the organization. The incentive pay component is variable and is at  
23 risk to the employees. Incentive pay is generally linked to the accomplishment of

1 specific goals established in advance for the individual employee, his or her  
2 business unit, and/or the corporation. The purpose of incentive pay is: (1) to  
3 encourage employees to perform at a high level in order to accomplish specific  
4 objectives intended to ensure safe, reliable and economical utility service to our  
5 customers and to ensure their business unit's and the corporation's overall  
6 success; and (2) to constitute a component of a compensation package that is  
7 competitive with the market.

#### IV. BASE PAY PROGRAMS

8 **Q. PLEASE DESCRIBE THE COMPANIES' BASE PAY PROGRAMS.**

9 A. Every employee receives base pay in the form of semi-monthly earnings (for  
10 exempt employees) or weekly wages (for non-exempt and union employees).

11 **Q. HOW DOES THE COMPANIES' BASE PAY IN RECENT YEARS  
12 COMPARE WITH THE MARKET TREND?**

13 A. The Companies have adjusted their base pay in recent years to stay within the  
14 target range. For example, prior to the Duke Energy/Cinergy Corp. ("Cinergy")  
15 merger, the Cinergy Companies increased their base pay in recent years; however,  
16 these increases were at lower rates than the market trend, in order to align base  
17 pay provided by the Companies to a level equivalent to the 50<sup>th</sup> percentile of base  
18 pay of comparably sized utility companies. In the aggregate, the Cinergy  
19 Companies increased their base pay for executives, exempt, and non-union, non-  
20 exempt employees by 2.5% in 2003, which was 1.3 % below the market trend, by  
21 3.0% in 2004, which was 0.5% below the market trend, by 3.5% in 2005, which  
22 was comparable to the market trend and by 3.5% in 2006, which was equivalent

1 to the market trend for exempt and non-exempt, non-union employees but .2%  
2 lower than the market trend for executives. It should be noted that employees'  
3 individual increases may vary relative to the base pay budget, to allow for  
4 individual differentiators based on performance and current pay levels relative to  
5 the market.

6 Duke Energy Kentucky and the International Brotherhood of Electrical  
7 Workers ("IBEW") Local No. 1347 entered into a new three-year collective  
8 bargaining agreement on April 12, 2006. The collective bargaining agreement  
9 provides for a 3.0% wage increase for each of the first two years of the contract  
10 and a 4.0% wage increase for the third year of the contract, with increased  
11 employee health care costs. Duke Energy Kentucky and the United Steelworkers  
12 of America ("USWA") Local No. 12049 entered into a five-year collective  
13 bargaining agreement in 2002 which expires on May 15, 2007. The collective  
14 bargaining agreement provides for a 3.0% wage increase each year for the term of  
15 the contract.

16 We are currently evaluating each job position in the Franchised Electric &  
17 Gas Commercial Business Unit to determine the proper market job equivalent for  
18 salary benchmarking purposes. When this process is completed, we will take  
19 appropriate action to ensure that we maintain our industry target range for base  
20 compensation.

#### V. INCENTIVE PAY PROGRAMS

21 Q. PLEASE DESCRIBE THE COMPANIES' INCENTIVE PAY PROGRAMS.

1 A. Duke Energy and Cinergy had various incentive pay programs prior to the  
2 merger. We have designed the incentive plans for Duke Energy that will be in  
3 place post-merger. The Companies' major incentive pay programs are: (1) the  
4 Cinergy Corp. Annual Incentive plans (AIP)/Duke Energy Corporation Annual  
5 Incentive Plan (referred to for convenience as "Short-Term Incentive Plan" or  
6 "STI"); (2) the Cinergy Corp. Union Employees' Incentive Plan ("UEIP"); and  
7 (3) the Cinergy Corp. 1996 Long-Term Incentive Compensation Plan  
8 ("LTIP")/Duke Energy Corp. 1998 Long-Term Incentive Plan ("LTI").

9 **Q. PLEASE DESCRIBE THE AIP AND STI PLANS.**

10 A. The AIP/STI plans are short-term incentive plans that allow employees to receive  
11 cash payments if certain pre-determined performance goals are attained during the  
12 relevant calendar year. The AIP plans are available to exempt and certain non-  
13 exempt, non-union employees of Duke Energy Kentucky and the service  
14 companies who do not participate in another incentive plan. The purpose of the  
15 annual incentive plans is to attract, retain and motivate employees; enhance  
16 teamwork and high levels of achievement; and to facilitate the accomplishment of  
17 specific corporate, business unit and individual goals.

18 At the beginning of each calendar year, corporate, business unit and  
19 individual performance goals are established for the annual plans, and a thorough  
20 review is performed at the end of the calendar year to determine the achievement  
21 levels for each performance goal. The Compensation Committee of the Duke  
22 Energy Board of Directors ("Compensation Committee") approves the corporate

1 performance goal at the beginning of each calendar year and certifies the payout  
2 level achieved for such goal at the end of the calendar year.

3 The performance goals are the objectives that the corporation, business  
4 unit and individual employees must attain in order for the employees to receive  
5 payment under the annual incentive plans. The performance goals may consist of  
6 a combination of corporate, business unit and individual goals. The corporate  
7 performance goal must be an objective measure of the corporation's performance,  
8 efficiency or profitability. Business unit goals are related to specific financial and  
9 operational objectives of the unit such as safety, reliability and cost of service.  
10 Individual goals are set cascading down from and supporting the business unit and  
11 corporate goals so that everyone works towards common goals and objectives.  
12 The Company's objective is to balance corporate goals and individual goals  
13 appropriately so employees can have a direct impact relative to their goals.

14 All applicable goals are weighted, with a possible range of scores from  
15 zero to 3.0. Once an achievement level is determined, the achievement level is  
16 multiplied by the weighting assigned to each respective goal to determine an  
17 overall payout level.

18 **Q. WHAT WERE THE RESULTS OF THE AIP FOR 2005?**

19 A. For 2005, the AIP provided for the following weightings for employees in the  
20 Franchised Electric & Gas Business Unit, which was then part of the Company's  
21 Regulated Businesses Business Unit ("Regulated Businesses" or "RBU"): 50%  
22 corporate performance goal, 25% business unit goals and 25% individual  
23 performance goals.

1           The 2005 corporate performance goal was based on Cinergy's net income.  
2           The payout with respect to the 2005 corporate performance goal was a level 2.1  
3           achievement for all employees.

4           In 2005, the business unit goals of the Regulated Businesses (of which  
5           Electric Operations was a part) were based on the following factors: (1) Electric  
6           System Average Interruption Frequency Index ("SAIFI") – the average number of  
7           customer interruptions excluding Level 3 and higher storms; (2) Electric  
8           Customer Average Interruption Duration Index ("CAIDI") – the average number  
9           of hours to restore service excluding Level 3 and higher storms; (3) Gas CAIDI –  
10          the average duration of customer outages, excluding outages due to certain  
11          extraordinary causes; (4) lost-time accident rate; (5) number of traffic accidents;  
12          (6) customer satisfaction score results; (7) operation and maintenance ("O&M")  
13          expense levels; and (8) capital expenditure levels. The aggregate payout with  
14          respect to the Regulated Businesses business unit performance goals  
15          corresponded to a 2.2 achievement level.

16           A total of 2,161 employees participated in the AIP plans in 2005.

17   **Q.   WHAT INFORMATION IS USED TO CALCULATE THE CUSTOMER**  
18   **SATISFACTION COMPONENT OF THE AIP FOR RBU EMPLOYEES?**

19   A.   We use the Duke Energy Kentucky-specific customer satisfaction survey scores  
20   discussed in more detail in Ms. Meyer's testimony.

21   **Q.   PLEASE DESCRIBE THE UEIP.**

22   A.   The UEIP is available to union employees of Duke Energy Kentucky, and the  
23   service companies who do not participate in another incentive plan. The UEIP is



1 a short-term incentive plan that allows union employees to receive cash payments  
 2 if the Company attains certain corporate performance goals or if their group  
 3 attains certain performance goals during a calendar year. The purpose of the  
 4 UEIP is to attract, retain and motivate employees, enhance teamwork and high  
 5 levels of achievement, and to facilitate the accomplishment of specific corporate  
 6 and business unit goals.

7 The UEIP award levels consist of a percentage of the employee's base and  
 8 overtime earnings, based on the following corporate and business unit  
 9 achievement levels:

REGULATED BUSINESS UNIT	UEIP Award Levels (expressed as a percentage of earnings)		
	1	2	3
Corporate Measure	0.50%	0.75%	1.00%
Safety	If a union achieves the applicable safety goal, .5% is added to its members' incentive payouts; if a union fails to achieve this goal, 0% is added to its members' incentive payout.		
Customer Satisfaction/Peak Equivalency	If a union achieves the applicable customer satisfaction goal or peak equivalency goal, .5% is added to its members' incentive payouts; if the union fails to achieve these goals, 0% is added to its members' incentive payouts.		
<b>Total Incentive Opportunity</b>	<b>1.5%</b>	<b>1.75%</b>	<b>2.00%</b>

10  
 11 As with the AIP/STI plan(s), the Compensation Committee of the Board  
 12 of Directors approves the corporate performance goal and the level of corporate  
 13 performance that will be associated with particular payout levels. At the end of

1 the year, the Compensation Committee certifies the actual performance and  
2 payout level with respect to such corporate performance goal.

3 **Q. WHAT WERE THE RESULTS OF THE UEIP FOR 2005?**

4 A. For 2005, the corporate measure was based on the same corporate net income  
5 performance goal used for the AIP and, as mentioned earlier in my testimony, the  
6 payout for this corporate measure corresponded to a 2.1 achievement level. All  
7 goals were met by the unions for 2005.

8 **Q. PLEASE DESCRIBE THE LTIP AND LTI PLANS.**

9 A. These plans pay equity-based compensation to executive employees and non-  
10 employee directors in a manner that aligns their interests with the long-term  
11 interests of Duke Energy and its affiliates, including Duke Energy Kentucky. The  
12 purpose of the long-term incentive plan(s) is: (1) to assist in attracting, retaining  
13 and motivating executives by keeping the Companies' compensation package  
14 competitive; and (2) to align a portion of executive compensation with  
15 stakeholder interests by encouraging and enabling executives to acquire Duke  
16 Energy stock.

**VI. PROPOSAL FOR SHARING INCENTIVE PAY EXPENSE**

17 **Q. WHAT INCENTIVE PAY EXPENSE DOES DUKE ENERGY COMPANY**  
18 **PROPOSE TO RECOVER IN THIS PROCEEDING?**

19 A. Duke Energy Kentucky proposes to share its incentive plan expense between  
20 shareholders and customers in the same manner the Commission approved in  
21 Case No. 2005-00042. In that case, the Commission approved recovery of  
22 incentive pay expense related to performance objectives that directly benefit

1 customers, such as reliability, customer satisfaction and individual performance  
2 objectives. The Commission disallowed recovery of incentive pay expense  
3 related to performance objectives based on corporate financial goals.  
4 Accordingly, Duke Energy Kentucky proposes to recover the following amount of  
5 incentive compensation costs in its revenue requirement calculation, based on the  
6 following allocations and assuming the following achievement levels:

**Table 1 – Incentive Pay Sharing Proposal**

<b>Incentive Plan</b>	<b>Incentive Plan Components</b>	<b>Budgeted Achievement Level</b>	<b>Percentage Of Total Plan</b>	<b>Percentage to Shareholders</b>	<b>Percentage to Customers</b>	<b>Percentage of Total Shared by Customers</b>
<b>STI – Leadership</b>	Corporate goals	2.0	40%	100%	0%	0%
	Franchised Electric & Gas EBIT	2.0	40%	100%	0%	0%
	RBU operational goals	2.0	20%	0%	100%	20%
<b>STI – Non-Leadership</b>	Corporate goals	2.0	25%	100%	0%	0%
	Franchised Electric & Gas EBIT	2.0	25%	100%	0%	0%
	RBU operational goals	2.0	50%	0%	100%	50%
<b>LTIP</b>	Total shareholder return	at target	100%	100%	0%	0%
<b>UEIP</b>	0.75% of pay based on corporate financial measure; 1% of pay based on operational goals <i>i.e.</i> , customer satisfaction and safety	2.0	100%	0%	57%	43%

1    **Q.    WHY DOES THE COMPANY’S PROPOSAL FOR INCENTIVE**  
2        **COMPENSATION USE THE ACHIEVEMENT LEVELS IDENTIFIED**  
3        **ABOVE?**

4    **A.**    These are the budgeted achievement levels for the performance goals for the AIP  
5        and the UEIP. The 2.0 achievement level is used for the budget because this is  
6        equivalent with a target achievement level, which is what the Company expects to  
7        achieve on average over time. Over the past five years, the Company’s  
8        performance has consistently been higher than the budgeted amounts.

1 Q. PLEASE EXPLAIN HOW THE COSTS RELATED TO THE AIP'S AND  
2 STI'S CORPORATE PERFORMANCE OBJECTIVE ARE DIVIDED  
3 BETWEEN CUSTOMERS AND SHAREHOLDERS.

4 A. The AIP and STI have three separate components: corporate goal, individual  
5 goals, and business unit operational goals. We propose that the expense  
6 attributable to the corporate performance goal be allocated 100% to the  
7 shareholders with nothing allocated directly to customer.

8 Q. PLEASE EXPLAIN HOW THE COSTS RELATED TO THE AIP'S AND  
9 STI'S INDIVIDUAL AND RBU OPERATIONAL PERFORMANCE  
10 OBJECTIVES ARE DIVIDED BETWEEN CUSTOMERS AND  
11 SHAREHOLDERS.

12 A. Duke Energy Kentucky's rates should reflect 100% of the costs of individual and  
13 business unit incentive goals. These goals are operationally focused and directly  
14 benefit the customer. The individuals measured by these goals and included in  
15 the rate base are employed directly by Duke Energy Kentucky or allocate their  
16 time to Duke Energy Kentucky, and they work on Duke Energy Kentucky matters  
17 which directly benefit customers. As a result, customers should bear the full cost  
18 of this portion of employees' incentive pay.

19 Finally, the AIP's and STI's business unit operational goals for employees  
20 directly benefit customers because the goals are tied to outage frequency, time  
21 required to restore service, lost-time accidents, customer satisfaction scores,  
22 O&M expense levels and capital expenditures. Superior performance relating to

1 these goals directly benefits Duke Energy Kentucky customers through safe and  
2 reliable service, customer service quality, and low energy costs.

3 **Q. PLEASE EXPLAIN HOW THE COSTS FOR THE UEIP PLAN ARE**  
4 **REFLECTED IN DUKE ENERGY KENTUCKY'S PROPOSAL.**

5 A. The UEIP is an incentive plan for union employees not eligible for any other  
6 incentive compensation plans. These union employees include many of our back  
7 office personnel, including administrative and clerical as well as meter readers,  
8 and employees who construct and maintain the Company's gas distribution  
9 system. All are functions that are critical to reliable customer service. At the 2.0  
10 achievement level, which we use in our budget, the UEIP performance objectives  
11 are based 43% (e.g., .75% of pay) on corporate financial performance and 57%  
12 (e.g., 1.0% of pay) customer-oriented objectives, namely safety, customer  
13 satisfaction and reliability. We propose allocation of the costs of this plan 43% to  
14 shareholders and 57% to customers.

15 **Q. ARE THE AIP AND STI BUSINESS UNIT AND INDIVIDUAL GOALS**  
16 **DIRECTED MORE TOWARD SHAREHOLDER BENEFITS OR**  
17 **CUSTOMER BENEFITS?**

18 A. The Regulated Businesses' 2005 goals and actual results are at Attachment CJO-  
19 1. These goals clearly incent behavior that furthers the customers' interest. As I  
20 previously discussed, the goals are based on items such as: (1) keeping capital  
21 expenditures and operation and maintenance expense at reasonable levels, which  
22 tends to produce lower rates; (2) operational excellence, which produces more  
23 reliable service for customers; and (3) providing high quality customer service.

C. JAMES O'CONNOR DIRECT

-17-

1           The individual annual incentive goals of Mr. Stanley, the Vice President  
2 of Field Operations Midwest, are presented at Attachment CJO-2 and clearly  
3 further customers' interests by incenting behavior in the same manner, because  
4 his goals roll up into the Business Unit goals. The individual goals of the other  
5 employees in Franchised Electric & Gas Field Operations-Midwest do as well,  
6 because they are designed to roll up into Mr. Stanley's goals and the Business  
7 Units goals, such that the employees' individual goal achievement would help Mr.  
8 Stanley and the Business Unit achieve their goals.

9           As can be seen, these Business Unit and individual goals are closely tied  
10 to metrics, such as safety, reliability, cost control and customer satisfaction, which  
11 provide customer benefits. Thus I believe that Duke Energy Kentucky's rates  
12 should reflect these incentive compensation costs, consistent with the treatment  
13 approved by the Commission in Case No. 2005-00042.

14 **Q.   BASED ON ALL OF THE ABOVE-MENTIONED ALLOCATIONS TO**  
15 **CUSTOMERS AND SHAREHOLDERS, HOW MUCH OF DUKE**  
16 **ENERGY KENTUCKY'S TOTAL INCENTIVE COMPENSATION**  
17 **EXPENSE WOULD BE REFLECTED IN ITS EXPENSES FOR THE**  
18 **FORECASTED TEST PERIOD?**

19 **A.**   Duke Energy Kentucky proposes to recover \$870,178 of the \$3,380,211 Electric  
20 Operations incentive compensation costs originally included in the forecasted test  
21 period. This represents approximately 26% of the total Duke Energy Kentucky  
22 incentive compensation expense originally included as an expense in the  
23 forecasted test period.

1 Q. DO YOU HAVE AN OPINION AS TO THE REASONABLENESS OF  
2 DUKE ENERGY KENTUCKY'S PROPOSED TREATMENT FOR  
3 INCENTIVE COMPENSATION COSTS?

4 A. Yes. In my opinion, all of Duke Energy Kentucky's incentive compensation costs  
5 are properly recoverable. Nevertheless, Duke Energy Kentucky's proposal  
6 allocates the costs of its incentive compensation plans between shareholders and  
7 customers consistent with the Commission's February 2, 2006 Order on  
8 Rehearing in Case No. 2005-00042.

**VII. COMPETITIVE MARKET ANALYSES – COMPENSATION**

9 Q. WERE ANY STUDIES CONDUCTED IN 2005 REGARDING THE  
10 COMPETITIVENESS OF THESE COMPENSATION PROGRAMS?

11 A. Yes, Hewitt and Associates ("Hewitt"), Mercer Consulting ("Mercer") and  
12 Towers Perrin Co. ("Towers") performed such studies. All three firms are  
13 worldwide human resources consulting firms. More information about each is  
14 available at <http://was4.hewitt.com/hewitt.com/hewitt>, [www.mercer.com](http://www.mercer.com) and  
15 [www.towers.com](http://www.towers.com).

16 Q. PLEASE DESCRIBE THESE COMPENSATION STUDIES.

17 A. The studies generally reported that Cinergy's compensation program is  
18 competitive within the industry.

**VIII. REASONABLENESS OF COMPENSATION PROGRAMS**

19 Q. DO YOU HAVE AN OPINION AS TO WHETHER THE COMPANIES'  
20 EMPLOYEE COMPENSATION PROGRAMS ARE REASONABLE AND  
21 NECESSARY TO ATTRACT, RETAIN, AND MOTIVATE THE



1           **QUALIFIED EMPLOYEES NEEDED TO PROVIDE SAFE, RELIABLE,**  
2           **EFFICIENT AND ECONOMICAL SERVICE TO DUKE ENERGY**  
3           **KENTUCKY'S RETAIL ELECTRIC CUSTOMERS?**

4    A.    Yes. In my opinion, the Companies' base pay, short-term and long-term incentive  
5           compensation programs are, indeed, competitive, reasonable, and necessary to  
6           attract, retain, and motivate qualified employees that the Companies need to  
7           provide safe, reliable, effective, efficient and economical electric service to Duke  
8           Energy Kentucky's retail customers.

**IX.    BENEFIT PLAN DESIGN**

9    **Q.    HOW DO BENEFITS TIE INTO THE COMPANIES' OVERALL**  
10           **COMPENSATION PHILOSOPHY?**

11   A.    Benefits are the non-pay portion of the overall compensation picture. Generally,  
12           benefits are provided through one of two vehicles: retirement plans and welfare  
13           benefit plans. Retirement plans include pension and 401(k) plans. Welfare  
14           benefit plans include medical, dental, life insurance, and disability plans.

15   **Q.    WHAT IS THE COMPANIES' BENEFITS PHILOSOPHY?**

16   A.    We offer a competitive, comprehensive benefits program in order to establish  
17           ourselves as an employer of choice. In order to attract, retain and motivate a high  
18           caliber work force, a company must offer a competitive benefits program as well  
19           as a competitive compensation program. Benefits also play an important role in  
20           retaining employees, which is important for us as our business involves complex  
21           processes such that employees must receive long-term training to perform their  
22           jobs well. Our benefits program is designed not only to attract qualified

1 employees but also to retain employees, thus the Companies are able to maintain a  
2 highly trained, experienced work force that is capable of rendering excellent  
3 utility service.

#### **X. COST MANAGEMENT CONTROLS**

4 **Q. HOW HAVE THE COMPANIES MANAGED HEALTH CARE COSTS?**

5 A. The Companies are self-insured on most of their medical and dental benefits  
6 options. This avoids a risk premium that the Companies would otherwise have to  
7 pay to a third party for underwriting the plans. Employees and retirees must order  
8 maintenance prescriptions through the mail order program and specialty biotech  
9 drugs through the specialty prescription drug program. These programs help  
10 employees, retirees, and the Companies to lower total prescription costs. The  
11 medical plans have utilization management programs in place to help eliminate  
12 unnecessary or inappropriate medical treatment or hospitalization. These  
13 programs are designed to help employees receive quality care while preventing  
14 unnecessary expenses for the employee and the Companies, and include hospital  
15 pre-certification and hospital stay review. We also apply usual and customary  
16 reimbursement guidelines on health and dental claims. The Company offers  
17 incentives to employees to opt out of the medical and dental plans, or to reduce  
18 the level of coverage in the medical plan. The Company has comprehensive  
19 Disease Management and Wellness Programs which encourage employees to  
20 adopt healthier lifestyles as well as to manage chronic illnesses that are associated  
21 with increased expense. In early 2005, the Company was awarded the Cincinnati  
22 Business Courier "Healthy Heroes Award" in recognition for its comprehensive

1 wellness program.

2 **Q. HAVE ANY OTHER COST REDUCTIONS BEEN IMPLEMENTED**  
3 **WITH REGARD TO RETIREE BENEFITS?**

4 A. As with active employees, we have a retail discount drug network for retirees,  
5 three tiers of prescription co-pays requiring greater employee/retiree cost sharing  
6 and mandatory mail order. The Company continues to pass along normal  
7 premium increases to retirees on an annual basis. The new Health  
8 Reimbursement Account program also will allow the Company to better control  
9 and predict future retiree medical costs. In 2005, the Company began unblending  
10 active employee claims experience from retiree claims experience resulting in  
11 retirees' premiums reflecting the true cost of retiree coverage. In 2006, the  
12 Company elected to maintain retiree prescription drug coverage and apply for the  
13 Medicare Part D retiree drug subsidy.

14 **Q. IN YOUR OPINION, WILL THE COMPANIES ELIMINATE MEDICAL**  
15 **AND DENTAL BENEFITS FOR RETIREEES?**

16 A. In my opinion, medical and dental benefits for retirees are necessary to attract and  
17 *retain the qualified employees necessary to provide quality service to our*  
18 *customers. I believe that it is unlikely that these retiree benefits would be*  
19 *eliminated without providing some other form of benefits to offset the effect of*  
20 *elimination.*

**XI. REASONABLENESS OF BENEFITS PROGRAM**

21 **Q. DO YOU HAVE AN OPINION REGARDING THE REASONABLENESS**  
22 **AND NECESSITY OF THE COMPANIES' EMPLOYEE BENEFITS**

C. JAMES O'CONNOR DIRECT

1           **PROGRAMS TO ATTRACT, RETAIN AND MOTIVATE QUALIFIED**  
2           **EMPLOYEES TO PROVIDE SAFE, RELIABLE, EFFICIENT, AND**  
3           **ECONOMICAL SERVICE TO DUKE ENERGY KENTUCKY'S RETAIL**  
4           **ELECTRIC CUSTOMERS?**

5    A.    Yes. In my opinion, the Companies' employee benefits programs are both  
6           reasonable and necessary to attract, retain and motivate qualified employees to  
7           provide quality service to our retail electric customers in a safe, reliable, efficient  
8           and economical manner.

9    **Q.    WHY DO YOU HOLD THAT OPINION?**

10   A.    As work force diversity has evolved, employees have become increasingly  
11           concerned about the level of financial protection and pay. Based on my  
12           experience and day-to-day contact with employees, I believe that in numerous  
13           cases, the employee's ultimate employment decision is heavily based on benefits.  
14           Therefore, our benefit levels must be competitive and reflect current benefit  
15           trends.

## **XII.   WAGE AND BENEFIT COST ESTIMATES**

16   **Q.    DID YOU PROVIDE ANY COST ESTIMATES TO MR. DAVEY FOR HIS**  
17           **USE IN PREPARING THE FORECASTED FINANCIAL DATA?**

18   A.    Yes, I provided Mr. Davey with certain compensation and fringe benefit costs for  
19           his use in preparing the forecasted financial data.

20   **Q.    HOW DID YOU ESTIMATE THESE LABOR AND BENEFIT COST**  
21           **CHANGES FOR THE FORECASTED PERIOD?**

1 A. I made reasonable estimates based on recent trends, current conditions, the market  
2 studies by independent consultants that I discussed previously in my testimony,  
3 and my previous experience with compensation and benefits matters. Based on  
4 these considerations, I provided Mr. Davey with the following estimates for the  
5 forecasted test period consisting of the twelve months ending December 31, 2007:  
6 the union and non-union labor rate increases; the fringe benefit loading rates,  
7 payroll tax, and indirect labor loading rates for union and non-union labor.

### **XIII. CONCLUSION**

8 **Q. ARE ATTACHMENTS CJO-1 AND CJO-2 TRUE AND ACCURATE**  
9 **COPIES OF THE DOCUMENTS THEY PURPORT TO REPRESENT?**

10 A. Yes.

11 **Q. IS THE INFORMATION YOU PROVIDED TO MR. DAVEY ACCURATE**  
12 **TO THE BEST OF YOUR KNOWLEDGE AND BELIEF?**

13 A. Yes.

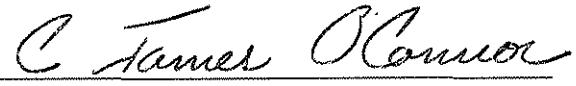
14 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

15 A. Yes.

VERIFICATION

State of Ohio            )  
                                  )  
County of Hamilton    )        SS:

The undersigned, C. James O'Connor, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
\_\_\_\_\_  
C. James O'Connor, Affiant

Subscribed and sworn to before me by C. James O'Connor on this 22nd day of May, 2006.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:



**ANITA M. SCHAFER**  
Notary Public, State of Ohio  
My Commission Expires  
November 4, 2009

## 2005 RBU KPI's – YEAR END RESULTS

Key Performance Indicator	Tracking	Weight %	1	Standards 2	3	2005 Year End Results	Achievement Level
<b>MAXIMIZE NET INCOME</b>							
Operation and Maintenance Expense	Actual versus budget (excluding DSM, PIPP and sale of A/R)	15%	Budget	2% under budget	4% under budget	Budget - \$301.9 Actual - \$290.8 Variance - \$11.1	Level 2.85
Capital Expenditures	Actual versus budget (Non-AMRP)	10%	Budget	2% under budget	4% under budget	Budget – \$299.3M Actual - \$283.4M Variance - \$15.6	Level 3
	Hit AMRP Rate Targets – Gas	5%	Within +2% to -4% of budget	Within +2% to -1% of budget	Within +1% to -1% of budget	5.32% under Target – \$62.4M Actual - \$62.7M Variance – \$.3M .5% over	Level 3
<b>DRIVE CONTINUOUS OPERATIONAL IMPROVEMENT</b>							
Electric System Average Interruption Frequency Index (SAIFI) – average number of customer interruptions (excludes Level 3 and higher storms)	12 month rolling average of total number of customer interruptions / total number of electric customers	5%	Maintain service level 1.52	Current service level 1.39	Best service level 1.26	1.47	Level 1.42
CEMI (Sustained Customer Outage)	Percent of customers having more than five outages per year	5%	6%	5%	3%	3.5%	Level 2.74
Electric Customer Average Interruption Duration Index	12 month rolling average of total number of electric customer hours out of service /	5%	Maintain service level	Current service level	Best service level 82 minutes	92.6	Level 1.48

Key Performance Indicator	Tracking	Weight %	1	Standards 2	3	2005 Year End Results	Achievement Level
(CAIDI) – average number of hours to restore service (excludes Level 3 and higher storms)	total number of electric customer outages		96 minutes	89 minutes			
Gas Customer Average Interruption Duration Index (CAIDI) – average number of hours to restore service (excludes certain unusual outages)	Annual average of total number of gas customer hours out of service / total number of gas customer outages	5%	Maintain service level 4.3 hours	Current service level 3.8 hours	Best service level 3.3 hours	4.0 hours through 12/31/05	Level 1.6
<b>PROVIDE OUTSTANDING CUSTOMER SERVICE</b>							
Customer Contact Satisfaction (maintain current satisfaction levels in the face of high natural gas costs and rate case filings)	Survey of approximately 50,000 residential customers that have contacted Cinergy	10%	86% satisfied and very satisfied	87% satisfied and very satisfied	88% satisfied and very satisfied	87%	Level 2
Public Safety Awareness	Percent of customers aware of public safety ads	5%	40%	42%	44%	44.4%	Level 3
<b>PROMOTE SUPERIOR EMPLOYEE PERFORMANCE</b>							
Lost-Time Incident Rate	Total lost-time accidents x 200,000 / total hours worked	15%	Average of last 3 years 0.50	Midpoint between levels 1 and 3 0.46	Better than best year 0.42	.51	Level 1
Traffic Accidents	Number of traffic accidents	10%	Average of last 3 years 87	Midpoint between levels 1 and 3 77	Better than best year 67	88	Level 1
Face-to-face Meetings	Percent of employees participating in face-to-face meetings with RBU executives	5%	85%	90%	95%	2nd qtr = 40%	Level 1



Key Performance Indicator	Tracking	Weight %	1	Standards 2	3	2005 Year End Results	Achievement Level
RECEIVE CONSTRUCTIVE REGULATORY TREATMENT ULH&P Gas Distribution Case and CG&E Electric Distribution Case	Based upon outcomes of current proceedings	10%	Subjective	Subjective	Subjective	Subjective	3.0
ACHIEVEMENT LEVEL RESULTS: 2.17							

# Cinergy Performance Management - 2005

## Planning and Appraisal Worksheet

Name: Jim Stanley  
Date: March, 2005

KYFSC Case No. 2, 00172  
Attachment CJO-2  
Page 1 of 3  
Rating  
0 - Did not meet  
1 - Meets expectations  
2 - Exceeds expectations  
3 - Exceptional performance

Results	Requirements	Culture Initiatives

KPI	KEY PERFORMANCE INDICATORS	Tracking			Standards		Weight %	Actual Results	Rating
		1	2	3	2	3			
Operation and Maintenance Expense	R.B.U. Actual versus Budget	Budget	2.0% below budget	4% below budget	4% below budget	15%	\$11.1M under	2.85	
Capital Expenditures	T&D C&M Actual versus Budget	Budget	2% below budget	4% below budget	4% below budget	15%	4.9% below	3.00	
Customer Average Interruption Duration Index (CAIDI) - average number of hours to restore service (excludes level 3 and higher storms)	12 month rolling average of total electric customer hours out of service/total number of electric customer outages	96 minutes	89 minutes	82 minutes	82 minutes	9%	92.6	1.48	
System Average Interruption Frequency Index - (SAIFI) - average number of customer interruptions (excludes level 3 and higher storms)	12 month rolling average of total number of customer interruptions/total number of electric customers	1.52 outages	1.39 outages	1.26 outages	1.26 outages	8%	1.47	1.42	
CEMI (sustained customer outage)	Percent of customers having more than five outages per year	6%	5%	3%	3%	8%	3.5	2.74	

# Cinergy Performance Management - 2005

## Planning and Appraisal Worksheet

KyPSC Case No. 2005-00172

Attachment CJO-2

Rating Page 2 of 3

0 - Did not meet

1 - Meets expectations

2 - Exceeds expectations

3 - Exceptional performance

Name: Jim Stanley

Date: March, 2005

Culture Initiatives	Requirements	Results

KPI KEY PERFORMANCE INDICATORS	Tracking	Standards			Weight %	Actual Results	Rating
		1	2	3			
Customer Contact Satisfaction	Survey of customers receiving service contact	86% satisfied and very satisfied	87% satisfied and very satisfied	88% satisfied and very satisfied	10%	87%	2.00
Safety - Lost Time Incidents	Total Lost time incidents - T&D C&M -	Average of last 3 years (4)	Midpoint between levels 1 and 3 (3)	Better than best year (1)	5%	5 incidents	0.00
Safety - Total Incidents	Total OSHA recordable incidents - T&D C&M -	Average of last 3 years (59)	Midpoint between levels 1 and 3 (56)	Better than best year (52)	5%	50 incidents	2.00
Safety - Traffic Accidents	Number of Traffic Accidents - T&D C&M -	Average of last 3 years (33)	Midpoint between levels 1 and 3 (30)	Better than best year (27)	5%	41 accidents	0.00
Journey Toward Inclusion	Percentage of T&D C&M Employees attending meetings	15%	20%	35%	5%	84%	3.00

# Cinergy Performance Management - 2005

## Planning and Appraisal Worksheet

KyPSC Case No. 2. 00172

Attachment CJO-2

Rating Page 3 of 3

0 - Did not meet

1 - Meets expectations

2 - Exceeds expectations

3 - Exceptional performance

Name: Jim Stanley

Date: March, 2005

Culture Initiatives	Requirements	Results

KPI KEY PERFORMANCE INDICATORS	Tracking	Standards			Weight %	Actual Results	Rating
		1	2	3			
Face to Face Employee Meetings	Percentage of T&D C&M Employees in meetings with V.P.	20%	35%	50%	5%	62%	3.00
R.B.U. spend savings thru sourcing initiatives	Total RBU savings resulting from sourcing initiatives	\$14M	\$17.5M	\$21M	5%	\$4.78M savings - 7.8% of spend impacted - target = 5%	2.50
Continued Improvement Process	Progress of CIN10 initiative implementation	subjective	subjective	subjective	5%	subjective	3.00

Achievement Level Results = 2.2185



**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT AND POWER COMPANY ) CASE NO. 2006-00172  
D/B/A DUKE ENERGY KENTUCKY )

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**DIRECT TESTIMONY OF**  
**KEITH G. BUTLER**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE.....	- 1 -
II. SCHEDULES SPONSORED BY WITNESS.....	- 3 -
III. INCOME TAX EXPENSE.....	- 5 -
IV. PROPERTY TAX EXPENSE.....	- 9 -
V. ADITC AND DEFERRED INCOME TAX BALANCES RELATING TO THE THREE GENERATING PLANTS .....	- 10 -
VI. CONCLUSION .....	- 11 -

**ATTACHMENTS**

ATTACHMENT KGB-1 – Calculation of Composite Federal and State  
Statutory Income Tax Rates

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Keith G. Butler, and my business address is 400 South Tryon  
3 Street, Charlotte, NC 28285.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by the Duke Energy Corporation ("Duke Energy")  
6 affiliated companies as Vice President Corporate Tax.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND**  
8 **PROFESSIONAL QUALIFICATIONS.**

9 A. I have a Bachelor of Science degree in Business Administration, with a  
10 concentration in accounting from the University of North Carolina at  
11 Chapel Hill. I am a Certified Public Accountant in the State of North  
12 Carolina, a member of the American Institute of Certified Public  
13 Accountants, a member of the North Carolina Association of Certified  
14 Public Accountants and a member of the Tax Executives Institute.

15 **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.**

16 A. I joined Duke Energy in January 1984 in the Controller's Department and  
17 have worked in various leadership positions in accounting, finance,  
18 independent power development and energy services. I was appointed to  
19 the position of Vice President & Corporate Controller in August 2001 and  
20 was responsible for the accounting functions of Duke Energy. In June  
21 2005, I was appointed to the position of Vice President Corporate Tax.



1 **Q. PLEASE DESCRIBE YOUR DUTIES AS VICE PRESIDENT**  
2 **CORPORATE TAX.**

3 A. As Vice President Corporate Tax, I have overall responsibility for  
4 corporate tax compliance, planning, and accounting for Duke Energy. The  
5 Duke Energy tax department prepares and files federal, state and local  
6 income, sales and use, excise, and property tax returns for Duke Energy.  
7 We also file tax returns for various joint ventures if Duke Energy is the  
8 designated tax matters partner.

9 The tax department maintains and reconciles Duke Energy's tax  
10 accounts and manages audits with the Internal Revenue Service and state  
11 and local tax authorities. Finally, the tax department is responsible for the  
12 reporting and disclosure of tax related matters, to the extent required.

13 I serve on the Duke Energy Transaction Review Committee. This  
14 committee will recommend significant transactions to the CEO and board  
15 of directors for review and approval. The other members consist of  
16 leaders of the following departments: Finance, General Counsel,  
17 Corporate Development, Risk Management and Treasury. This committee  
18 will meet on an as-needed basis.

19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
20 **PROCEEDING?**

21 A. My testimony addresses The Union Light, Heat and Power Company d/b/a  
22 Duke Energy Kentucky's ("Duke Energy Kentucky") income tax expense  
23 presented in this filing and certain other tax matters. I sponsor part of the

1 information in Schedule B-6, the *pro forma* income tax adjustment on  
2 Schedule D-2.29, and Schedules E-1 and E-2. I also provided certain  
3 additional tax information to other witnesses for their use in certain  
4 calculations for the base period and the forecasted period. Finally, I  
5 support Duke Energy Kentucky's calculation of income tax expense and  
6 property tax expense, and the recommended treatment for accumulated  
7 deferred investment tax credits ("ADITC") and accumulated deferred  
8 income tax ("ADIT") balances relating to The Cincinnati Gas & Electric  
9 Company d/b/a Duke Energy Ohio's ("Duke Energy Ohio") transfer of  
10 generating plants to Duke Energy Kentucky.

**II. SCHEDULES SPONSORED BY WITNESS**

11 **Q. WHAT INFORMATION DID YOU PROVIDE FOR SCHEDULE B-**  
12 **6?**

13 A. I provided Accumulated Deferred Investment Tax Credit and  
14 Accumulated Deferred Income Tax balance information to Mr. Wathen for  
15 both the base period and the forecasted period for Schedule B-6.

16 **Q. PLEASE DESCRIBE SCHEDULE D-2.29.**

17 A. Schedule D-2.29 is a pro-forma adjustment to the income tax calculation  
18 on Schedule E-1 for the "domestic production deduction" of the Company.  
19 I will describe this deduction in more detail later in my testimony. This  
20 deduction was allowed as part of the American Jobs Creation Act of 2004  
21 and is a permanent deduction to both state and federal income taxes which  
22 results in a decrease in income tax expense.

1 **Q. PLEASE DESCRIBE SCHEDULE E-1.**

2 A. Schedule E-1 is the calculation of adjusted jurisdictional federal and state  
3 taxable income and federal and state income tax expense for the base  
4 period under current income tax rates and for the forecasted period at  
5 income tax rates in effect for that period.

6 **Q. PLEASE DESCRIBE SCHEDULE E-2.**

7 A. Schedule E-2 is for the calculation of jurisdictional federal and state  
8 taxable income and federal and state income tax expense. Since the utility  
9 taxes are 100% jurisdictional, this schedule is not applicable.

10 **Q. WHAT TAX INFORMATION DID YOU PROVIDE TO OTHER**  
11 **WITNESSES?**

12 A. I provided Mr. Davey with the property tax expense for the forecasted  
13 financial data. These expenses are based on projected property tax rates  
14 applied to the most recent valuations as approved by the Kentucky  
15 Department of Revenue ("KDR"), updated for projected additions  
16 including the recent Plant transfers, retirements, and additional  
17 depreciation.

18 I also provided Mr. Davey with the income tax rates and the  
19 amortization of the investment tax credit for both the forecasted portion of  
20 the base period consisting of the six months ending August 31, 2006, and  
21 the forecasted test period.

22 I reviewed Mr. Davey's calculation of deferred income taxes for  
23 the base period and the forecasted period, I provided the amount of tax

1 depreciation he used for this calculation, and I support the methodology he  
2 used for calculating deferred income taxes. I also provided Ms. Good with  
3 the accumulated deferred investment tax credit balance for her use on  
4 Schedules J-1, J-1.1 and J-1.2.

### **III. INCOME TAX EXPENSE**

5 **Q. WHAT TAX RATE DID THE COMPANY USE TO CALCULATE**  
6 **ITS TEST PERIOD FEDERAL INCOME TAX EXPENSE?**

7 A. The Company used the statutory Federal corporate income tax rate of 35%  
8 for both the base period and forecasted period.

9 **Q. WHAT TAX RATE DID THE COMPANY USE TO CALCULATE**  
10 **ITS TEST PERIOD STATE INCOME TAX EXPENSE?**

11 A. The Company used the statutory Kentucky corporate income tax rate of  
12 7% for the base period. For the forecasted period, the Company used the  
13 statutory Kentucky corporate income tax rate of 6%, as this is the  
14 Kentucky corporate income tax rate that will be in effect beginning in  
15 2007. The Company used the Ohio statutory corporate income tax rate of  
16 8.5% for both the base period and the forecasted period. Due to the  
17 transfer of two generating plants in Ohio as of January 1, 2006, from Duke  
18 Energy Ohio to the Company, the Company's apportionment calculation  
19 for state income taxes results in a composite state statutory tax rate of  
20 5.8%. This is the rate that was used to determine state income tax expense  
21 for the forecasted period.

1 **Q. WHAT IS THE COMBINED FEDERAL AND STATE**  
2 **STATUTORY INCOME TAX RATE APPLICABLE DURING THE**  
3 **TEST PERIOD?**

4 A. The combined statutory Federal and state statutory income tax rate for  
5 Duke Energy Kentucky, which is expected to be in effect during the base  
6 period is 39.55% and for the forecasted period is 38.77%. This rate  
7 includes the corporate statutory federal income tax rate of 35% and the  
8 statutory Kentucky corporate income tax rate of 7% for the base period  
9 and the composite state statutory income tax rate of 5.8% for the  
10 forecasted period. The calculation of these composite federal and state  
11 statutory income tax rates are shown on Attachment KGB-1. State income  
12 taxes are deductible in computing the federal tax liability and this  
13 deduction is considered in computing the overall effective tax liability. I  
14 provided this information to Mr. Wathen for his use in calculating the  
15 revenue requirement. I also provided him with the amount of income tax  
16 expense for the base period and the forecasted test period, based on these  
17 income tax rates.

18 **Q. WHY DID YOU USE THE STATUTORY KENTUCKY INCOME**  
19 **TAX RATE INSTEAD OF THE EFFECTIVE KENTUCKY**  
20 **INCOME TAX RATE TO CALCULATE DUKE ENERGY**  
21 **KENTUCKY'S INCOME TAX EXPENSE?**

22 A. In my opinion, Duke Energy Kentucky should use the income tax rate that  
23 most accurately reflects the actual state income tax for its business on a

1 stand-alone basis, which for the base period is the statutory rate of 7% and  
2 for the forecasted period is the composite statutory tax rate of 5.8%.  
3 These are the proper tax rates to apply to Duke Energy Kentucky's electric  
4 business operations and this treatment is consistent with the Kentucky  
5 income tax rate approved by the Commission for the Company's 2005 gas  
6 rate case. This treatment is also consistent with the Commission's most  
7 recent ruling on the subject because, in its March 31, 2006 Order in Case  
8 No. 2003-00433, the Commission issued an Order on rehearing, rejecting  
9 the Attorney General's request that the effective Kentucky income tax rate  
10 should be used to calculate the revenue requirement for Louisville Gas &  
11 Electric Company's electric operations.

12 **Q. YOU REFERRED EARLIER TO THE AMERICAN JOBS**  
13 **CREATION ACT OF 2004. PLEASE EXPLAIN THE**  
14 **BACKGROUND OF THIS LAW.**

15 A. President Bush signed the American Jobs Creation Act of 2004 into law  
16 on October 22, 2004. In passing this law, Congress intended to reduce the  
17 tax burden on domestic manufacturers and to enhance the competitiveness  
18 of American manufacturers in the global economy. The law provides a  
19 phased-in income tax deduction of 9% on the lesser of the taxpayer's  
20 income from qualified production activities or taxable income. The law  
21 defines "qualified production activities" to include the production of  
22 electric energy. The tax deduction is phased-in as follows:

<u>Year</u>	<u>Amount of Deduction</u>
2005 and 2006	deduction equals 3% of qualified production activity taxable income
2007 through 2009	deduction equals 6% of qualified production activity taxable income
2010 and beyond	deduction equals 9% of qualified production activity taxable income

1    **Q.    HOW DOES THE AMERICAN JOBS CREATION ACT OF 2004**  
2       **AFFECT THE CALCULATION OF DUKE ENERGY**  
3       **KENTUCKY'S FEDERAL INCOME TAXES?**

4    A.    The deduction applies to taxable income from generating and other  
5       electric production activities, so it applies to Duke Energy Kentucky's  
6       generation of electric energy from its generating plants. The deduction is  
7       calculated, however, at the consolidated level; therefore, any losses from  
8       Duke Energy's non-regulated operations may prevent Duke Energy from  
9       realizing any benefit from this deduction in its consolidated federal tax  
10      filing. Nevertheless, for ratemaking purposes we calculated this deduction  
11      on the income from Duke Energy Kentucky's generating activities on a  
12      stand-alone basis. This is consistent with our use of the composite  
13      statutory income tax rate that I discussed earlier in my testimony, because  
14      both situations use the utility's stand-alone income tax expense rather than  
15      the consolidated holding company tax impact.

16   **Q.    WHAT RATE DID THE COMPANY USE TO CALCULATE**  
17      **THESE DEDUCTIONS?**

1 A. We used the deduction rate of 6% of qualified production activity taxable  
2 income, because this is the level of the phased-in deduction that will be in  
3 effect when Duke Energy Kentucky's new retail electric base rates are put  
4 in effect and for two years thereafter.

5 **Q. DOES KENTUCKY HAVE A SIMILAR DEDUCTION FOR STATE**  
6 **INCOME TAXES?**

7 A. Yes, but it has slightly different limits. The Kentucky Legislature enacted  
8 House Bill 272 in 2005, and the Department of Revenue has proposed a  
9 new emergency regulation, 103 KAR 16:310E. The new law adopts a  
10 deduction from Kentucky corporate income taxes for domestic production  
11 activity equal to the federal deduction, but the proposed emergency  
12 regulation limits the deduction to the lesser of the Company's Kentucky  
13 income tax or consolidated income tax, capped by the amount of wages  
14 paid to Kentucky residents.

15 **Q. DID THE AMERICAN JOBS CREATION ACT OF 2004 HAVE**  
16 **ANY OTHER IMPACTS ON DUKE ENERGY KENTUCKY'S**  
17 **INCOME TAXES?**

18 A. No.

#### IV. PROPERTY TAX EXPENSE

19 **Q. HOW DID DUKE ENERGY KENTUCKY CALCULATE THE**  
20 **PROPERTY TAX EXPENSE FOR THE FORECASTED TEST**  
21 **PERIOD?**



1 A. We calculated the property tax expense based on the assessed value of  
2 Duke Energy Kentucky's property located in Kentucky and Ohio with  
3 adjustments for anticipated property tax rate increases, additions including  
4 the power plant transfers, retirements and additional depreciation. As in  
5 past years, Duke Energy Kentucky will attempt to negotiate proper  
6 assessment values with the KDR. The Company will notify the  
7 Commission of the result of its negotiations with the KDR for the 2006 tax  
8 year so the Commission can determine whether to adjust Duke Energy  
9 Kentucky's property tax expense for the forecasted test period. The Ohio  
10 property is assessed on a triennial basis, with the next re-assessment  
11 expected to occur in 2008.

V. ADITC AND DEFERRED INCOME TAX BALANCES  
RELATING TO THE THREE GENERATING PLANTS

12 Q. WHAT TREATMENT DOES DUKE ENERGY KENTUCKY  
13 REQUEST FOR THE ADITC AND ADIT BALANCES RELATING  
14 TO THE THREE GENERATING PLANTS TRANSFERRED FROM  
15 DUKE ENERGY OHIO TO DUKE ENERGY KENTUCKY?

16 A. Duke Energy Kentucky proposes that these items should be reflected as  
17 non-jurisdictional balances on its books as of January 1, 2006, the  
18 effective date of Duke Energy Ohio's transfer of the plants to Duke  
19 Energy Kentucky, and excluded from the calculation of its electric  
20 revenue requirement. Duke Energy Kentucky will continue to amortize  
21 these balances below-the-line over the remaining lives of the generating  
22 plants.

1 Duke Energy Kentucky has recorded above-the-line all deferred  
2 income taxes generated after January 1, 2006 and through the end of the  
3 forecasted test period, and has reflected such deferred income tax activity  
4 and ADITs in calculating its revenue requirements.

5 This treatment of the ADITC and ADIT balances relating to the  
6 generating plants is consistent with: (1) the treatment prescribed by the  
7 FERC Uniform System of Accounts; (2) accepted principles of tax  
8 normalization; (3) the accounting treatment applied in similar transactions  
9 in other jurisdictions; and (4) the Commission's ruling at pages 15-18 of  
10 its December 5, 2003 Order in Case No. 2003-00252 approving the  
11 transfer of the generating plants.

#### VI. CONCLUSION

12 **Q. WAS THE TAX INFORMATION YOU SUPPLIED FOR**  
13 **SCHEDULE B-6, AND WERE SCHEDULE D-2.29, SCHEDULES E-**  
14 **1 AND E-2, THE TAX INFORMATION YOU SUPPLIED TO**  
15 **OTHER WITNESSES, AND ATTACHMENT KGB-1 PREPARED**  
16 **UNDER YOUR DIRECTION AND SUPERVISION?**

17 A. Yes.

18 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

19 A. Yes.

**VERIFICATION**

State of North Carolina        )  
  )     SS:  
County of Mecklenburg        )

The undersigned, Keith G. Butler, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
\_\_\_\_\_  
Keith G. Butler, Affiant



Subscribed and sworn to before me by Keith G. Butler on this 17 day of May, 2006.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: 8-10-2008

**DUKE ENERGY KENTUCKY**

Calculation of Combined Statutory Federal and State Income Tax Rate

BASE PERIOD		
Line No.		
1	State Taxable Income	\$ 100.00
2	Statutory State Income Tax Rate	<u>7.0%</u>
3	State Income Tax	\$ 7.00
4	Federal Taxable Income	\$ 93.00
5	Statutory Federal Income Tax Rate	<u>35.00%</u>
6	Federal Income Tax	<u>32.55</u>
7	Total Income Tax	<u>\$ 39.55</u>
8	Combined Statutory Federal and State Income Tax Rate (line 7 / line 1)	<u>39.55%</u>

FORCASTED PERIOD		
Line No.		
1	State Taxable Income	\$ 100.00
2	Statutory State Income Tax Rate	<u>5.8%</u>
3	State Income Tax	\$ 5.80
4	Federal Taxable Income	\$ 94.20
5	Statutory Federal Income Tax Rate	<u>35.00%</u>
6	Federal Income Tax	<u>32.97</u>
7	Total Income Tax	<u>\$ 38.77</u>
8	Combined Statutory Federal and State Income Tax Rate (line 7 / line 1)	<u>38.77%</u>



**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT AND POWER COMPANY )     CASE NO. 2006-00172  
D/B/A DUKE ENERGY KENTUCKY     )

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**DIRECT TESTIMONY OF**  
**LYNN J. GOOD**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE.....	- 1 -
II. DUKE ENERGY KENTUCKY'S CURRENT CREDIT RATINGS .....	- 4 -
III. DUKE ENERGY KENTUCKY'S FINANCIAL OBJECTIVES.....	- 6 -
IV. DUKE ENERGY KENTUCKY'S CASH REQUIREMENTS .....	- 7 -
VI. DUKE ENERGY KENTUCKY'S COST OF DEBT.....	- 10 -
VII. SCHEDULES SPONSORED BY WITNESS .....	- 11 -
X. CONCLUSION .....	- 16 -

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Lynn J. Good, and my business address is 526 South Church Street,  
3 Charlotte, North Carolina 28202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by the Duke Energy Corporation (“Duke Energy”) affiliated  
6 companies as Vice President and Treasurer.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL**  
8 **QUALIFICATIONS.**

9 A. I have a Bachelor of Science Degree in Systems Analysis and Accounting from  
10 Miami University, Oxford, Ohio, and I am a Certified Public Accountant in the  
11 State of Ohio.

12 **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.**

13 A. From July 1981 to May 2002, I worked in various levels of senior management  
14 with Arthur & Andersen Co. (“Arthur Andersen”), certified public accountants.  
15 While at Arthur Andersen, I had regional energy industry responsibilities for risk  
16 consulting and internal audit practices. From May 2002 to May 2003, I was a  
17 partner with the international accounting firm Deloitte & Touche LLP. I joined  
18 Cinergy Corp. in May 2003, as Vice President, Financial Project Strategy and  
19 Oversight for Cinergy Services, Inc., responsible for improving financial and  
20 accounting management reporting and organizational effectiveness, as well as  
21 addressing compliance with the Sarbanes – Oxley Act of 2002. I was appointed  
22 to the position of Vice President and Controller in November 2003, and in

LYNN J. GOOD DIRECT

183227



1 January 2005, after assuming responsibility for budgets, forecasts and tax, I was  
2 appointed to Vice President Finance and Controller. In August 2005, I was  
3 appointed CFO of Cinergy. I was appointed to my current position of Vice  
4 President and Treasurer of Duke Energy effective with the closing of the merger  
5 between the former Duke Energy Corporation and Cinergy Corp. on April 3,  
6 2006.

7 **Q. PLEASE DESCRIBE YOUR DUTIES AS VICE PRESIDENT AND**  
8 **TREASURER.**

9 A. As Vice President and Treasurer, I am responsible for financing the operations of  
10 the Duke Energy companies. This includes managing the existing portfolio of  
11 securities, as well as the issuance of new taxable and tax-exempt debt securities  
12 and common and preferred equity securities, and obtaining other sources of  
13 external funds, including securitization, lease financing and short-term debt  
14 facilities. My responsibilities also encompass financial risk management of the  
15 companies' interest rate and foreign currency risk exposure. I am also responsible  
16 for oversight and administration of the pension and other non-qualified benefit  
17 investments, and daily cash management. My duties also include managing Duke  
18 Energy's and its subsidiaries' relationships with the major credit rating agencies  
19 and with the commercial banks and debt capital markets. In addition, I am  
20 responsible for the financial planning and analysis activities within the company.

21 I serve on Duke Energy's Performance Review Committee. The other  
22 members consist of Mr. Jim Rogers, Duke Energy's President and CEO, and the  
23 leaders of the following departments: Finance, General Counsel, Corporate

1 Development, Communications, Corporate Secretary/Ethics & Compliance, and  
2 Controller. The Performance Review Committee will meet quarterly with each of  
3 the following three Duke Energy businesses: U.S. Franchised Electric & Gas,  
4 Duke Energy Gas Transmission and Duke Energy Americas. The meetings will  
5 concentrate on financial performance and other matters, including strategic  
6 direction, operational, safety and environmental performance, and Sarbanes-  
7 Oxley and other compliance requirements. I also serve on the Duke Energy  
8 Transaction Review Committee. This committee will recommend significant  
9 transactions to the CEO and board of directors for review and approval. The  
10 other members consist of the leaders of the following departments: Finance,  
11 General Counsel, Corporate Development, Risk Management and Tax. This  
12 committee will meet on an as-needed basis.

13 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

14 A. I previously filed testimony in Case No. 2005-00228, involving the merger of  
15 Duke Energy and Cinergy Corp.

16 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
17 **PROCEEDING?**

18 A. My testimony addresses Duke Energy Kentucky's current credit ratings, its  
19 financial objectives and the cash requirements facing Duke Energy Kentucky.  
20 Additionally, my testimony addresses the capital structure of Duke Energy  
21 Kentucky and its cost of debt included in Schedules J-1, J-1.1, J-1.2, J-2, and J-3,  
22 which I support. I also sponsor the percentage of construction expenditures  
23 financed internally, fixed coverage ratios and the ratings agencies ratings in

1 Schedule K. I reviewed and approved the financing plan included in both the  
2 base and forecasted test periods in this proceeding. Additionally, I provided the  
3 following information to Mr. Davey for his use in preparing the forecasts: Duke  
4 Energy's dividend policy; Duke Energy Kentucky's debt rate assumptions;  
5 existing short-term and long-term debt balances; sales of accounts receivable;  
6 capital lease and equipment lease information; and information relating to the  
7 long-term debt financing for the Plants in March 2006. I also sponsor Filing  
8 Requirements ("FR") FR 6(1), FR 6(2), FR 6(3), FR 6(4), FR 6(5), FR 6(6), FR  
9 6(7), FR 6(8), FR 10(9)(h)(11) and FR 10(9)(j).

**II. DUKE ENERGY KENTUCKY'S CURRENT CREDIT RATINGS**

10 **Q. HOW ARE DUKE ENERGY KENTUCKY'S OUTSTANDING**  
11 **SECURITIES CURRENTLY RATED BY THE THREE MAJOR CREDIT**  
12 **RATING AGENCIES?**

13 **A.** As of the date of this testimony, Duke Energy Kentucky's outstanding securities  
14 are rated by the three major credit rating agencies as follows:

	<u>Fitch</u>	<u>Moody's</u>	<u>Standard &amp; Poor's</u>
15 Senior Unsecured Debt	BBB+	Baa1	BBB

17 The ratings outlook from S&P and Fitch is stable; the ratings outlook from  
18 Moody's is positive.

19 **Q. PLEASE EXPLAIN WHAT IS MEANT BY THESE CREDIT RATINGS**  
20 **FOR DUKE ENERGY KENTUCKY'S SENIOR UNSECURED DEBT AND**  
21 **WHY DO SOME RATINGS CARRY A "+"?**

1 A. Obligations carrying the “BBB” rating from Standard & Poor’s or Fitch are  
2 considered medium grade investment securities. They are described as having  
3 adequate protection for the investor. “BBB” rated debt is presumed to be more  
4 susceptible to changes in economic conditions than those issuers rated “A.”  
5 Moody’s “Baa2” rating is comparable to the “BBB” from Standard and Poor’s  
6 and Fitch.

7 Ratings may also be modified by the addition of a plus or minus sign to  
8 indicate relative standing within the major rating category. A “BBB+” credit  
9 rating is at the higher end of the “BBB” credit rating category and a “BBB-”  
10 credit rating is at the lower end of the “BBB” credit rating category. The “1” in a  
11 Moody’s rating is the same as a “+” and a “3” is equivalent to a “-”.

12 **Q. WHEN WERE DUKE ENERGY KENTUCKY’S CURRENT CREDIT**  
13 **RATINGS ESTABLISHED?**

14 A. Duke Energy Kentucky’s current credit ratings were established by Moody’s in  
15 November 1995, by Standard & Poor’s in June 2002, and by Fitch in April 2004.  
16 These ratings were all affirmed by the respective agencies in April 2006.

17 **Q. HAS THE MERGER AFFECTED DUKE ENERGY KENTUCKY’S**  
18 **CREDIT RATINGS?**

19 A. The senior unsecured ratings of Duke Energy Kentucky have remained  
20 unchanged. The ratings outlook at Moody’s has changed to “Positive”, and is  
21 “Stable” at Fitch and S&P.

22 **Q. HAVE THE MAJOR CREDIT RATING AGENCIES RAISED ANY**  
23 **OTHER CONCERNS ABOUT DUKE ENERGY KENTUCKY?**

1 A. In past reports, the ratings agencies have expressed concerns about the potential  
2 for stricter environmental regulations, which could lead to large capital  
3 expenditure requirements for Duke Energy Kentucky, given the transfer of the  
4 generating plants from Duke Energy Ohio to Duke Energy Kentucky. However,  
5 as we incur environmental capital expenditures, we intend to seek timely rate  
6 relief.

### III. DUKE ENERGY KENTUCKY'S FINANCIAL OBJECTIVES

7 Q. WHAT ARE DUKE ENERGY KENTUCKY'S FINANCIAL  
8 OBJECTIVES?

9 A. Duke Energy Kentucky's general financial objective is to achieve the  
10 fundamentals necessary to provide assured and reasonable access to the capital  
11 markets in order to continue to provide cost effective, safe, adequate,  
12 environmentally-compliant and reliable service to our customers. Specific  
13 financial objectives necessary to enhance or maintain the desired financial  
14 strength include: (a) maintaining at least a 50% common equity ratio for Duke  
15 Energy Kentucky on a financial capitalization basis; and (b) achieving and  
16 maintaining at least a "BBB+" credit rating for Duke Energy Kentucky's senior  
17 unsecured debt, and ultimately to improve the credit rating for Duke Energy  
18 Kentucky's senior unsecured debt to an "A-" credit rating. If Duke Energy  
19 Kentucky were to issue senior secured debt, it is anticipated that these would be  
20 rated one notch higher than the senior unsecured debt.

1 Q. DO YOU BELIEVE THAT DUKE ENERGY KENTUCKY'S CUSTOMERS  
2 WILL BENEFIT IF DUKE ENERGY KENTUCKY IS ABLE TO  
3 ACHIEVE ITS CREDIT RATING OBJECTIVES?

4 A. Yes, I do.

5 Q. PLEASE EXPLAIN HOW DUKE ENERGY KENTUCKY'S CUSTOMERS  
6 WILL BENEFIT FROM DUKE ENERGY KENTUCKY ACHIEVING ITS  
7 CREDIT RATING OBJECTIVES.

8 A. There are many reasons why our customers will benefit from the credit rating  
9 objectives that we have established. The benefits of achieving and maintaining an  
10 "A" credit rating or higher are discussed in the pre-filed testimony of Duke  
11 Energy Kentucky witness Dr. Roger A. Morin. These benefits include not only  
12 lower overall financing costs, but also greater assurance of access to the capital  
13 markets, thus improving Duke Energy Kentucky's ability to maintain a safe,  
14 reliable, and low cost level of customer service.

**IV. DUKE ENERGY KENTUCKY'S CASH REQUIREMENTS**

15 Q. WHAT ARE DUKE ENERGY KENTUCKY'S CAPITAL NEEDS DURING  
16 THE 2006-2007 TIME PERIOD?

17 A. For the years 2006 and 2007, Duke Energy Kentucky projects expenditures for  
18 electric and gas construction projects of approximately \$123 million. In  
19 connection with the transfer of the Plants from Duke Energy Ohio, Duke Energy  
20 Kentucky assumed approximately \$167 million in debt. Duke Energy Kentucky  
21 subsequently re-financed \$90 million of this debt in March 2006 with two  
22 issuances of senior notes, totaling \$115 million. We are currently reviewing a re-

1 financing of the tax-exempt debt that Duke Energy Kentucky assumed from Duke  
 2 Energy Ohio as part of the Plant transfer. Duke Energy Kentucky has no long-  
 3 term debt maturing in 2006 and 2007, excluding any capital lease maturities.

**V. DUKE ENERGY KENTUCKY'S CAPITAL STRUCTURE**

4 **Q. HOW DID DUKE ENERGY KENTUCKY FINANCE THE THREE**  
 5 **GENERATING PLANTS TRANSFERRED FROM DUKE ENERGY**  
 6 **OHIO?**

7 A. Duke Energy Ohio transferred the East Bend Generating Station, the Miami Fort  
 8 Generating Station Unit 6 and the Woodsdale Generating Station (collectively,  
 9 "the Plants") to Duke Energy Kentucky effective January 1, 2006. At closing,  
 10 Duke Energy Kentucky financed the Plants by an equity contribution of  
 11 \$139,855,099 from Duke Energy Ohio, and by Duke Energy Kentucky assuming  
 12 the following debt from Duke Energy Ohio:

**Table 1 – Outstanding Debt**

<b><u>Description</u></b>	<b><u>Amount</u></b>
Floating Rate Monthly Demand Pollution Control Revenue Refunding Bonds, 1985 Series A (The Cincinnati Gas & Electric Company Project)	\$16,000,000
5½% Collateralized Pollution Control Revenue Refunding Bonds, 1994 Series A (The Cincinnati Gas & Electric Company	\$48,000,000
Assignment and Assumption Agreement between The Cincinnati Gas & Electric Company and The Dayton Power and Light Company dated September dated September 30, 2005, related to the 6.5% Collateralized Pollution Control Revenue Refunding Bonds, 1992 Series A (The Dayton Power and Light Company Project)	\$12,720,000
Assumption of Accounts Payable from Duke Energy Ohio	\$90,280,000
Total:	\$167,000,000

LYNN J. GOOD DIRECT

1 **Q. DID DUKE ENERGY KENTUCKY SUBSEQUENTLY RE-FINANCE**  
2 **SOME OF THIS DEBT?**

3 A. Yes. On March 10, 2006, Duke Energy Kentucky executed a closing for the sale  
4 of \$115 million in a private placement of senior unsecured notes, pursuant to a  
5 bond purchase agreement executed March 7, 2006. The notes were issued in two  
6 series: \$50 million of 10-year debentures due 2016, bearing a fixed interest rate of  
7 5.75% and \$65 million of 30-year debentures, bearing a fixed interest rate of  
8 6.20%. The proceeds of this debt issuance were primarily used to repay  
9 \$90,280,000 in accounts payable assumed from Duke Energy Ohio in connection  
10 with the Plant transfer. In addition, the proceeds were used to re-finance \$15  
11 million of existing higher coupon debt and for general corporate purposes.

12 **Q. WHAT WAS DUKE ENERGY KENTUCKY'S CAPITAL STRUCTURE**  
13 **ON A FINANCIAL REPORTING BASIS AS OF MARCH 31, 2006?**

14 A. Duke Energy Kentucky's corporate capital structure at March 31, 2006, was  
15 49.1% debt (both short-term (including the balance of proceeds from the sale of  
16 Accounts Receivable) and long-term), and 50.9% common equity. In the present  
17 case, Duke Energy Kentucky's capital structure is based on the projected thirteen-  
18 month average for Duke Energy Kentucky as of December 31, 2007, of 49.1%  
19 debt (short-term (including the balance of proceeds from sale of Accounts  
20 Receivable) and long-term), and 50.9% common equity as detailed on Schedule J-  
21 1.1.



**VI. DUKE ENERGY KENTUCKY'S COST OF DEBT**

1 **Q. DID DUKE ENERGY COMPANY TAKE ANY STEPS SINCE ITS LAST**  
2 **ELECTRIC BASE RATE CASE IN 1991 TO MANAGE ITS FINANCING**  
3 **COSTS, THUS MITIGATING THE RATE INCREASE PROPOSED IN**  
4 **THIS CASE?**

5 A. Yes. Duke Energy Kentucky has aggressively managed its financing costs and  
6 was able to reduce the cost of long-term debt from 9.375% at July 31, 1991 (the  
7 end of the test period in Case No. 91-370), to 6.845% at December 31, 2005, and  
8 projected to be 6.090% for the thirteen-month average forecasted test period  
9 ending December 31, 2007.

10 **Q. WHAT IS DUKE ENERGY KENTUCKY'S PROJECTED AVERAGE**  
11 **COST OF SHORT-TERM DEBT FOR THE THIRTEEN MONTHS**  
12 **ENDING DECEMBER 31, 2007?**

13 A. At December 31, 2007, Duke Energy Kentucky's average corporate cost of short-  
14 term debt (including cost of proceeds from sale of Accounts Receivable) for the  
15 prior thirteen-month period is projected to be 5.138%. The projected short-term  
16 interest rates of the notes payable to associated companies were based on  
17 Bloomberg's Implied Forwards Curve for one month London Interbank Offered  
18 Rate (LIBOR) plus the anticipated fees of Cinergy Corp.'s revolving credit  
19 facilities. For the sale of Accounts Receivable, the assumed rate of interest was  
20 also based on Bloomberg's Implied Forwards Curve for one month LIBOR plus a  
21 credit spread of 20 basis points, which is based on the credit worthiness of banks

1 involved in Duke Energy Kentucky's sale of its retail receivables. The details of  
2 this calculation are shown in Schedule J-2, Page 2 of 2.

3 **Q. WHAT IS DUKE ENERGY KENTUCKY'S PROJECTED AVERAGE**  
4 **COST OF LONG-TERM DEBT FOR THE THIRTEEN MONTHS**  
5 **ENDING DECEMBER 31, 2007?**

6 A. Duke Energy Kentucky's corporate cost of long-term debt for the forecasted test  
7 period is projected to be 6.090%. The details of this calculation are shown in  
8 Schedule J-3, Page 2 of 2.

**VII. SCHEDULES SPONSORED BY WITNESS**

9 **Q. PLEASE DESCRIBE SCHEDULES J-1, J-1.1 AND J-1.2.**

10 A. Schedule J-1, entitled "Cost of Capital Summary" sets forth the projected capital  
11 structure and capitalization ratios of Duke Energy Kentucky at August 31, 2006  
12 and the average of the projected balances and rates for the thirteen-month period  
13 ending December 31, 2007. The cost of the long-term and short-term debt  
14 capitalization components are developed on Schedules J-2 and J-3. The weighted  
15 cost of the various capital components is computed by multiplying the respective  
16 capitalization ratio by the computed annualized cost rate. The overall weighted  
17 cost of capital is reflected in the rate of return requested for the thirteen-month  
18 period ending December 31, 2007.

19 Schedules J-1.1 and J-1.2 entitled "Average Forecasted Period Capital  
20 Structure - Current Rates" and "Average Forecasted Period Capital Structure -  
21 Proposed Rates," respectively, sets forth Duke Energy Kentucky's projected  
22 weighted cost of capital based on the average of the projected balances and rates

1 for the thirteen-month period ending December 31, 2007. Schedule J-1.1 assumes  
2 no rate increase and Schedule J-1.2 reflects the balances assuming the proposed  
3 rates are in effect.

4 Mr. Butler supports the accumulated deferred investment tax credit related  
5 portions of Schedules J-1, J-1.1 and J-1.2.

6 **Q. PLEASE DESCRIBE SCHEDULES J-2 AND J-3.**

7 A. Schedule J-2, entitled "Embedded Cost of Short-Term Debt," and Schedule J-3,  
8 entitled "Embedded Cost of Long-Term Debt," set forth the calculations of the  
9 cost of short-term debt and long-term debt, respectively, of Duke Energy  
10 Kentucky. The information on page 1 of these schedules was computed at the  
11 date of the base period, August 31, 2006. On page 2, the balances and interest  
12 rates are based on the average of the projected balances and rates for the thirteen-  
13 month period ending December 31, 2007.

14 **Q. WHY IS SCHEDULE J-4 NOT INCLUDED?**

15 A. Schedule J-4 is designed to provide the embedded cost of preferred stock for  
16 Duke Energy Kentucky. Since Duke Energy Kentucky has no preferred stock,  
17 this schedule has not been filed.

18 **Q. DO YOU SPONSOR ANY OF THE INFORMATION CONTAINED IN**  
19 **ANY OTHER SCHEDULES?**

20 A. Yes. I sponsor the percentage of construction expenditures financed internally,  
21 fixed coverage ratios and the ratings agencies ratings in Schedule K.

22

23

**VIII. FILING REQUIREMENTS SPONSORED BY WITNESS**

1 **Q. PLEASE DESCRIBE FR 6(1).**

2 A. FR 6(1) provides the amount and kinds of stock authorized.

3 **Q. PLEASE DESCRIBE FR 6(2).**

4 A. FR 6(2) provides the amount and kinds of stock issued and outstanding.

5 **Q. PLEASE DESCRIBE FR 6(3).**

6 A. FR 6(3) is a requirement to provide certain terms and conditions for any preferred  
7 stock. Since Duke Energy Kentucky has no preferred stock, there is no  
8 information to provide.

9 **Q. PLEASE DESCRIBE FR 6(4).**

10 A. FR 6(4) provides a description of certain terms and conditions for any mortgages.  
11 Since Duke Energy Kentucky has no mortgages, there is no information to  
12 provide.

13 **Q. PLEASE DESCRIBE FR 6(5).**

14 A. FR 6(5) provides certain terms and conditions for any bonds authorized and  
15 issued.

16 **Q. PLEASE DESCRIBE FR 6(6).**

17 A. FR 6(6) provides certain terms and conditions for any notes issued.

18 **Q. PLEASE DESCRIBE FR 6(7).**

19 A. FR 6(7) is a requirement to provide certain terms and conditions for other  
20 indebtedness.

21 **Q. PLEASE DESCRIBE FR 6(8).**

1 A. FR 6(8) provides certain information regarding dividend payments by Duke  
2 Energy Kentucky during the past five years.

3 **Q. PLEASE DESCRIBE FR 10(9)(H)(11).**

4 A. FR 10(9)(h)(11) provides Duke Energy Kentucky's capital structure requirements.

5 **Q. PLEASE DESCRIBE FR 10(9)(J).**

6 A. FR 10(9)(j) is a requirement to provide copies of the prospectuses of the most  
7 recent stock or bond offerings.

**IX. INFORMATION SUPPLIED TO OTHER WITNESSES**

8 **Q. DID YOU SUPPLY ANY INFORMATION TO OTHER WITNESSES FOR**  
9 **THEIR USE IN THIS PROCEEDING?**

10 A. Yes. I supplied Mr. Davey with certain information for the forecasted portion of  
11 the base period, consisting of the six months ending August 31, 2006 and the  
12 forecasted test period, consisting of the twelve months ending December 31,  
13 2007. I also reviewed the results of the financial forecasts Mr. Davey sponsors to  
14 determine whether any changes needed to be made for the financing plan.

15 **Q. WHAT FINANCIAL INFORMATION DID YOU PROVIDE TO MR.**  
16 **DAVEY?**

17 A. I provided the short- and long-term debt interest rates and balances; the planned  
18 new issuances of long-term debt and associated expenses; the balances on the sale  
19 of accounts receivable; and the capital lease data, including the payment  
20 schedules for these leases. I also provided him with the principal and interest  
21 payments to convert the Erlanger facility from an operating lease to a capital

1           lease. All of this data was developed in the normal course of developing the  
2           original and the revised 2006 annual budget and the 2007 forecast.

3   **Q.   YOU STATED THAT YOU REVIEWED THE FORECASTS TO**  
4   **DETERMINE WHETHER ANY CHANGES NEEDED TO BE MADE FOR**  
5   **THE FINANCING PLAN. WHAT FINANCIAL INFORMATION DO YOU**  
6   **NORMALLY REVIEW FOR THE FORECASTING PROCESS?**

7   A.   I typically review the results of the financial forecasts for the annual budget and  
8       for any other forecast work such as the two periods in this proceeding. I review  
9       the financing plan, including the dividend levels. For example, I review to see if  
10      there are appropriate levels of short-term and long-term debt. If the short-term  
11      debt levels have grown too large, I will provide instructions to fund the short-term  
12      debt by issuing long-term debt with the specific parameters that should be  
13      assumed with that debt issuance. I reviewed these factors for the forecast  
14      prepared by Mr. Davey and provided him with the financial plan for the forecast.

15 **Q.   WHAT INSTRUCTIONS DID YOU GIVE REGARDING THE DIVIDEND**  
16 **LEVELS?**

17 A.   I instructed Mr. Davey to follow the Duke Energy dividend policy, which states  
18      that the operating companies' dividend amounts will be consistent with the  
19      respective operating company maintaining a reasonable capital structure,  
20      providing reasonable and adequate service, and maintaining an adequate cash  
21      position. In addition, as a matter of normal practice, the dividend payout ratios of  
22      the operating companies will represent approximately equal percentages over time  
23      of their respective income available for common dividends. The target is a 70%

1 payout ratio based on net income available, which is in line with general electric  
2 utility industry practice. On occasion, an operating company may participate to a  
3 greater or lesser extent in the furnishing of cash for Duke Energy's common stock  
4 dividends in order to address the unique needs of the operating companies (*e.g.*,  
5 construction, operating cash needs, *etc.*) at that time. Based on this policy, and  
6 the cash flows and capital structure in the current forecast, the dividend was  
7 eliminated in 2006, and is 35% of net income in 2007.

**X. CONCLUSION**

8 **Q. HOW WAS THE RATE OF RETURN FOR COMMON EQUITY**  
9 **DETERMINED?**

10 A. The return on Common Equity, as contained on Schedules J-1, J-1.1 and J-1.2,  
11 reflects the recommendation of Duke Energy Kentucky witness Dr. Roger A.  
12 Morin, supported by his testimony in this case.

13 **Q. WERE SCHEDULES J-1, J-1.1, J-1.2, J-2, J-3, AND THE INFORMATION**  
14 **YOU SPONSOR IN SCHEDULE K, FR 6(1), FR 6(2), FR 6(3), FR 6(4), FR**  
15 **6(5), FR 6(6), FR 6(7), FR 6(8), FR 10(9)(H)(11) FR10(9)(J) AND THE**  
16 **INFORMATION YOU SUPPLIED TO MR. DAVEY PREPARED BY YOU**  
17 **OR UNDER YOUR DIRECTION AND CONTROL?**

18 A. Yes.

19 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

20 A. Yes.

VERIFICATION

State of North Carolina            )  
  )    SS:  
County of Mecklenburg            )

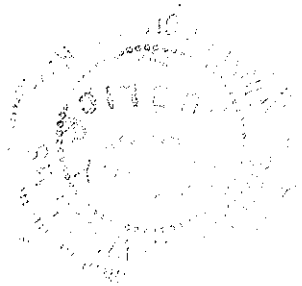
The undersigned, Lynn J. Good, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.

  
\_\_\_\_\_  
Lynn J. Good, Affiant

Subscribed and sworn to before me by Lynn J. Good on this 18<sup>th</sup> day of May,  
2006.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: 11-06-07







**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT AND POWER COMPANY ) CASE NO. 2006-00172  
D/B/A DUKE ENERGY KENTUCKY )

---

**DIRECT TESTIMONY OF**  
**CAROL E. SHRUM**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE.....	-1-
II. COST ALLOCATIONS FOR COMMON COSTS SHARED BY DUKE ENERGY KENTUCKY AND DUKE ENERGY OHIO.....	-12-
III. A&G COST ALLOCATIONS BETWEEN DUKE ENERGY KENTUCKY'S GAS AND ELECTRIC OPERATIONS .....	-13-
IV. NEW ALLOCATION PROCESSES .....	-16-
V. CONCLUSION .....	-17-

**ATTACHMENTS**

ATTACHMENT CES-1 – Service Company Utility Service Agreement

ATTACHMENT CES-2 – Operating Company/Non-Utility Companies  
Service Agreement

ATTACHMENT CES-3 – Operating Companies Service Agreement

ATTACHMENT CES-4 – Service Company Non-Utility Service  
Agreement

**I. INTRODUCTION AND PURPOSE**

1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A. My name is Carol E. Shrum, and my business address is 400 South Tyron Street,  
3 Charlotte, North Carolina 28201.

4 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

5 A I am employed by the Duke Energy Corporation ("Duke Energy") affiliated  
6 companies as Vice President, Financial Shared Services.

7 Q. PLEASE BRIEFLY DESCRIBE YOUR DUTIES AS VICE PRESIDENT  
8 OF FINANCIAL SHARED SERVICES.

9 A. I am responsible for various accounting activities, including the cost allocation  
10 processes for service company costs utilized for Duke Energy and its affiliates,  
11 including allocations to The Union Light Heat and Power Company d/b/a Duke  
12 Energy Kentucky ("Duke Energy Kentucky").

13 Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND  
14 AND BUSINESS EXPERIENCE.

15 A I received a Bachelor of Science degree in Business Administration from the  
16 University of North Carolina at Chapel Hill in 1980. I received a Master of  
17 Business Administration degree from Queens College in 1986. I am a Certified  
18 Public Accountant licensed in the state of North Carolina and I am a Certified  
19 Management Accountant.

20 I was initially employed by Duke Power Company in 1980 as a staff  
21 accountant and have since held various accounting or finance related positions in  
22 Duke Power Financial Accounting and Analysis, Duke Power Financial

CAROL E. SHRUM DIRECT

1 Forecasting, Duke Power Asset Accounting, Duke Energy Corporate Accounting,  
2 and Duke Energy Business Services Financial Accounting and Analysis. I also  
3 served as the Duke Power Vice President of Planning and Finance from  
4 September 2001 through March 2003 and the Duke Power Vice President and  
5 Controller from March 2003 through June 2004. I assumed my current position  
6 and responsibilities in April 2006 as Vice President of Financial Shared Services  
7 for the U.S. Franchised Electric & Gas Business Unit.

8 **Q WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
9 **PROCEEDING?**

10 A I discuss the three service agreements used by Duke Energy Kentucky to assign  
11 costs, and which the Commission approved in Case No. 2005-00228, involving  
12 the business combination between Duke Energy and Cinergy Corp. ("Cinergy"):  
13 the Service Company Utility Service Agreement ("Utility Service Agreement"),  
14 the Operating Company/Non-Utility Companies Service Agreement ("Operating  
15 Company/Non-Utility Service Agreement"), and the Operating Companies  
16 Service Agreement. I also describe the processes to be used to assign costs to the  
17 various parties to the proposed Utility Service Agreement. I also sponsor Filing  
18 Requirement ("FR") 10(9)(u). Finally, I sponsor certain information that I  
19 supplied to Mr. Davey for his use in developing the forecasted financial data.

20 **Q. PLEASE DESCRIBE THE DUKE ENERGY SERVICES COMPANY.**

21 A. Duke Energy Shared Services, Inc. ("DESS"), formerly Cinergy Services, Inc.,  
22 and Duke Energy Business Services, LLC ("DEBS") are wholly-owned  
23 subsidiary service companies of Duke Energy. DESS and DEBS provide a

1 variety of administrative, management, and support services (Functions), such as  
2 accounting and human resources, to Duke Energy and its affiliates pursuant to  
3 two agreements: the Utility Service Agreement and the Non-Utility Service  
4 Agreement. Under the Utility Service Agreement, DESS and DEBS provide  
5 services to and on behalf of Duke Energy's utility operating companies, including  
6 Duke Energy Kentucky. Under the Non-Utility Service Agreement, DESS and  
7 DEBS provide services to and on behalf of Duke Energy's non-utility companies.  
8 These affiliate companies receiving services from DESS and DEBS are referred  
9 to as "Client Companies."

10 **Q. WHAT IS COST ALLOCATION?**

11 A. Cost allocation is the process of assigning the costs incurred in providing certain  
12 services to the appropriate affiliates or companies.

13 **Q. PLEASE DESCRIBE WHAT IS MEANT BY THE TERM "COST."**

14 A. "Cost," or "fully embedded cost," refers to all components of costs including  
15 salaries and wages, office supplies and expenses, outside services employed,  
16 property insurance, injuries and damages, employee pensions and benefits,  
17 miscellaneous general expenses, rents, maintenance of structures and equipment,  
18 depreciation and amortization, and cost of capital.

19 **Q. WHAT ARE THE CATEGORIES OF COST ALLOCATIONS**  
20 **IMPACTING DUKE ENERGY KENTUCKY AND ITS AFFILIATES?**

21 A. In general, there are three categories of cost allocations that affect Duke Energy  
22 Kentucky and its affiliates: (1) cost allocations from DESS and DEBS, the two  
23 affiliate service companies of Duke Energy; (2) cost allocations between Duke

1 Energy Kentucky and Duke Energy Ohio for common costs shared by Duke  
2 Energy Ohio and Duke Energy Kentucky; and (3) A&G cost allocations between  
3 gas and electric operations.

4 **Q. PLEASE DESCRIBE THE UTILITY AND NON-UTILITY SERVICE**  
5 **AGREEMENTS.**

6 A. The Utility Service Agreement (Attachment CES-1), the Operating  
7 Company/Non-Utility Service Agreement (Attachment CES-2) and the Operating  
8 Companies Service Agreement (Attachment CES-3) were entered into and  
9 approved in connection with the Duke/Cinergy merger by the Kentucky Public  
10 Service Commission, the Public Utilities Commission of Ohio, and the Indiana  
11 Utility Regulatory Commission. Approval of the agreements by the North  
12 Carolina Utilities Commission is pending. Additionally, DESS and DEBS are  
13 parties to the Non-Utility Service Agreement (Attachment CES-4), though Duke  
14 Energy Kentucky is not a party to this agreement.

15 The Utility Service Agreement and the Non-Utility Service Agreement  
16 describe the types of services that DESS and DEBS provide and how the costs of  
17 such services are determined, including the methods of assigning costs among  
18 Duke Energy Kentucky and other Client Companies. The Operating  
19 Company/Non-Utility Service Agreement describes the terms for services to be  
20 provided between Duke Energy Kentucky and certain non-utility affiliates. The  
21 Operating Companies Service Agreement describes the terms for services to be  
22 provided between Duke Energy Kentucky and its utility affiliates.

1 Q. PLEASE DESCRIBE HOW COSTS OF DESS AND DEBS ARE  
2 ACCOUNTED FOR UNDER THE UTILITY SERVICE AGREEMENT  
3 AND THE NON-UTILITY SERVICE AGREEMENTS.

4 A. DESS and DEBS maintain an accounting system in which all of their costs are  
5 accumulated. These costs are charged to the appropriate Client Companies  
6 monthly, using one of the three approved methods of assignment contained in the  
7 Utility and/or Non-Utility Service Agreements.

8 Q. WHAT ARE THE APPROVED METHODS OF ASSIGNMENT?

9 A. The approved methods of assignment are: (1) directly assignable; (2)  
10 distributable; and (3) allocable.

11 Q. PLEASE DESCRIBE EACH METHOD OF ASSIGNMENT.

12 A. The direct assignment method is utilized to direct charge costs for services  
13 specifically performed for a single Client Company. The distributable cost  
14 assignment method is used to assign costs for services rendered specifically for  
15 two or more Client Companies. The allocable method of assignment is used to  
16 allocate costs for services of a general nature, which are applicable to more than  
17 one of the Client Companies.

18 Q. WHAT TYPES OF EXPENDITURES ARE DIRECTLY ASSIGNED FROM  
19 DESS OR DEBS TO DUKE ENERGY KENTUCKY?

20 A. DESS or DEBS employees who work on a project specifically for Duke Energy  
21 Kentucky, charge their labor and expenses directly to Duke Energy Kentucky.  
22 For example, the legal services Function will charge Duke Energy Kentucky  
23 directly for work performed specifically for Duke Energy Kentucky.



1 Q PLEASE EXPLAIN THE DISTRIBUTABLE CHARGES FROM DESS OR  
2 DEBS TO DUKE ENERGY KENTUCKY.

3 A. DESS or DEBS employees who work on a project specifically for Duke Energy  
4 Kentucky and one or more other Client Companies, will distribute those costs to  
5 those companies directly benefiting from the services based on a logical and  
6 reasonable basis.

7 Q. PLEASE EXPLAIN THE ALLOCABLE CHARGES FROM DESS OR  
8 DEBS TO DUKE ENERGY KENTUCKY.

9 A. Allocable charges to Duke Energy Kentucky are for a portion of expenditures  
10 originating on DESS or DEBS books that are applicable to both Duke Energy  
11 Kentucky and one or more other Client Companies, but which cannot be charged  
12 directly to Duke Energy Kentucky. These charges are allocated to Duke Energy  
13 Kentucky based on allocation methods set forth in Appendix A of the Utility  
14 Service Agreement. For example, costs related to Investor Relations activities are  
15 applicable to all Duke Energy affiliates but cannot be direct charged to any one  
16 affiliate. Those costs are allocated to all affiliates using the allocation factor  
17 described for the Investor Relations Function in Appendix A of the Utility Service  
18 Agreement.

1 **Q. UNDER WHAT CIRCUMSTANCES ARE THE ALLOCATION**  
2 **METHODS SET FORTH IN APPENDIX A OF THE UTILITY SERVICE**  
3 **AGREEMENT USED TO DETERMINE CHARGES TO DUKE ENERGY**  
4 **KENTUCKY?**

5 A. The allocation methods provided in Appendix A of the Utility Service Agreement  
6 are used by DESS or DEBS to assign charges to Client Companies, including  
7 Duke Energy Kentucky, for activities that cannot be charged directly or  
8 distributed. For example, costs associated with the human resources' payroll  
9 Function are allocated to the Client Companies, including Duke Energy  
10 Kentucky, using the Number of Employees Ratio as provided in the Utility  
11 Service Agreement.

12 **Q. WHAT ARE THE ALLOCATION METHODS SPECIFIED IN APPENDIX**  
13 **A OF THE UTILITY SERVICE AGREEMENT?**

14 A. Eighteen allocation ratios are specified in the Utility Service Agreement. These  
15 ratios are the: (1) Sales Ratio; (2) Electric Peak Load Ratio; (3) Number of  
16 Customers Ratio; (4) Number of Employees Ratio; (5) Construction-Expenditures  
17 Ratio; (6); Circuit Miles of Electric Distribution Lines Ratio; (7) Circuit Miles of  
18 Electric Transmission Lines Ratio; (8) Number of Central Processing Unit  
19 Seconds Ratio; (9) Revenues Ratio; (10) Inventory Ratio; (11) Procurement  
20 Spending Ratio; (12) Square Footage Ratio; (13) Gross Margin Ratio; (14) Labor  
21 Dollars Ratio; (15) Number of Personal Computer Work Stations Ratio; (16)  
22 Number of Information Systems Servers Ratio; (17) Total Property, Plant and  
23 Equipment Ratio; and (18) Generating Unit MW Capability Ratio.

1 **Q. WHAT WAS THE RATIONALE BEHIND THE SELECTION OF THESE**  
2 **RATIOS?**

3 A. Consistent with traditional cost causation principles, the ratios represent “cost  
4 drivers” for a particular Function (*i.e.*, those factors which are the greatest  
5 contributors to costs). For example, costs related to human resources are  
6 allocated based on the Number of Employees Ratio. Costs related to support of  
7 personal computers are allocated based on the Number of Personal Computer  
8 Workstations Ratio. Costs related to meter reading and to customer billing and  
9 payment processing in the Marketing and Customer Relations Function, are  
10 allocated based on the Number of Customers Ratio. For some Functions, costs of  
11 a general nature are allocated based on a weighted-average of more than one ratio.  
12 The Utility Service Agreement describes how the weighted-average ratios are  
13 calculated.

14 **Q. HOW IS THE DESS AND DEBS NON-UTILITY COST ASSIGNMENT**  
15 **PROCESS DIFFERENT FROM THE UTILITY COST ASSIGNMENT**  
16 **PROCESS?**

17 A. The non-utility cost assignment process is virtually identical to the utility cost  
18 assignment process.

19 **Q. HOW ARE COSTS INCURRED BY DESS AND DEBS ON BEHALF OF**  
20 **BOTH UTILITY AND NON-UTILITY COMPANIES ALLOCATED TO**  
21 **THESE COMPANIES?**

22 A. Where DESS or DEBS performs a Function that serves both utility and non-utility  
23 affiliate companies, the costs are allocated between the utility companies and the

1 non-utility companies using the appropriate allocation method as described in  
2 Appendix A. For instance, costs incurred by DESS for human resource Functions  
3 are to be allocated, under both the Utility and Non-Utility Service Agreements,  
4 based on the Number of Employees ratio. Thus, common human resources costs  
5 are allocated based on the respective number of employees each company  
6 employs.

7 **Q. WHAT PROCESSES DO DESS AND DEBS EMPLOYEES FOLLOW IN**  
8 **ALLOCATING THEIR TIME AND EXPENSES UNDER THE UTILITY**  
9 **AND NON-UTILITY SERVICE AGREEMENTS?**

10 A. All source documents (*e.g.*, timesheets, expense reports, invoices, and journal  
11 entries) applicable to DESS and DEBS require appropriate accounting coding to  
12 be used, which identifies the affiliate or affiliates to be assigned the costs. The  
13 initiating department determines the appropriate coding for each transaction. The  
14 coding indicates whether the cost should be assigned directly, distributed, or  
15 allocated, and it also determines the appropriate allocation method to be used.  
16 Using this coding, the accounting system will process each transaction and assign  
17 the appropriate costs to each respective Client Company. The allocation  
18 percentages for each allocation method are updated periodically, at a minimum  
19 annually.

20 **Q. PLEASE DESCRIBE FURTHER THE PROCESS USED TO UPDATE THE**  
21 **ALLOCATION PERCENTAGES.**

22 A. On a periodic basis, and at a minimum, annually, the Financial Shared Services  
23 organization will review allocation methods. This review will include updating

1 source data used to develop the allocation percentages. For example, annually,  
2 the allocator based on the number of employees, which is primarily utilized to  
3 allocate costs associated with the human resources Function, is updated to reflect  
4 the number of employees of each Duke Energy affiliate company.

5 **Q. PLEASE DESCRIBE FR 10(9)(U), PAGE 1 OF 4.**

6 A. FR 10(9)(u), page 1 of 4 outlines the methods used, prior to the merger in April  
7 2006 and according to the Utility Service and Non-Utility Service Agreements as  
8 amended in February 1997, to allocate costs that could not be charged directly by  
9 DESS to the regulated and non-regulated Duke Energy affiliates, including Duke  
10 Energy Kentucky. FR 10(9)(u), page 1(a) of 4 summarizes the total amount of  
11 expenditures charged from DESS to Duke Energy Kentucky for the three years  
12 ended December 31, 2003, 2004 and 2005 and for the base period and the  
13 forecasted test period which include the twelve month periods ending August 31,  
14 2006 and December 31, 2007, respectively.

15 **Q. ARE THE ALLOCATION METHODS LISTED IN FR 10(9)(U), PAGE 1**  
16 **OF 4 THE SAME COST ALLOCATION METHODS CONTAINED IN**  
17 **THE UTILITY SERVICE AGREEMENT APPROVED FOR USE**  
18 **BEGINNING IN APRIL 2006?**

19 A. The allocation methods listed in FR 10(9)(u) page 1 of 4 are similar to the  
20 allocation methods contained in the Utility Service Agreement. The allocation  
21 methods listed in FR 10(9)(u) page 1 of 4 are 7 of the 18 methods included in the  
22 Utility Service Agreement.

1 Q. DID THE U.S. SECURITIES AND EXCHANGE COMMISSION ("SEC")  
2 CONDUCT ANY AUDITS OF DESS SUBSEQUENT TO THE SEC'S  
3 APPROVAL OF THE PREDECESSOR UTILITY SERVICE  
4 AGREEMENT?

5 A. Yes. In 1996, the SEC conducted a field audit of Cinergy Services, Inc.  
6 ("Cinergy Services") (now known as "DESS") under the predecessor to the  
7 Utility Service Agreement, which was substantially similar to the current  
8 agreement except that it had fewer allocation ratios. The FERC participated in  
9 that audit, and also conducted its own field audits of Duke Energy Indiana and  
10 Duke Energy Ohio in 1996 and 1997, respectively. The SEC and the FERC both  
11 concluded that the pricing and cost allocation methods used by Cinergy Services  
12 complied with the then applicable rules and regulations of the SEC.

13 Q. DID CINERGY CONDUCT ANY AUDITS OF CINERGY SERVICES?

14 A. Yes. Cinergy conducted an internal audit of Cinergy Services biennially.  
15 Cinergy conducted these internal audits in 2000, 2002 and 2004. These audits,  
16 which were shared with the SEC, concluded that the pricing and cost allocation  
17 methods used by Cinergy Services complied with the SEC's rules and regulations.

18 Q. WERE ANY AUDITS CONDUCTED OF DEBS?

19 A. Yes. Duke Energy has conducted an internal audit of DEBS cost allocations on  
20 an annual basis. These audits, which were shared with the North Carolina Public  
21 Staff, concluded that the pricing and cost allocation methods used by DEBS  
22 complied with the cost allocation manual filed with the North Carolina Utilities  
23 Commission.

**II. COST ALLOCATIONS FOR COMMON COSTS SHARED  
BY DUKE ENERGY KENTUCKY AND DUKE ENERGY OHIO**

1 **Q. DO ALL CHARGES FOR DUKE ENERGY KENTUCKY ORIGINATE ON**  
2 **DUKE ENERGY KENTUCKY'S BOOKS?**

3 A. No. Charges can originate either on Duke Energy Kentucky's books for its own  
4 operations or can originate from its parent company, Duke Energy Ohio, and/or  
5 other affiliated companies.

6 **Q. PLEASE EXPLAIN THE DIRECT CHARGES FROM DUKE ENERGY**  
7 **OHIO TO DUKE ENERGY KENTUCKY?**

8 A. Direct charges from Duke Energy Ohio to Duke Energy Kentucky are for costs  
9 such as employee labor, employee expenses, and inventory (material) transactions  
10 which are specifically incurred for Duke Energy Kentucky's gas and/or electric  
11 operations.

12 **Q. WHAT TYPES OF CHARGES ARE ALLOCATED TO DUKE ENERGY**  
13 **KENTUCKY FROM DUKE ENERGY OHIO?**

14 A. Charges allocated to Duke Energy Kentucky from Duke Energy Ohio represent a  
15 portion of costs originating on Duke Energy Ohio's books that apply to gas and/or  
16 electric activities which cannot be charged directly and which apply to both Duke  
17 Energy Kentucky and Duke Energy Ohio.

18 **Q. WHAT TYPES OF EXPENDITURES ARE CHARGED DIRECTLY**  
19 **VERSUS ALLOCATED TO DUKE ENERGY KENTUCKY?**

20 A. The majority of common costs for Duke Energy Kentucky and Duke Energy Ohio  
21 are direct charged to the appropriate affiliate. Expenditures incurred directly for a  
22 specific project can be charged directly to Duke Energy Kentucky. A small

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-12-

1 portion of common costs may be allocated to Duke Energy Kentucky from Duke  
2 Energy Ohio. These costs include certain metering and customer related costs.

3 **Q. PLEASE BRIEFLY DESCRIBE FR 10(9)(U), PAGES 2 OF 4 AND 2(A) OF**  
4 **4.**

5 A. FR 10(9)(u), page 2 of 4 provides the bases used to allocate charges between  
6 Duke Energy Ohio and Duke Energy Kentucky which originate on Duke Energy  
7 Ohio's books and are allocated to Duke Energy Kentucky. Page FR 10(9)(u),  
8 page 2 of 4 also provides the bases used to allocate these charges. FR 10(9)(u),  
9 page 2(a) of 4 provides the amount of these costs allocated to Duke Energy  
10 Kentucky for the three years ended December 31, 2003, 2004 and 2005 and for  
11 the base period and for the forecasted test period ended August 31, 2006 and  
12 December 31, 2007, respectively.

**III. A&G COST ALLOCATIONS BETWEEN DUKE**  
**ENERGY KENTUCKY'S**  
**GAS AND ELECTRIC OPERATIONS**

13 **Q. WHAT TYPES OF EXPENDITURES ARE CHARGED DIRECTLY**  
14 **VERSUS ALLOCATED TO GAS OR ELECTRIC?**

15 A. Most expenditures incurred directly for a specific project can be charged directly  
16 to a gas or an electric account. Certain administrative costs for general support  
17 functions, such as Accounts Payable and Accounting, are common to both gas and  
18 electric operations, and must be allocated. In addition, a portion of those costs is  
19 also capitalized.

20 **Q. HOW HAVE THE ALLOCATION BASES FOR A&G EXPENDITURES**  
21 **BEEN DETERMINED?**



1 A. A study of A&G departments performing common activities (gas and electric  
2 operations and capital and expense activities) has been prepared annually.  
3 Department managers are asked to describe the services provided by their  
4 departments, as well as to indicate the operational function (gas and/or electric)  
5 they have supported in the previous twelve months. They are also asked to  
6 indicate the time they have spent in support of capital and/or operation or  
7 maintenance activities for both gas and electric operations.

8 **Q. HOW IS THIS INFORMATION USED TO DETERMINE ASSIGNMENT**  
9 **OF COMMON A&G COSTS?**

10 A. The cost allocation process for common A&G expenditures allocates costs based  
11 on statistical data that best relates to the specific activity to be allocated. For  
12 example, Accounts Payable activities are allocated to capital and expense  
13 accounts for both gas and electric operations based on the actual accounting  
14 distribution for the Accounts Payable transactions performed during the period of  
15 the study.

16 **Q. PLEASE BRIEFLY DESCRIBE FR 10(9)(U), PAGES 3 AND 4.**

17 A. FR 10(9)(u), page 3 of 4 provides the bases used to allocate A&G charges  
18 between gas and electric operations for those items that cannot be directly  
19 charged. FR 10(9)(u), page 3(a) of 4, summarizes the total amount of A&G  
20 expenditures allocated between gas and electric A&G expense accounts for the  
21 three years ended December 31, 2003, 2004 and 2005 and for the base period and  
22 the forecasted test period ended August 31, 2006 and December 31, 2007,  
23 respectively. FR 10(9)(u), page 4 of 4 provides the bases used to allocate A&G

1 charges between capital and expense for those items that cannot be directly  
2 charged. FR 10(9)(u), page 4 of 4 also provides the amount of A&G costs  
3 allocated to capital accounts for the three years ended December 31, 2003, 2004  
4 and 2005 and for the base period and the forecasted test period ended August 31,  
5 2006 and December 31, 2007, respectively.

6 **Q. ARE THE ALLOCATIONS INDICATED ON FR 10(9)(U), PAGES 3 AND 4**  
7 **USED TO DETERMINE ALL CHARGES THAT SHOULD BE**  
8 **RECORDED TO GAS AND ELECTRIC OPERATIONS FOR BOTH**  
9 **CAPITAL AND EXPENSE ACCOUNTS?**

10 A. No. Expenditures applicable to gas or electric operations are charged directly  
11 whenever possible. For example, employees performing work on a specific  
12 project will charge direct to the appropriate gas and/or electric expense or capital  
13 account.

14 **Q. UNDER WHAT CIRCUMSTANCES ARE THE ALLOCATIONS**  
15 **INDICATED ON FR 10(9)(U), PAGES 3 AND 4 USED?**

16 A. The allocation bases on these schedules are used to allocate charges for activities  
17 which cannot be charged directly, such as costs applicable to both gas and electric  
18 expense and/or to capital accounts. The allocation processes in the financial  
19 system combine the DESS and DEBS allocation factors and the gas and electric  
20 allocation factors into composite allocation factors.

21 **Q. DID YOU PROVIDE ANY INFORMATION TO OTHER WITNESSES**  
22 **FOR THEIR USE IN THIS PROCEEDING?**

1 A. Yes, I supplied Mr. Davey with the allocation factors in effect immediately prior  
2 to the merger, for his use in developing the forecasted financial data.

**IV. NEW ALLOCATION PROCESSES**

3 **Q. ARE THE COST ALLOCATION METHODS THAT DESS AND DEBS**  
4 **UTILIZE DIFFERENT FROM THE COST ALLOCATION PROCESSES**  
5 **USED BY DUKE ENERGY KENTUCKY PRIOR TO THE MERGER?**

6 A. The basic methodologies utilized are similar, but there has been some updating of  
7 factors used in the process.

8 **Q. WERE THE NEW ALLOCATION PROCESSES REFLECTED IN THE**  
9 **FORECASTED TEST PERIOD OF THIS CASE?**

10 A. No. The forecasted test period is based on the budgeting process and cost  
11 allocation methods used by Duke Energy Kentucky prior to the merger.

12 **Q. DO YOU ANTICIPATE THE NEW COST ALLOCATION PROCESSES**  
13 **TO HAVE A MATERIAL IMPACT TO THE AMOUNT OF**  
14 **EXPENDITURES ALLOCATED TO DUKE ENERGY KENTUCKY'S**  
15 **ELECTRIC OPERATIONS ON AN ONGOING BASIS?**

16 A. No. Many of the new allocation factors are the same as the previous allocation  
17 factors. All of the allocation factors have been developed with the intent of  
18 assigning costs consistent with cost causation. Given that objective, I do not  
19 anticipate a material impact to the amount of expenditures allocated to Duke  
20 Energy Kentucky's electric operations.

**V. CONCLUSION**

1 Q. WAS THE INFORMATION YOU PREPARED FOR MR. DAVEY AND  
2 WAS FR 10(9)(U) PREPARED BY YOU OR UNDER YOUR  
3 SUPERVISION?

4 A. Yes.

5 Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

6 A. Yes.

VERIFICATION

State of North Carolina )  
 )  
County of Mecklenburg )      SS:

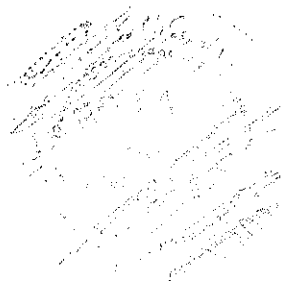
The undersigned, Carol E. Shrum, being duly sworn, deposes and says that she has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of her knowledge, information and belief.

Carol E. Shrum  
Carol E. Shrum, Affiant

Subscribed and sworn to before me by Carol E. Shrum on this 24<sup>th</sup> day of May, 2006.

Kathy S. Moraleda  
NOTARY PUBLIC

My Commission Expires: December 13, 2008



**DUKE ENERGY KENTUCKY**

Basis for Allocating Cinergy Services, Inc.'s Costs Between Affiliates  
For Those Items Which Cannot Be Charged Direct

Cinergy Services Inc. (Services), a wholly-owned subsidiary service company of Cinergy Corp. and an affiliate of Duke Energy Kentucky, was created to provide a variety of administrative, management and support services to both utility and non-utility affiliates under the terms of the Utility Service Agreement and the Non-Utility Service Agreement, as amended, dated March 1994 and February 1997, respectively.

Under the provisions of these agreements, Services may provide the following services to utility and non-utility affiliates: Information Systems, Meters and Transportation, Electric System Maintenance, Marketing and Customer Relations, Electric Transmission and Distribution Engineering and Construction, Power Engineering and Construction, Human Resources, Materials Management, Facilities, Accounting, Power Planning, Public Affairs, Legal, Rates, Finance, Right of Way, Internal Auditing, Environmental Affairs, Fuels, Investor Relations, Planning and Executive.

The above mentioned service agreements provide the basis for how costs for services will be assigned, distributed or allocated between companies. To the extent costs are allocated, these agreements specify the appropriate allocation methodologies (factors) for each of the above mentioned services. The allocation methodologies (factors) in these agreements include:

Utility Service Agreement

Sales Ratio  
Electric Peak Load Ratio  
Number of Customers Ratio  
Number of Employees Ratio  
Construction Expenditures Ratio  
Circuit Miles of Electric Distribution Lines Ratio  
Number of Central Processing Unit Seconds Ratio

Non-Utility Service Agreement

Revenues Ratio  
Number of Customers Ratio  
Number of Employees Ratio  
Construction Expenditures Ratio  
Number of Central Processing Unit Seconds Ratio  
Direct Cost Ratio

The Service Agreements require all allocation methodologies to be reviewed and updated periodically (not less than annually). Pursuant to an SEC request, the Internal Auditing department conducts an independent review of all Service Company bills monthly.

Amounts assigned to Duke Energy Kentucky from Services during the years ended December 31, 2005, 2004, 2003, the base period, and forecasted test period are provided by method of assignment in the attached schedule.

In April 2006, the merger between Cinergy Corp. and Duke Energy was consummated. Effective with that merger, Cinergy Services Inc. was renamed to Duke Energy Shared Services, Inc. Also effective with the merger, new Utility Service and Non-Utility Service Agreements were approved. These agreements included certain new allocation factors. These new cost allocation processes are not expected to have a material effect on Duke Energy Kentucky allocated amounts. The base period and forecasted test period data reflected herein is based upon the budgeting process and cost allocation methods used by Duke Energy Kentucky prior to the merger.

**Duke Energy Kentucky**

**Analysis of Amounts Assigned to Duke Energy Kentucky from Cinergy Services, Inc.  
 Summarized by Allocation Basis  
 For the Years Ended December 31, 2003, 2004 and 2005, Base Period, and Forecasted Test Period**

<u>Allocation Basis</u>	<u>Years Ended</u> <u>December 31,</u>			<u>Base Period (1)</u>	<u>Forecasted Test</u> <u>Period (2)</u>
	<u>2003</u>	<u>2004</u>	<u>2005</u>		
Circuit Miles	\$ 1,080	\$ 755	\$ 163	\$ -	\$ -
Construction	\$ 1,390,648	\$ 1,025,001	\$ 649,348	\$ 396,523	\$ 329,787
CPU Seconds	\$ 540,064	\$ 605,326	\$ 109,429	\$ 21,612	\$ 17,975
Customers	\$ 3,544,182	\$ 3,562,990	\$ 3,735,205	\$ 4,326,072	\$ 3,597,979
Direct	\$ 6,455,877	\$ 5,150,019	\$ 7,392,711	\$ 10,952,132	\$ 9,108,850
Employees	\$ 2,842,829	\$ 2,999,254	\$ 5,103,991	\$ 6,514,836	\$ 5,418,366
Employees, Customers, and Construction	\$ 675,574	\$ 865,652	\$ 647,537	\$ 692,539	\$ 575,982
Indirect	\$ 1,238,466	\$ 1,474,754	\$ 1,407,336	\$ 3,295,118	\$ 2,740,539
Revenues and Sales	\$ 864,591	\$ 1,432,492	\$ 2,465,467	\$ 612,311	\$ 509,257
Revenues, Sales and Construction	\$ 2,404,908	\$ 2,708,685	\$ 8,294,821	\$ 16,296,505	\$ 13,553,747
Sales	\$ 2,084,882	\$ 1,471,508	\$ 861,237	\$ 606,529	\$ 504,448
Peakload	\$ -	\$ -	\$ 32,753	\$ 364,480	\$ 303,136
<b>Grand Total</b>	<b>\$ 22,043,101</b>	<b>\$ 21,296,436</b>	<b>\$ 30,699,998</b>	<b>\$ 44,078,657</b>	<b>\$ 36,660,066</b>

(1) Base period represents September 2005 - February 2006 Actual and March 2006 - August 2006 Budget

(2) Forecasted test period represents January 2007 - December 2007 Budget

Note: Amounts reflect all costs (operations, maintenance and construction) assigned to Duke Energy Kentucky.

**THE UNION LIGHT, HEAT AND POWER COMPANY**

Basis for Allocating Charges Between The Cincinnati Gas & Electric Company  
And The Union Light, Heat and Power Company for Those Items Which Cannot Be Charged Direct

Certain of CG&E departments provide services to CG&E and ULH&P. To the extent that the charges from those departments cannot be direct charged to a particular company, they are allocated. The bases for such allocations are determined by a review of the work activities performed by each department. The costs associated with each activity are distributed to the appropriate company based on a quantitative measure related to the work being performed. The primary quantitative measures utilized prior to April 2005 include:

1. Number of Retail Gas and Electric Customers.
2. Number of Retail Gas Customers.
3. Number of Retail Electric Customers.
4. Number of Retail Gas and Electric Meters.
5. Number of Retail Gas Meters.
6. Number of Retail Electric Meters.

Various departments of CG&E provide services to CG&E and ULH&P. Whenever possible, the costs of these services are charged direct to the company for which the services were performed. In some cases, however, there is no reasonable basis for direct charging an expense to either CG&E or ULH&P, so the expense must be allocated between the two companies. Examples of such expenses are the Marketing Department's expense for preparing bill inserts for both CG&E and ULH&P customers and the Customer Services Department's expense for credit and collection activity provided to both CG&E and ULH&P. These are activities that benefit both CG&E and ULH&P, but cannot be directly charged to either, so the cost of these activities is allocated between the companies.

Most costs can be directly charged, such that the need to allocate costs only arises for a small percentage of ULH&P's total costs. When costs must be allocated, the company utilizes cost causation principles, matching each item of expense with an activity that most reasonably applies to the function nature of the expense being allocated. The amounts allocated by CG&E to ULH&P during the years ended December 31, 2005, 2004 and 2003 are provided by allocation code in the attached Schedule FR9(u)2(a) of 4. For budgeting purposes, these costs have been direct charged.

The allocation codes provided in the attached Schedule FR9(u)2(a) of 4 that were utilized prior to April 2005 were based on fixed percentage distributions between CG&E and ULH&P. The "C" in the location code designates the portion of the costs allocated to CG&E, with the remainder allocated to ULH&P. For example, allocation code "C50" indicates that the costs were allocated 50% to CG&E and 50% to ULH&P; allocation code "C76" indicates that the costs were allocated 76% to CG&E and 24% to ULH&P, etc.

Beginning in April 2005, with the implementation of a new Finance and Accounting system, an increased emphasis was placed on charging direct to the appropriate affiliate company whenever feasible. This resulted in a reduction in the number of allocation bases available for use to only include the following three methods:

1. Number of Retail Gas and Electric Customers (CCU)
2. Number of Gas Meters (MCU)
3. Total Gas Sales (SCU)

Each department is responsible for periodically reviewing the activities it performs and for determining an appropriate mechanism for allocating its common costs, based on the nature of the work being performed. In so doing, the goal is to select the quantitative measure that most closely relates to the nature of the work performed, such that the quantitative measure used to allocate common costs is reasonable.

For the majority of costs, CG&E department general managers select the Number of Retail Gas and Electric Customers as the method for allocating common costs, which as of December 31, 2005 was split approximately 83% - CG&E and 17% ULH&P.



The Union Light, Heat and Power Company

Analysis of Amounts Assigned to ULH&P from CG&E  
 For the Years Ended December 31, 2003, 2004, 2005, Base Period, and Forecasted Test Period

Allocation Code (1)	Years Ended December 31,				
	2003	2004	2005	Base Period (3)	Forecasted Test Period (4)
C50	\$ 1,421	\$ 181	\$ 55	\$ -	\$ -
C80	\$ 182,794	\$ 137,881	\$ 55,905	\$ -	\$ -
C84	\$ 651,781	\$ 884,821	\$ 183,284	\$ -	\$ -
C85	\$ 12	\$ -	\$ -	\$ -	\$ -
C87	\$ 153,048	\$ 169,928	\$ 37,108	\$ -	\$ -
C88	\$ 5,378	\$ 1,197	\$ 55	\$ -	\$ -
C90	\$ 17,186	\$ 17,150	\$ 295	\$ -	\$ -
C94	\$ -	\$ -	\$ 3	\$ -	\$ -
CCU (2)	\$ -	\$ -	\$ 1,265,145	\$ 911,429	\$ -
MCU (2)	\$ -	\$ -	\$ 318,808	\$ 206,439	\$ -
SCU (2)	\$ -	\$ -	\$ 472	\$ 160	\$ -
<b>Total</b>	<b>\$ 1,011,620</b>	<b>\$ 1,211,159</b>	<b>\$ 1,861,130</b>	<b>\$ 1,118,028</b>	<b>\$ -</b>

(1) Allocation Code represents a fixed percentage split between CG&E and ULH&P. For example, "C84" would allocate the common cost between CG&E and ULH&P in the following proportions: CG&E 84%, ULH&P 16%. Amounts presented represent amounts allocated to ULH&P.

(2) Effective in April 2005, use of the fixed percentage allocation codes was discontinued. These codes were replaced by CCU, MCU and SCU codes which allocate between CG&E and ULH&P based on number of gas & electric customers, number of gas mains and total gas sales, respectively.

(3) Base period represents September 2005 - February 2006 Actual and March 2006 - August 2006 Budget. Budget period amounts have been directly charged to ULH&P.

(4) Forecasted test period represents January 2007 - December 2007 Budget. Budget period amounts have been directly charged to ULH&P.

**DUKE ENERGY KENTUCKY**

Basis for Allocating Administrative and General Charges Between Gas and Electric Expense  
For Those Items Which Cannot Be Charged Direct

To the extent that Duke Energy Kentucky's A&G costs cannot be directly charged to gas and/or electric expense, they are allocated using the results of an annual study. The annual study consists of a general review of the activities performed by each department charging A&G accounts. Departmental costs are then distributed based on quantitative measures associated with the activity performed. The allocation methods utilized during the year ended December 31, 2005 are as follows:

1. Labor Dollars Charged by Operating Department.
2. Number of Retail Customers.
3. Number of General Ledger Journal Entry Transaction Lines.
4. Number of Accounts Payable Transaction Lines.
5. Inventory Levels by Operating Department.
6. Number of Miscellaneous Accounts Receivable Journal Entry Transaction Lines.
7. Revenue Dollars.

The amount of A&G costs allocated between gas and electric during the years ended December 31, 2005, 2004, 2003, the base period, and forecasted test period are provided by A&G account number in the attached Schedule FR9-u-2(a) of 3.

The annual study referred to above is completed during the fourth quarter of each calendar year. The study includes a review of the departments charging A&G accounts during the year. The review consists of a survey questionnaire and / or interview and focuses on the services provided for the current year and significant changes forecasted for the upcoming year. The focus of the study is to determine what administrative functions provide support to the company's gas and electric operations and how these administrative functions benefit gas and electric operations. The study also contains a review of the seven categories of statistical data listed above, which is used to allocate A&G costs between gas and electric expense. These statistics are computed using various company sources (i.e., accounting and payroll systems, etc.) and represent the *gas/electric splits* for the current year.

Under cost causation principles, the functional activities of each department are matched with the allocation method that most closely relates to the nature of the work performed. Departments are assigned a gas / electric percentage (%) split allocation for their departments' predominant activity. In April 2005, effective with the implementation of the new Finance & Accounting system, Cinergy combined certain of its cost allocation processes into one process. Cinergy's combined cost allocation process, as it relates to Duke Energy Kentucky's electric operation, primarily reflects the combination of the old gas and electric cost allocation process and the Cinergy Services or new DESS cost allocation process. The results of these two independent studies have been linked, resulting in a combined allocation percentage for each specific transaction.

Duke Energy Kentucky

Administrative and General Charges Allocated between Gas and Electric Expense Accounts  
For the Years Ended December 31, 2003, 2004, 2005, Base Period and Forecasted Test Period

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	12/31/2003		12/31/2004		12/31/2005 (3)		Base Period (1) (3)		Forecasted Test Period (2) (3)		Total
		Electric	Gas	Electric	Gas	Electric	Gas	Electric	Gas	Electric	Gas	
920000	A&G Salaries	\$2,606,325	2,467,668	\$3,153,752	2,826,897	\$2,981,638	2,441,205	\$5,422,843	\$7,226,751	\$2,533,524	\$9,760,274	\$10,325,260
920090	A&G Salaries	710,946	710,946	785,557	785,557	1,127,521	970,375	2,097,896	1,966,547	1,154,516	3,121,062	3,600,262
921090	A&G Expense	542,503	729,373	779,234	661,857	1,018,193	1,053,262	2,071,455	1,052,644	584,148	1,636,792	2,539,538
923090	Outside Services	24,184	558,206	24,742	683,186	470,171	13,691	483,862	294,000	-	294,000	-
924000	Property Insurance	24,281	24,281	24,742	23,115	431,046	454,147	885,194	675,880	262,719	938,598	743,454
925000	Injuries and Damages	148,509	148,509	92,343	87,556	431,046	454,147	885,194	675,880	262,719	938,598	743,454
925090	Injuries and Damages	(349,766)	149,100	(315,262)	87,556	(253,635)	497,147	243,512	(106,010)	(84,715)	(190,725)	-
926000	Employee Pensions and Benefits	80,982	(105,639)	101,963	(131,653)	34,208	30,252	64,460	14,498	9,458	23,957	27,257
930000	General Advertising Expense	275,887	104,819	25,283	108,348	267,669	208,774	476,443	408,864	225,628	634,493	726,367
930090	General Advertising Expense	276,903	276,903	22,362	22,362	267,669	208,774	476,443	408,864	225,628	634,493	726,367
930202	General Miscellaneous Expense	1,038,644	1,038,644	953,975	940,946	1,410,436	1,151,658	2,562,094	1,660,873	784,527	2,445,401	2,191,921
930290	General Miscellaneous Expense	974,465	974,465	310,340	940,946	254,432	131,591	386,023	313,398	51,308	364,706	512,186
931000	Rents	227,756	227,756	238,813	238,813	238,813	238,813	396,023	313,398	51,308	364,706	512,186
931090	Rents	227,756	227,756	238,813	238,813	238,813	238,813	396,023	313,398	51,308	364,706	512,186
935000	Maintenance of General Plant	\$5,305,970	\$5,397,405	\$5,911,927	\$5,461,427	\$7,741,679	\$6,952,102	\$14,693,781	\$13,507,445	\$5,521,113	\$19,028,558	\$20,666,245
935090	Maintenance of General Plant	\$5,305,970	\$5,397,405	\$5,911,927	\$5,461,427	\$7,741,679	\$6,952,102	\$14,693,781	\$13,507,445	\$5,521,113	\$19,028,558	\$20,666,245

(1) Base Period represents September 2005 - February 2006 Actual and March 2006 - August 2006 Budget.

(2) Forecasted test period represents January 2007 - December 2007 Budget.

(3) Effective in 2005 with the new Finance and Accounting system implementation, Duke Energy Kentucky's chart of accounts has been modified to combine the gas and electric specific accounts.

**DUKE ENERGY KENTUCKY**

**Basis for Allocating Administrative and General Charges Between Capital and Expense  
For Those Items Which Cannot Be Charged Direct**

To the extent that Duke Energy Kentucky's Administrative and General (A&G) costs cannot be direct charged to construction activities, they are allocated using the results of an annual study. The annual study consists of a general review of the activities performed by each department charging A&G accounts. Once it is determined that an A&G departmental activity is in support of construction and cannot be charged direct, those applicable costs are then distributed based on quantitative measures associated with the activity performed. The allocation methods utilized during the year ended December 31, 2005 are as follows:

1. Number of General Ledger Journal Entry Transaction Lines
2. Number of Accounts Payable Transaction Lines
3. Number of Miscellaneous Accounts Receivable Journal Entry Transaction Lines
4. Study of the Fixed Assets Department's Activities Performed in Support of Capital
5. Study of the Legal Department's Activities Performed in Support of Capital
6. Labor Dollars Charged by Operating Department

The amount of the A&G costs capitalized for Duke Energy Kentucky during the years ended December 31, 2005, 2004 and 2003, were \$620,399, \$588,208, \$864,691, respectively.

Under cost causation principles, each department providing support to the capital program is matched with the allocation method that most reasonably applies to the functional nature of the A&G costs being capitalized. Based upon the allocation method, each department is provided with an A&G capital/expense percentage (%) split. A monthly journal entry is created to allocate costs identified to support capital.

The annual study referred to above is completed during the fourth quarter of each calendar year. The study includes a review of the departments charging A&G accounts during the year. The review consists of a survey questionnaire and/or interview and focuses on the services provided for the current year and significant changes forecasted for future periods. The focus of the study is to determine what administrative functions provide support to the company's construction program. The study also contains a review of the six categories of statistical information listed above, which is used to apportion A&G costs between expense and capital accounts. These statistics are computed using various company sources (i.e., accounting and payroll systems, etc.) and represent the O&M/capital splits for the current year.

Examples of A&G departments supporting the company's capital program include: Accounts Payable, Fixed Asset Accounting, and Purchasing.



**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT AND POWER COMPANY ) CASE NO. 2006-00172  
D/B/A DUKE ENERGY KENTUCKY )

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**DIRECT TESTIMONY OF**  
**BRIAN P. DAVEY**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE.....	- 1 -
II. THE BUDGETING AND FORECASTING PROCESS.....	- 2 -
III. METHODOLOGY FOR THE FORECASTED DATA.....	- 5 -
A. INCOME STATEMENT.....	- 5 -
B. BALANCE SHEET STATEMENT.....	- 12 -
C. CASH FLOW STATEMENT.....	- 13 -
IV. REASONABLENESS OF THE FORECASTED TEST PERIOD DATA.....	- 13 -
V. SCHEDULES AND FILING REQUIREMENTS SPONSORED BY WITNESS.....	- 14 -
VI. CONCLUSION.....	- 16 -

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Brian P. Davey. My business address is 1000 East Main Street,  
3 Plainfield, Indiana, 46168.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by the Duke Energy Corporation ("Duke Energy") affiliated  
6 companies as General Manager, Financial Planning and Analysis.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL**  
8 **QUALIFICATIONS.**

9 A. I received a Bachelor's Degree in Accounting from Indiana University of  
10 Indianapolis in 1981. I am also a Certified Public Accountant licensed in the  
11 State of Indiana.

12 **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.**

13 A. I became employed by Public Service of Indiana, Inc. in 1982 as a Staff  
14 Accountant. I held various positions in the Rate, Corporate Accounting and  
15 Financial Forecasting departments. In 1994, I was promoted to Financial  
16 Forecasting manager and subsequently held various accounting and forecasting  
17 manager and director positions in the Commercial Business Unit. In 2003, I was  
18 promoted to Assistant Controller. In 2005, I became General Manager, Budgeting  
19 and Forecasting. In April 2006, I was named to my current position.

20 **Q. PLEASE DESCRIBE YOUR DUTIES AS GENERAL MANAGER,**  
21 **FINANCIAL PLANNING AND ANALYSIS.**

BRIAN P. DAVEY DIRECT



1 A. I am responsible for preparing the budgets and forecasts and performing financial  
2 analysis for Duke Energy's U.S. Franchised Electric & Gas Business Unit, which  
3 consists of Duke Energy's public utility operating companies in Kentucky, Ohio,  
4 Indiana, North Carolina and South Carolina.

5 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
6 **PROCEEDING?**

7 A. I describe the budgeting and forecasting processes used by the Company in  
8 developing the base and forecasted test periods. I sponsor and support the  
9 forecasted operating revenues and expenses prior to the *pro forma* adjustments,  
10 and the long-term financial forecast, which were prepared under my direction and  
11 control. I sponsor Schedules I-1 through I-5; a portion of Schedule K and Filing  
12 Requirements ("FR") 10(9)(c), 10(9)(d), 10(9)(h), 10(9)(n), and 10(9)(o).

## II. THE BUDGETING AND FORECASTING PROCESS

13 **Q. DESCRIBE THE SOURCE OF THE FORECASTED FINANCIAL DATA**  
14 **USED IN THIS CASE.**

15 A. The forecasted data used in this proceeding is based on the annual budget for The  
16 Union Light, Heat and Power Company (now known as "Duke Energy  
17 Kentucky") as contained in Cinergy Corp.'s ("Cinergy") 2006 Annual Budget  
18 developed prior to Cinergy's merger with Duke. I supervised the coordination  
19 and development of this budget and it was reviewed and approved by the  
20 Company's upper management and Board of Directors.

21 **Q. HOW DID YOU USE THE 2006 ANNUAL BUDGET RESULTS FOR THE**  
22 **BASE AND FORECASTED PERIODS IN THIS PROCEEDING?**

BRIAN P. DAVEY DIRECT

1 A. The base period is the twelve months ending August 31, 2006 and consists of six  
2 months of actual data through February 28, 2006 and the remaining six months of  
3 forecasted data. The forecasted test period is the twelve months ending December  
4 31, 2007. The Company's 2006 budget was the starting point for the preparation  
5 of both the base and forecasted periods. A simplistic high level summary of that  
6 approach is as follows. First, I revised the 2006 Annual Budget for a limited  
7 number of updated assumptions, as I describe in detail later in my testimony.  
8 Next, I extended the revised 2006 numbers to 2007 using the Company's standard  
9 forecasting methodology, which I also describe later in my testimony when I  
10 explain how I prepared the financial forecasts. Finally, I updated the revised  
11 budget and the forecasted test period with actual data through February 2006.

12 **Q. DESCRIBE THE BUDGETING AND FORECASTING PROCESSES**  
13 **THAT YOU USED TO DEVELOP THE BASE AND TEST PERIODS IN**  
14 **THIS PROCEEDING.**

15 A. Budgeting is done at levels known as the "responsibility and construction  
16 centers." The centers use the guidelines provided by the Company's Budgets and  
17 Forecasts Department. The centers prepare detailed responsibility budgets  
18 consisting of expense items, certain types of revenues, and construction budgets  
19 for capital projects. The information from all of the responsibility and  
20 construction centers is consolidated into a corporate budget and reviewed by  
21 executive management. One or more iterations of the annual budget are typically  
22 required before final approval by executive management and the Board of

1 Directors. This "bottom-up" approach has been an effective process for managing  
2 costs.

3 **Q. DESCRIBE THE GUIDELINES PROVIDED BY THE BUDGETS AND**  
4 **FORECASTS DEPARTMENT IN DEVELOPING CINERGY'S ANNUAL**  
5 **RESPONSIBILITY (OPERATION AND MAINTENANCE) BUDGET.**

6 A. These guidelines provide a detailed set of instructions for creating a center  
7 budget. For example, there are detailed instructions for budgeting employee labor  
8 data, such as the escalation rates for non-union labor expenses, indirect labor and  
9 fringe benefit loading rates, and how to handle staff additions or deletions.  
10 Individual employees and certain associated costs of the employees are included  
11 or excluded in any given center's budget according to the expected future  
12 reporting assignment for that employee. Detailed instructions for non-labor  
13 related expenses, such as transportation and information technology expenses, are  
14 included. There are instructions for handling contract labor and supplies, and  
15 guidelines for identifying a capital versus expense item. Budget coordinators are  
16 required to use these assumptions and/or instructions in projecting their future  
17 departmental expenses. These operation and maintenance ("O&M") budgeting  
18 guidelines are reflected in the budgets and forecasts that are submitted to the  
19 Company's upper management and Board of Directors for approval, and are also  
20 reflected in the forecasted financial data in this proceeding.

21 **Q. WHAT OTHER STEPS ARE INVOLVED IN DEVELOPING THE**  
22 **CORPORATE BUDGET?**

23 A. In addition to the O&M expenses and capital data provided by the budgeting

BRIAN P. DAVEY DIRECT

1 process, other forecasted information is required as follows:

- 2 1. Operating revenues;
- 3 2. Projected fuel, purchased power, emission allowance, other production  
4 costs and off-system sales;
- 5 3. Depreciation;
- 6 4. Property taxes;
- 7 5. Financing assumptions, including short- and long-term debt rates,  
8 dividend policy, issuances and redemptions, accounts receivable sales and  
9 capital leases; and
- 10 6. Tax rates and tax depreciation.

### III. METHODOLOGY FOR THE FORECASTED DATA

11 **Q. PLEASE DESCRIBE HOW THIS FORECASTED INFORMATION WAS**  
12 **USED FOR THE CORPORATE BUDGET AND LATER REVISED**  
13 **AND/OR EXTENDED THROUGH THE BASE AND FORECAST**  
14 **PERIODS.**

15 **A.** I will do so by describing the three primary financial statements beginning with  
16 the income statement.

#### 17 **A. INCOME STATEMENT**

18 **Q. PLEASE DESCRIBE HOW THE OPERATING REVENUES WERE**  
19 **FORECASTED.**

20 **A.** The first step in preparing the operating revenues for the 2006 annual budget was  
21 to obtain a forecast of the projected gas MCF and electric kWh sales from Dr.  
22 Stevie. Dr. Stevie, Head of the Market Analysis Department, prepared the load  
23 forecasts on a monthly basis for each customer class over a ten-year period. The  
24 forecasts are updated at least annually. The Market Analysis Department also  
25 provides the number of customers for each customer class by rate schedule. The

BRIAN P. DAVEY DIRECT

1 projected revenues for the annual budget and the long-range forecast for MCF and  
2 kWh sales were calculated by applying the tariff charges to these sales forecast  
3 numbers for all gas customers and for residential electric customers. The projected  
4 revenue for electric non-residential customers was calculated by applying average  
5 realizations to their respective kWh sales forecasts.

6 **Q. ARE THE REVENUE PROJECTIONS BASED ON WEATHER**  
7 **NORMALIZED LOAD FORECASTS?**

8 A. Yes. As described by Dr. Stevie, a ten-year period was used as the basis for  
9 calculating normal weather. This is the same methodology that management  
10 relies on for preparing its budgets and forecasts, and for financial presentations to  
11 the Board of Directors, credit rating agencies, and the investment community.

12 **Q. WERE ANY ADJUSTMENTS MADE TO THESE BUDGETED**  
13 **OPERATING REVENUES FOR THE BASE AND FORECASTED**  
14 **PERIODS?**

15 A. Yes, an adjustment was made to reflect the Merger Savings Credit Rider approved  
16 by the Commission in Case No. 2005-00228 beginning May 2006. We also made  
17 an adjustment to reflect full recovery of fuel costs through an assumed Fuel  
18 Adjustment Clause beginning January 1, 2007.

19 **Q. HOW WERE OTHER REVENUES PROJECTED?**

20 A. The budget centers provide information for the 2006 annual budget for the other  
21 revenue categories, such as reconnection charges, late payment fees, *etc.* The  
22 other revenues for periods after 2006 were obtained by using a 1.5% escalation  
23 factor. Additionally, Mr. Esamann used the Commercial Business Model to

1 provide me with forecasts of the power production costs, such as fuel, emission  
2 allowances and purchase power costs, and revenues, such as off-system sales,  
3 after applying the off-system sales sharing mechanism approved by the  
4 Commission in Case No. 2003-00252.

5 **Q. HOW WERE PRODUCTION COSTS SUCH AS FUEL, EMISSION**  
6 **ALLOWANCES, PURCHASED POWER, AND REVENUES SUCH AS**  
7 **OFF-SYSTEM SALES PROJECTED?**

8 A. The Commercial Business Model is a proprietary production cost model  
9 developed in-house. The model uses Monte Carlo simulation techniques. Among  
10 other things, the model includes a function to relate weather to load, planned and  
11 unplanned outages, contract and estimated market prices. It allows for purchases  
12 and sales from the wholesale market, and it includes any constraints (e.g., must-  
13 run status) that would be appropriate to simulate the operations of the generating  
14 units.

15 The output of the model is a mathematical average of over 500 simulated  
16 cases. This model was used for Cinergy's 2006 Annual Budget and then updated  
17 for new market pricing, fuel costs, emission allowance and purchased power costs  
18 and a new outage schedule to provide a 2007 forecast, including revenues from  
19 off-system sales.

20 **Q. DESCRIBE HOW DEPRECIATION EXPENSE IS INCLUDED IN THE**  
21 **FORECAST.**

22 A. The forecasted depreciation for existing and projected gas and electric plant is  
23 calculated by multiplying the depreciable plant by appropriate composite

1 depreciation rates. These composite rates for transmission, distribution, common  
2 and general plant are based on rates currently in effect and approved by this  
3 Commission in Case No. 91-370. The depreciation rates used for the East Bend  
4 Generating Station ("East Bend"), the Miami Fort Generating Station Unit 6  
5 ("Miami Fort 6") and the Woodsdale Generating Station ("Woodsdale")  
6 (collectively, "the Plants") are the same as the depreciation rates used prior to the  
7 transfer.

8 The projected gas and electric capital budget data was prepared by the  
9 construction centers for a five-year period at the time of the 2006 Annual Budget  
10 preparation per Cinergy's capital budgeting process, which I discussed earlier.  
11 The capital budget was obtained from Mr. Stanley for the local transmission and  
12 distribution areas and from Mr. Roebel for the Plants. These numbers were  
13 revised to reflect the addition of capital expenditures for a build-out project  
14 associated with the Erlanger construction and maintenance facility, provided by  
15 Mr. Stanley.

16 **Q. DESCRIBE HOW OPERATION AND MAINTENANCE EXPENSES ARE**  
17 **INCLUDED IN THE FORECAST.**

18 A. The O&M expenses, including fringe benefits, payroll taxes and indirect labor  
19 loadings were obtained from the 2006 Annual Budget by the various  
20 responsibility centers, using the bottom-up approach that I described above. Duke  
21 Energy Kentucky's proportionate share of the shared services expenses and the  
22 corporate center O&M expenses are assigned and/or allocated from the Service  
23 Companies to Duke Energy Kentucky are also derived using the same bottom-up

**BRIAN P. DAVEY DIRECT**

1 approach. The allocated share is derived by the application of appropriate  
2 allocations based on the pre-merger service company allocation factors, as  
3 discussed in Ms. Shrum's testimony.

4 **Q. HOW WAS THE O&M REVISED AND EXTENDED THROUGH THE**  
5 **FORECASTED PERIOD?**

6 A. I made revisions for charges from the Midwest Independent System Operator, Inc.  
7 ("Midwest ISO"), inter-company expenses, removal costs, Florence and Erlanger  
8 facility expenses, and the amortization expense relating to regulatory assets for  
9 the gas business. The primary reasons for these revisions was either too little  
10 information was known at the time of the preparation of the budget to develop any  
11 supportable charges to be included or, in the case of inter-company transactions,  
12 nothing was budgeted as it was not the Company's practice to budget certain  
13 inter-company transactions.

14 Mr. Swez and Mr. Jett calculated the costs for the Midwest ISO for both  
15 the base and the forecasted periods. Mr. Esamann provided the cost for the inter-  
16 company rent for the Miami Fort 6 step-up transformer for both the base and the  
17 forecasted periods. Mr. Stanley provided the costs for the Erlanger facility for the  
18 base and the forecasted periods. Mr. Roebel provided the O&M costs for  
19 scheduled outages for the plants for the forecasted test period. Ms. Good  
20 provided the principal and interest payments to convert the Erlanger facility from  
21 an operating lease to a capital lease. Mr. Jacobs supports applying Statement of  
22 Financial Accounting Standards No. 71 for the costs of removal relating to the  
23 Plants. Mr. Jacobs provided the amortization expense relating to all regulatory



1 assets, including an adjustment to reflect the amortization of rate case expenses  
2 approved by the Commission in Case No. 2005-00042, for 2006 and 2007.

3 **Q. PLEASE DESCRIBE HOW YOU EXTENDED THE O&M TO 2007.**

4 A. I took the following steps to extend the O&M to 2007. First, I applied certain  
5 assumptions to the 2006 revised budget data to determine the financial forecasted  
6 data for the period. For labor-related expenses, I applied the projected labor cost  
7 rate increases provided by Mr. O'Connor to the budgeted 2006 union and non-  
8 union employee labor expense, which was 3.3% and 4.0%, respectively. I also  
9 used the fringe benefit (42%) and payroll tax (7.5%) loadings as well as the  
10 indirect labor loadings for union (32%) and non-union (21%) employees that Mr.  
11 O'Connor provided.

12 For non-labor expenses I used a 1.5% increase to escalate the 2006  
13 budgeted amounts to 2007 levels because this escalation rate is typically used to  
14 provide an incentive for management to control these costs.

15 **Q. WERE ALL OF THE O&M EXPENSES FOR 2007 ESCALATED AS YOU**  
16 **JUST PREVIOUSLY DESCRIBED?**

17 A. No. Amortizations of regulatory assets are per the Commission's orders. Rents,  
18 Midwest ISO and other production expenses such as emission allowances  
19 (classified in the Cost of Goods Sold section on the income statement) and the  
20 O&M costs for scheduled outages were supplied by other witnesses as previously  
21 explained.

22 **Q. HOW DID YOU OBTAIN THE PROPERTY TAX EXPENSE?**

**BRIAN P. DAVEY DIRECT**

1 A. The property tax expense was obtained from the 2006 Annual Budget and was  
2 prepared as described by Mr. Butler. Mr. Butler supplied the property tax  
3 expenses for the forecasted financial test period data, based on the capital  
4 projections supported by Mr. Stanley and Mr. Roebel.

5 **Q. HOW DID YOU OBTAIN THE "OTHER INCOME AND EXPENSE?"**

6 A. The "other income and expense" is a below-the-line item, and is derived from a  
7 combination of sources. The amount of funds for the Allowance for Funds Used  
8 During Construction ("AFUDC") was obtained from the gas and electric capital  
9 forecasts prepared for the 2006 annual budget. These capital forecasts were  
10 supplied by Mr. Stanley for the local transmission and distribution business and  
11 by Mr. Roebel for the Plants. Miscellaneous revenues and expenses, such as gas  
12 jobbing revenues and expenses, and rent on non-utility property, were obtained  
13 from the 2006 annual budget prepared by the responsibility centers, and escalated  
14 at 1.5% for the 2007 forecasted test period.

15 **Q. HOW DID YOU OBTAIN THE INTEREST EXPENSE?**

16 A. Ms. Good provided the long-term debt balances and long- and short-term interest  
17 rates for the revised 2006 annual budget and the 2007 forecast. The amount of  
18 short-term debt balances and associated interest expense were derived using the  
19 Company's proprietary Hyperion forecasting software tools.

20 **Q. HOW DID YOU OBTAIN THE INCOME TAX EXPENSE?**

21 A. Mr. Butler provided the appropriate income tax rates and the amortization of  
22 investment tax credit ("ITC"). The income tax expense was derived using the  
23 same Hyperion forecasting software tools previously mentioned for each month of

1 the revised 2006 annual budget period and the 2007 forecast, by applying  
2 statutory income tax rates to applicable taxable book income and adjusting the  
3 resulting applicable income taxes by the ITC amortization amounts.

**B. BALANCE SHEET STATEMENT**

4 **Q. HOW WERE INITIAL BALANCES ESTABLISHED FOR THE BALANCE**  
5 **SHEET?**

6 A. The final month of actual data for the base period was the February 28, 2006  
7 balances. Mr. Council supplied the net book value for the existing gas, electric  
8 and common plant and construction work in progress for the period ending  
9 February 28, 2006 for the local transmission and distribution property. I used the  
10 Powerplant software to calculate the depreciation expense and net gas, electric,  
11 and common plant and construction work in progress balances for the forecasted  
12 period.

13 **Q. HOW WAS THE TRANSFER OF THE PLANTS REFLECTED IN THE**  
14 **FORECAST?**

15 A. Since the transfer of the Plants took place effective January 1, 2006, the forecast  
16 software tools captured this transfer via the update with actual data through  
17 February 2006 business. The long-term debt financing for this transfer occurred  
18 in March 2006, so the 2006 annual budget was revised to reflect this fact. Ms.  
19 Good supplied the information on the long-term debt financing for the Plants.

20 **Q. WHAT OTHER INFORMATION WAS USED TO ESTABLISH THE**  
21 **BASE AND FORECASTED BALANCE SHEETS?**

1 A. Mr. Roebel and Mr. Stanley provided the capital expenditures for the forecasted  
2 portion of the base period and for the forecasted test period. All of the forecasted  
3 capital data was prepared for the 2006 Annual Budget and was completed for a  
4 five-year period as typically done. The data was modified for the Erlanger build-  
5 out project I previously discussed.

6 The other assumptions were the dividend policy, the projected changes in  
7 long-term debt, the amount of capital lease and equipment lease payments, and  
8 the sale of accounts receivable, as provided by Ms. Good for both the revised  
9 2006 annual budget and the 2007 forecast. In addition, Mr. Esamann supplied the  
10 Plant inventories for emission allowances, coal, oil and gas and materials and  
11 supplies.

C. CASH FLOW STATEMENT

12 Q. HOW DID YOU PREPARE THE CASH FLOW STATEMENT FOR THE  
13 2006 ANNUAL BUDGET?

14 A. The cash flow statement is generated by the Hyperion forecasting software  
15 forecasting tools. It is derived from corresponding inputs from the income  
16 statement and changes in the balance sheet.

IV. REASONABLENESS OF THE FORECASTED  
TEST PERIOD DATA

17 Q. DO YOU HAVE AN OPINION AS TO WHETHER THE FORECASTED  
18 TEST PERIOD FINANCIAL DATA IS REASONABLE, RELIABLE,  
19 MADE IN GOOD FAITH, AND THAT ALL BASIC ASSUMPTIONS USED  
20 IN THE FORECAST HAVE BEEN IDENTIFIED AND JUSTIFIED?

BRIAN P. DAVEY DIRECT

1 A. Yes, the forecasted test period financial data is reasonable, reliable and made in  
2 good faith, based on all the information available as of the time of this filing. In  
3 my opinion, as General Manager, Financial Planning and Analysis, the budgeting  
4 and forecasting processes are adequate, reasonable, and reliable. My testimony  
5 has identified all the basic assumptions in the forecast. These assumptions are  
6 justified by my testimony and the testimony of the other witnesses I have  
7 identified.

8 **Q. DOES THE FORECAST CONTAIN THE SAME ASSUMPTIONS AND**  
9 **METHODOLOGIES USED IN FORECASTED DATA PREPARED FOR**  
10 **USE BY MANAGEMENT?**

11 A. Yes.

12 **Q. DOES THE FORECASTED TEST PERIOD REFLECT ANY EXPECTED**  
13 **PRODUCTIVITY AND EFFICIENCY GAINS?**

14 A. Yes. The forecasted data reflects all expected productivity and efficiency gains,  
15 except the merger savings, which are reflected in all the forecasted periods  
16 beginning May 2006 by using the merger credit approved by the Commission in  
17 Case No. 2005-00228, as I explained earlier.

**V. SCHEDULES AND FILING REQUIREMENTS**  
**SPONSORED BY WITNESS**

18 **Q. PLEASE DESCRIBE SCHEDULES I-1 THROUGH I-5.**

19 A. Schedule I-1 contains comparative income statements for the Company.  
20 Schedules I-2.1 through I-5 contain comparative revenue and sales statistical  
21 information as required by the Commission's filing requirements.

22 **Q. PLEASE DESCRIBE SCHEDULE K.**

**BRIAN P. DAVEY DIRECT**

1 A. Schedule K contains comparative financial and statistical information, as required  
2 by the Commission's filing requirements. I provided the condensed income  
3 statement, on page 2, and the mix of sales and fuel on page 5, for the base period  
4 and the forecasted test period.

5 **Q. PLEASE DESCRIBE FR 10(9)(C).**

6 A. FR 10(9)(c) is a summary of the assumptions used to prepare the forecasted test  
7 period data. Our assumptions and methodologies have also been described in my  
8 testimony and the testimony of other witnesses I identified earlier.

9 **Q. PLEASE DESCRIBE FR 10(9)(D).**

10 A. FR 10(9)(d) is Duke Energy Kentucky's annual and monthly twelve-month budget  
11 preceding the filing date, for the base period and forecasted period.

12 **Q. PLEASE DESCRIBE FR 10(9)(H).**

13 A. FR 10(9)(h) is Duke Energy Kentucky's financial forecast corresponding to the  
14 three-year capital budget. This includes an income statement, a balance sheet, a  
15 statement of cash flow, and certain other required financial and statistical  
16 information. Dr. Stevie sponsors FR10(9)(h)(5), Mr. Esamann sponsors  
17 FR10(9)(h)(7), and Ms. Good sponsors FR10(9)(h)(11).

18 **Q. PLEASE DESCRIBE FR 10(9)(N).**

19 A. FR 10(9)(n) consists of monthly summary income statements comparing the  
20 Company's actual results to budget from March 2005 through August 2005. In  
21 the present case, Duke Energy Kentucky has provided the quarterly financial  
22 statements it files with the Commission.

23 **Q. PLEASE DESCRIBE FR 10(9)(O).**

1 A. FR 10(9)(o) consists of management's monthly variance reports. Cinergy issued  
2 such reports on the basis of its Regulated Business Unit and these reports have  
3 been provided as part of this filing. These reports are self-explanatory narrative  
4 comments on the variances.

**VI. CONCLUSION**

5 **Q. WERE SCHEDULES I-1 THOROUGH I-5, THE INFORMATION YOU**  
6 **SPONSOR IN SCHEDULE K, AND FR 10(9)(C), FR 10(9)(D), FR 10(9)(H),**  
7 **FR 10(9)(N), AND FR 10(9)(O) PREPARED BY OR SPONSORED AND**  
8 **SUPPORTED BY YOU?**

9 A. Yes.

10 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

11 A. Yes.

VERIFICATION

State of Indiana )  
 ) SS:  
County of Hendricks )

The undersigned, Brian P. Davey, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

Brian P. Davey  
Brian P. Davey, Affiant

Subscribed and sworn to before me by Brian P. Davey on this 19<sup>th</sup> day of May, 2006.

Patty L. Sullivan  
NOTARY PUBLIC

My Commission Expires: 11-02-2012



**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT AND POWER COMPANY ) CASE NO. 2006-00172  
D/B/A DUKE ENERGY KENTUCKY )

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**DIRECT TESTIMONY OF**  
**ROGER A. MORIN**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE.....	- 1 -
II. REGULATORY FRAMEWORK AND RATE OF RETURN.....	- 5 -
III. COST OF EQUITY CAPITAL ESTIMATES .....	- 13 -
A. CAPM Estimates .....	- 21 -
B. Risk Premium Estimates.....	- 34 -
C. Allowed Risk Premiums.....	- 35 -
D. DCF Estimates.....	- 37 -
E. Need For Flotation Cost Adjustment.....	- 50 -
IV. SUMMARY AND RECOMMENDATION ON COST OF EQUITY .....	- 54 -

**APPENDICES**

APPENDIX A – CAPM, Empirical CAPM

APPENDIX B – Flotation Cost Allowance

**EXHIBITS**

EXHIBIT RAM-1 – Resume of Roger A. Morin

EXHIBIT RAM-2 – Vertically Integrated Electric Utilities Beta Estimates

EXHIBIT RAM-3 – Moody’s Electric Utility Common Stocks  
Over Long-Term Treasury Bonds  
Annual Long-Term Risk Premium Analysis

EXHIBIT RAM-4 – Electric Utilities Historical Growth Rates

EXHIBIT RAM-5 – Integrated Electric, Gas, and Combination Utilities

EXHIBIT RAM-6 – S&P’s Vertically Integrated Electric Utilities  
DCF Analysis: Value Line Growth Projections

EXHIBIT RAM-7 – S&P’s Vertically Integrated Electric Utilities  
DCF Analysis: Analysts’ Growth Forecasts

EXHIBIT RAM-8 – Moody’s Electric Utilities  
DCF Analysis: Value Line Growth Projections

EXHIBIT RAM-9 – Moody’s Electric Utilities

EXHIBIT RAM-10 – Vertically Integrated Electric Utilities Common Equity  
Ratios

**ROGER A. MORIN DIRECT**

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME, ADDRESS, AND OCCUPATION.**

2 A. My name is Dr. Roger A. Morin. My business address is Georgia State  
3 University, Robinson College of Business, University Plaza, Atlanta, Georgia,  
4 30303. I am Professor of Finance at the College of Business, Georgia State  
5 University and Professor of Finance for Regulated Industry at the Center for the  
6 Study of Regulated Industry at Georgia State University. I am also a principal in  
7 Utility Research International, an enterprise engaged in regulatory finance and  
8 economics consulting to business and government.

9 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

10 A. I hold a Bachelor of Engineering degree and an MBA in Finance from McGill  
11 University, Montreal, Canada. I received my Ph.D. in Finance and Econometrics  
12 at the Wharton School of Finance, University of Pennsylvania.

13 **Q. PLEASE SUMMARIZE YOUR ACADEMIC AND BUSINESS CAREER.**

14 A. I have taught at the Wharton School of Finance, University of Pennsylvania,  
15 Amos Tuck School of Business at Dartmouth College, Drexel University,  
16 University of Montreal, McGill University, and Georgia State University. I was a  
17 faculty member of Advanced Management Research International, and I am  
18 currently a faculty member of The Management Exchange Inc. and Exnet, Inc.,  
19 where I continue to conduct frequent national executive-level education seminars  
20 throughout the United States and Canada. In the last twenty five years, I have  
21 conducted numerous national seminars on "Utility Finance," "Utility Cost of  
22 Capital," "Alternative Regulatory Frameworks," and on "Utility Capital

**ROGER A. MORIN DIRECT**

1 Allocation," which I have developed on behalf of The Management Exchange Inc.  
2 and Exnet in conjunction with Public Utilities Reports, Inc.

3 I have authored or co-authored several books, monographs, and articles in  
4 academic scientific journals on the subject of finance. They have appeared in a  
5 variety of journals, including *The Journal of Finance*, *The Journal of Business*  
6 *Administration*, *International Management Review*, and *Public Utility*  
7 *Fortnightly*. I published a widely-used treatise on regulatory finance, *Utilities'*  
8 *Cost of Capital*, Public Utilities Reports, Inc., Arlington, Va. 1984. In late 1994,  
9 the same publisher released *Regulatory Finance*, a voluminous treatise on the  
10 application of finance to regulated utilities. A revised and expanded edition of  
11 this book was scheduled for publication at the time of this writing. I have  
12 engaged in extensive consulting activities on behalf of numerous corporations,  
13 legal firms, and regulatory bodies in matters of financial management and  
14 corporate litigation. Exhibit RAM-1 describes my professional credentials in  
15 more detail.

16 **Q. HAVE YOU PREVIOUSLY TESTIFIED ON COST OF CAPITAL**  
17 **BEFORE UTILITY REGULATORY COMMISSIONS?**

18 A. Yes, I have been a cost of capital witness before nearly fifty (50) regulatory  
19 bodies in North America, including the Kentucky Public Service Commission  
20 ("KPSC" or "Commission"), the Federal Energy Regulatory Commission, and the  
21 Federal Communications Commission. I have also testified before the following  
22 state, provincial, and other local regulatory commissions:

23

ROGER A. MORIN DIRECT

Alabama	Hawaii	Nevada	Oregon
Alaska	Illinois	New Brunswick	Pennsylvania
Alberta	Indiana	New Hampshire	Quebec
Arizona	Iowa	New Jersey	South Carolina
Arkansas	Kentucky	New York	South Dakota
British Columbia	Louisiana	Newfoundland	Tennessee
California	Manitoba	North Carolina	Texas
Colorado	Michigan	North Dakota	Utah
Delaware	Minnesota	Nova Scotia	Vermont
District of Columbia	Mississippi	Ohio	Virginia
Florida	Missouri	Oklahoma	Washington
Georgia	Montana	Ontario	West Virginia

1           The details of my participation in regulatory proceedings are provided in Exhibit  
2           RAM-1.

3   **Q.   WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
4   **PROCEEDING?**

5   A.   The purpose of my testimony in this proceeding is to present an independent  
6       appraisal of the fair and reasonable rate of return on the electric utility operations  
7       of The Union Light, Heat and Power Company d/b/a Duke Energy Kentucky  
8       ("DEK," or "Company") in the Commonwealth of Kentucky with particular  
9       emphasis on the fair return on Duke Energy Kentucky's common equity capital  
10      committed to that business. Based upon this appraisal, I have formed my  
11      professional judgment as to a return on such capital that would: (1) be fair to the  
12      ratepayer, (2) allow the Company to attract capital on reasonable terms, (3)  
13      maintain the Company's financial integrity, and (4) be comparable to returns  
14      offered on comparable risk investments. I will testify in this proceeding as to that  
15      opinion. I have also been asked to comment on the adequacy of the Company's  
16      capital structure.

**ROGER A. MORIN DIRECT**

1 Q. PLEASE BRIEFLY IDENTIFY THE EXHIBITS AND APPENDIX  
2 ACCOMPANYING YOUR TESTIMONY.

3 A. I have attached to my testimony Exhibits RAM-1 through RAM-10 and  
4 Appendices A and B. These Exhibits and Appendices relate directly to points in  
5 my testimony, and are described in further detail in connection with the  
6 discussion of those points in my testimony.

7 Q. WERE THESE EXHIBITS AND APPENDICES PREPARED BY YOU OR  
8 UNDER YOUR SUPERVISION?

9 A. Yes, they were.

10 Q. PLEASE SUMMARIZE YOUR FINDINGS CONCERNING DEK'S COST  
11 OF COMMON EQUITY.

12 A. I recommend that a rate of return on common equity capital in a range of 11.25%  
13 to 11.50% be used for ratemaking purposes on DEK's common equity capital.  
14 My recommended range is derived from studies I performed using the Capital  
15 Asset Pricing Model ("CAPM"), Risk Premium, and Discounted Cash Flow  
16 ("DCF") methodologies. I performed two CAPM analyses, one using the  
17 traditional CAPM and another using an empirical approximation of the CAPM  
18 ("ECAPM"). I performed two risk premium analyses: a historical risk premium  
19 analysis on the electric utility industry using Treasury bond yields and a study of  
20 the risk premiums allowed in the electric utility industry. I also performed DCF  
21 analyses on three surrogates for the Company. They are: DEK's ultimate parent  
22 company, Duke Energy Corporation ("Duke"), a group of investment-grade  
23 vertically integrated electric utilities, and a group of electric utilities that make up

ROGER A. MORIN DIRECT

1 Moody's Electric Utility Index.

2 My recommended rate of return on common equity reflects the application  
3 of my professional judgment to the indicated returns from my CAPM, Risk  
4 Premium, and DCF analyses. Moreover, my recommended return is predicated  
5 on the assumption that the Commission will approve the Company's capital  
6 structure for ratemaking purposes, which consists of 50.9% common equity  
7 capital.

8 **Q. PLEASE DESCRIBE HOW YOUR TESTIMONY IS ORGANIZED.**

9 A. The remainder of my testimony is divided into three (3) sections:

- 10 (i) Regulatory Framework and Rate of Return;  
11 (ii) Cost of Equity Estimates; and  
12 (iii) Summary and Recommendation.

13 The first section discusses the rudiments of rate of return regulation and  
14 the basic notions underlying rate of return. The second section contains the  
15 application of CAPM, Risk Premium, and DCF tests. In the third section, the  
16 results from the various approaches used in determining a fair return are  
17 summarized.

18 **II. REGULATORY FRAMEWORK AND RATE OF RETURN**

19 **Q. WHAT ECONOMIC AND FINANCIAL CONCEPTS HAVE GUIDED**  
20 **YOUR ASSESSMENT OF THE COMPANY'S COST OF COMMON**  
21 **EQUITY?**

22 A. Two fundamental economic principles underlie the appraisal of the Company's  
cost of equity, one relating to the supply side of capital markets, the other to the

1 demand side. According to the first principle, a rational investor is maximizing  
2 the performance of his portfolio only if he expects the returns earned on  
3 investments of comparable risk to be the same. If not, the rational investor will  
4 switch out of those investments yielding lower returns at a given risk level in  
5 favor of those investment activities offering higher returns for the same degree of  
6 risk. This principle implies that a company will be unable to attract the capital  
7 funds it needs to meet its service demands and to maintain financial integrity  
8 unless it can offer returns to capital suppliers that are comparable to those  
9 achieved on competing investments of similar risk. On the demand side, the  
10 second principle asserts that a company will continue to invest in real physical  
11 assets if the return on these investments exceeds or equals the company's cost of  
12 capital. This concept suggests that a regulatory commission should set rates at a  
13 level sufficient to create equality between the return on physical asset investments  
14 and the company's cost of capital.

15 **Q. HOW DOES DEK'S COST OF CAPITAL RELATE TO THAT OF ITS**  
16 **PARENT COMPANY?**

17 A. I am treating DEK as a separate stand-alone entity, distinct from the parent  
18 company Duke, because it is the cost of capital for DEK that we are attempting to  
19 measure and not the cost of capital for Duke's consolidated activities. Financial  
20 theory clearly establishes that the cost of equity is the risk-adjusted opportunity  
21 cost to the investor, in this case, Duke. The true cost of capital depends on the use  
22 to which the capital is put, in this case DEK's electric utility operations in the  
23 Commonwealth of Kentucky. The specific source of funding an investment and



1 the cost of funds to the investor are irrelevant considerations.

2 For example, if an individual investor borrows money at the bank at an  
3 after-tax cost of 8% and invests the funds in a speculative oil extraction venture,  
4 the required return on the investment is not the 8% cost but rather the return  
5 foregone in speculative projects of similar risk, say 20%. Similarly, the required  
6 return on DEK is the return foregone in comparable risk electricity utility  
7 operations, and is unrelated to the parent's cost of capital. The cost of capital is  
8 governed by the risk to which the capital is exposed and not by the source of  
9 funds. The identity of the shareholders has no bearing on the cost of equity.

10 Just as individual investors require different returns from different assets  
11 in managing their personal affairs, corporations should behave in the same  
12 manner. A parent company normally invests money in many operating  
13 companies of varying sizes and varying risks. These operating subsidiaries pay  
14 different rates for the use of investor capital, such as long-term debt capital,  
15 because investors recognize the differences in capital structure, risk, and prospects  
16 between subsidiaries. Therefore, the cost of investing funds in an operating utility  
17 subsidiary such as DEK is the return foregone on investments of similar risk and  
18 is unrelated to the identity of the investor.

19 **Q. PLEASE EXPLAIN HOW A REGULATED COMPANY'S RATES**  
20 **SHOULD BE SET UNDER TRADITIONAL COST OF SERVICE**  
21 **REGULATION.**

22 **A.** Under the traditional regulatory process, a regulated company's rates should be set  
23 so that the company recovers its costs, including taxes and depreciation, plus a

**ROGER A. MORIN DIRECT**

1 fair and reasonable return on its invested capital. The allowed rate of return must  
2 necessarily reflect the cost of the funds obtained, that is, investors' return  
3 requirements. In determining a company's rate of return, the starting point is  
4 investors' return requirements in financial markets. A rate of return can then be  
5 set at a level sufficient to enable the company to earn a return commensurate with  
6 the cost of those funds.

7 Funds can be obtained in two general forms, debt capital and equity  
8 capital. The cost of debt funds can be easily ascertained from an examination of  
9 the contractual interest payments. The cost of common equity funds, that is,  
10 investors' required rate of return, is more difficult to estimate. It is the purpose of  
11 the next section of my testimony to estimate DEK's cost of common equity  
12 capital.

13 **Q. DR. MORIN, WHAT MUST BE CONSIDERED IN ESTIMATING A FAIR**  
14 **RETURN ON COMMON EQUITY?**

15 **A.** The allowable return on equity should be commensurate with returns on  
16 investments in other firms having corresponding risks. The allowed return should  
17 be sufficient to assure confidence in the financial integrity of the firm, in order to  
18 maintain creditworthiness and ability to attract capital on reasonable terms. The  
19 attraction of capital standard focuses on investors' return requirements that are  
20 generally determined using market value methods, such as the Risk Premium,  
21 CAPM, or DCF methods. These market value tests define fair return as the return  
22 investors anticipate when they purchase equity shares of comparable risk in the  
23 financial marketplace. This is a market rate of return, defined in terms of

**ROGER A. MORIN DIRECT**

1 anticipated dividends and capital gains as determined by expected changes in  
2 stock prices, and reflects the opportunity cost of capital. The economic basis for  
3 market value tests is that new capital will be attracted to a firm only if the return  
4 expected by the suppliers of funds is commensurate with that available from  
5 alternative investments of comparable risk.

6 **Q. WHAT FUNDAMENTAL PRINCIPLES UNDERLIE THE**  
7 **DETERMINATION OF A FAIR AND REASONABLE RATE OF RETURN**  
8 **ON COMMON EQUITY?**

9 A. The heart of utility regulation is the setting of just and reasonable rates by way of  
10 a fair and reasonable return. There are two landmark United States Supreme Court  
11 cases that define the legal principles underlying the regulation of a public utility's  
12 rate of return and provide the foundations for the notion of a fair return:

- 13 1) *Bluefield Water Works & Improvement Co. v. Public Service Commission*  
14 *of West Virginia*, 262 U.S. 679 (1923).
- 15
- 16 2) *Federal Power Commission v. Hope Natural Gas Company*, 320 U.S.391  
17 (1944).
- 18

19 The *Bluefield* case set the standard against which just and reasonable rates  
20 of return are measured:

21 *A public utility is entitled to such rates as will permit it to earn a return on*  
22 *the value of the property which it employs for the convenience of the*  
23 *public equal to that generally being made at the same time and in the*  
24 *same general part of the country on investments in other business*  
25 *undertakings which are attended by corresponding risks and uncertainties*  
26 *... The return should be reasonable, sufficient to assure confidence in the*  
27 *financial soundness of the utility, and should be adequate, under efficient*  
28 *and economical management, to maintain and support its credit and*  
29 *enable it to raise money necessary for the proper discharge of its public*  
30 *duties. (Emphasis added)*  
31

32 The *Hope* case expanded on the guidelines to be used to assess the

1           reasonableness of the allowed return. The Court reemphasized its statements in  
2           the *Bluefield* case and recognized that revenues must cover "capital costs." The  
3           Court stated:

4                     *From the investor or company point of view it is important that there be*  
5                     *enough revenue not only for operating expenses but also for the capital*  
6                     *costs of the business. These include service on the debt and dividends on*  
7                     *the stock ... By that standard the return to the equity owner should be*  
8                     *commensurate with returns on investments in other enterprises having*  
9                     *corresponding risks. That return, moreover, should be sufficient to assure*  
10                    *confidence in the financial integrity of the enterprise, so as to maintain its*  
11                    *credit and attract capital. (Emphasis added)*

12  
13           The United States Supreme Court reiterated the criteria set forth in *Hope*  
14           in *Federal Power Commission v. Memphis Light, Gas & Water Division*, 411 U.S.  
15           458 (1973), in *Permian Basin Rate Cases*, 390 U.S. 747 (1968), and most recently  
16           in *Duquesne Light Co. vs. Barasch*, 488 U.S. 299 (1989). In the *Permian* cases,  
17           the Supreme Court stressed that a regulatory agency's rate of return order should:

18                     *...reasonably be expected to maintain financial integrity, attract necessary*  
19                     *capital, and fairly compensate investors for the risks they have assumed...*

20  
21           Therefore, the "end result" of this Commission's decision should be to  
22           allow DEK the opportunity to earn a return on equity that is: (1) commensurate  
23           with returns on investments in other firms having corresponding risks, (2)  
24           sufficient to assure confidence in the company's financial integrity, and (3)  
25           sufficient to maintain the company's creditworthiness and ability to attract capital  
26           on reasonable terms.

27   **Q.   HOW IS THE FAIR RATE OF RETURN DETERMINED?**

28   A.   The aggregate return required by investors is called the "cost of capital." The cost  
29   of capital is the opportunity cost, expressed in percentage terms, of the total pool

1 of capital employed by the Company. It is the composite weighted cost of the  
2 various classes of capital (*e.g.*, bonds, preferred stock, common stock) used by the  
3 utility, with the weights reflecting the proportions of the total capital that each  
4 class of capital represents. The fair return in dollars is obtained by multiplying  
5 the rate of return set by the regulator by the utility's "rate base." The rate base is  
6 essentially the net book value of the utility's plant and other assets used to provide  
7 utility service.

8 While utilities like DEK enjoy varying degrees of monopoly in the sale of  
9 public utility services, they must compete with everyone else in the free, open  
10 market for the input factors of production, whether labor, materials, machines, or  
11 capital. The prices of these inputs are set in the competitive marketplace by  
12 supply and demand, and it is these input prices that are incorporated in the cost of  
13 service computation. This is just as true for capital as for any other factor of  
14 production. Since utilities and other investor-owned businesses must go to the  
15 open capital market and sell their securities in competition with every other  
16 issuer, there is obviously a market price to pay for the capital they require, for  
17 example, the interest on debt capital, or the expected return on equity.

18 **Q. HOW DOES THE CONCEPT OF A FAIR RETURN RELATE TO THE**  
19 **CONCEPT OF OPPORTUNITY COST?**

20 **A.** The concept of a fair return is intimately related to the economic concept of  
21 "opportunity cost." When investors supply funds to a utility by buying its stocks  
22 or bonds, they are not only postponing consumption, giving up the alternative of  
23 spending their dollars in some other way, they are also exposing their funds to

1 risk and forgoing returns from investing their money in alternative comparable  
2 risk investments. If there are differences in the risk of the investments,  
3 competition among firms for a limited supply of capital will bring different prices.  
4 These differences in risk are translated by the capital markets into differences in  
5 required return, in much the same way that differences in the characteristics of  
6 commodities are reflected in different prices.

7 The important point is that the required return on capital is set by supply  
8 and demand, and is influenced by the relationship between the risk and return  
9 expected for those securities and the risks expected from the overall menu of  
10 available securities.

11 **Q. HOW DOES THE COMPANY OBTAIN ITS CAPITAL AND HOW IS ITS**  
12 **OVERALL COST OF CAPITAL DETERMINED?**

13 A. The funds employed by the Company are obtained in two general forms, debt  
14 capital and common equity capital. The cost of debt funds can be ascertained  
15 easily from an examination of the contractual interest payments. The cost of  
16 common equity funds, that is, equity investors' required rate of return, is more  
17 difficult to estimate because the dividend payments received from common stock  
18 are not contractual or guaranteed in nature. They are uneven and risky, unlike  
19 interest payments. Once a cost of common equity estimate has been developed, it  
20 can then easily be combined with the embedded cost of debt, based on the utility's  
21 capital structure, in order to arrive at the overall cost of capital.

22 **Q. WHAT IS THE MARKET REQUIRED RATE OF RETURN ON EQUITY**  
23 **CAPITAL?**

1 A. The market required rate of return on common equity, or cost of equity, is the  
2 return demanded by the equity investor. Investors establish the price for equity  
3 capital through their buying and selling decisions in capital markets. Investors set  
4 return requirements according to their perception of the risks inherent in the  
5 investment, recognizing the opportunity cost of forgone investments in other  
6 companies, and the returns available from other investments of comparable risk.

### III. COST OF EQUITY CAPITAL ESTIMATES

7 **Q. DR. MORIN, HOW DID YOU ESTIMATE THE FAIR RATE OF RETURN**  
8 **ON COMMON EQUITY FOR DEK?**

9 A. I employed three methodologies: (1) the CAPM, (2) the Risk Premium, and (3)  
10 the DCF methodologies. All three are market-based methodologies and are  
11 designed to estimate the return required by investors on the common equity  
12 capital committed to DEK.

13 **Q. WHY DID YOU USE MORE THAN ONE APPROACH FOR**  
14 **ESTIMATING THE COST OF EQUITY?**

15 A. No one individual method provides the necessary level of precision for  
16 determining a fair return, but each method provides useful evidence to facilitate  
17 the exercise of an informed judgment. Reliance on any single method or preset  
18 formula is inappropriate when dealing with investor expectations because of  
19 possible measurement errors and vagaries in individual companies' market data.  
20 Examples of such vagaries include dividend suspension, insufficient or  
21 unrepresentative historical data due a recent merger, impending merger or  
22 acquisition, and a new corporate identity due to restructuring activities. The

ROGER A. MORIN DIRECT

1 advantage of using several different approaches is that the results of each one can  
2 be used to check the others.

3 As a general proposition, it is extremely dangerous to rely on only one  
4 generic methodology to estimate equity costs. The difficulty is compounded  
5 when only one variant of that methodology is employed. It is compounded even  
6 further when that one methodology is applied to a single company. Hence,  
7 several methodologies applied to several comparable risk companies should be  
8 employed to estimate the cost of capital.

9 **Q. ARE THERE ANY DIFFICULTIES IN APPLYING COST OF CAPITAL**  
10 **METHODOLOGIES IN THE CURRENT ENVIRONMENT OF CHANGE?**

11 A. Yes, there are. All the traditional cost of equity estimation methodologies are  
12 difficult to implement when you are dealing with the fast-changing circumstances  
13 of the electric and natural gas utility industry. This is because utility company  
14 historical data have become less meaningful for an industry in a state of profound  
15 change. Past earnings and dividend trends are simply not indicative of the future.  
16 For example, historical growth rates of earnings and dividends have been  
17 depressed by eroding margins due to a variety of factors, including corporate  
18 structural transformation and the transition to a more competitive environment.  
19 As a result, these historical indicators are not representative of the future long-  
20 term earning power of these companies. Moreover, historical growth rates are not  
21 representative of future trends for utilities involved in mergers and acquisitions, as  
22 these companies going forward would not be the same companies for which  
23 historical data are available.

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1 Q. DR. MORIN, ARE YOU AWARE THAT SOME REGULATORY  
2 COMMISSIONS AND SOME ANALYSTS HAVE PLACED PRINCIPAL  
3 RELIANCE ON DCF-BASED ANALYSES TO DETERMINE THE COST  
4 OF EQUITY FOR PUBLIC UTILITIES?

5 A. Yes, I am.

6 Q. DO YOU AGREE WITH THIS APPROACH?

7 A. While I agree that it is certainly appropriate to consider the results of the DCF  
8 methodology to estimate the cost of equity, there is no proof that the DCF  
9 produces a more accurate estimate of the cost of equity than other methodologies.  
10 There are three broad generic methodologies available to measure the cost of  
11 equity: DCF, Risk Premium, and CAPM. All of these methodologies are  
12 accepted and used by the financial community and supported in the financial  
13 literature.

14 When measuring the cost of common equity, which is essentially the  
15 measurement of investor expectations, no one single methodology provides a  
16 foolproof panacea. Each methodology requires the exercise of considerable  
17 judgment on the reasonableness of the assumptions underlying the methodology  
18 and on the reasonableness of the proxies used to validate the theory and apply the  
19 methodology. The failure of the traditional infinite growth DCF model to account  
20 for changes in relative market valuation, and the practical difficulties of  
21 specifying the expected growth component are vivid examples of the potential  
22 shortcomings of the DCF model. It follows that more than one methodology  
23 should be employed in arriving at a judgment on the cost of equity and that these

ROGER A. MORIN DIRECT

1 methodologies should be applied to multiple groups of comparable risk  
2 companies.

3           There is no single model that conclusively determines or estimates the  
4 expected return for an individual firm. Each methodology has its own way of  
5 examining investor behavior, its own premises, and its own set of simplifications  
6 of reality. Investors do not necessarily subscribe to any one method, nor does the  
7 stock price reflect the application of any one single method by the price-setting  
8 investor. Absent any hard evidence, which does not exist as far as I am  
9 concerned, as to which method outperforms the other, all relevant evidence  
10 should be used, in order to minimize judgmental error, measurement error, and  
11 conceptual infirmities. A regulatory body should rely on the results of a variety  
12 of methods applied to a variety of comparable groups. It is unwarranted to  
13 conclude that the DCF model standing alone is necessarily the ideal or best  
14 predictor of the stock price and of the cost of equity reflected in that price, just as  
15 it should not be concluded that the CAPM or Risk Premium models standing  
16 alone produce the perfect or best explanation of that stock price or the cost of  
17 equity. As a result, all the various methodologies to estimate the cost of equity  
18 should be considered.

19 **Q. DOES THE FINANCIAL LITERATURE SUPPORT THE USE OF MORE**  
20 **THAN A SINGLE METHOD?**

21 A. Yes. Authoritative financial literature strongly supports the use of multiple  
22 methods. For example, Professor Eugene F. Brigham, a widely respected scholar  
23 and finance academician, asserts:

**ROGER A. MORIN DIRECT**

1                    *In practical work, it is often best to use all three methods - CAPM, bond*  
2                    *yield plus risk premium, and DCF - and then apply judgment when the*  
3                    *methods produce different results. People experienced in estimating*  
4                    *capital costs recognize that both careful analysis and some very fine*  
5                    *judgments are required. It would be nice to pretend that these judgments*  
6                    *are unnecessary and to specify an easy, precise way of determining the*  
7                    *exact cost of equity capital. Unfortunately, this is not possible.*<sup>1</sup>  
8

9                    In a subsequent edition of his best-selling corporate finance textbook, Dr.  
10                    Brigham discusses the various methods used in estimating the cost of common  
11                    equity capital, and states:

12                    *However, three methods can be used: (1) the Capital Asset Pricing Model*  
13                    *(CAPM), (2) the discounted cash flow (DCF) model, and (3) the bond-*  
14                    *yield-plus-risk-premium approach. These methods should not be regarded*  
15                    *as mutually exclusive - no one dominates the others, and all are subject to*  
16                    *error when used in practice. Therefore, when faced with the task of*  
17                    *estimating a company's cost of equity, we generally use all three*  
18                    *methods...*<sup>2</sup>  
19

20                    Another prominent finance scholar, Professor Stewart Myers, in his best  
21                    selling corporate finance textbook, points out:

22                    *The constant growth [DCF] formula and the capital asset pricing model*  
23                    *are two different ways of getting a handle on the same problem.*<sup>3</sup>  
24

25                    In an earlier article, Professor Myers explains:

26                    *Use more than one model when you can. Because estimating the*  
27                    *opportunity cost of capital is difficult, only a fool throws away useful*  
28                    *information. That means you should not use any one model or measure*  
29                    *mechanically and exclusively. Beta is helpful as one tool in a kit, to be*  
30                    *used in parallel with DCF models or other techniques for interpreting*  
31                    *capital market data.*<sup>4</sup>  
32

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<sup>1</sup> E. F. Brigham and L. C. Gapenski, *Financial Management Theory and Practice*, p. 256 (4<sup>th</sup> ed., Dryden Press, Chicago, 1985).

<sup>2</sup> *Id.* at p. 348.

<sup>3</sup> R. A. Brealey and S. C. Myers, *Principles of Corporate Finance*, p. 182 (3<sup>rd</sup> ed., McGraw Hill, New York, 1988).

<sup>4</sup> S. C. Myers, "On the Use of Modern Portfolio Theory in Public Utility Rate Cases: Comment," *Financial Management*, p. 67 (Autumn 1978).

1 Q. DOES THE BROAD USAGE OF THE DCF METHODOLOGY IN PAST  
2 REGULATORY PROCEEDINGS INDICATE THAT IT IS SUPERIOR TO  
3 OTHER METHODS?

4 A. No, it does not. Uncritical acceptance of the standard DCF equation vests the  
5 model with a degree of reliability that is simply not justified. One of the leading  
6 experts on regulation, Dr. Charles F. Phillips discusses the dangers of relying  
7 solely on the DCF model:

8 *[U]se of the DCF model for regulatory purposes involves both theoretical*  
9 *and practical difficulties. The theoretical issues include the assumption of*  
10 *a constant retention ratio (i.e. a fixed payout ratio) and the assumption*  
11 *that dividends will continue to grow at a rate 'g' in perpetuity. Neither of*  
12 *these assumptions has any validity, particularly in recent years. Further,*  
13 *the investors' capitalization rate and the cost of equity capital to a utility*  
14 *for application to book value (i.e. an original cost rate base) are identical*  
15 *only when market price is equal to book value. Indeed, DCF advocates*  
16 *assume that if the market price of a utility's common stock exceeds its*  
17 *book value, the allowable rate of return on common equity is too high and*  
18 *should be lowered; and vice versa. Many question the assumption that*  
19 *market price should equal book value, believing that 'the earnings of*  
20 *utilities should be sufficiently high to achieve market-to-book ratios which*  
21 *are consistent with those prevailing for stocks of unregulated companies.*

22  
23 *[T]here remains the circularity problem: Since regulation establishes a*  
24 *level of authorized earnings which, in turn, implicitly influences dividends*  
25 *per share, estimation of the growth rate from such data is an inherently*  
26 *circular process. For all of these reasons, the DCF model suggests a*  
27 *degree of precision which is in fact not present and leaves wide room for*  
28 *controversy about the level of k [cost of equity].<sup>5</sup>*

29  
30 Dr. Charles F. Phillips also discusses the dangers of relying solely on the  
31 CAPM model because of the lack of realism of certain of its stringent  
32 assumptions, as is the case for any model in the social sciences.

33 Sole reliance on any one model, whether it is DCF, CAPM, or Risk

1 Premium, simply ignores the capital market evidence and investors' use of the  
2 other theoretical frameworks. The DCF model is only one of many tools to be  
3 employed in conjunction with other methods to estimate the cost of equity. It is  
4 not a superior methodology that should supplant other financial theory and market  
5 evidence. The same is true of the CAPM.

6 **Q. DO THE ASSUMPTIONS UNDERLYING THE DCF MODEL REQUIRE**  
7 **THAT THE MODEL BE TREATED WITH CAUTION?**

8 A. Yes, particularly in today's rapidly changing utility industry. Even ignoring the  
9 fundamental thesis that several methods and/or variants of such methods should  
10 be used in measuring equity costs, the DCF methodology, as those familiar with  
11 the industry and the accepted norms for estimating the cost of equity are aware, is  
12 problematic for use in estimating cost of equity at this time.

13 Several fundamental structural changes have transformed the energy  
14 utility industry since the standard DCF model and its assumptions were  
15 developed. For example, deregulation, increased wholesale competition triggered  
16 by national policy, accounting rule changes, changes in customer attitudes  
17 regarding utility services, the evolution of alternative energy sources,  
18 improvements in generation efficiencies, and mergers-acquisitions have all  
19 influenced stock prices in ways that have deviated substantially from the  
20 assumptions of the DCF model. These changes suggest that some of the  
21 fundamental assumptions underlying the standard DCF model, particularly that of  
22 constant growth and constant relative market valuation, for example

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<sup>5</sup> C. F. Phillips, *The Regulation of Public Utilities Theory and Practice* (Public Utilities Reports, Inc., 1988) pp. 376-77. [Footnotes omitted].

1 price/earnings ratios and market-to-book ratios, are problematic at this point in  
2 time for utility stocks, and that, therefore, alternate methodologies to estimate the  
3 cost of common equity should be accorded at least as much weight as the DCF  
4 method.

5 **Q. IS THE CONSTANT RELATIVE MARKET VALUATION ASSUMPTION**  
6 **INHERENT IN THE DCF MODEL ALWAYS REASONABLE?**

7 A. No, not always. Caution must be exercised when implementing the standard DCF  
8 model in a mechanistic fashion, for it may fail to recognize changes in relative  
9 market valuations over time. The traditional DCF model is not equipped to deal  
10 with surges in market-to-book ("M/B") and price-earnings ("P/E") ratios. The  
11 standard DCF model assumes a constant market valuation multiple, that is, a  
12 constant P/E ratio and a constant M/B ratio. Stated another way, the model  
13 assumes that investors expect the ratio of market price to dividends (or earnings)  
14 in any given year to be the same as the current ratio of market price to dividend  
15 (or earnings), and that the stock price will grow at the same rate as the book value.  
16 This is a necessary result of the infinite growth assumption. This assumption is  
17 unrealistic under current conditions. The DCF model is not equipped to deal with  
18 sudden surges in M/B and P/E ratios, as was experienced by a number of utility  
19 stocks in recent years.

20 In short, caution and judgment are required in interpreting the results of  
21 the DCF model because of: (1) the effect of changes in risk and growth on electric  
22 utilities, (2) the disconnect between the tenets of the DCF model and the  
23 characteristics of utility stocks in the current capital market environment, and (3)

1 the practical difficulties associated with the growth component of the DCF model.  
2 Hence, there is a clear need to go beyond the DCF results and take into account  
3 the results produced by alternate methodologies in arriving at a return on equity  
4 (“ROE”) recommendation.

5 **Q. DO THE ASSUMPTIONS UNDERLYING THE CAPM REQUIRE THAT**  
6 **THE MODEL BE TREATED WITH CAUTION?**

7 A. Yes, as was the case with the DCF model, the assumptions underlying the CAPM  
8 are stringent. Moreover, the empirical validity of the CAPM has been the subject  
9 of intense research in recent years. Although the CAPM provides useful  
10 evidence, it must be complemented by other methodologies.

11 A. CAPM Estimates

12 **Q. PLEASE DESCRIBE YOUR APPLICATION OF THE CAPM RISK**  
13 **PREMIUM APPROACH.**

14 A. My first two risk premium estimates are based on the CAPM and on an empirical  
15 approximation to the CAPM (“ECAPM”). The CAPM is a fundamental paradigm  
16 of finance. The fundamental idea underlying the CAPM is that risk-averse  
17 investors demand higher returns for assuming additional risk, and higher-risk  
18 securities are priced to yield higher expected returns than lower-risk securities.  
19 The CAPM quantifies the additional return, or risk premium, required for bearing  
20 incremental risk. It provides a formal risk-return relationship anchored on the  
21 basic idea that only market risk matters, as measured by beta. According to the  
22 CAPM, securities are priced such that:

23 **EXPECTED RETURN = RISK-FREE RATE + RISK PREMIUM**

**ROGER A. MORIN DIRECT**

1 Denoting the risk-free rate by  $R_F$  and the return on the market as a whole  
2 by  $R_M$ , the CAPM is stated as follows:

$$3 \quad K = R_F + \beta(R_M - R_F)$$

4 This is the seminal CAPM expression, which states that the return required by  
5 investors is made up of a risk-free component,  $R_F$ , plus a risk premium given by  $\beta$   
6 times  $(R_M - R_F)$ . To derive the CAPM risk premium estimate, three quantities are  
7 required: the risk-free rate ( $R_F$ ), beta ( $\beta$ ), and the market risk premium,  $(R_M - R_F)$ .  
8 For the risk-free rate, I used 5.0%, based on current interest rates on long-term  
9 U.S. Treasury bonds. For beta, I used 0.85 and for the market risk premium I  
10 used 7.8%. These respective inputs to the CAPM are explained below.

11 **Q. WHAT RISK-FREE RATE DID YOU USE IN YOUR CAPM AND RISK**  
12 **PREMIUM ANALYSES?**

13 A. To implement the CAPM and Risk Premium methods, an estimate of the risk-free  
14 return is required as a benchmark. As a proxy for the risk-free rate, I have relied  
15 on the actual and forecast yields on 30-year Treasury bonds.

16 The appropriate proxy for the risk-free rate in the CAPM is the return on  
17 the longest term Treasury bond possible. This is because common stocks are very  
18 long-term instruments more akin to very long-term bonds rather than to short-  
19 term or intermediate-term Treasury notes. In a risk premium model, the ideal  
20 estimate for the risk-free rate has a term to maturity equal to the security being  
21 analyzed. Since common stock is a very long-term investment because the cash  
22 flows to investors in the form of dividends last indefinitely, the yield on the  
23 longest-term possible government bonds, that is the yield on 30-year Treasury



1 bonds, is the best measure of the risk-free rate for use in the CAPM. The  
2 expected common stock return is based on very long-term cash flows, regardless  
3 of an individual's holding time period. Moreover, utility asset investments  
4 generally have very long-term useful lives and should correspondingly be  
5 matched with very long-term maturity financing instruments.

6 While long-term Treasury bonds are potentially subject to interest rate  
7 risk, this is only true if the bonds are sold prior to maturity. A substantial fraction  
8 of bond market participants, usually institutional investors with long-term  
9 liabilities (pension funds, insurance companies), in fact hold bonds until they  
10 mature, and therefore are not subject to interest rate risk. Moreover, institutional  
11 bondholders neutralize the impact of interest rate changes by matching the  
12 maturity of a bond portfolio with the investment planning period, or by engaging  
13 in hedging transactions in the financial futures markets. The merits and  
14 mechanics of such immunization strategies are well documented by both  
15 academicians and practitioners.

16 Another reason for utilizing the longest maturity Treasury bond possible is  
17 that common equity has an infinite life span, and the inflation expectations  
18 embodied in its market-required rate of return will therefore be equal to the  
19 inflation rate anticipated to prevail over the very long-term. The same  
20 expectation should be embodied in the risk free rate used in applying the CAPM  
21 model. It stands to reason that the actual yields on 30-year Treasury bonds will  
22 more closely incorporate within their yield the inflation expectations that  
23 influence the prices of common stocks than do short-term or intermediate-term

1 U.S. Treasury notes.

2 Among U.S. Treasury securities, 30-year Treasury bonds have the longest  
3 term to maturity and the yield on such securities should be used as proxies for the  
4 risk-free rate in applying the CAPM, provided there are no anomalous conditions  
5 existing in the 30-year Treasury market. In the absence of such conditions, I have  
6 relied on the yield on 30-year Treasury bonds in implementing the CAPM and  
7 risk premium methods.

8 **Q. DR. MORIN, WHY DID YOU REJECT SHORT-TERM INTEREST**  
9 **RATES AS A PROXIES FOR THE RISK-FREE RATE IN**  
10 **IMPLEMENTING THE CAPM?**

11 A. Short-term rates are volatile, fluctuate widely, and are subject to more random  
12 disturbances than are long-term rates. Short-term rates are largely administered  
13 rates. For example, Treasury bills are used by the Federal Reserve as a policy  
14 vehicle to stimulate the economy and to control the money supply, and are used  
15 by foreign governments, companies, and individuals as a temporary safe-house  
16 for money.

17 As a practical matter, it makes no sense to match the return on common  
18 stock to the yield on 90-day Treasury Bills. This is because short-term rates, such  
19 as the yield on 90-day Treasury Bills, fluctuate widely, leading to volatile and  
20 unreliable equity return estimates. Moreover, yields on 90-day Treasury Bills  
21 typically do not match the equity investor's planning horizon. Equity investors  
22 generally have an investment horizon far in excess of 90 days.

23 As a conceptual matter, short-term Treasury Bill yields reflect the impact

1 of factors different from those influencing the yields on long-term securities such  
2 as common stock. For example, the premium for expected inflation embedded  
3 into 90-day Treasury Bills is likely to be far different than the inflationary  
4 premium embedded into long-term securities yields. On grounds of stability and  
5 consistency, the yields on long-term Treasury bonds match more closely with  
6 common stock returns.

7 **Q. WHAT IS YOUR ESTIMATE OF THE RISK-FREE RATE IN APPLYING**  
8 **THE CAPM?**

9 A. The level of U.S. Treasury 30-year long-term bond yields prevailing in April 2006  
10 as reported in the Value Line Investment Analyzer ("VLIA") April 2006 edition  
11 was 5.0%. I also examined the long-term interest rate forecasts contained in the  
12 April 2006 edition of the Blue Chip Financial Forecasts. The consensus forecast  
13 reported in that publication for the yield on 30-year Treasury bonds was 5.1%,  
14 virtually identical to the current level of 5.0%. I therefore used 5.0% as my  
15 estimate of the risk-free rate component of the CAPM.

16 **Q. HOW DID YOU SELECT THE BETA FOR YOUR CAPM ANALYSIS?**

17 A. A major thrust of modern financial theory as embodied in the CAPM is that  
18 perfectly diversified investors can eliminate the company-specific component of  
19 risk, and that only market risk remains. The latter is technically known as "beta,"  
20 or "systematic risk." The beta coefficient measures change in a security's return  
21 relative to that of the market. The beta coefficient states the extent and direction  
22 of movement in the rate of return on a stock relative to the movement in the rate  
23 of return on the market as a whole. The beta coefficient indicates the change in

**ROGER A. MORIN DIRECT**

1 the rate of return on a stock associated with a one percentage point change in the  
2 rate of return on the market, and thus measures the degree to which a particular  
3 stock shares the risk of the market as a whole. Modern financial theory has  
4 established that beta incorporates several economic characteristics of a  
5 corporation which are reflected in investors' return requirements.

6 As a wholly-owned subsidiary of Duke, DEK is not publicly traded, and  
7 therefore, proxies must be used for DEK. I examined the betas of a sample of  
8 widely-traded investment-grade vertically integrated electric utilities covered by  
9 Standard & Poor's with at least 50% of their revenues from regulated utility  
10 operations. This group is examined in more detail later in my testimony, in  
11 connection with the DCF estimates of the cost of common equity. In order to  
12 minimize the well-known thin trading bias in measuring beta, I only considered  
13 those companies whose market capitalization exceeded \$500 million. As  
14 displayed on page 1 of Exhibit RAM-2, the average beta for the group is 0.85.

15 As a check on the beta estimate, I examined the average beta for the  
16 electric utility industry, as represented by the electric utilities that make up  
17 Moody's Electric Utility Index. As displayed on page 2 of Exhibit RAM-2, the  
18 average beta for the group is 0.88 and becomes 0.85 with the two outliers (Duke  
19 Energy, American Electric Power) removed from the group. These two estimates  
20 are nearly identical to the previous estimates. Based on these results, I shall use  
21 0.85 as a reasonable estimate for the beta applicable to DEK.

22 **Q. WHAT MARKET RISK PREMIUM ESTIMATE DID YOU USE IN YOUR**  
23 **CAPM ANALYSIS?**

**ROGER A. MORIN DIRECT**

1 A. For the market risk premium, I used 7.5%. This estimate was based on the results  
2 of both forward-looking and historical studies of long-term risk premiums. First,  
3 the Ibbotson Associates study, *Stocks, Bonds, Bills, and Inflation, 2006 Yearbook*,  
4 compiling historical returns from 1926 to 2005, shows that a broad market sample  
5 of common stocks outperformed long-term U. S. Treasury bonds by 6.5%. The  
6 historical market risk premium over the income component of long-term Treasury  
7 bonds rather than over the total return is 7.1%<sup>6</sup>. Ibbotson Associates recommend  
8 the use of the latter as a more reliable estimate of the historical market risk  
9 premium, and I concur with this viewpoint. The historical MRP should be  
10 computed using the income component of bond returns because the intent, even  
11 using historical data, is to identify an expected market risk premium. The more  
12 accurate way to estimate the market risk premium from historic data is to use the  
13 income return, not total returns on government bonds, as explained at page 66 of  
14 *Ibbotson Associates, Stocks, Bonds, Bills, and Inflation: Valuation Edition, 2005*  
15 *Yearbook*. This is because the income component of total bond return (*i.e.* the  
16 coupon rate) is a far better estimate of expected return than the total return (*i.e.*  
17 the coupon rate + capital gain), as realized capital gains/losses are largely  
18 unanticipated by bond investors. The long-horizon (1926-2005) market risk  
19 premium (based on income returns, as required) is specifically calculated to be

---

<sup>6</sup> Because 30-year bonds were not always traded or even available throughout the entire 1926-2005 long period covered in the Ibbotson Associate Study of historical returns, the latter study relied on bond return data based on 20-year Treasury bonds. To the extent that the normal yield curve is virtually flat above maturities of 20 years over most of the period covered in the Ibbotson study, the difference in yield is not material. In fact, the difference in yield between 30-year and 20-year bonds is actually negative. The average difference in yield over the 1977-2006 period is 13 basis points, that is, the yield on 20-year bonds is slightly higher than the yield on 30-year bonds.

1 7.1% rather than 6.5%.

2 Second, a DCF analysis applied to the aggregate equity market using  
3 Value Line's aggregate stock market index and growth forecasts indicates a  
4 prospective market risk premium of 7.9%. The average of the historical (7.1%)  
5 and prospective estimates (7.9%), which is 7.5%, provides a reasonable estimate  
6 of the market risk premium.

7 **Q. WHY DID YOU USE LONG TIME PERIODS IN ARRIVING AT YOUR**  
8 **HISTORICAL MARKET RISK PREMIUM ESTIMATE?**

9 A. Because realized returns can be substantially different from prospective returns  
10 anticipated by investors when measured over short time periods, it is important to  
11 employ returns realized over long time periods rather than returns realized over  
12 more recent time periods when estimating the market risk premium with historical  
13 returns. Therefore, a risk premium study should consider the longest possible  
14 period for which data are available. Short-run periods during which investors  
15 earned a lower risk premium than they expected are offset by short-run periods  
16 during which investors earned a higher risk premium than they expected. Only  
17 over long time periods will investor return expectations and realizations converge.

18 I have therefore ignored realized risk premiums measured over short time  
19 periods, since they are heavily dependent on short-term market movements.  
20 Instead, I relied on results over periods of enough length to smooth out short-term  
21 aberrations, and to encompass several business and interest rate cycles. The use  
22 of the entire study period in estimating the appropriate market risk premium  
23 minimizes subjective judgment and encompasses many diverse regimes of

1 inflation, interest rate cycles, and economic cycles.

2 To the extent that the estimated historical equity risk premium follows  
3 what is known in statistics as a random walk, one should expect the equity risk  
4 premium to remain at its historical mean. The best estimate of the future risk  
5 premium is the historical mean. Since I found no evidence that the market price  
6 of risk or the amount of risk in common stocks has changed over time, that is, no  
7 significant serial correlation in the Ibbotson study, it is reasonable to assume that  
8 these quantities will remain stable in the future.

9 **Q. PLEASE DESCRIBE YOUR PROSPECTIVE APPROACH IN DERIVING**  
10 **THE MARKET RISK PREMIUM IN THE CAPM ANALYSIS.**

11 A. For my prospective estimate of the market risk premium, I applied a DCF analysis  
12 to the aggregate equity market using Value Line's VLIA software. The dividend  
13 yield on the dividend-paying stocks that make up the Value Line Composite index  
14 made up of some 1800 stocks is currently 1.2% (VLIA 04/2006 edition), and the  
15 average projected dividend growth rate is 11.3%. Adding the dividend yield to  
16 the growth component produces an expected return on the aggregate equity  
17 market of 12.5%. Following the tenets of the DCF model, the spot dividend yield  
18 must be converted into an expected dividend yield by multiplying it by one plus  
19 the growth rate. This brings the expected return on the aggregate equity market to  
20 12.7%. Recognition of the quarterly timing of dividend payments rather than the  
21 annual timing of dividends assumed in the annual DCF model brings the market  
22 risk premium estimate to approximately 12.9%. Subtracting the risk-free rate of  
23 5.0% from the latter, the implied risk premium is 7.9% over long-term U.S.

ROGER A. MORIN DIRECT

1 Treasury bonds. The average of the historical (7.1%) and prospective market risk  
2 premium (7.9%) estimates is 7.5%.

3 As a check on my market risk premium estimate, I examined a recent 2003  
4 comprehensive article published in *Financial Management*, Harris, Marston,  
5 Mishra, and O'Brien ("HMMO") that provides estimates of the ex ante expected  
6 returns for S&P 500 companies over the period 1983-1998<sup>7</sup>. HMMO measure the  
7 expected rate of return (cost of equity) of each dividend-paying stock in the S&P  
8 500 for each month from January 1983 to August 1998 by using the constant  
9 growth DCF model. The prevailing risk-free rate for each year was then  
10 subtracted from the expected rate of return for the overall market to arrive at the  
11 market risk premium for that year. The table below, drawn from HMMO Table 2,  
12 displays the average prospective risk premium estimate for each year from 1983  
13 to 1998. The average market risk premium estimate for the overall period is  
14 7.2%, which is reasonably close to my own estimate of 7.5%.

15	Year	DCF Market Risk Premium
16	1983	6.6%
17	1984	5.3%
18	1985	5.7%
19	1986	7.4%
20	1987	6.1%
21	1988	6.4%
22	1989	6.6%
23	1990	7.1%
24	1991	7.5%
25	1992	7.8%
26	1993	8.2%
27	1994	7.3%
28	1995	7.7%
29	1996	7.8%
30	1997	8.2%
31	1998	9.2%
32	MEAN	7.2%

---

<sup>7</sup> Harris, R. S., Marston, F. C., Mishra, D. R., and O'Brien, T. J., "Ex Ante Cost of Equity Estimates of S&P 500 Firms: The Choice Between Global and Domestic CAPM," *Financial Management*, Autumn 2003, pp. 51-66.

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1 Q. WHAT IS YOUR RISK PREMIUM ESTIMATE OF THE COMPANY'S  
2 COST OF EQUITY USING THE CAPM APPROACH?

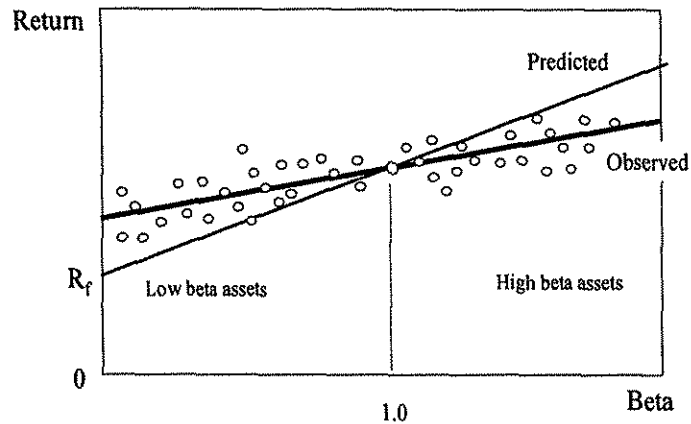
3 A. Inserting those input values in the CAPM equation, namely a risk-free rate of  
4 5.0%, a beta of 0.85, and a market risk premium of 7.5%, the CAPM estimate of  
5 the cost of common equity is:  $5.0\% + 0.85 \times 7.5\% = 11.4\%$ . This estimate  
6 becomes 11.7% with flotation costs, discussed later in my testimony.

7 Q. WHAT IS YOUR RISK PREMIUM ESTIMATE USING THE EMPIRICAL  
8 VERSION OF THE CAPM?

9 A. With respect to the empirical validity of the plain vanilla CAPM, there have been  
10 countless empirical tests of the CAPM to determine to what extent security  
11 returns and betas are related in the manner predicted by the CAPM. This  
12 literature is summarized in Chapter 13 of my book, *Regulatory Finance* and in  
13 Chapter 6 of my latest book, *The New Regulatory Finance*, published by Public  
14 Utilities Report Inc. The results of the tests support the idea that beta is related to  
15 security returns, that the risk-return tradeoff is positive, and that the relationship is  
16 linear. The contradictory finding is that the risk-return tradeoff is not as steeply  
17 sloped as the predicted CAPM. That is, empirical research has long shown that  
18 low-beta securities earn returns somewhat higher than the CAPM would predict,  
19 and high-beta securities earn less than predicted. A CAPM-based estimate of cost  
20 of capital underestimates the return required from low-beta securities and  
21 overstates the return required from high-beta securities, based on the empirical  
22 evidence. This is one of the most well-known results in finance, and it is  
23 displayed graphically below.

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### CAPM: Predicted vs Observed Returns



1           A number of variations on the original CAPM theory have been  
2           proposed to explain this finding. The ECAPM makes use of these empirical  
3           findings. The ECAPM estimates the cost of capital with the equation:

$$4 \qquad K = R_F + \alpha + \beta \times (MRP - \alpha)$$

5           where  $\alpha$  is the "alpha" of the risk-return line, a constant, MRP is the market risk  
6           premium ( $R_M - R_F$ ), and the other symbols are defined as usual. Inserting the  
7           long-term risk-free rate as a proxy for the risk-free rate, an alpha in the range of  
8           1% - 2%, and reasonable values of beta and the MRP in the above equation  
9           produces results that are indistinguishable from the following ECAPM  
10          expression:

$$11 \qquad K = R_F + 0.25 (R_M - R_F) + 0.75 \beta (R_M - R_F)$$

12          An alpha range of 1% - 2% is somewhat lower than that estimated  
13          empirically. The use of a lower value for alpha leads to a lower estimate of the  
14          cost of capital for low-beta stocks such as regulated utilities. This is because

**ROGER A. MORIN DIRECT**

1 the use of a long-term risk-free rate rather than a short-term risk-free rate already  
2 incorporates some of the desired effect of using the ECAPM. That is, the long-  
3 term risk-free rate version of the CAPM has a higher intercept and a flatter  
4 slope than the short-term risk-free version which has been tested. This is also  
5 because the use of adjusted betas rather than raw betas also incorporate some  
6 of the desired effect of using the ECAPM. Thus, it is reasonable to apply a  
7 conservative alpha adjustment.

8 **Q. IS THE USE OF THE ECAPM CONSISTENT WITH THE USE OF**  
9 **ADJUSTED BETAS?**

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

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1 Referring back to the previous graph, the ECAPM is a return (vertical axis)  
2 adjustment and not a beta (horizontal axis) adjustment. Both adjustments are  
3 necessary. Moreover, the use of adjusted betas compensates for interest rate  
4 sensitivity of utility stocks not captured by unadjusted betas.

5 Appendix A contains a full discussion of the ECAPM, including its  
6 theoretical and empirical underpinnings. In short, the following equation provides  
7 a viable approximation to the observed relationship between risk and return, and  
8 provides the following cost of equity capital estimate:

$$9 \quad K = R_F + 0.25 (R_M - R_F) + 0.75 \beta (R_M - R_F)$$

10 Inserting 5.0% for the risk-free rate  $R_F$ , a market risk premium of 7.5% for  
11  $(R_M - R_F)$  and a beta of 0.85 in the above equation, the return on common equity  
12 is 11.7% without flotation costs and 12.0% with flotation costs.

13 **B. Risk Premium Estimates**

14 **Q. PLEASE DESCRIBE YOUR HISTORICAL RISK PREMIUM ANALYSIS**  
15 **OF THE ELECTRIC UTILITY INDUSTRY.**

16 **A.** As a proxy for the risk premium applicable to DEK, I estimated the historical risk  
17 premium for the electric utility industry with an annual time series analysis  
18 applied to the electric utility industry as a whole, using Moody's Electric Utility  
19 Index as an industry proxy. The analysis is depicted on Exhibit RAM-3. The risk  
20 premium was estimated by computing the actual return on equity capital for  
21 Moody's Index for each year, using the actual stock prices and dividends of the  
22 index, and then subtracting the long-term government bond return for that year.

23 The average risk premium over the period was 5.6% over long-term

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1 Treasury bonds. Given that long-term Treasury bonds are currently yielding  
2 5.0%, the implied cost of equity for the average risk electric utility from this  
3 particular method is  $5.0\% + 5.6\% = 10.6\%$  without flotation costs and 10.9% with  
4 flotation costs. The need for a flotation cost allowance is discussed at length later  
5 in my testimony. I note that over most of this lengthy historical period, both the  
6 T&D and generation businesses were indistinguishable in risk, that is, were fully  
7 integrated regulated monopolies subject to the regulatory compact.

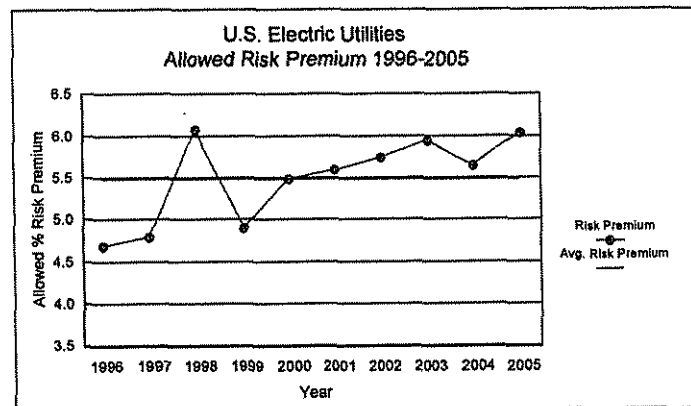
8 The historical risk premium analysis for the electric utility industry stops  
9 in 2001 because the annual Moody's Public Utility Manual from which the data  
10 were drawn was discontinued following the acquisition of Moody's by Mergent in  
11 2002. In view of the rising risk premium allowed by regulators documented in  
12 the next section of my testimony, it would not be unreasonable to expect that the  
13 current utility risk premium exceeds the historical average. I did examine some  
14 more recent historical bond return and equity return data based on the S&P Utility  
15 Index instead of Moody's Electric Utility Index. The addition of 2002-2005 data  
16 actually raises the historical risk premium slightly. This is not surprising in view  
17 of the rising utility equity market during the 2003-2005 period.

18 **C. Allowed Risk Premiums**

19 **Q. PLEASE DESCRIBE YOUR ANALYSIS OF ALLOWED RISK**  
20 **PREMIUMS IN THE ELECTRIC UTILITY INDUSTRY.**

21 **A.** To estimate the Company's cost of common equity, I also examined the historical  
22 risk premiums implied in the returns on equity allowed by regulatory  
23 commissions for electric utilities over the last decade relative to the

1 contemporaneous level of the long-term Treasury bond yield. The allowed equity  
 2 returns are reported on a quarterly basis by Regulatory Research Associates. The  
 3 average common equity return spread over long-term Treasury yields was 5.5%  
 4 for the 1996-2005 time period, as shown by the horizontal line in the graph below.  
 5 The graph also shows the year-by-year allowed risk premium. As indicated by  
 6 the rising arrow on the graph, the escalating trend of the risk premium in response  
 7 to lower interest rates and rising competition and restructuring is noteworthy.



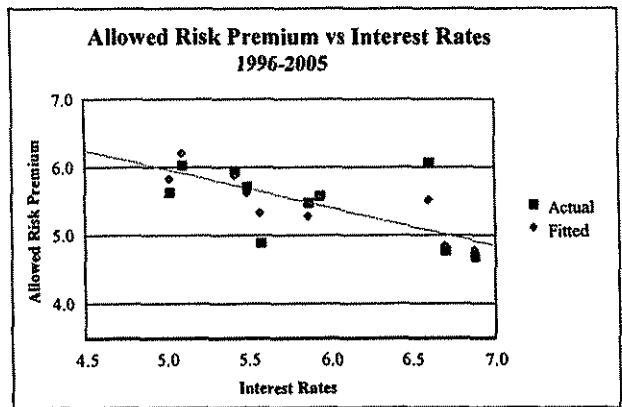
8  
 9 A careful review of these common equity decisions relative to interest rate  
 10 trends reveals a narrowing of the risk premium in times of rising interest rates,  
 11 and a widening of the premium as interest rates fall. The following statistical  
 12 relationship between the risk premium (RP) and interest rates (YIELD) emerges  
 13 over the last decade:

14 
$$RP = 9.1508 - 0.6505 \text{ YIELD} \quad R^2 = 0.74$$

15 
$$(t = 4.7)$$

**ROGER A. MORIN DIRECT**

1                   The relationship is highly statistically significant<sup>8</sup> as indicated by the high  
2                   R<sup>2</sup> and statistically significant t-value of the slope coefficient. The figure below  
3                   shows a clear inverse relationship between the allowed risk premium and interest  
4                   rates as revealed in past common equity decisions.



5  
6                   Inserting the current long-term Treasury bond yield of 5.0% in the above  
7                   equation suggests that a risk premium estimate of 5.9% should be allowed for the  
8                   average risk electric utility, implying a cost of equity of 10.9% for the average  
9                   risk utility.

10                   **DCF Estimates**

---

<sup>8</sup> The coefficient of determination R<sup>2</sup>, sometimes called the “goodness of fit measure” is a measure of the degree of explanatory power of a statistical relationship. It is simply the ratio of the explained portion to the total sum of squares. The higher R<sup>2</sup> the higher is the degree of the overall fit of the estimated regression equation to the sample data. The t-statistic is a standard measure of the statistical significance of an independent variable in a regression relationship. A t-value above 2.0 is considered highly significant.

1 Q. PLEASE DESCRIBE THE DCF APPROACH TO ESTIMATING THE  
2 COST OF EQUITY CAPITAL.

3 A. According to DCF theory, the value of any security to an investor is the expected  
4 discounted value of the future stream of dividends or other benefits. One widely  
5 used method to measure these anticipated benefits in the case of a non-static  
6 company is to examine the current dividend plus the increases in future dividend  
7 payments expected by investors. This valuation process can be represented by the  
8 following formula, which is the traditional DCF model:

$$9 \quad K_e = D_1/P_o + g$$

10 where:  $K_e$  = investors' expected return on equity

11  $D_1$  = expected dividend at the end of the coming year

12  $P_o$  = current stock price

13  $g$  = expected growth rate of dividends, earnings, book value,  
14 stock price

15 The traditional DCF formula states that under certain assumptions, which  
16 are described in the next paragraph, the equity investor's expected return,  $K_e$ , can  
17 be viewed as the sum of an expected dividend yield,  $D_1/P_o$ , plus the expected  
18 growth rate of future dividends and stock price,  $g$ . The returns anticipated at a  
19 given market price are not directly observable and must be estimated from  
20 statistical market information. The idea of the market value approach is to infer  
21 ' $K_e$ ' from the observed share price, the observed dividend, and an estimate of  
22 investors' expected future growth.

23 The assumptions underlying this valuation formulation are well known,



1 and are discussed in detail in Chapter 4 of my reference book, *Regulatory*  
2 *Finance*. The traditional DCF model requires the following main assumptions: a  
3 constant average growth trend for both dividends and earnings, a stable dividend  
4 payout policy, a discount rate in excess of the expected growth rate, and a  
5 constant price-earnings multiple, which implies that growth in price is  
6 synonymous with growth in earnings and dividends. The traditional DCF model  
7 also assumes that dividends are paid at the end of each year when in fact dividend  
8 payments are normally made on a quarterly basis.

9 **Q. IS THE CONSTANT GROWTH DCF MODEL APPLICABLE UNDER**  
10 **ALL CIRCUMSTANCES?**

11 A. No, it is not, as I discussed earlier in my testimony. For companies in a mature  
12 industry, such as the electric utility industry had been until recent years, a  
13 constant growth rate is a reasonable assumption. For companies in a more  
14 dynamic evolving industry, such as the electric utility business, this assumption  
15 may not be reasonable; the dividend growth rate may be expected to converge  
16 only over time toward a steady-state long-run level.

17 **Q. HOW DID YOU ESTIMATE DEK'S COST OF EQUITY WITH THE DCF**  
18 **MODEL?**

19 A. I applied the DCF model to three proxies for DEK: the parent company Duke, a  
20 group of vertically integrated electric utilities, and a group consisting of the  
21 electric utilities that make up Moody's electric utilities index.

22 In order to apply the DCF model, two components are required: the  
23 expected dividend yield ( $D_1/P_0$ ) and the expected long-term growth ( $g$ ). The

1 expected dividend  $D_1$  in the annual DCF model can be obtained by multiplying  
2 the current indicated annual dividend rate by the growth factor  $(1 + g)$ .

3 From a conceptual viewpoint, the stock price to employ in calculating the  
4 dividend yield is the current price of the security at the time of estimating the cost  
5 of equity. The reason is that current stock prices provide a better indication of  
6 expected future prices than any other price in an efficient market. An efficient  
7 market implies that prices adjust rapidly to the arrival of new information.  
8 Therefore, current prices reflect the fundamental economic value of a security. A  
9 considerable body of empirical evidence indicates that capital markets are  
10 efficient with respect to a broad set of information. This implies that observed  
11 current prices represent the fundamental value of a security, and that a cost of  
12 capital estimate should be based on current prices.

13 In implementing the DCF model, I have used the dividend yields reported  
14 in the April 2006 edition of Value Line's VLIA. Basing dividend yields on  
15 average results from a large group of companies reduces the concern that vagaries  
16 of individual company stock prices will result in an unrepresentative dividend  
17 yield.

18 **Q. HOW DID YOU ESTIMATE THE GROWTH COMPONENT OF THE**  
19 **DCF MODEL?**

20 A. The principal difficulty in calculating the required return by the DCF approach is  
21 in ascertaining the growth rate that investors currently expect. Since no explicit  
22 estimate of expected growth is observable, proxies must be employed.

23 As proxies for expected growth, I examined growth estimates developed

1 by professional analysts employed by large investment brokerage institutions.  
2 Projected long-term growth rates actually used by institutional investors to  
3 determine the desirability of investing in different securities influence investors'  
4 growth anticipations. These forecasts are made by large reputable organizations,  
5 and the data are readily available to investors and are representative of the  
6 consensus view of investors. Because of the dominance of institutional investors  
7 in investment management and security selection, and their influence on  
8 individual investment decisions, analysts' growth forecasts influence investor  
9 growth expectations and provide a sound basis for estimating the cost of equity  
10 with the DCF model. Growth rate forecasts of several analysts are available from  
11 published investment newsletters and from systematic compilations of analysts'  
12 forecasts, such as those tabulated by Zacks Investment Research Inc. ("Zacks"). I  
13 used analysts' long-term growth forecasts contained in Zacks as proxies for  
14 investors' growth expectations in applying the DCF model. I also used Value  
15 Line's growth forecast as an additional proxy.

16 **Q. WHY DID YOU REJECT THE USE OF HISTORICAL GROWTH RATES**  
17 **IN APPLYING THE DCF MODEL TO ELECTRIC UTILITIES?**

18 A. Columns 1, 2, and 3 of Exhibit RAM-4 display the historical growth in earnings,  
19 dividends, and book value per share over the last five years for the electric utility  
20 companies that make up Value Line's Electric Utility composite group. The  
21 average historical growth rates in earnings, dividends, and book value for the  
22 group are 2.1%, 0.0%, and 3.2% over the past 5 years, respectively. Several  
23 companies have experienced a negative earnings growth rate, as evidenced by the

**ROGER A. MORIN DIRECT**

1 numerous historical growth rates reported on the table that are negative.

2 These historical growth rates have little relevance as proxies for future  
3 long-term growth at this time. They are downward-biased by the sluggish  
4 earnings performance in the last five years, due to the structural transformation of  
5 the electric utility industry from a regulated monopoly to a more competitive  
6 environment. Several electric utility companies have experienced earnings  
7 growth rate. The industry as a whole has experienced zero dividend growth over  
8 the past five years. These anemic historical growth rates are certainly not  
9 representative of these companies' long-term earning power, and produce  
10 unreasonably low DCF estimates, well outside reasonable limits of probability  
11 and common sense. To illustrate, adding the historical growth rates of 2.1%,  
12 0.0%, and 3.2% to the average dividend yield of approximately 4.0% prevailing  
13 currently for those same companies, produces preposterous cost of equity  
14 estimates of 6.1%, 4.0%, and 7.2%, using earnings, dividends, and book value  
15 growth rates, respectively. Of course, these estimates of equity costs are  
16 outlandish as they are less than the cost of long-term debt for these companies.

17 I have therefore rejected historical growth rates as proxies for expected  
18 growth in the DCF calculation. In any event, historical growth rates are  
19 somewhat redundant because such historical growth patterns are already  
20 incorporated in analysts' growth forecasts that should be used in the DCF model.

21 **Q. DID YOU CONSIDER DIVIDEND GROWTH PROXIES IN APPLYING**  
22 **THE DCF MODEL?**

23 **A.** No, I did not. This is because it is widely expected that electric utilities will

1 continue to lower their dividend payout ratio over the next several years in  
2 response to the gradual penetration of competition and its potential impact on the  
3 revenue stream. In other words, earnings and dividends are not expected to grow  
4 at the same rate in the future. According to the latest edition of Value Line, the  
5 expected dividend growth of 2.7% for the electric utility industry, as proxied by  
6 Moody's Electric Utility Index companies, is significantly less than the expected  
7 earnings growth of 5.4% over the next few years.

8 Whenever the dividend payout ratio is expected to change, the  
9 intermediate growth rate in dividends cannot equal the long-term growth rate,  
10 because dividend/earnings growth must adjust to the changing payout ratio. The  
11 assumptions of constant perpetual growth and constant payout ratio are clearly not  
12 met. The implementation of the standard DCF model is of questionable relevance  
13 in this circumstance.

14 Dividend growth rates are unlikely to provide a meaningful guide to  
15 investors' growth expectations for electric utilities in general. This is because  
16 electric utilities' dividend policies have become increasingly conservative as  
17 business risks in the industry have intensified steadily. Dividend growth has  
18 remained largely stagnant in past years as utilities are increasingly conserving  
19 financial resources in order to hedge against rising business risks. To wit, the  
20 dividend payout ratios of energy utilities has steadily decreased from about 80%  
21 ten years ago to the 60% level today. As a result, investors' attention has shifted  
22 from dividends to earnings. Therefore, earnings growth provides a more  
23 meaningful guide to investors' long-term growth expectations. After all, it is

**ROGER A. MORIN DIRECT**

1 growth in earnings that will support future dividends and share prices.

2 **Q. IS THERE ANY EMPIRICAL EVIDENCE DOCUMENTING THE**  
3 **IMPORTANCE OF EARNINGS IN EVALUATING INVESTORS'**  
4 **EXPECTATIONS IN THE INVESTMENT COMMUNITY?**

5 A. Yes, there is an abundance of evidence attesting to the importance of earnings in  
6 assessing investors' expectations. First, the sheer volume of earnings forecasts  
7 available from the investment community relative to the scarcity of dividend  
8 forecasts attests to their importance. To illustrate, Value Line, Zacks Investment,  
9 First Call Thompson, Yahoo Finance, and Multex provide comprehensive  
10 compilations of investors' earnings forecasts, to name some. The fact that these  
11 investment information providers focus on growth in earnings rather than growth  
12 in dividends indicates that the investment community regards earnings growth as  
13 a superior indicator of future long-term growth. Second, surveys of analytical  
14 techniques actually used by analysts reveal the dominance of earnings and  
15 conclude that earnings are considered far more important than dividends. Third,  
16 Value Line's principal investment rating assigned to individual stocks, Timeliness  
17 Rank, is based primarily on earnings, accounting for 65% of the ranking.

18 **Q. PLEASE DESCRIBE YOUR FIRST PROXY GROUP FOR THE**  
19 **COMPANY'S VERTICALLY INTEGRATED ELECTRIC UTILITY**  
20 **BUSINESS?**

21 A. As a first proxy for the Company's vertically integrated electric utility business, I  
22 examined a group of investment-grade utilities designated as "integrated" utilities  
23 by S&P in a recent comprehensive analysis of utility business risks. The original

1 group is shown on Pages 1 - 3 of Exhibit RAM-5, and includes electricity and  
2 natural gas utility operating companies engaged in predominantly integrated  
3 utility activities. Foreign companies, private partnerships, private companies, and  
4 companies below investment-grade, that is, companies with a bond rating below  
5 Baa3, were eliminated as well as those companies without Value Line coverage.  
6 Page 4 of Exhibit RAM-5 narrows the group down to include only the parent  
7 companies of investment-grade vertically integrated electric utilities. Two  
8 companies whose market capitalization was less than \$500 million (Central  
9 Vermont, Green Mountain Power) were also eliminated in order to minimize any  
10 stock price anomalies due to thin trading. The remaining sample of 38 companies  
11 is made up of the parent company of these electric utility companies as shown on  
12 Page 5 of Exhibit RAM-5. The final group of 26 companies only includes those  
13 companies with at least 50% of their revenues from regulated electric utility  
14 operations. The same group was discussed earlier in connection with beta  
15 estimates and is retained for the DCF analysis.

16 **Q. WHAT DCF RESULTS DID YOU OBTAIN FOR THE VERTICALLY**  
17 **INTEGRATED ELECTRIC UTILITY GROUP USING VALUE LINE**  
18 **GROWTH PROJECTIONS?**

19 A. For purposes of conducting the DCF analysis, as shown on Page 1 of Exhibit  
20 RAM-6, two companies (Allete, and Progress Energy) for which no growth  
21 forecast was available were discarded. One non-dividend paying company, El  
22 Paso Electric, was discarded also. PG&E was eliminated on account of its  
23 extraordinary outlying growth rate.

ROGER A. MORIN DIRECT

1           As shown on Column 2 of page 2 of Exhibit RAM-6, the average long-  
2 term growth forecast obtained from Value Line is 5.7% for this group. Adding  
3 this growth rate to the average expected dividend yield of 4.3% shown in Column  
4 3 produces an estimate of equity costs of 10.0% for the group. Recognition of  
5 flotation costs brings the cost of equity estimate to 10.2%, shown in Column 5.

6 **Q. WHAT DCF RESULTS DID YOU OBTAIN FOR THE VERTICALLY**  
7 **INTEGRATED ELECTRIC UTILITY UTILITIES GROUP USING THE**  
8 **ANALYSTS' CONSENSUS GROWTH FORECAST?**

9 A. From the original sample of 26 companies shown on page 1 of Exhibit RAM-7,  
10 Empire District and MGE Energy were eliminated as no analysts' growth  
11 forecasts were available from Zacks. One non-dividend paying company, El Paso  
12 Electric, was discarded also. For the remaining 22 companies shown on page 2 of  
13 Exhibit RAM-7, using the consensus analysts' earnings growth forecast published  
14 by Zacks of 5.8% instead of the Value Line forecast, the cost of equity for the  
15 group is 10.1% unadjusted for flotation cost. Recognition of flotation costs brings  
16 the cost of equity estimate to 10.3%, shown in Column 5, virtually the same result  
17 obtained using the Value Line growth forecasts.

18 **Q. WHAT DCF RESULTS DID YOU OBTAIN FOR DEK'S PARENT**  
19 **COMPANY?**

20 A. The DCF results for DEK's parent company can be gleaned from Exhibits RAM-  
21 6 and RAM-7. As shown at the bottom of Exhibit RAM-7 Page 2, Column 2, the  
22 long-term growth forecast obtained from the Zacks corporate earnings database is  
23 6.0% for Duke. Combining this growth rate with the expected dividend yield of



1 4.6% shown in Column 3 produces an estimate of equity costs of 10.6%.  
2 Recognition of flotation costs brings the cost of equity estimate to 10.8%, shown  
3 in Column 5.

4 Repeating the exact same procedure, only this time using Value Line's  
5 long-term earnings growth forecast of 8.5% instead of the Zacks consensus  
6 growth forecast, the cost of equity for Duke is 13.2%, unadjusted for flotation  
7 costs. Adding an allowance for flotation costs brings the cost of equity estimate  
8 to 13.4%. This analysis is displayed at the bottom of Exhibit RAM-6, Page 2.  
9 The average of the two Duke-specific DCF estimates is 12.1%.

10 **Q. WHAT DCF RESULTS DID YOU OBTAIN FOR MOODY'S ELECTRIC**  
11 **UTILITIES GROUP?**

12 A. Page 1 of Exhibit RAM-8 displays the electric utilities that make up Moody's  
13 Electric Utility Index. Progress Energy for which no growth forecast was  
14 available was eliminated from the group, along with DPL Inc on account of its  
15 outlying DCF estimate which was far less than the cost of debt. Public Service  
16 Enterprise Group and Cinergy were discarded on account of ongoing merger  
17 activity. As shown on Column 2 of page 3 of Exhibit RAM-8, the average long-  
18 term growth forecast obtained from Value Line is 5.9% for this group. Adding  
19 this growth rate to the average expected dividend yield of 4.4% shown in Column  
20 3 produces an estimate of equity costs of 10.4% for the group, unadjusted for  
21 flotation costs. Adding an allowance for flotation costs to the results of Column 4  
22 brings the cost of equity estimate to 10.6%, shown in Column 5.

23 Using the consensus analysts' growth forecast from Zacks instead of the

1 Value Line growth forecast, the cost of equity for the Moody's group is 10.4%.  
2 This analysis is displayed on Pages 1 and 2 of Exhibit RAM-9. No growth  
3 projections were available for CH Energy and Duquesne Light, and those  
4 companies were therefore eliminated from the group. Public Service Enterprise  
5 and Cinergy were also discarded on account of ongoing merger activity.

6 **Q. DO DCF RESULTS GENERALLY UNDERSTATE THE COST OF**  
7 **EQUITY?**

8 A. Yes, they do. Application of the standard DCF model produces estimates of  
9 common equity cost that are consistent with investors' expected return only when  
10 stock prices and book values are reasonably similar, that is, when the M/B ratio is  
11 close to unity. As shown below, application of the standard DCF model to utility  
12 stocks understates the investor's expected return when the M/B ratio of a given  
13 stock exceeds unity. This is particularly relevant in the current capital market  
14 environment where electric utility stocks are trading at M/B ratios well above  
15 unity and have been for two decades. The converse is also true, that is, the DCF  
16 model overstates the investor's return when the stock's M/B ratio is less than  
17 unity. The reason for the distortion is that the DCF market return is applied to a  
18 book value rate base by the regulator, that is, a utility's earnings are limited to  
19 earnings on a book value rate base.

20 **Q. CAN YOU ILLUSTRATE THE EFFECT OF THE M/B RATIO ON THE**  
21 **DCF MODEL BY MEANS OF A SIMPLE EXAMPLE?**

22 A. Yes. The simple numerical illustration shown in the table below demonstrates the  
23 result of applying a market value cost rate to a book value rate base under three

1 different M/B scenarios. The three columns correspond to three M/B situations:  
 2 the stock trades below, equal to, and above book value, respectively. The last  
 3 situation (bolded portion of the table) is noteworthy and representative of the  
 4 current capital market environment. The DCF cost rate of 10%, made up of a 5%  
 5 dividend yield and a 5% growth rate, is applied to the book value rate base of \$50  
 6 to produce \$5.00 of earnings. Of the \$5.00 of earnings, the full \$5.00 is required  
 7 for dividends to produce a dividend yield of 5% on a stock price of \$100.00, and  
 8 no dollars are available for growth. The investor's return is therefore only 5%  
 9 versus his required return of 10%. A DCF cost rate of 10%, which implies \$10.00  
 10 of earnings, translates to only \$5.00 of earnings on book value, a 5% return.

11 The situation is reversed in the first column when the stock trades below  
 12 book value. The \$5.00 of earnings is more than enough to satisfy the investor's  
 13 dividend requirements of \$1.25, leaving \$3.75 for growth, for a total return of  
 14 20%. This is because the DCF cost rate is applied to a book value rate base well  
 15 above the market price.

16 Therefore, the DCF cost rate understates the investor's required return  
 17 when stock prices are well above book, as is the case presently and has been for  
 18 several years, and understates the cost of common equity capital.

19 **Effect of M/B Ratio on Market Return**

	<u>CASE 1</u>	<u>CASE 2</u>	<u>CASE 3</u>
1 Initial purchase price	\$25.00	\$50.00	\$100.00
2 Initial book value	\$50.00	\$50.00	\$50.00
3 Initial M/B	0.50	1.00	2.00
4 DCF Return 10% = 5% + 5%	10.00%	10.00%	10.00%
5 Dollar Return	\$5.00	\$5.00	\$5.00
6 Dollar Dividends 5% Yield	\$1.25	\$4.00	\$4.00
7 Dollar Growth 5% Growth	\$3.75	\$1.00	\$1.00
8 <b>Market Return</b>	<b>20.00%</b>	<b>10.00%</b>	<b>5.00%</b>

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1           **E.    Need For Flotation Cost Adjustment**

2   **Q.   PLEASE DESCRIBE THE NEED FOR A FLOTATION COST**  
3       **ALLOWANCE.**

4   **A.**   All the market-based estimates reported above include an adjustment for flotation  
5       costs. The simple fact of the matter is that common equity capital is not free.  
6       Flotation costs associated with stock issues are exactly like the flotation costs  
7       associated with bonds and preferred stocks. Flotation costs are not expensed at  
8       the time of issue, and therefore must be recovered via a rate of return adjustment.  
9       This is done routinely for bond and preferred stock issues by most regulatory  
10      commissions, including FERC. Clearly, the common equity capital accumulated  
11      by the Company is not cost-free. The flotation cost allowance to the cost of  
12      common equity capital is discussed and applied in most corporate finance  
13      textbooks; it is unreasonable to ignore the need for such an adjustment.

14             Flotation costs are very similar to the closing costs on a home mortgage.  
15      In the case of issues of new equity, flotation costs represent the discounts that  
16      must be provided to place the new securities. Flotation costs have a direct and an  
17      indirect component. The direct component is the compensation to the security  
18      underwriter for his marketing/consulting services, for the risks involved in  
19      distributing the issue, and for any operating expenses associated with the issue  
20      (printing, legal, prospectus, etc.). The indirect component represents the  
21      downward pressure on the stock price as a result of the increased supply of stock  
22      from the new issue. The latter component is frequently referred to as "market  
23      pressure."

1           Investors must be compensated for flotation costs on an ongoing basis to  
2           the extent that such costs have not been expensed in the past, and therefore the  
3           adjustment must continue for the entire time that these initial funds are retained in  
4           the firm. Appendix B to my testimony discusses flotation costs in detail, and  
5           shows: (1) why it is necessary to apply an allowance of 5% to the dividend yield  
6           component of equity cost by dividing that yield by 0.95 (100% - 5%) to obtain the  
7           fair return on equity capital; (2) why the flotation adjustment is permanently  
8           required to avoid confiscation even if no further stock issues are contemplated;  
9           and (3) that flotation costs are only recovered if the rate of return is applied to  
10          total equity, including retained earnings, in all future years.

11           By analogy, in the case of a bond issue, flotation costs are not expensed  
12          but are amortized over the life of the bond, and the annual amortization charge is  
13          embedded in the cost of service. The flotation adjustment is also analogous to the  
14          process of depreciation, which allows the recovery of funds invested in utility  
15          plant. The recovery of bond flotation expense continues year after year,  
16          irrespective of whether the Company issues new debt capital in the future, until  
17          recovery is complete, in the same way that the recovery of past investments in  
18          plant and equipment through depreciation allowances continues in the future even  
19          if no new construction is contemplated. In the case of common stock that has no  
20          finite life, flotation costs are not amortized. Thus, the recovery of flotation cost  
21          requires an upward adjustment to the allowed return on equity.

22           A simple example will illustrate the concept. A stock is sold for \$100, and  
23          investors require a 10% return, that is, \$10 of earnings. But if flotation costs are

1           5%, the Company nets \$95 from the issue, and its common equity account is  
2           credited by \$95. In order to generate the same \$10 of earnings to the  
3           shareholders, from a reduced equity base, it is clear that a return in excess of 10%  
4           must be allowed on this reduced equity base, here 10.52%.

5           According to the empirical finance literature discussed in Appendix B,  
6           total flotation costs amount to 4% for the direct component and 1% for the market  
7           pressure component, for a total of 5% of gross proceeds. This in turn amounts to  
8           approximately 30 basis points, depending on the magnitude of the dividend yield  
9           component. To illustrate, dividing the average expected dividend yield of around  
10          5.0% for utility stocks by 0.95 yields 5.3%, which is 30 basis points higher.

11          Sometimes, the argument is made that flotation costs are real and should  
12          be recognized in calculating the fair return on equity, but only at the time when  
13          the expenses are incurred. In other words, the flotation cost allowance should not  
14          continue indefinitely, but should be made in the year in which the sale of  
15          securities occurs, with no need for continuing compensation in future years. This  
16          argument is valid only if the Company has already been compensated for these  
17          costs. If not, the argument is without merit. My own recommendation is that  
18          investors be compensated for flotation costs on an on-going basis rather than  
19          through expensing, and that the flotation cost adjustment continue for the entire  
20          time that these initial funds are retained in the firm.

21          There are several sources of equity capital available to a firm including:  
22          common equity issues, conversions of convertible preferred stock, dividend  
23          reinvestment plan, employees' savings plan, warrants, and stock dividend

1 programs. Each carries its own set of administrative costs and flotation cost  
2 components, including discounts, commissions, corporate expenses, offering  
3 spread, and market pressure. The flotation cost allowance is a composite factor  
4 that reflects the historical mix of sources of equity. The allowance factor is a  
5 build-up of historical flotation cost adjustments associated and traceable to each  
6 component of equity at its source. It is impractical and prohibitively costly to  
7 start from the inception of a company and determine the source of all present  
8 equity. A practical solution is to identify general categories and assign one factor  
9 to each category. My recommended flotation cost allowance is a weighted  
10 average cost factor designed to capture the average cost of various equity vintages  
11 and types of equity capital raised by the Company.

12 **Q. IS A FLOTATION COST ADJUSTMENT REQUIRED FOR AN**  
13 **OPERATING SUBSIDIARY LIKE DEK THAT DOES NOT TRADE**  
14 **PUBLICLY?**

15 A. Yes, it is. It is sometimes alleged that a flotation cost allowance is inappropriate  
16 if the utility is a subsidiary whose equity capital is obtained from its ultimate  
17 parent, in this case, Duke. This objection is unfounded since the parent-  
18 subsidiary relationship does not eliminate the costs of a new issue, but merely  
19 transfers them to the parent. It would be unfair and discriminatory to subject  
20 parent shareholders to dilution while individual shareholders are absolved from  
21 such dilution. Fair treatment must consider that, if the utility-subsubsidiary had gone  
22 to the capital markets directly, flotation costs would have been incurred.

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**IV. SUMMARY AND RECOMMENDATION ON COST OF EQUITY**

1 **Q. PLEASE SUMMARIZE YOUR RESULTS AND RECOMMENDATION.**

2 A. To arrive at my final recommendation, I performed four risk premium analyses.  
3 For the first two risk premium studies, I applied the CAPM and an empirical  
4 approximation of the CAPM using current market data. The other two risk  
5 premium analyses were performed on historical and allowed risk premium data  
6 from electric utility industry aggregate data, using the current and forecast yields  
7 on long-term Treasury bonds. I also performed DCF analyses on three surrogates  
8 for DEK: the parent company, a group of vertically integrated electric utilities,  
9 and a group of companies that make up Moody's Electric Utility Index. The  
10 results are summarized in the table below.

11	STUDY	ROE
12		
13	CAPM	11.7%
14	Empirical CAPM	12.0%
15	Risk Premium Electric Utility	10.9%
16	Allowed Risk Premium	10.9%
17	DCF Integrated Elec Utility Zacks Growth	10.1%
18	DCF Integrated Elec Utility Value Line Growth	10.1%
19	DCF Duke Energy	12.1%
20	DCF Moody's Electrics Zacks Growth	10.4%
21	DCF Moody's Electrics Value Line Growth	10.6%

22 The results range from a low of 10.2% to a high of 12.1%, with a midpoint  
23 of 11.2%. Yet another way of presenting the results is on a methodological basis.  
24 The average result from the three principal methodologies is as follows:

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1	CAPM	11.9%
2	Risk Premium	10.9%
3	DCF	10.7%
4		<hr/>
5	AVERAGE	11.2%

6           The overall average result is 11.2%, and the various results are closely  
7 clustered around 11.2%. Placing slightly less weight on the DCF results, the  
8 central result is 11.25%. I stress that no one individual method provides an  
9 exclusive foolproof formula for determining a fair return, but each method  
10 provides useful evidence so as to facilitate the exercise of an informed judgment.  
11 Reliance on any single method or preset formula is hazardous when dealing with  
12 investor expectations. Moreover, the advantage of using several different  
13 approaches is that the results of each one can be used to check the others. Thus,  
14 the results shown in the above table must be viewed as a whole rather than each as  
15 a stand-alone. It would be inappropriate to select any particular number from the  
16 summary table and infer DEK's equity costs from that number alone.

17 **Q. DID YOU CONSIDER ANY OTHER FACTORS IN MAKING YOUR**  
18 **COST OF EQUITY CAPITAL RECOMMENDATION?**

19 A. Yes, I did. I considered the fact that the yields on 30-year Treasury bonds have  
20 been rising since I performed my studies and are forecast to continue rising. The  
21 level of 30-year long term bond yields forecast by Value Line in its quarterly  
22 economic forecast dated May 2006 edition is 5.2%, slightly higher than the 5.0%  
23 rate reported in the April 2006 edition of this report, which I used to determine the  
24 risk-free rate of return.

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1 I also considered several risk factors relating to DEK's electric operations.  
2 I reviewed the testimony of Mr. Roebel and Mr. Esamann, and I reviewed  
3 Kentucky's Fuel Adjustment Clause regulation at 807 KAR 5:056. As Mr.  
4 Roebel discusses, DEK's generating assets are highly concentrated. To illustrate,  
5 the baseload East Bend plant is a very large component of DEK's total capacity.

6 My understanding of Kentucky's Fuel Adjustment Clause regulation is  
7 that the Company cannot recover through the Fuel Adjustment Clause for the  
8 costs of back-up supply occasioned by forced outages from causes such as faulty  
9 equipment, manufacture, or design. If a given plant has a sustained forced outage  
10 and if DEK is forced to obtain replacement power at spot market prices for a  
11 prolonged period, then DEK's inability to timely recover these costs through the  
12 Fuel Adjustment Clause increases financial risk. There is uncertainty as to  
13 whether the Commission will allow DEK retail rate recovery for back-up supply  
14 costs at current market prices. There is also uncertainty surrounding DEK's  
15 prospects for securing a long-term back-up supply, especially given the high  
16 degree of concentration in a few generating plants.

17 In reaching my recommended return of a range of 11.25% to 11.50%, I  
18 considered all of these factors, in addition to the results of my cost of equity  
19 capital studies discussed above.

20 **Q. DR. MORIN, WHAT IS YOUR FINAL CONCLUSION REGARDING**  
21 **DEK'S COST OF EQUITY CAPITAL?**

22 **A.** Based on the results of all my analyses and the application of my professional  
23 judgment, it is my opinion that a just and reasonable return on common equity lies

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1 in a range of 11.25% to 11.50%.

2 **Q. IS THERE A RELATIONSHIP BETWEEN FINANCIAL RISK AND THE**  
3 **AUTHORIZED RETURN ON EQUITY?**

4 A. There certainly is. A low authorized return on equity increases the likelihood the  
5 utility will have to rely increasingly on debt financing for its capital needs. This  
6 creates the specter of a spiraling cycle that further increases risks to both equity  
7 and debt investors; the resulting increase in financing costs is ultimately borne by  
8 the utility's customers through higher capital costs and rates of returns.

9 **Q. WHAT CAPITAL STRUCTURE ASSUMPTION UNDERLIES YOUR**  
10 **RECOMMENDED RETURN ON DEK'S COMMON EQUITY CAPITAL?**

11 A. My recommended return on common equity for DEK is predicated on the  
12 adoption of the Company's test year capital structure consisting of 50.9%  
13 common equity capital.

14 **Q. DID YOU EXAMINE THE REASONABLENESS OF THE COMPANY'S**  
15 **TEST YEAR CAPITAL STRUCTURE?**

16 A. Yes, I did. I have compared DEK's test year capital structure with the capital  
17 structures of comparable risk investor-owned vertically integrated electric  
18 utilities. As shown on Exhibit RAM-10, the average and median common equity  
19 ratio of comparable risk investment-grade integrated electric utilities, the same  
20 group of companies used earlier in my testimony when applying the DCF model,  
21 are 49% and 51%, respectively, nearly identical to the Company's test year capital  
22 structure.

23 I have also compared the Company's test year common equity ratio of

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1 50.9% to the capital structure benchmark contained in Standard and Poor's  
2 ("S&P") Rating Criteria for electric utilities. DEK is assigned a Business Risk  
3 Position of 5.0 by S&P on a scale of 1.0 to 10.0, with 1.0 being the least risky and  
4 10.0 the most risky. For a utility with a Business Risk Position of 5.0, the debt  
5 ratio benchmark for a single "A" bond rating, which I consider optimal for both  
6 ratepayers and utility investors, is 42% – 50%, that is, an equity benchmark of  
7 50% - 58% versus the Company's 50.9% common equity. The Company's  
8 common equity ratio barely lies within the range for a single "A" bond rating.  
9 The benchmark for a BBB bond rating is 50% – 60%, that is, an equity  
10 benchmark of 40% - 50% versus the Company's 50.9% common equity. For a  
11 BBB bond rating, the Company's common equity ratio lies within the upper  
12 portion of the range.

13 If the Commission imputes a capital structure consisting of substantially  
14 more (less) debt than the test year capital structure, the higher (lower) common  
15 equity cost rate related to a changed common equity ratio should be reflected in  
16 the approach. If the Commission ascribes a capital structure different from the  
17 test year capital structure, which imputes a higher debt amount for example, the  
18 repercussions on equity costs must be recognized. It is a rudimentary tenet of  
19 basic finance that the greater the amount of financial risk borne by common  
20 shareholders, the greater the return required by shareholders in order to be  
21 compensated for the added financial risk imparted by the greater use of senior  
22 debt financing. In other words, the greater the debt ratio, the greater is the return  
23 required by equity investors. Both the cost of incremental debt and the cost of

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1 equity must be adjusted to reflect the additional risk associated with the more  
2 debt-heavy capital structure. Lower common equity ratios imply greater risk and  
3 higher capital cost, and conversely.

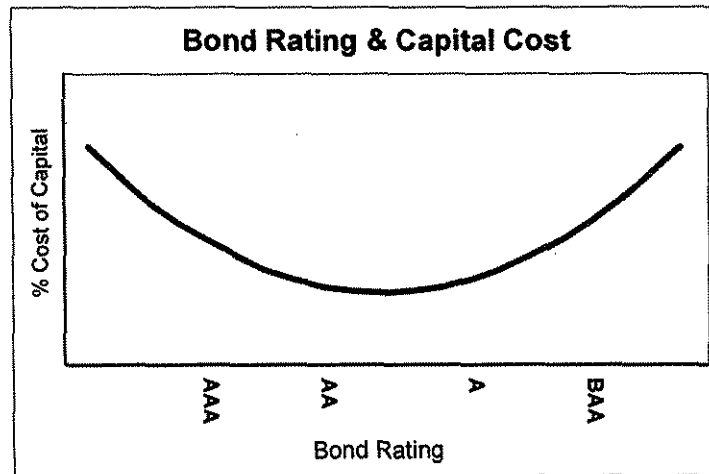
4 **Q. DR. MORIN, YOU MENTIONED EARLIER THE NEED FOR AN**  
5 **OPTIMAL BOND RATING OF SINGLE A. COULD YOU ELABORATE**  
6 **ON THAT POINT?**

7 A. Yes, certainly. It is in both ratepayers' and investors' interest that a regulated  
8 utility be financially sound and have the credit rating and financial flexibility  
9 needed to (1) cope with the increased operational challenges in today's much  
10 more volatile industry environment; (2) pursue initiatives to further increase  
11 performance, and (3) finance in a timely and cost effective fashion the significant  
12 infrastructure investment needs faced in DEK's service territory.

13 In the utility regulation context, the idea of an optimal strong "A" bond  
14 rating for a utility's senior securities is widely supported. That is why the vast  
15 majority of utilities in North America migrate to such a bond rating.

16 I have performed several studies and I have frequently testified on the  
17 optimal capital structure for various utilities. One common theme in these studies  
18 and testimonies is the desirability of a strong "A" bond rating from both the  
19 ratepayers' and investors' standpoint. Chapter 19 of my book *Regulatory Finance*  
20 describes a capital structure simulation model for electric utilities using market  
21 data prior to industry restructuring. The graph below illustrates the major finding  
22 of the model, and demonstrates how the cost of capital changes as the debt ratio  
23 increases and the bond rating declines.

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1           The horizontal axis shows that as the company substitutes debt for equity,  
 2           the bond rating progressively deteriorates from “AAA” all the way down to  
 3           “BAA” and beyond. The vertical axis shows what happens to overall capital  
 4           costs, hence to rates, as the company continues to substitute debt for equity and its  
 5           bond rating deteriorates. With each successive substitution of lower-cost debt for  
 6           higher-cost equity, the average cost of capital declines as the weight of low-cost  
 7           debt in the weighted average cost of capital increases. An optimal point is  
 8           reached where the cost advantage of debt is exactly offset by the increased cost of  
 9           equity. This is the optimal capital structure point. Beyond that point, the cost  
 10          disadvantage of equity outweighs the cost advantage of debt, and the weighted  
 11          cost of capital rises accordingly. The message from the graph is clear: over the  
 12          long run, a strong “A” bond rating will minimize the cost of capital to ratepayers.

13           Several intangible costs and distress costs associated with a low bond  
 14          rating cannot be readily accommodated into a mathematical simulation model  
 15          without the model becoming computationally prohibitive. Thus, the case for a  
 16          strong “A” bond rating is understated in these studies. Several examples of such  
 17          costs follow.

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1           The need to maintain borrowing capacity is well known. During normal  
2 times, a utility company should conserve enough unused borrowing capacity so  
3 that during adverse capital market periods it can use this capacity to avoid  
4 foregoing investment opportunities, selling stock at confiscatory prices, or  
5 jeopardizing its mandated obligation to serve. The yield advantage of a higher  
6 bond rating increases dramatically in adverse capital market conditions.

7           Bond flotation costs, which must be borne by ratepayers, increase also as  
8 bond ratings decline, particularly in years of difficult financial markets. Not only  
9 is lower bond quality associated with higher yields, but lower-rated utility bonds  
10 also carry shorter maturities, especially in poor years. The result is a maturity  
11 mismatch between the firm's long-term capital assets and its liabilities. Moreover,  
12 lower bond quality is associated with more years of call protection, particularly  
13 during difficult financial markets; since bonds are frequently called after a  
14 decrease in interest rates, bonds which carry call protection for a greater number  
15 of years are more costly to utility companies. Finally, as bond ratings decline, the  
16 probability that a company will reduce the dollar amount or shorten the maturity  
17 of their bond issues increases dramatically; this in turn reduces the marketability  
18 of a bond issue, and hence increases its yield. Any reasonable quantification of  
19 such implicit costs reinforces the case for a strong "A" rating.

20           The implication for DEK is very clear. Long-term achievement and  
21 maintenance of a strong "A" rating is in investors' and ratepayers' best interests.  
22 Capital structure targets should be therefore set so as to achieve such ratings.

1 Q. DR. MORIN, IN LIGHT OF YOUR DISCUSSION OF AN OPTIMAL  
2 BOND RATING, PLEASE COMMENT ON DEK'S CAPITAL  
3 STRUCTURE.

4 A. Long-term achievement and maintenance of a strong "A" rating is in investors'  
5 and ratepayers' best interests. Capital structure targets should be therefore set so  
6 as to achieve such ratings. In addition, although the legal definition of investment  
7 grade is "BBB", the actual practical definition of investment grade is "A". This is  
8 because a large majority of institutional investors are precluded from investing in  
9 bonds rated below "A". For all these reasons, sound public policy requires that  
10 the Commission establish rates so as to create financial conditions conducive to  
11 an optimal bond rating of at least single "A".

12 As discussed earlier, the Company's financial condition is not consistent  
13 with a single "A" credit rating. In light of DEK's capital expenditure  
14 requirements and the critical importance of preserving access to capital markets,  
15 DEK's long-term goal is to achieve strong single "A" credit ratings.  
16 Consequently, DEK's credit profile with the two major credit rating agencies  
17 needs to improve in order to support an upgrade from its current unsecured rating  
18 levels to a Single "A" rated level. This goal implies continued improvement in  
19 reducing debt, reducing interest expense and increasing cash flows.

20 The existence of a strong equity base favorably impacts the cost of debt by  
21 virtue of superior credit ratings, allows the company to absorb operating deficits  
22 without violating debt servicing obligations, and provides flexibility and freedom



1 in timing new debt issues, in that capital can be raised with discretion under  
2 favorable capital market conditions.

3 **Q. DR. MORIN, HOW DOES THE MERGER BETWEEN THE FORMER**  
4 **DUKE ENERGY CORPORATION AND CINERGY CORP. AFFECT**  
5 **YOUR RATE OF RETURN RECOMMENDATION?**

6 A. The merger between the former Duke Energy Corporation and Cinergy Corp. has  
7 no discernible impact on the rate of return on equity than would have been sought  
8 if the merger had not occurred. In my view, the Company's proposed cost of  
9 equity is not higher than it would have been absent the merger. The senior  
10 unsecured ratings of Duke Energy Kentucky have remained unchanged. The  
11 rating agency actions in response to the merger announcement were relatively  
12 positive. Moody's made no changes to the Cinergy and Duke Energy Kentucky  
13 ratings, and noted potential positive impacts from the merger. The ratings outlook  
14 at Moody's has changed to "Positive", and is "Stable" at Fitch and S&P.

15 The economies of scale, synergies, and greater fuel diversity that will  
16 result from the merger, coupled with the complementary capacity need and supply  
17 profiles within the larger company resulting from the merger, will maintain and  
18 may enhance the creditworthiness of the Company's securities so as to counteract  
19 any near-term negative rating effects of the merger, to the extent that there are  
20 any. I discuss the demand synergies, cost synergies and managerial economies  
21 that can arise from a merger in my treatise on value creation, *Driving Shareholder*  
22 *Value*, McGraw-Hill, 2001.

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1 Q. FINALLY, DR. MORIN, IF CAPITAL MARKET CONDITIONS CHANGE  
2 SIGNIFICANTLY BETWEEN THE DATE OF FILING YOUR PRE-  
3 FILED TESTIMONY AND THE DATE YOUR ORAL TESTIMONY IS  
4 PRESENTED, WOULD THIS CAUSE YOU TO REVISE YOUR  
5 ESTIMATED COST OF EQUITY?

6 A. Yes. Interest rates and security prices do change over time, and risk premiums  
7 change also, although much more sluggishly. If substantial changes were to occur  
8 between the filing date and the time my oral testimony is presented, I will update  
9 my testimony accordingly.

10 Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

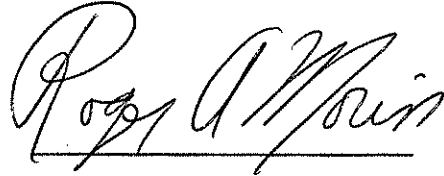
11 A. Yes, it does.

AFFIDAVIT

STATE OF GEORGIA )  
COUNTY OF GLYNN )

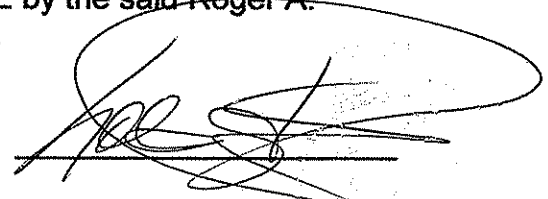
BEFORE ME, the undersigned authority, on this day personally appeared Roger A. Morin, who, having been placed under oath by me, did depose as follows:

"My name is Roger A. Morin. I am of legal age and a resident of the State of Georgia. The foregoing testimony offered by me on behalf of Duke Energy Kentucky is true and correct, and the opinions stated therein are, to the best of my knowledge and belief, accurate, true, and correct."



Roger A. Morin

SUBSCRIBED AND SWORN TO BEFORE ME by the said Roger A. Morin this 22<sup>ND</sup> day of MAY, 2006.



Notary Public in and for the

State of Georgia  
 Collin T. Jefferies  
NOTARY PUBLIC  
Glynn Co., Georgia  
My Commission Expires March 29, 2009

## APPENDIX A

### CAPM, EMPIRICAL CAPM

The Capital Asset Pricing Model (CAPM) is a fundamental paradigm of finance. Simply put, the fundamental idea underlying the CAPM is that risk-averse investors demand higher returns for assuming additional risk, and higher-risk securities are priced to yield higher expected returns than lower-risk securities. The CAPM quantifies the additional return, or risk premium, required for bearing incremental risk. It provides a formal risk-return relationship anchored on the basic idea that only market risk matters, as measured by beta. According to the CAPM, securities are priced such that their:

$$\text{EXPECTED RETURN} = \text{RISK-FREE RATE} + \text{RISK PREMIUM}$$

Denoting the risk-free rate by  $R_F$  and the return on the market as a whole by  $R_M$ , the CAPM is:

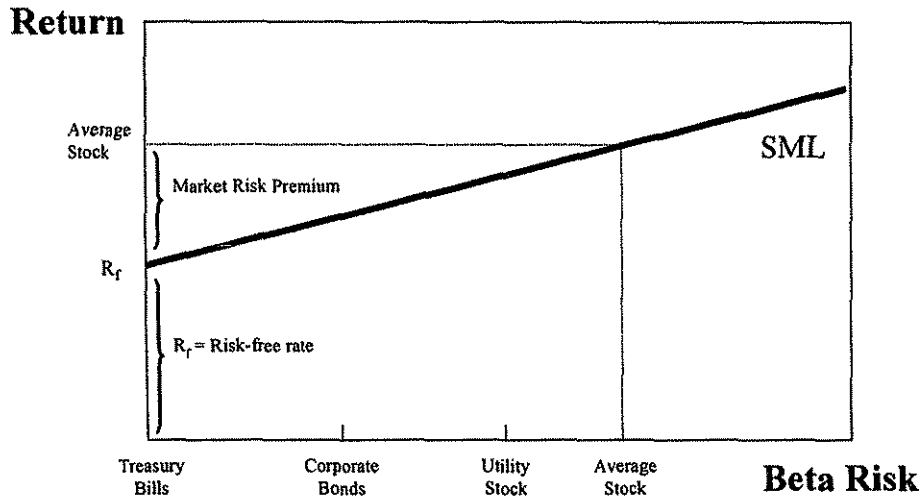
$$K = R_F + \beta(R_M - R_F) \quad (1)$$

Equation 1 is the CAPM expression which asserts that an investor expects to earn a return,  $K$ , that could be gained on a risk-free investment,  $R_F$ , plus a risk premium for assuming risk, proportional to the security's market risk, also known as beta,  $\beta$ , and the market risk premium,  $(R_M - R_F)$ , where  $R_M$  is the market return. The market risk premium  $(R_M - R_F)$  can be abbreviated MRP so that the CAPM becomes:

$$K = R_F + \beta \times \text{MRP} \quad (2)$$

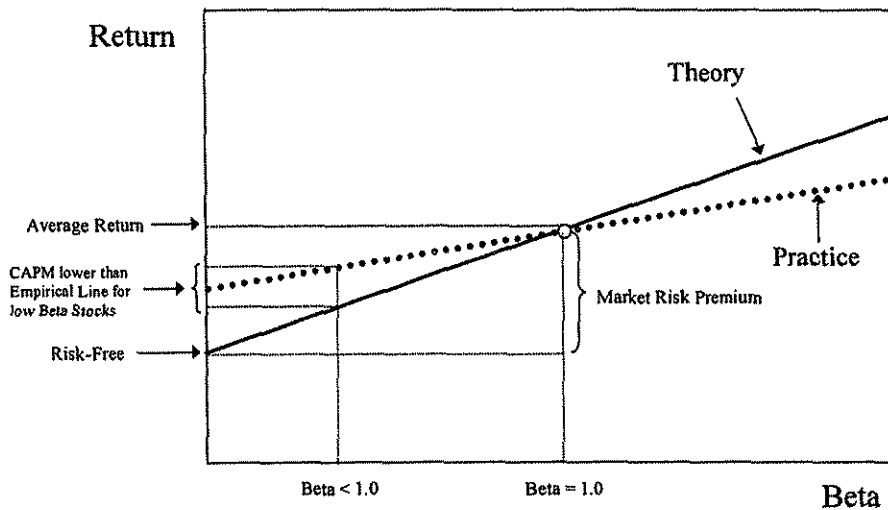
The CAPM risk-return relationship is depicted in the figure below and is typically labeled as the Security Market Line (SML) by the investment community.

## CAPM and Risk - Return in Capital Markets



A myriad empirical tests of the CAPM have shown that the risk-return tradeoff is not as steeply sloped as that predicted by the CAPM, however. That is, low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted. In other words, the CAPM tends to overstate the actual sensitivity of the cost of capital to beta: low-beta stocks tend to have higher returns and high-beta stocks tend to have lower risk returns than predicted by the CAPM. The difference between the CAPM and the type of relationship observed in the empirical studies is depicted in the figure below. This is one of the most widely known empirical findings of the finance literature. This extensive literature is summarized in Chapter 13 of Dr. Morin's book [Regulatory Finance, Public Utilities Report Inc., Arlington, VA, 1994].

## Risk vs Return Theory vs. Practice



A number of refinements and expanded versions of the original CAPM theory have been proposed to explain the empirical findings. These revised CAPMs typically produce a risk-return relationship that is flatter than the standard CAPM prediction. The following equation makes use of these empirical findings by flattening the slope of the risk-return relationship and increasing the intercept:

$$K = R_F + \alpha + \beta (MRP - \alpha) \quad (3)$$

where  $\alpha$  is the "alpha" of the risk-return line, a constant determined empirically, and the other symbols are defined as before. Alternatively, Equation 3 can be written as follows:

$$K = R_F + a MRP + (1-a) \beta MRP \quad (4)$$

where  $a$  is a fraction to be determined empirically. Comparing Equations 3 and 4, it is easy to see that alpha equals 'a' times MRP, that is,  $\alpha = a \times MRP$

## **Theoretical Underpinnings**

The obvious question becomes what would produce a risk return relationship which is flatter than the CAPM prediction, or in other words, how do you explain the presence of “alpha” in the above equation. The exclusion of variables aside from beta would produce this result. Three such variables are noteworthy: dividend yield, skewness, and hedging potential.

The dividend yield effects stem from the differential taxation on corporate dividends and capital gains. The standard CAPM does not consider the regularity of dividends received by investors. Utilities generally maintain high dividend payout ratios relative to the market, and by ignoring dividend yield, the CAPM provides biased cost of capital estimates. To the extent that dividend income is taxed at a higher rate than capital gains, investors will require higher pre-tax returns in order to equalize the after-tax returns provided by high-yielding stocks (e.g. utility stocks) with those of low-yielding stocks. In other words, high-yielding stocks must offer investors higher pre-tax returns. Even if dividends and capital gains are undifferentiated for tax purposes, there is still a tax bias in favor of earnings retention (lower dividend payout), as capital gains taxes are paid only when gains are realized.

Empirical studies by Litzenberger and Ramaswamy (1979), Litzenberger et al. (1980) and Rosenberg and Marathe (1975) find that security returns are positively related to dividend yield as well as to beta. These results are consistent with after-tax extensions of the CAPM developed by Breenan (1973) and Litzenberger and Ramaswamy (1979) and suggest that the relationship between return, beta, and dividend yield should be estimated and employed to calculate the cost of equity capital.

As far as skewness is concerned, investors are more concerned with losing money than with total variability of return. If risk is defined as the probability of loss, it appears more logical to measure risk as the probability of achieving a return which is below the expected return. The traditional CAPM provides downward-biased estimates of cost of capital to the extent that these skewness effects are significant. As shown by Kraus and Litzenberger (1976), expected return depends on both on a stock's systematic risk (beta) and the systematic skewness. Empirical studies by Kraus and Litzenberger (1976), Friend, Westerfield, and Granito (1978), and Morin (1981) found that, in addition to beta, skewness of returns has a significant negative relationship with security returns. This result is consistent with the skewness version of the CAPM

developed by Rubinstein (1973) and Kraus and Litzenberger (1976).

This is particularly relevant for public utilities whose future profitability is constrained by the regulatory process on the upside and relatively unconstrained on the downside in the face of socio-political realities of public utility regulation. The process of regulation, by restricting the upward potential for returns and responding sluggishly on the downward side, may impart some asymmetry to the distribution of returns, and is more likely to result in utilities earning less, rather than more, than their cost of capital. The traditional CAPM provides downward-biased estimates of cost of capital to the extent that these skewness effects are significant.

As far as hedging potential is concerned, investors are exposed to another kind of risk, namely, the risk of unfavorable shifts in the investment opportunity set. Merton (1973) shows that investors will hold portfolios consisting of three funds: the risk-free asset, the market portfolio, and a portfolio whose returns are perfectly negatively correlated with the riskless asset so as to hedge against unforeseen changes in the future risk-free rate. The higher the degree of protection offered by an asset against unforeseen changes in interest rates, the lower the required return, and conversely. Merton argues that low beta assets, like utility stocks, offer little protection against changes in interest rates, and require higher returns than suggested by the standard CAPM.

Another explanation for the CAPM's inability to fully explain the process determining security returns involves the use of an inadequate or incomplete market index. Empirical studies to validate the CAPM invariably rely on some stock market index as a proxy for the true market portfolio. The exclusion of several asset categories from the definition of market index mis-specifies the CAPM and biases the results found using only stock market data. Kolbe and Read (1983) illustrate the biases in beta estimates which result from applying the CAPM to public utilities. Unfortunately, no comprehensive and easily accessible data exist for several classes of assets, such as mortgages and business investments, so that the exact relation between return and stock betas predicted by the CAPM does not exist. This suggests that the empirical relationship between returns and stock betas is best estimated empirically (ECAPM) rather than by relying on theoretical and elegant CAPM models expanded to include missing assets effects. In any event, stock betas may be highly correlated with the true beta measured with the true market index.

Yet another explanation for the CAPM's inability to fully explain the observed risk-return tradeoff involves the possibility of constraints on investor borrowing that run counter to the



assumptions of the CAPM. In response to this inadequacy, several versions of the CAPM have been developed by researchers. One of these versions is the so-called zero-beta, or two-factor, CAPM which provides for a risk-free return in a market where borrowing and lending rates are divergent. If borrowing rates and lending rates differ, or there is no risk-free borrowing or lending, or there is risk-free lending but no risk-free borrowing, then the CAPM has the following form:

$$K = R_z + \beta(R_m - R_f)$$

The model, christened the zero-beta model, is analogous to the standard CAPM, but with the return on a minimum risk portfolio which is unrelated to market returns,  $R_z$ , replacing the risk-free rate,  $R_f$ . The model has been empirically tested by Black, Jensen, and Scholes (1972), who found a flatter than predicted CAPM, consistent with the model and other researchers' findings.

The zero-beta CAPM cannot be literally employed in cost of capital projections, since the zero-beta portfolio is a statistical construct difficult to replicate.

**Empirical Evidence**

A summary of the empirical evidence on the magnitude of alpha is provided in the table below.

<b>Empirical Evidence on the Alpha Factor</b>		
<b>Author</b>	<b>Range of alpha</b>	<b>Period relied upon</b>
Fischer (1993)	-3.6% to 3.6%	1931-1991
Fischer, Jensen and Scholes (1972)	-9.61% to 12.24%	1931-1965
Fama and McBeth (1972)	4.08% to 9.36%	1935-1968
Fama and French (1992)	10.08% to 13.56%	1941-1990
Litzenberger and Ramaswamy (1979)	5.32% to 8.17%	
Litzenberger, Ramaswamy and Sosin (1980)	1.63% to 5.04%	1926-1978
Pettengill, Sundaram and Mathur (1995)	4.6%	
Morin (1994)	2.0%	1926-1984
Harris, Marston, Mishra, and O'Brien	2.0%	1983-1998

Given the observed magnitude of alpha, the empirical evidence indicates that the risk-return relationship is flatter than that predicted by the CAPM. Typical of the empirical evidence is the findings cited in Morin (1994) over the period 1926-1984 indicating that the observed expected return on a security is related to its risk by the following equation:

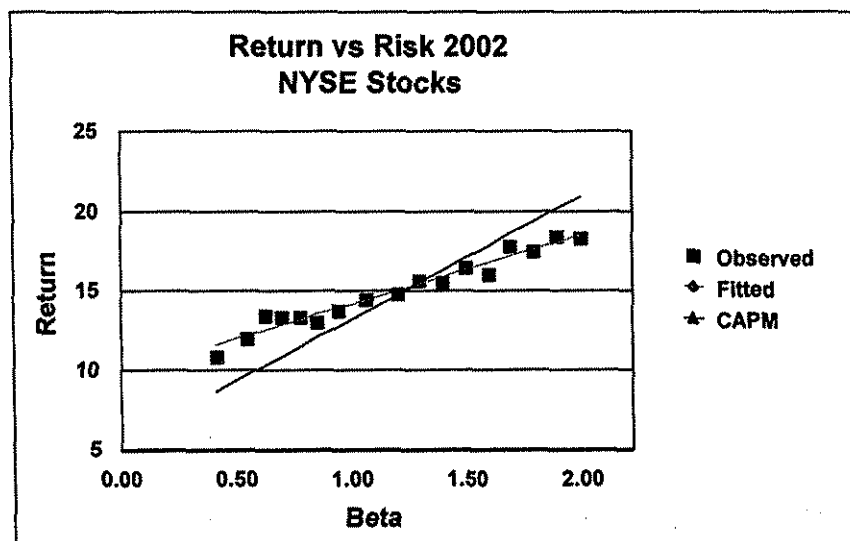
$$K = .0829 + .0520 \beta$$

Given that the risk-free rate over the estimation period was approximately 6%, this relationship implies that the intercept of the risk-return relationship is higher than the 6% risk-free rate, contrary to the CAPM's prediction. Given that the average return on an average risk stock exceeded the risk-free rate by about 8.0% in that period, that is, the market risk premium ( $R_M - R_F$ ) = 8%, the intercept of the observed relationship between return and beta exceeds the risk-free rate by about 2%, suggesting an alpha factor of 2%.

Most of the empirical studies cited in the above table utilize raw betas rather than Value Line adjusted betas because the latter were not available over most of the time periods covered in these studies. A study of the relationship between return and adjusted beta is reported on Table

6-7 in Ibbotson Associates Valuation Yearbook 2001. If we exclude the portfolio of very small cap stocks from the relationship due to significant size effects, the relationship between the arithmetic mean return and beta for the remaining portfolios is flatter than predicted and the intercept slightly higher than predicted by the CAPM, as shown on the graph below. It is noteworthy that the Ibbotson study relies on adjusted betas as stated on page 95 of the aforementioned study.

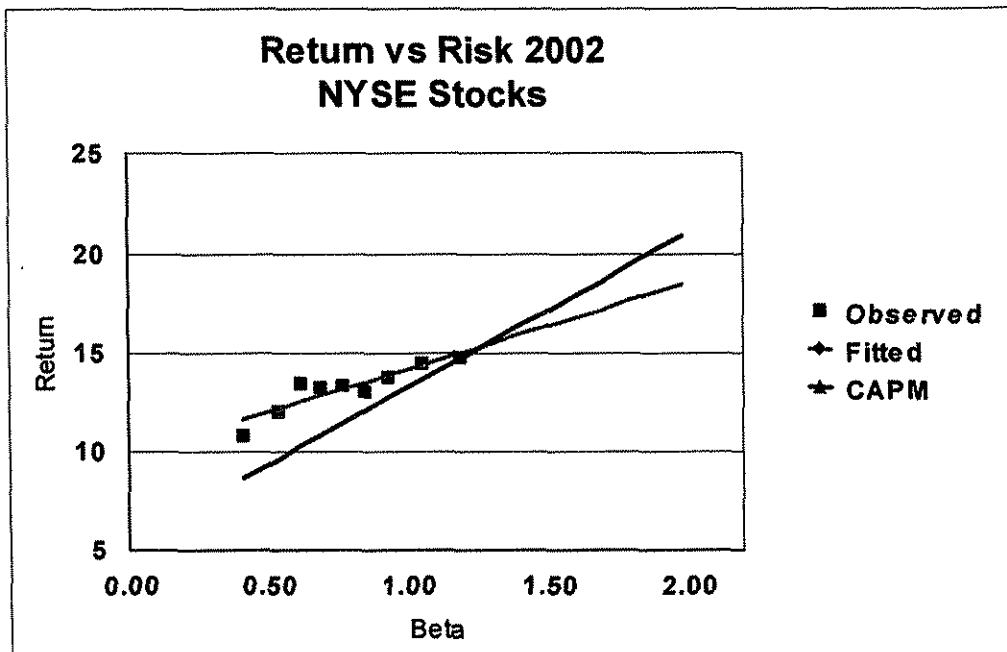
## CAPM vs ECAPM



Another study by Morin in May 2002 provides empirical support for the ECAPM. All the stocks covered in the Value Line Investment Survey for Windows for which betas and returns data were available were retained for analysis. There were nearly 2000 such stocks. The expected return was measured as the total shareholder return (“TSR”) reported by Value Line over the past ten years. The Value Line adjusted beta was also retrieved from the same data base. The nearly 2000 companies for which all data were available were ranked in ascending order of beta, from lowest to highest. In order to palliate measurement error, the nearly 2000 securities were grouped into ten portfolios of approximately 180 securities for each portfolio. The average returns and betas for each portfolio were as follows:

Portfolio #	Beta	Return
portfolio 1	0.41	10.87
portfolio 2	0.54	12.02
portfolio 3	0.62	13.50
portfolio 4	0.69	13.30
portfolio 5	0.77	13.39
portfolio 6	0.85	13.07
portfolio 7	0.94	13.75
portfolio 8	1.06	14.53
portfolio 9	1.19	14.78
portfolio 10	1.48	20.78

It is clear from the graph below that the observed relationship between DCF returns and Value Line adjusted betas is flatter than that predicted by the plain vanilla CAPM. The observed intercept is higher than the prevailing risk-free rate of 5.7% while the slope is less than equal to the market risk premium of 7.7% predicted by the plain vanilla CAPM for that period.



In an article published in *Financial Management*, Harris, Marston, Mishra, and O'Brien ("HMMO") estimate ex ante expected returns for S&P 500 companies over the period 1983-

1998<sup>1</sup>. HMMO measure the expected rate of return (cost of equity) of each dividend-paying stock in the S&P 500 for each month from January 1983 to August 1998 by using the constant growth DCF model. They then investigate the relation between the risk premium (expected return over the 20-year Treasury bond yield) estimates for each month to equity betas as of that same month (5-year raw betas).

The table below, drawn from HMMO Table 4, displays the average estimate prospective risk premium (Column 2) by industry and the corresponding beta estimate for that industry, both in raw form (Column 3) and adjusted form (Column 4). The latter were calculated with the traditional Value Line – Merrill Lynch – Bloomberg adjustment methodology by giving 1/3 weight of to a beta estimate of 1.00 and 2/3 weight to the raw beta estimate.

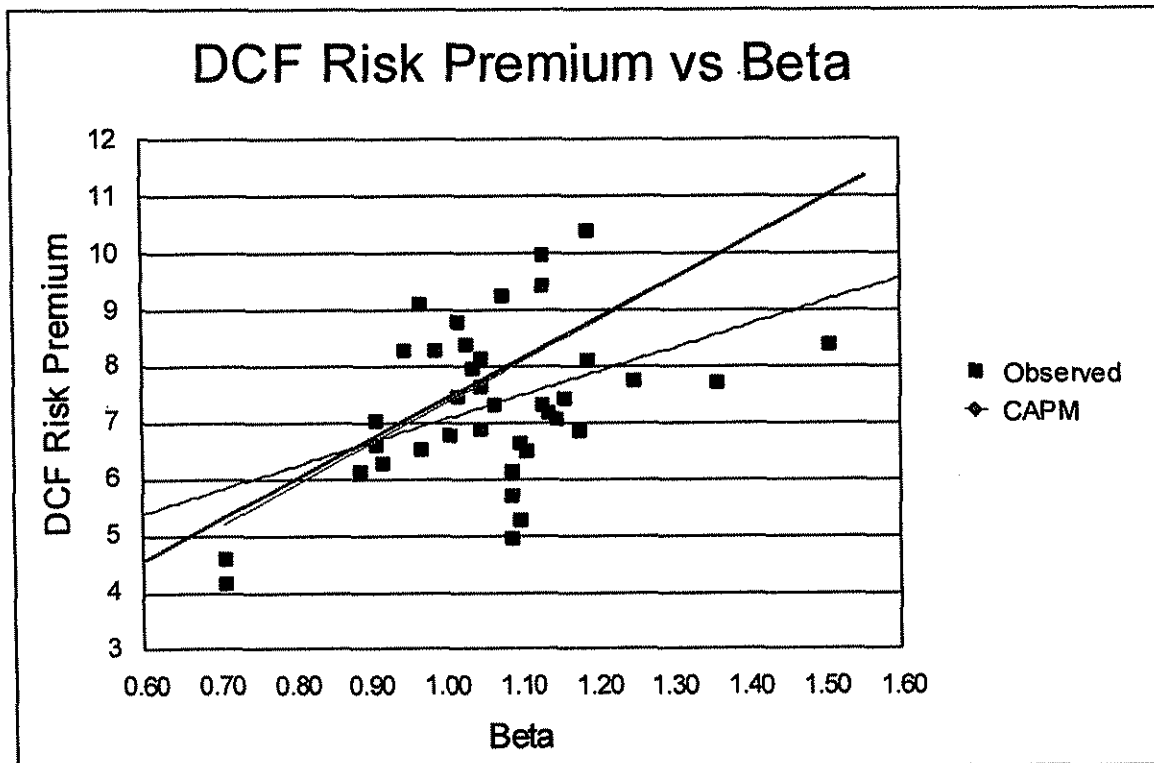
**Table A-1 Risk Premium and Beta Estimates by Industry**

	Industry	DCF Risk Premium	Raw Industry Beta	Adjusted Industry Beta
	(1)	(2)	(3)	(4)
1	Aero	6.63	1.15	1.10
2	Autos	5.29	1.15	1.10
3	Banks	7.16	1.21	1.14
4	Beer	6.60	0.87	0.91
5	BldMat	6.84	1.27	1.18
6	Books	7.64	1.07	1.05
7	Boxes	8.39	1.04	1.03
8	BusSv	8.15	1.07	1.05
9	Chems	6.49	1.16	1.11
10	Chips	8.11	1.28	1.19
11	Clths	7.74	1.37	1.25
12	Cnstr	7.70	1.54	1.36
13	Comps	9.42	1.19	1.13
14	Drugs	8.29	0.99	0.99
15	ElcEq	6.89	1.08	1.05
16	Energy	6.29	0.88	0.92
17	Fin	8.38	1.76	1.51
18	Food	7.02	0.86	0.91
19	Fun	9.98	1.19	1.13
20	Gold	4.59	0.57	0.71
21	Hlth	10.40	1.29	1.19
22	Hsld	6.77	1.02	1.01
23	Insur	7.46	1.03	1.02
24	LabEq	7.31	1.10	1.07
25	Mach	7.32	1.20	1.13

<sup>1</sup> Harris, R. S., Marston, F. C., Mishra, D. R., and O'Brien, T. J., "Ex Ante Cost of Equity Estimates of S&P 500 Firms: The Choice Between Global and Domestic CAPM," Financial Management, Autumn 2003, pp. 51-66.

26	Meals	7.98	1.06	1.04
27	MedEq	8.80	1.03	1.02
28	Pap	6.14	1.13	1.09
29	PerSv	9.12	0.95	0.97
30	Retail	9.27	1.12	1.08
31	Rubber	7.06	1.22	1.15
32	Ships	1.95	0.95	0.97
33	Stee	4.96	1.13	1.09
34	Telc	6.12	0.83	0.89
35	Toys	7.42	1.24	1.16
36	Trans	5.70	1.14	1.09
37	Txtls	6.52	0.95	0.97
38	Util	4.15	0.57	0.71
39	Whsl	8.29	0.92	0.95
MEAN		7.19		

The observed statistical relationship between expected return and **adjusted beta** is shown in the graph below along with the CAPM prediction:



If the plain vanilla version of the CAPM is correct, then the intercept of the graph should be zero, recalling that the vertical axis represents returns in excess of the risk-free rate. Instead,

the observed intercept is approximately 2%, that is approximately equal to 25% of the expected market risk premium of 7.2% shown at the bottom of Column 2 over the 1983-1998 period, as predicted by the ECAPM. The same is true for the slope of the graph. If the plain vanilla version of the CAPM is correct, then the slope of the relationship should equal the market risk premium of 7.2%. Instead, the observed slope of close to 5% is approximately equal to 75% of the expected market risk premium of 7.2%, as predicted by the ECAPM.

In short, the HMMO empirical findings are quite consistent with the predictions of the ECAPM.

### **Practical Implementation of the ECAPM**

The empirical evidence reviewed above suggests that the expected return on a security is related to its risk by the following relationship:

$$K = R_F + \alpha + \beta (MRP - \alpha) \quad (5)$$

or, alternatively by the following equivalent relationship:

$$K = R_F + a MRP + (1-a) \beta MRP \quad (6)$$

The empirical findings support values of  $\alpha$  from approximately 2% to 7%. If one is using the short-term U.S. Treasury Bills yield as a proxy for the risk-free rate, and given that utility stocks have lower than average betas, an alpha in the lower range of the empirical findings, 2% - 3% is reasonable, albeit conservative.

Using the long-term U.S. Treasury yield as a proxy for the risk-free rate, a lower alpha adjustment is indicated. This is because the use of the long-term U.S. Treasury yield as a proxy for the risk-free rate partially incorporates the desired effect of using the ECAPM<sup>2</sup>. An alpha in the range of 1% - 2% is therefore reasonable.

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<sup>2</sup> The Security Market Line (SML) using the long-term risk-free rate has a higher intercept and a flatter slope than the SML using the short-term risk-free rate

To illustrate, consider a utility with a beta of 0.80. The risk-free rate is 5%, the MRP is 7%, and the alpha factor is 2%. The cost of capital is determined as follows:

$$\begin{aligned}K &= R_F + \alpha + \beta (MRP - \alpha) \\K &= 5\% + 2\% + 0.80(7\% - 2\%) \\&= 11\%\end{aligned}$$

A practical alternative is to rely on the second variation of the ECAPM:

$$K = R_F + a MRP + (1-a) \beta MRP$$

With an alpha of 2%, a MRP in the 6% - 8% range, the 'a' coefficient is 0.25, and the ECAPM becomes<sup>3</sup>:

$$K = R_F + 0.25 MRP + 0.75 \beta MRP$$

Returning to the numerical example, the utility's cost of capital is:

$$\begin{aligned}K &= 5\% + 0.25 \times 7\% + 0.75 \times 0.80 \times 7\% \\&= 11\%\end{aligned}$$

For reasonable values of beta and the MRP, both renditions of the ECAPM produce results that are virtually identical<sup>4</sup>.

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<sup>3</sup> Recall that alpha equals 'a' times MRP, that is, alpha = a MRP, and therefore a = alpha/MRP. If alpha is 2%, then a = 0.25

<sup>4</sup> In the Morin (1994) study, the value of "a" was actually derived by systematically varying the constant "a" in equation 6 from 0 to 1 in steps of 0.05 and choosing that value of 'a' that minimized the mean square error between the observed relationship between return and beta:

$$K = 0.0829 + .0520 \beta$$

The value of a that best explained the observed relationship was 0.25.



## REFERENCES

- Black, Fischer, "Beta and Return," The Journal of Portfolio Management, Fall 1993, 8-18.
- Black, Fischer, Michael C. Jensen and Myron Scholes, "The Capital Asset Pricing Model: Some Empirical Tests, from Studies in the theory of Capital Markets," in
- Jensen, M. (ed.) Studies in the Theory of Capital Markets, Praeger, New York, 1972, 79-121.
- Breenan, M. (1973) "Taxes, Market Valuation, and Corporate Financial Policy," National Tax Journal, 23, 417-427.
- Fama, Eugene F. and James D. MacBeth, "Risk, Returns and Equilibrium: Empirical Tests," Journal of Political Economy, September 1972, pp. 607-636.
- Fama, Eugene F. and Kenneth R. French, "The Cross-Section of Expected Stock Returns," Journal of Finance, Vol. 47, June 1992, pp. 427-465.
- Friend, I., Westerfield, R., and Granito, M. (1978) "New Evidence on the Capital Asset Pricing Model," Journal of Finance, 23, 903-916.
- Harris, R. S., Marston, F. C., Mishra, D. R., and O'Brien, T. J., "Ex Ante Cost of Equity Estimates of S&P 500 Firms: The Choice Between Global and Domestic CAPM," Financial Management, Autumn 2003, pp. 51-66.
- Kraus, A. and Litzenberger, R.H. (1976) "Skewness Preference and the Valuation of Risk Assets," Journal of Finance, 31, 1085-99.
- Litzenberger, R. H. and Ramaswamy, K. "The Effect of Personal Taxes and Dividends on Capital Asset Prices: Theory and Empirical Evidence." Journal of Financial Economics, June 1979, 163-196.
- Litzenberger, R. H., Ramaswamy, K. and Sosin, H. (1980) "On the CAPM Approach to the Estimation of a Public Utility's Cost of Equity Capital," Journal of Finance, 35, May 1980, 369-83.
- Merton, R.C. (1973) "An Intertemporal Capital Asset Pricing Model", Econometrica, 41, 867-887.
- Morin, R.A. (1981) "Intertemporal Market-Line Theory: An Empirical Test," Financial Review, Proceedings of the Eastern Finance Association, 1981.
- Pettengill, Glenn N., Sridhar Sundaram and Ike Mathur, "The Conditional Relation between Beta and Returns," Journal of Financial and Quantitative Analysis, Vol. 30, No. 1, March 1995, pp. 101-116.

Rosenberg, V. and Marathe, V. (1975) “The Prediction of Investment Risk: Systematic and Residual Risk,” Proceedings of the Seminar on the Analysis of Security Prices, Univ. of Chicago, 20, Nov. 1975.

Rubinstein, M.E. (1973) “A Mean-Variance Synthesis of Corporate Financial Theory, Journal of Financial Economics, March 1973, 167-82.

## ***APPENDIX B***

### ***FLOTATION COST ALLOWANCE***

To obtain the final cost of equity financing from the investors' expected rate of return, it is necessary to make allowance for underpricing, which is the sum of market pressure, costs of flotation, and underwriting fees associated with new issues. Allowance for market pressure should be made because large blocks of new stock may cause significant pressure on market prices even in stable markets. Allowance must also be made for company costs of flotation (including such items as printing, legal and accounting expenses) and for underwriting fees.

#### **1. MAGNITUDE OF FLOTATION COSTS**

According to empirical studies, underwriting costs and expenses average at least 4% of gross proceeds for utility stock offerings in the U.S. (See Logue & Jarrow: "Negotiations vs. Competitive Bidding in the Sale of Securities by Public Utilities", Financial Management, Fall 1978.) A study of 641 common stock issues by 95 electric utilities identified a flotation cost allowance of 5.0%. (See Borum & Malley: "Total Flotation Cost for Electric Company Equity Issues", Public Utilities Fortnightly, Feb. 20, 1986.)

Empirical studies suggest an allowance of 1% for market pressure in U.S. studies. Logue and Jarrow found that the absolute magnitude of the relative price decline due to market pressure was less than 1.5%. Bowyer and Yawitz examined 278 public utility stock issues and found an average market pressure of 0.72%. (See Bowyer & Yawitz, "The Effect of New Equity Issues on Utility Stock Prices", Public Utilities Fortnightly, May 22, 1980.)

Eckbo & Masulis ("Rights vs. Underwritten Stock Offerings: An Empirical Analysis", University of British Columbia, Working Paper No. 1208, Sept., 1987) found an average flotation cost of 4.175% for utility common stock offerings. Moreover, flotation costs increased progressively for smaller size issues. They also found that the relative price decline due to market pressure in the days surrounding the announcement amounted to slightly more than 1.5%. In a classic and monumental study published in the prestigious *Journal of Financial Economics* by a prominent scholar, a market pressure effect of 3.14% for industrial stock issues and 0.75%

for utility common stock issues was found (see Smith, C.W., "Investment Banking and the Capital Acquisition Process," Journal of Financial Economics 15, 1986). Other studies of market pressure are reported in Logue ("On the Pricing of Unseasoned Equity Offerings, Journal of Financial and Quantitative Analysis, Jan. 1973), Pettway ("The Effects of New Equity Sales Upon Utility Share Prices," Public Utilities Fortnightly, May 10 1984), and Reilly and Hatfield ("Investor Experience with New Stock Issues," Financial Analysts' Journal, Sept.- Oct. 1969). In the Pettway study, the market pressure effect for a sample of 368 public utility equity sales was in the range of 2% to 3%. Adding the direct and indirect effects of utility common stock issues, the indicated total flotation cost allowance is above 5.0%, corroborating the results of earlier studies.

As shown in the table below, a comprehensive empirical study by Lee, Lochhead, Ritter, and Zhao, "The Costs of Raising Capital," Journal of Financial Research, Vol. XIX, NO. 1, Spring 1996, shows average direct flotation costs for equity offerings of 3.5% - 5% for stock issues between \$60 and \$500 million. Allowing for market pressure costs raises the flotation cost allowance to well above 5%.

**FLOTATION COSTS: RAISING EXTERNAL CAPITAL**  
 (Percent of Total Capital Raised)

<u>Amount Raised in \$ Millions</u>	<u>Average Flotation Cost: Common Stock</u>	<u>Average Flotation Cost: New Debt</u>
\$ 2 - 9.99	13.28%	4.39%
10 - 19.99	8.72	2.76
20 - 39.99	6.93	2.42
40 - 59.99	5.87	1.32
60 - 79.99	5.18	2.34
80 - 99.99	4.73	2.16
100 - 199.99	4.22	2.31
200 - 499.99	3.47	2.19
500 and Up	3.15	1.64

Note: Flotation costs for IPOs are about 17 percent of the value of common stock issued if the

amount raised is less than \$10 million and about 6 percent if more than \$500 million is raised.

Flotation costs are somewhat lower for utilities than others.

Source: Lee, Inmoo, Scott Lochhead, Jay Ritter, and Quanshui Zhao, "The Costs of Raising Capital," *The Journal of Financial Research*, Spring 1996.

Therefore, based on empirical studies, total flotation costs including market pressure amount to approximately 5% of gross proceeds. I have therefore assumed a 5% gross total flotation cost allowance in my cost of capital analyses.

## **2. APPLICATION OF THE FLOTATION COST ADJUSTMENT**

The section below shows: 1) why it is necessary to apply an allowance of 5% to the dividend yield component of equity cost by dividing that yield by 0.95 (100% - 5%) to obtain the fair return on equity capital, and 2) why the flotation adjustment is permanently required to avoid confiscation even if no further stock issues are contemplated. Flotation costs are only recovered if the rate of return is applied to total equity, including retained earnings, in all future years.

Flotation costs are just as real as costs incurred to build utility plant. Fair regulatory treatment absolutely must permit the recovery of these costs. An analogy with bond issues is useful to understand the treatment of flotation costs in the case of common stocks.

In the case of a bond issue, flotation costs are not expensed but are rather amortized over the life of the bond, and the annual amortization charge is embedded in the cost of service. This is analogous to the process of depreciation, which allows the recovery of funds invested in utility plant. The recovery of bond flotation expense continues year after year, irrespective of whether the company issues new debt capital in the future, until recovery is complete. In the case of common stock that has no finite life, flotation costs are not amortized. Therefore, the recovery of flotation cost requires an upward adjustment to the allowed return on equity. Roger A. Morin, Regulatory Finance, Public Utilities Reports Inc., Arlington, Va., 1994, provides numerical illustrations that show that even if a utility does not contemplate any additional common stock

issues, a flotation cost adjustment is still permanently required. Examples there also demonstrate that the allowance applies to retained earnings as well as to the original capital.

From the standard DCF model, the investor's required return on equity capital is expressed as:

$$K = D_1/P_0 + g$$

If  $P_0$  is regarded as the proceeds per share actually received by the company from which dividends and earnings will be generated, that is,  $P_0$  equals  $B_0$ , the book value per share, then the company's required return is:

$$r = D_1/B_0 + g$$

Denoting the percentage flotation costs 'f', proceeds per share  $B_0$  are related to market price  $P_0$  as follows:

$$P - fP = B_0$$

$$P(1 - f) = B_0$$

Substituting the latter equation into the above expression for return on equity, we obtain:

$$r = D_1/P(1-f) + g$$

that is, the utility's required return adjusted for underpricing. For flotation costs of 5%, dividing the expected dividend yield by 0.95 will produce the adjusted cost of equity capital. For a dividend yield of 6% for example, the magnitude of the adjustment is 32 basis points:  $.06/.95 = .0632$ .

In deriving DCF estimates of fair return on equity, it is therefore necessary to apply a conservative after-tax allowance of 5% to the dividend yield component of equity cost.

Even if no further stock issues are contemplated, the flotation adjustment is still permanently required to keep shareholders whole. Flotation costs are only recovered if the rate of return is applied to total equity, including retained earnings, in all future years, even if no future financing is contemplated. This is demonstrated by the numerical example contained in pages 7-9 of this Appendix. Moreover, even if the stock price, hence the DCF estimate of equity

return, fully reflected the lack of permanent allowance, the company always nets less than the market price. Only the net proceeds from an equity issue are used to add to the rate base on which the investor earns. A permanent allowance for flotation costs must be authorized in order to insure that in each year the investor earns the required return on the total amount of capital actually supplied.

The example shown on pages 7-9 shows the flotation cost adjustment process using illustrative, yet realistic, market data. The assumptions used in the computation are shown on page 6. The stock is selling in the market for \$25, investors expect the firm to pay a dividend of \$2.25 that will grow at a rate of 5% thereafter. The traditional DCF cost of equity is thus  $k = D/P + g = 2.25/25 + .05 = 14\%$ . The firm sells one share stock, incurring a flotation cost of 5%. The traditional DCF cost of equity adjusted for flotation cost is thus  $ROE = D/P(1-f) + g = .09/.95 + .05 = 14.47\%$ .

The initial book value (rate base) is the net proceeds from the stock issue, which are \$23.75, that is, the market price less the 5% flotation costs. The example demonstrates that only if the company is allowed to earn 14.47% on rate base will investors earn their cost of equity of 14%. On page 8, Column 1 shows the initial common stock account, Column 2 the cumulative retained earnings balance, starting at zero, and steadily increasing from the retention of earnings. Total equity in Column 3 is the sum of common stock capital and retained earnings. The stock price in Column 4 is obtained from the seminal DCF formula:  $D_1/(k - g)$ . Earnings per share in Column 6 are simply the allowed return of 14.47% times the total common equity base. Dividends start at \$2.25 and grow at 5% thereafter, which they must do if investors are to earn a 14% return. The dividend payout ratio remains constant, as per the assumption of the DCF model. All quantities, stock price, book value, earnings, and dividends grow at a 5% rate, as shown at the bottom of the relevant columns. Only if the company is allowed to earn 14.47% on equity do investors earn 14%. For example, if the company is allowed only 14%, the stock price drops from \$26.25 to \$26.13 in the second year, inflicting a loss on shareholders. This is shown on page 9. The growth rate drops from 5% to 4.53%. Thus, investors only earn  $9\% + 4.53\% = 13.53\%$  on their investment. It is noteworthy that the adjustment is always required each and every year, whether or not new stock issues are sold in the future, and that the allowed return on equity must be earned on total equity, including retained earnings, for investors to earn the cost

of equity.



**ASSUMPTIONS:**

ISSUE PRICE = \$25.00  
FLOTATION COST = 5.00%  
DIVIDEND YIELD = 9.00%  
GROWTH = 5.00%

EQUITY RETURN = **14.00%**  
(D/P + g)  
ALLOWED RETURN ON EQUITY = **14.47%**  
(D/P(1-f) + g)

Yr	COMMON STOCK (1)	RETAINED EARNINGS (2)	TOTAL EQUITY (3)	STOCK PRICE (4)	MARKET/ BOOK RATIO (5)	EPS (6)	DPS (7)	PAYOUT (8)
1	\$23.75	\$0.000	\$23.750	\$25.000	1.0526	\$3.438	\$2.250	65.45%
2	\$23.75	\$1.188	\$24.938	\$26.250	1.0526	\$3.609	\$2.363	65.45%
3	\$23.75	\$2.434	\$26.184	\$27.563	1.0526	\$3.790	\$2.481	65.45%
4	\$23.75	\$3.744	\$27.494	\$28.941	1.0526	\$3.979	\$2.605	65.45%
5	\$23.75	\$5.118	\$28.868	\$30.388	1.0526	\$4.178	\$2.735	65.45%
6	\$23.75	\$6.562	\$30.312	\$31.907	1.0526	\$4.387	\$2.872	65.45%
7	\$23.75	\$8.077	\$31.827	\$33.502	1.0526	\$4.607	\$3.015	65.45%
8	\$23.75	\$9.669	\$33.419	\$35.178	1.0526	\$4.837	\$3.166	65.45%
9	\$23.75	\$11.340	\$35.090	\$36.936	1.0526	\$5.079	\$3.324	65.45%
10	\$23.75	\$13.094	\$36.844	\$38.783	1.0526	\$5.333	\$3.490	65.45%

	5.00%	5.00%
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5.00%	5.00%
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Yr	COMMON STOCK (1)	RETAINED EARNINGS (2)	TOTAL EQUITY (3)	STOCK PRICE (4)	MARKET/ BOOK RATIO (5)	EPS (6)	DPS (7)	PAYOUT (8)
1	\$23.75	\$0.000	\$23.750	\$25.000	1.0526	\$3.325	\$2.250	67.67%
2	\$23.75	\$1.075	\$24.825	\$26.132	1.0526	\$3.476	\$2.352	67.67%
3	\$23.75	\$2.199	\$25.949	\$27.314	1.0526	\$3.633	\$2.458	67.67%
4	\$23.75	\$3.373	\$27.123	\$28.551	1.0526	\$3.797	\$2.570	67.67%
5	\$23.75	\$4.601	\$28.351	\$29.843	1.0526	\$3.969	\$2.686	67.67%
6	\$23.75	\$5.884	\$29.634	\$31.194	1.0526	\$4.149	\$2.807	67.67%
7	\$23.75	\$7.225	\$30.975	\$32.606	1.0526	\$4.337	\$2.935	67.67%
8	\$23.75	\$8.627	\$32.377	\$34.082	1.0526	\$4.533	\$3.067	67.67%
9	\$23.75	\$10.093	\$33.843	\$35.624	1.0526	\$4.738	\$3.206	67.67%
10	\$23.75	\$11.625	\$35.375	\$37.237	1.0526	\$4.952	\$3.351	67.67%

4.53%	4.53%
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4.53%	4.53%
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## RESUME OF ROGER A. MORIN

(Spring 2006)

**NAME:** Roger A. Morin

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Jekyll Island, GA 31527, USA

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**E-MAIL ADDRESS:** profmorin@msn.com

**DATE OF BIRTH:** 3/5/1945

**PRESENT EMPLOYER:** Georgia State University  
Robinson College of Business  
Atlanta, GA 30303

**RANK:** Professor of Finance

**HONORS:** Professor of Finance for Regulated Industry  
Director Center for the Study of Regulated Industry,  
College of Business, Georgia State University.

### **EDUCATIONAL HISTORY**

- Bachelor of Electrical Engineering, McGill University,  
Montreal, Canada, 1967.
- Master of Business Administration, McGill University,  
Montreal, Canada, 1969.
- PhD in Finance & Econometrics, Wharton School of Finance,  
University of Pennsylvania, 1976.

### **EMPLOYMENT HISTORY**

- Lecturer, Wharton School of Finance, Univ. of Pa., 1972-3
- Assistant Professor, University of Montreal School of Business, 1973-1976.
- Associate Professor, University of Montreal School of Business, 1976-1979.
- Professor of Finance, Georgia State University, 1979-2005
- Professor of Finance for Regulated Industry and Director, Center for the Study of Regulated Industry, College of Business, Georgia State University, 1985-2005

- Visiting Professor of Finance, Amos Tuck School of Business, Dartmouth College, Hanover, N.H., 1986

**OTHER BUSINESS ASSOCIATIONS**

- Communications Engineer, Bell Canada, 1962-1967.
- Member of the Board of Directors, Financial Research Institute of Canada, 1974-1980.
- Co-founder and Director Canadian Finance Research Foundation, 1977.
- Vice-President of Research, Garmaise-Thomson & Associates, Investment Management Consultants, 1980-1981.
- Executive Visions Inc., Board of Directors, Member
- Board of External Advisors, College of Business, Georgia State University, Member 1987-1991

**PROFESSIONAL CLIENTS**

AGL Resources	Central Telephone	Garmaise-Thomson & Assoc., Investment Consultants
AT & T Communications	Central & South West Corp.	Gaz Metropolitan
Alagasco - Energen	Chattanooga Gas Company	General Public Utilities
Alaska Anchorage Municipal Light & Power	Cincinnati Gas & Electric	Georgia Broadcasting Corp.
Alberta Power Ltd.	Cinergy Corp.	Georgia Power Company
Ameren	Citizens Utilities	GTE California - Verizon
American Water Works Company	City Gas of Florida	GTE Northwest Inc. - Verizon
Ameritech	CN-CP Telecommunications	GTE Service Corp. - Verizon
Arkansas Western Gas	Commonwealth Telephone Co.	GTE Southwest Incorporated - Verizon
Baltimore Gas & Electric – Constellation Energy	Columbia Gas System	Gulf Power Company
B.C. Telephone	Consolidated Natural Gas	Havasu Water Inc.
B C GAS	Constellation Energy	Hawaiian Electric Company
Bell Canada	Delmarva Power & Light Co.	Heater Utilities – Aqua - America
Bellcore	Deerpath Group	Hope Gas Inc.
Bell South Corp.	Edison International	Hydro-Quebec
Bruncor (New Brunswick Telephone)	Edmonton Power Company	ICG Utilities
Burlington-Northern	Elizabethtown Gas Co.	Illinois Commerce Commission
C & S Bank	Energen	Island Telephone
Cajun Electric	Engraph Corporation	Jersey Central Power & Light
Canadian Radio-Television & Telecomm. Commission	Entergy Corp.	Kansas Power & Light
Canadian Utilities	Entergy Arkansas Inc.	KeySpan Energy
Canadian Western Natural Gas	Entergy Gulf States, Inc.	Manitoba Hydro
Cascade Natural Gas	Entergy Louisiana, Inc.	Maritime Telephone
Centel	Entergy New Orleans, Inc.	Metropolitan Edison Co.
Centra Gas	First Energy	
Central Illinois Light & Power Co.	Florida Water Association	
	Fortis	

Minister of Natural Resources Province of Quebec	NUI Corp.	San Diego Gas & Electric
Minnesota Power & Light	NYNEX	SaskPower
Mississippi Power Company	Oklahoma G & E	Sierra Pacific Power Company
Missouri Gas Energy	Ontario Telephone Service Commission	Southern Bell
Mountain Bell	Orange & Rockland	Southern States Utilities
Nevada Power Company	Pacific Northwest Bell	Southern Union Gas
New Brunswick Power	People's Gas System Inc.	South Central Bell
Newfoundland Power Inc. - Fortis Inc.	People's Natural Gas	Sun City Water Company
New Tel Enterprises Ltd.	Pennsylvania Electric Co.	TECO Energy
New York Telephone Co.	Pepco Holdings	The Southern Company
Norfolk-Southern	Price Waterhouse	Touche Ross and Company
Northeast Utilities	PSI Energy	TransEnergie
Northern Telephone Ltd.	Public Service Electric & Gas	Trans-Quebec & Maritimes Pipeline
Northwestern Bell	Public Service of New Hampshire	TXU Corp
Northwestern Utilities Ltd.	Puget Sound Electric Co.	US WEST Communications
Nova Scotia Power – Emera Inc.	Quebec Telephone	Union Heat Light & Power
Nova Scotia Utility and Review Board	Regie de l'Energie du Quebec	Utah Power & Light
	Rochester Telephone	Vermont Gas Systems Inc.

#### **MANAGEMENT DEVELOPMENT AND PROFESSIONAL EXECUTIVE EDUCATION**

- Canadian Institute of Marketing, Corporate Finance, 1971-73
- Hydro-Quebec, "Capital Budgeting Under Uncertainty," 1974-75
- Institute of Certified Public Accountants, Mergers & Acquisitions, 1975-78
- Investment Dealers Association of Canada, 1977-78
- Financial Research Foundation, bi-annual seminar, 1975-79
- Advanced Management Research (AMR), faculty member, 1977-80
- Financial Analysts Federation, Educational chapter: "Financial Futures Contracts" seminar

- Exnet Inc. a.k.a. The Management Exchange Inc., faculty member 1981-2006  
National Seminars:

*Risk and Return on Capital Projects*  
*Cost of Capital for Regulated Utilities*  
*Capital Allocation for Utilities*  
*Alternative Regulatory Frameworks*  
*Utility Directors' Workshop*  
*Shareholder Value Creation for Utilities*  
*Real Options in Utility Capital Investments*  
*Fundamentals of Utility Finance in a Restructured Environment*  
*Contemporary Issues in Utility Finance*

- Georgia State University College of Business, Management  
Development Program, faculty member, 1981-1994

#### **EXPERT TESTIMONY & UTILITY CONSULTING AREAS OF EXPERTISE**

Rate of Return	Risk Analysis
Capital Structure	Capital Allocation
Generic Cost of Capital	Divisional Cost of Capital, Unbundling
Costing Methodology	Incentive Regulation & Alternative Regulatory Plans
Depreciation	Shareholder Value Creation
Flow-Through vs Normalization	Value-Based Management
Revenue Requirements Methodology	
Utility Capital Expenditures Analysis	



**REGULATORY BODIES**

Federal Communications Commission	Washington Utilities & Transportation Commission
Federal Energy Regulatory Commission	Manitoba Board of Public Utilities
Georgia Public Service Commission	New Jersey Board of Public Utilities
South Carolina Public Service Commission	Alabama Public Service Commission
North Carolina Utilities Commission	Utah Public Service Commission
Pennsylvania Public Service Commission	Nevada Public Service Commission
Ontario Telephone Service Commission	Louisiana Public Service Commission
Quebec Telephone Service Commission	Colorado Public Utilities Board
Newfoundland Board of Commissioners of Public Utilities	West Virginia Public Service Commission
Georgia Senate Committee on Regulated Industries	Ohio Public Utilities Commission
Alberta Public Service Board	California Public Service Commission
Tennessee Regulatory Authority	Hawaii Public Service Commission
Oklahoma State Board of Equalization	Illinois Commerce Commission
Mississippi Public Service Commission	British Columbia Board of Public Utilities
Minnesota Public Utilities Commission	Indiana Utility Regulatory Commission
Canadian Radio-Television & Telecommunications Comm.	Minnesota Public Utilities Commission
New Brunswick Board of Public Commissioners	Texas Public Utility Commission
Alaska Public Utility Commission	Michigan Public Service Commission
National Energy Board of Canada	Iowa Board of Public Utilities
Florida Public Service Commission	Missouri Public Service Commission
Montana Public Service Commission	Arkansas Public Service Commission
Arizona Corporation Commission	Hawaii Public Utility Commission
Quebec Natural Gas Board	New Hampshire Public Utility Commission
Quebec Regie de l'Energie	Delaware Public Utility Commission
New York Public Service Commission	Washington Utilities & Transportation Commission
	Virginia Public Service Commission

**SERVICE AS EXPERT WITNESS**

Southern Bell, So. Carolina PSC, Docket #81-201C

Southern Bell, So. Carolina PSC, Docket #82-294C

Southern Bell, North Carolina PSC, Docket #P-55-816

Metropolitan Edison, Pennsylvania PUC, Docket #R-822249

Pennsylvania Electric, Pennsylvania PUC, Docket #R-822250

Georgia Power, Georgia PSC, Docket # 3270-U, 1981

Georgia Power, Georgia PSC, Docket # 3397-U, 1983

Georgia Power, Georgia PSC, Docket # 3673-U, 1987

Georgia Power, F.E.R.C., Docket # ER 80-326, 80-327

Georgia Power, F.E.R.C., Docket # ER 81-730, 80-731

Georgia Power, F.E.R.C., Docket # ER 85-730, 85-731

Bell Canada, CRTC 1987

Northern Telephone, Ontario PSC

GTE-Quebec Telephone, Quebec PSC, Docket 84-052B

Newtel., Nfld. Brd of Public Commission PU 11-87

CN-CP Telecommunications, CRTC

Quebec Northern Telephone, Quebec PSC

Edmonton Power Company, Alberta Public Service Board

Kansas Power & Light, F.E.R.C., Docket # ER 83-418

NYNEX, FCC generic cost of capital Docket #84-800

Bell South, FCC generic cost of capital Docket #84-800

American Water Works - Tennessee, Docket #7226

Burlington-Northern - Oklahoma State Board of Taxes

Georgia Power, Georgia PSC, Docket # 3549-U

GTE Service Corp., FCC Docket #84-200

Mississippi Power Co., Miss. PSC, Docket U-4761

Citizens Utilities, Ariz. Corp. Comm., D # U2334-86020

Quebec Telephone, Quebec PSC, 1986, 1987, 1992

Newfoundland L & P, Nfld. Brd. Publ Comm. 1987, 1991

Northwestern Bell, Minnesota PSC, #P-421/CI-86-354

GTE Service Corp., FCC Docket #87-463

Anchorage Municipal Power & Light, Alaska PUC, 1988

New Brunswick Telephone, N.B. PUC, 1988

Trans-Quebec Maritime, Nat'l Energy Brd. of Cda, '88-92

Gulf Power Co., Florida PSC, Docket #88-1167-EI

Mountain States Bell, Montana PSC, #88-1.2

Mountain States Bell, Arizona CC, #E-1051-88-146

Georgia Power, Georgia PSC, Docket #  
3840-U, 1989

Rochester Telephone, New York PSC,  
Docket # 89-C-022

Noverco - Gaz Metro, Quebec Natural Gas  
PSC, #R-3164-89

GTE Northwest, Washington UTC, #U-89-  
3031

Orange & Rockland, New York PSC, Case  
89-E-175

Central Illinois Light Company, ICC, Case  
90-0127

Peoples Natural Gas, Pennsylvania PSC,  
Case

Gulf Power, Florida PSC, Case # 891345-EI

ICG Utilities, Manitoba BPU, Case 1989

New Tel Enterprises, CRTC, Docket #90-15

Peoples Gas Systems, Florida PSC

Jersey Central Pwr & Light, N.J. PUB, Case  
ER 89110912J

Alabama Gas Co., Alabama PSC, Case  
890001

Trans-Quebec Maritime Pipeline, Cdn. Nat'l  
Energy Board

Mountain Bell, Utah PSC,

Mountain Bell, Colorado PUB

South Central Bell, Louisiana PS

Hope Gas, West Virginia PSC

Vermont Gas Systems, Vermont PSC

Alberta Power Ltd., Alberta PUB

Ohio Utilities Company, Ohio PSC

Georgia Power Company, Georgia PSC

Sun City Water Company

Havasu Water Inc.

Centra Gas (Manitoba) Co.

Central Telephone Co. Nevada

AGT Ltd., CRTC 1992

BC GAS, BCPUB 1992

California Water Association, California  
PUC 1992

Maritime Telephone 1993

BCE Enterprises, Bell Canada, 1993

Citizens Utilities Arizona gas division 1993

PSI Resources 1993-5

CILCORP gas division 1994

GTE Northwest Oregon 1993

Stentor Group 1994-5

Bell Canada 1994-1995

PSI Energy 1993, 1994, 1995, 1999

Cincinnati Gas & Electric 1994, 1996, 1999,  
2004

Southern States Utilities, 1995

CILCO 1995, 1999, 2001

Commonwealth Telephone 1996

Edison International 1996, 1998

Citizens Utilities 1997

Stentor Companies 1997

Hydro-Quebec 1998

Entergy Gulf States Louisiana 1998, 1999,  
2001, 2002, 2003

Detroit Edison, 1999, 2003

Entergy Gulf States, Texas, 2000, 2004

Hydro Quebec TransEnergie, 2001, 2004

Sierra Pacific Company, 2000, 2001, 2002

Nevada Power Company, 2001

Mid American Energy, 2001, 2002

Entergy Louisiana Inc. 2001, 2002, 2004

Mississippi Power Company, 2001, 2002

Oklahoma Gas & Electric Company, 2002 -  
2003

Public Service Electric & Gas, 2001, 2002

NUI Corp (Elizabethtown Gas Company),  
2002

Jersey Central Power & Light, 2002

San Diego Gas & Electric, 2002

NB Power, 2002

Entergy New Orleans, 2002

Hydro-Quebec Distribution 2002

PSI Energy 2003

Fortis – Newfoundland Power & Light 2002

Emera – Nova Scotia Power 2004

Hydro-Quebec TransEnergie 2004

Hawaiian Electric 2004

Missouri Gas Energy 2004

AGL Resources 2004

Arkansas Western Gas 2004

Public Service of New Hampshire 2005

Hawaiian Electric Company 2005

Delmarva Power & Light Company 2005

Union Heat Power & Light 2005

Puget Sound Electric Co 2006-01-16

Cascade Natural Gas 2006

### **PROFESSIONAL AND LEARNED SOCIETIES**

- Engineering Institute of Canada, 1967-1972
- Canada Council Award, recipient 1971 and 1972
- Canadian Association Administrative Sciences, 1973-80
- American Association of Decision Sciences, 1974-1978
- American Finance Association, 1975-2002
- Financial Management Association, 1978-2002

### **ACTIVITIES IN PROFESSIONAL ASSOCIATIONS AND MEETINGS**

- Chairman of meeting on "New Developments in Utility Cost of Capital", Southern Finance Association, Atlanta, Nov. 1982
- Chairman of meeting on "Public Utility Rate of Return", Southeastern Public Utility Conference, Atlanta, Oct. 1982
- Chairman of meeting on "Current Issues in Regulatory Finance", Financial Management Association, Atlanta, Oct. 1983
- Chairman of meeting on "Utility Cost of Capital", Financial Management Association, Toronto, Canada, Oct. 1984.
- Committee on New Product Development, FMA, 1985
- Discussant, "Tobin's Q Ratio", paper presented at Financial Management Association, New York, N.Y., Oct. 1986
- Guest speaker, "Utility Capital Structure: New Developments", National Society of Rate of Return Analysts 18th Financial Forum, Wash., D.C. Oct. 1986
- Opening address, "Capital Expenditures Analysis: Methodology vs Mythology," Bellcore Economic Analysis Conference, Naples Fla., 1988.

### **PAPERS PRESENTED:**

"An Empirical Study of Multi-Period Asset Pricing," annual meeting of Financial Management Assoc., Las Vegas Nevada, 1987.

"Utility Capital Expenditures Analysis: Net Present Value vs Revenue Requirements", annual meeting of Financial Management Assoc., Denver, Colorado, October 1985.

"Intervention Analysis and the Dynamics of Market Efficiency", annual meeting of Financial Management Assoc., San Francisco, Oct. 1982

"Intertemporal Market-Line Theory: An Empirical Study," annual meeting of Eastern Finance Assoc., Newport, R.I. 1981

"Option Writing for Financial Institutions: A Cost-Benefit Analysis", 1979 annual meeting Financial Research Foundation  
"Free-lunch on the Toronto Stock Exchange", annual meeting of Financial Research Foundation of Canada, 1978.

"Simulation System Computer Software SIMFIN", HP International Business Computer Users Group, London, 1975.

"Inflation Accounting: Implications for Financial Analysis." Institute of Certified Public Accountants Symposium, 1979.

### **OFFICES IN PROFESSIONAL ASSOCIATIONS**

- President, International Hewlett-Packard Business Computers Users Group, 1977
- Chairman Program Committee, International HP Business Computers Users Group, London, England, 1975
- Program Coordinator, Canadian Assoc. of Administrative Sciences, 1976
- Member, New Product Development Committee, Financial Management Association, 1985-1986
- Reviewer: Journal of Financial Research

Financial Management  
Financial Review  
Journal of Finance

### **PUBLICATIONS**

"Risk Aversion Revisited", Journal of Finance, Sept. 1983

"Hedging Regulatory Lag with Financial Futures," Journal of Finance, May 1983. (with G. Gay, R. Kolb)

"The Effect of CWIP on Cost of Capital," Public Utilities Fortnightly, July 1986.

"The Effect of CWIP on Revenue Requirements" Public Utilities Fortnightly, August 1986.

"Intervention Analysis and the Dynamics of Market Efficiency," Time-Series Applications, New York: North Holland, 1983. (with K. El-Sheshai)

"Market-Line Theory and the Canadian Equity Market," Journal of Business Administration, Jan. 1982, M. Brennan, editor

"Efficiency of Canadian Equity Markets," International Management Review, Feb. 1978.

"Intertemporal Market-Line Theory: An Empirical Test," Financial Review, Proceedings of the Eastern Finance Association, 1981.

### **BOOKS**

Utilities' Cost of Capital, Public Utilities Reports Inc., Arlington, Va., 1984.

Regulatory Finance, Public Utilities Reports Inc., Arlington, Va., 1994.

Driving Shareholder Value, McGraw-Hill, January 2001.

The New Regulatory Finance, forthcoming February 2006.

### **MONOGRAPHS**

Determining Cost of Capital for Regulated Industries, Public Utilities Reports, Inc., and The Management Exchange Inc., 1982 - 1993. (with V.L. Andrews)

Alternative Regulatory Frameworks, Public Utilities Reports, Inc., and The Management Exchange Inc., 1993. (with V.L. Andrews)

Risk and Return in Capital Projects, The Management Exchange Inc., 1980. (with B. Deschamps)

Utility Capital Expenditure Analysis, The Management Exchange Inc., 1983.  
Regulation of Cable Television: An Econometric Planning Model, Quebec Department of Communications, 1978.

"An Economic & Financial Profile of the Canadian Cablevision Industry," Canadian Radio-Television & Telecommunication Commission (CRTC), 1978.

Computer Users' Manual: Finance and Investment Programs, University of Montreal Press, 1974, revised 1978.

Fiber Optics Communications: Economic Characteristics, Quebec Department of Communications, 1978.

"Canadian Equity Market Inefficiencies", Capital Market Research Memorandum, Garmaise & Thomson Investment Consultants, 1979.

### **MISCELLANEOUS CONSULTING REPORTS**

"Operational Risk Analysis: California Water Utilities," Calif. Water Association, 1993.

"Cost of Capital Methodologies for Independent Telephone Systems", Ontario Telephone Service Commission, March 1989.

"The Effect of CWIP on Cost of Capital and Revenue Requirements", Georgia Power Company, 1985.

"Costing Methodology and the Effect of Alternate Depreciation and Costing Methods on Revenue Requirements and Utility Finances", Gaz Metropolitan Inc., 1985.

"Simulated Capital Structure of CN-CP Telecommunications: A Critique", CRTC, 1977.

"Telecommunications Cost Inquiry: Critique", CRTC, 1977.

"Social Rate of Discount in the Public Sector", CRTC Policy Statement, 1974.

"Technical Problems in Capital Projects Analysis", CRTC Policy Statement, 1974.

### **RESEARCH GRANTS**

"Econometric Planning Model of the Cablevision Industry", International Institute of Quantitative Economics, CRTC.

"Application of the Averch-Johnson Model to Telecommunications Utilities", Canadian Radio-Television Commission. (CRTC)

"Economics of the Fiber Optics Industry", Quebec Dept. of Communications.

"Intervention Analysis and the Dynamics of Market Efficiency", Georgia State Univ. College of Business, 1981.

"Firm Size and Beta Stability", Georgia State University College of Business, 1982.

"Risk Aversion and the Demand for Risky Assets", Georgia State University College of Business, 1981.

Chase Econometrics, Interactive Data Corp., Research Grant, \$50,000 per annum, 1986-1989.



**UNIVERSITY SERVICE**

- University Senate, elected departmental senator 1987-1989, 1998-2002
- Faculty Affairs Committee, elected departmental representative
- Professional Continuing Education Committee member
- Director Master in Science (Finance) Program
- Course Coordinator, Corporate Finance, MBA program
- Chairman, Corporate Finance Curriculum Committee
- Executive Education: Departmental Coordinator 2000

**VERTICALLY INTEGRATED ELECTRIC UTILITIES  
 BETA ESTIMATES**

	Company Name	Industry	Beta
1	ALLETE	UTILCENT	
2	Alliant Energy	UTILCENT	0.85
3	Ameren Corp.	UTILCENT	0.75
4	Amer. Elec. Power Gen. Vermont Pub.	UTILCENT	1.20
5	Serv.	UTILEAST	0.60
6	Cleco Corp.	UTILCENT	1.20
7	Edison Int'l	UTILWEST	1.10
8	El Paso Electric	UTILWEST	0.70
9	Empire Dist. Elec.	UTILCENT	0.75
10	Energy East Corp.	UTILEAST	0.85
11	Entergy Corp.	UTILCENT	0.85
12	FirstEnergy Corp.	UTILEAST	0.75
13	FPL Group Green Mountain	UTILEAST	0.80
14	Pwr.	UTILEAST	0.60
15	Hawaiian Elec.	UTILWEST	0.70
16	IDACORP Inc.	UTILWEST	0.95
17	MGE Energy	UTILCENT	0.70
18	Northeast Utilities	UTILEAST	0.80
19	PG&E Corp. Pinnacle West	UTILWEST	1.15
20	Capital	UTILWEST	0.95
21	PNM Resources	UTILWEST	0.95
22	Progress Energy	UTILEAST	0.80
23	Puget Energy Inc.	UTILWEST	0.80
24	Southern Co.	UTILEAST	0.65
25	TECO Energy	UTILEAST	1.00
26	Wisconsin Energy	UTILCENT	0.75
27	Xcel Energy Inc.	UTILWEST	0.85
	<b>AVERAGE</b>		<b>0.85</b>

Source: VLIA  
 03/2006

MOODY'S ELECTRIC UTILITIES  
BETA ESTIMATES

	Company Name	Beta
1	Amer. Elec. Power	1.20
2	CH Energy Group	0.80
3	Consol. Edison	0.65
4	Constellation Energy	0.95
5	Dominion Resources	0.95
6	DPL Inc.	0.95
7	Duquesne Light Hldgs	0.85
8	Duke Energy	1.20
9	Energy East Corp.	0.85
10	Exelon Corp.	0.80
11	FirstEnergy Corp.	0.75
12	IDACORP Inc.	0.95
13	NiSource Inc.	0.80
14	OGE Energy	0.75
15	PPL Corp.	1.00
16	Progress Energy	0.80
17	Public Serv. Enterprise	0.90
18	Southern Co.	0.65
19	TECO Energy	1.00
20	Xcel Energy Inc.	0.85
	AVERAGE	0.88
	AVERAGE w/o AEP, Duke	0.85

Source: VLIA 4/2006

MOODY'S ELECTRIC UTILITY COMMON STOCKS  
 OVER LONG-TERM TREASURY BONDS  
 ANNUAL LONG-TERM RISK PREMIUM ANALYSIS

Year	Long-Term	20 year	Moody's								
	Government	Maturity				Bond	Utility	Capital		Stock	Equity
	Bond	Bond	Gain/Loss	Interest	Total	Stock	Gain/(Loss)	Yield	Total	Risk	
	Yield	Value			Return	Index	% Growth		Return	Premium	
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	
1931	4.07%	1,000.00				43.23					
1932	3.15%	1,135.75	135.75	40.70	17.64%	39.42	2.63	-6.61%	6.06%	-2.73%	-20.37%
1933	3.38%	969.60	-30.40	31.50	0.11%	28.73	1.96	-27.12%	4.95%	-22.17%	-22.28%
1934	2.93%	1,064.73	64.73	33.60	9.83%	21.06	1.60	-26.70%	5.97%	-21.13%	-30.66%
1935	2.78%	1,025.99	25.99	29.30	5.53%	36.06	1.32	71.23%	6.27%	77.48%	71.96%
1936	2.55%	1,032.74	32.74	27.60	6.03%	41.60	1.48	15.36%	4.10%	19.47%	13.43%
1937	2.73%	872.40	-27.60	25.50	-0.21%	24.24	1.74	-41.73%	4.18%	-37.65%	-37.34%
1938	2.52%	1,032.83	32.83	27.30	6.01%	27.56	1.50	13.66%	6.19%	19.84%	13.83%
1939	2.26%	1,041.66	41.66	25.20	6.68%	28.86	1.48	4.72%	5.37%	10.09%	3.41%
1940	1.94%	1,052.84	52.84	22.60	7.54%	22.22	1.54	-22.96%	5.34%	-17.64%	-25.19%
1941	2.04%	983.84	-16.36	19.40	0.30%	13.46	1.44	-39.47%	6.48%	-32.99%	-33.29%
1942	2.46%	933.97	-66.03	20.40	-4.56%	14.29	1.26	6.25%	9.37%	15.61%	20.16%
1943	2.48%	996.86	-3.14	24.60	2.16%	21.01	1.28	47.03%	8.96%	56.98%	53.84%
1944	2.48%	1,003.14	3.14	24.80	2.79%	21.09	1.31	0.36%	6.24%	6.62%	3.82%
1945	1.99%	1,077.23	77.23	24.60	10.18%	31.14	1.30	47.65%	6.16%	53.82%	43.63%
1946	2.12%	978.90	-21.10	19.90	-0.12%	32.71	1.43	5.04%	4.59%	9.63%	9.75%
1947	2.43%	951.13	-48.57	21.20	-2.77%	25.60	1.56	-21.74%	4.77%	-16.97%	-14.20%
1948	2.37%	1,009.51	9.51	24.30	3.36%	26.20	1.60	2.34%	6.25%	8.59%	5.21%
1949	2.09%	1,045.56	45.56	23.70	6.93%	30.67	1.66	16.68%	6.34%	23.02%	16.09%
1950	2.24%	975.93	-24.07	20.90	-0.32%	30.81	1.76	0.79%	5.75%	6.54%	6.66%
1951	2.69%	930.75	-69.25	22.40	-4.69%	33.85	1.68	9.87%	6.10%	15.07%	20.65%
1952	2.75%	964.75	-15.25	26.90	1.17%	37.85	1.91	11.82%	5.64%	17.46%	16.29%
1953	2.74%	1,007.66	7.66	27.90	3.66%	39.81	2.01	4.65%	5.31%	9.96%	6.40%
1954	2.72%	1,003.07	3.07	27.40	3.05%	47.56	2.13	20.07%	5.36%	25.45%	22.40%
1955	2.95%	965.44	-34.56	27.20	-0.74%	49.35	2.21	3.76%	4.65%	8.41%	9.15%
1956	3.45%	928.19	-71.81	29.50	-4.25%	48.96	2.32	-0.79%	4.70%	3.91%	8.14%
1957	3.23%	1,032.23	32.23	34.90	6.67%	50.30	2.43	2.74%	4.96%	7.70%	1.03%
1958	3.82%	918.01	-81.99	32.30	-4.97%	66.37	2.50	31.95%	4.87%	36.92%	41.89%
1959	4.47%	914.65	-85.35	38.20	-4.71%	65.77	2.61	-0.90%	3.93%	3.03%	7.74%
1960	3.80%	1,093.27	93.27	44.70	13.60%	76.82	2.66	16.80%	4.07%	20.88%	7.98%
1961	4.15%	952.75	-47.25	38.00	-0.92%	99.32	2.81	29.29%	3.66%	32.95%	33.67%
1962	3.95%	1,027.46	27.46	41.50	6.90%	86.49	2.87	-2.85%	2.99%	0.14%	-6.76%
1963	4.17%	870.35	-29.65	39.50	0.99%	102.31	3.21	6.03%	3.33%	9.36%	8.37%
1964	4.23%	991.96	-8.04	41.70	3.37%	115.54	3.43	12.93%	3.35%	16.26%	12.92%
1965	4.50%	964.64	-35.36	42.30	0.69%	114.86	3.65	-0.59%	3.34%	2.75%	2.06%

Year	Long-Term		Moody's									
	Government	20 year Maturity	Bond			Electric		Capital		Stock	Equity	
	Bond	Bond	Gain/Loss	Interest	Total	Utility	Stock	Gain/(Loss)	Yield	Total	Risk	
	Yield	Value	-3	-4	-5	-6	-7	-8	-8	-10	-11	
1931	4.07%	1,000.00				43.23						
1932	3.15%	1,135.75	135.75	40.70	17.64%	39.42	2.63	-8.81%	6.08%	-2.73%	-20.37%	
1966	4.55%	893.48	-8.52	45.00	3.85%	105.99	4.11	-7.72%	3.58%	-4.14%	-7.99%	
1967	5.56%	879.01	-120.99	45.50	-7.55%	98.19	4.34	-7.38%	4.09%	-3.28%	4.28%	
1968	5.98%	851.38	-48.62	55.60	0.70%	104.04	4.50	5.96%	4.58%	10.54%	9.84%	
1969	6.67%	804.00	-96.00	59.80	-3.62%	84.62	4.61	-18.67%	4.43%	-14.23%	-10.62%	
1970	6.48%	1,043.38	43.38	68.70	11.21%	88.59	4.70	4.69%	5.55%	10.25%	-0.96%	
1971	5.97%	1,059.09	59.09	64.80	12.39%	85.56	4.77	-3.42%	5.38%	1.98%	-10.42%	
1972	5.99%	997.59	-2.31	59.70	5.74%	83.61	4.87	-2.28%	5.69%	3.41%	-2.33%	
1973	7.28%	867.09	-132.91	59.90	-7.30%	60.87	5.01	-27.20%	5.99%	-21.21%	-13.90%	
1974	7.60%	985.33	-34.67	72.60	3.79%	41.17	4.83	-32.36%	7.93%	-24.43%	-28.22%	
1975	8.05%	955.63	-44.37	76.00	3.18%	55.66	4.97	35.20%	12.07%	47.27%	44.10%	
1976	7.21%	1,088.25	88.25	80.50	18.87%	66.29	5.18	19.10%	9.31%	28.40%	11.53%	
1977	8.03%	919.03	-80.97	72.10	-0.89%	68.19	5.54	2.87%	8.36%	11.22%	12.11%	
1978	8.98%	912.47	-87.63	80.30	-0.72%	58.75	5.81	-12.38%	8.52%	-3.86%	-3.13%	
1979	10.12%	902.99	-97.01	89.80	-0.72%	56.41	6.22	-5.59%	10.41%	4.82%	5.54%	
1980	11.99%	858.23	-140.77	101.20	-3.96%	54.42	6.58	-3.53%	11.66%	6.14%	12.09%	
1981	13.34%	906.45	-93.55	119.80	2.83%	57.20	6.99	5.11%	12.84%	17.95%	15.32%	
1982	10.95%	1,192.38	192.38	133.40	32.56%	70.26	7.43	22.83%	12.99%	35.82%	3.24%	
1983	11.97%	923.12	-76.68	109.50	3.26%	72.03	7.67	2.52%	11.20%	13.72%	10.46%	
1984	11.70%	1,020.70	20.70	119.70	14.04%	80.18	8.28	11.29%	11.47%	22.75%	8.71%	
1985	9.56%	1,189.27	189.27	117.00	30.83%	94.98	8.61	18.49%	10.74%	29.23%	-1.40%	
1986	7.89%	1,165.63	165.63	95.90	28.22%	113.66	8.89	19.67%	9.36%	29.03%	2.80%	
1987	9.20%	881.17	-118.63	78.90	-3.89%	94.24	9.12	-17.09%	8.02%	-8.06%	-5.07%	
1988	9.18%	1,001.82	1.82	92.00	9.38%	100.94	8.87	7.11%	9.41%	16.62%	7.14%	
1989	8.16%	1,099.75	99.75	91.80	19.16%	122.52	8.82	21.38%	8.74%	30.12%	10.96%	
1990	8.44%	973.17	-26.83	81.60	5.48%	117.77	8.79	-3.88%	7.17%	3.30%	-2.18%	
1991	7.30%	1,118.94	118.94	84.40	20.33%	144.02	8.95	22.29%	7.60%	29.69%	9.53%	
1992	7.26%	1,004.19	4.19	73.00	7.72%	141.08	9.05	-2.06%	6.28%	4.23%	-3.49%	
1993	6.54%	1,079.70	79.70	72.80	15.23%	148.70	8.99	4.00%	6.37%	10.37%	-4.66%	
1994	7.99%	858.40	-143.60	65.40	-7.82%	115.50	8.98	-21.27%	6.11%	-15.18%	-7.34%	
1995	6.03%	1,225.98	225.98	79.80	30.69%	142.90	9.06	23.72%	7.84%	31.67%	0.86%	
1996	6.73%	923.67	-76.33	60.30	-1.60%	136.00	9.06	-4.83%	6.34%	1.51%	3.11%	
1997	8.02%	1,081.82	81.82	67.30	14.92%	155.73	9.06	14.51%	6.68%	21.17%	6.25%	
1998	5.42%	1,072.71	72.71	60.20	13.28%	181.44	8.01	16.51%	5.14%	21.65%	8.36%	
1999	8.82%	848.41	-151.59	54.20	-8.74%	137.30	8.08	-24.33%	4.44%	-19.89%	-10.15%	
2000	5.58%	1,148.30	148.30	68.20	21.65%	227.09	8.71	65.40%	6.34%	71.74%	50.09%	
2001	6.75%	879.95	-20.05	55.80	3.57%	214.08	8.56	-5.73%	3.77%	-1.96%	-5.54%	

Year	Long-Term	20 year	Moody's								
	Government	Maturity			Bond	Electric	Capital		Stock	Equity	
	Bond	Bond	Gain/Loss	Interest	Total	Utility	Gain/(Loss)	Yield	Total	Risk	
Yield	Value			Return	Index	Dividend	% Growth	Yield	Return	Premium	
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	
1931	4.07%	1,000.00				43.23					
1932	3.15%	1,135.75	135.75	40.70	17.64%	39.42	2.63	-8.81%	6.08%	-2.73%	-20.37%
Mean											5.86%

Source: Merger's (Moody's) Public Utility Manual 2002 December stock prices and dividends

Dec. Bond yields from Ibbotson Associates 2002 Yearbook Table B-9 Long-Term Government Bonds Yields

December stock price, dividends from Moody's Public Utility Manual

## ELECTRIC UTILITIES HISTORICAL GROWTH RATES

	Company Name	Industry	Earnings Growth 5-Year	Dividend Growth 5-Year	Book Value Growth 5-Year
1	ALLETE	UTILCENT			
2	Alliant Energy	UTILCENT	-3.0	-7.5	-1.5
3	Amer. Elec. Power	UTILCENT	3.5	-9.0	-3.5
4	Ameren Corp.	UTILCENT	1.5		4.0
5	Avista Corp.	UTILWEST	-3.5	-5.0	4.5
6	Black Hills	UTILWEST	4.5	4.0	17.0
7	Cen. Vermont Pub. Serv.	UTILEAST	8.5	0.5	2.0
8	CH Energy Group	UTILEAST	-1.5		2.0
9	Cinergy Corp.	UTILCENT	1.5	0.5	5.0
10	Cleco Corp.	UTILCENT	1.0	2.0	4.0
11	Consol. Edison	UTILEAST	-2.0	1.0	2.5
12	Constellation Energy	UTILEAST	6.0	-9.0	4.5
13	Dominion Resources	UTILEAST	11.0		4.5
14	DPL Inc.	UTILCENT	-1.0	0.5	-3.5
15	DTE Energy	UTILCENT	-2.0		3.5
16	Duke Energy	UTILEAST	-4.5		7.5
17	Duquesne Light Hldgs	UTILEAST	-14.5	-5.5	-17.5
18	Edison Int'l	UTILWEST		-9.0	8.5
19	Empire Dist. Elec.	UTILCENT	-5.0		2.0
20	Energy East Corp.	UTILEAST	-0.5	5.5	5.5
21	Entergy Corp.	UTILCENT	11.0	1.5	5.5
22	Exelon Corp.	UTILEAST	6.5		
23	FirstEnergy Corp.	UTILEAST	1.0	2.0	6.0
24	Florida Public Utilities	UTILEAST	-0.5	4.5	8.0
25	FPL Group	UTILEAST	3.5	4.5	6.0
26	Green Mountain Pwr.	UTILEAST	37.5	-6.5	-0.5
27	Hawaiian Elec.	UTILWEST	1.0		2.5
28	IDACORP Inc.	UTILWEST	-3.0	-0.5	4.0
29	Maine & Maritimes Corp	UTILEAST	20.0	6.5	6.0
30	MDU Resources	UTILWEST	10.5	5.0	13.0
31	MGE Energy	UTILCENT	4.0	1.0	5.0
32	NiSource Inc.	UTILCENT		1.0	7.0
33	Northeast Utilities	UTILEAST		37.5	2.0
34	NSTAR	UTILEAST	4.0	1.0	2.0
35	OGE Energy	UTILCENT	-2.0		1.5

**ELECTRIC UTILITIES  
 HISTORICAL GROWTH RATES**

36	Otter Tail Corp.	UTILCENT	2.0	2.0	7.5
37	Pepco Holdings	UTILEAST			
38	PG&E Corp.	UTILWEST	-20.5		-8.0
39	Pinnacle West Capital	UTILWEST	-3.0	7.0	4.0
40	PNM Resources	UTILWEST	-2.0	4.5	5.0
41	PPL Corp.	UTILEAST	8.5	8.5	12.0
42	Progress Energy	UTILEAST	5.5	3.0	8.5
43	Public Serv. Enterprise	UTILEAST	5.0		0.5
44	Puget Energy Inc.	UTILWEST	-5.5	-10.5	0.5
45	SCANA Corp.	UTILEAST	7.0	2.0	3.0
46	Sempra Energy	UTILWEST	14.0	-8.5	6.0
47	Southern Co.	UTILEAST	2.5	1.0	-1.5
48	TECO Energy	UTILEAST	-11.0	-3.5	-2.0
49	UniSource Energy	UTILWEST	5.0		12.0
50	UNITIL Corp.	UTILEAST	-1.5		0.5
51	Vectren Corp.	UTILCENT	1.0	3.0	3.5
52	Westar Energy	UTILCENT	-1.5	-14.5	-11.0
53	Wisconsin Energy	UTILCENT	9.5	-12.0	3.5
54	WPS Resources	UTILCENT	11.0	2.0	8.5
55	Xcel Energy Inc.	UTILWEST	-9.5	-9.0	-5.0
	<b>AVERAGE</b>		<b>2.2</b>	<b>0.0</b>	<b>3.2</b>

Source: Value Line Investment  
 Analyzer 4/2006



**Integrated Electric, Gas, and Combination Utilities**

<b>Company</b>	<b>Parent</b>
1 AGL Resources Inc	AGL Resources Inc
2 Allete Inc.	Allete Inc.
3 Wisconsin Power & Light Co.	Alliant
4 Interstate Power & Light Co.	Alliant
5 Central Illinois Light Co.	Ameren Corp
6 CILCORP	Ameren Corp
7 Union Electric Co.	Ameren Corp
8 Ameren Corp.	Ameren Corp
9 Kentucky Power Co.	American Electric Power
10 Appalachian Power Co.	American Electric Power
11 Public Service Co. of Oklahoma	American Electric Power
12 Southwestern Electric Power Co.	American Electric Power
13 Atmos Energy Corp.	Atmos
14 Black Hills Power Inc.	Black Hills
15 Central Vermont Public Service	Central Vermont
16 Cincinnati Gas & Electric Co.	Cinergy Corp.
17 PSI Energy Inc.	Cinergy Corp.
18 Union Light Heat & Power Co.	Cinergy Corp.
19 Cleco Power LLC	CLECO
20 Virginia Electric & Power Co	Dominion Resources
21 Detroit Edison Co	DTE Energy Company
22 Michigan Consolidated Gas Co.	DTE Energy Company
23 Duke Energy Field Services LLC	Duke Energy
24 Southern California Edison Co.	Edison International
25 El Paso Electric Co.	El Paso Corp
26 Empire District Electric Co.	Empire District Electric Co.
27 Energen Corp	Energen Corp
28 RGS Energy Group Inc. □	Energy East Corporation
29 Rochester Gas & Electric Corp.	Energy East Corp.
30 Energy East Corp.	Energy East Corp.
31 Entergy Gulf States Inc.	Entergy Corporation
32 Entergy New Orleans Inc.	Entergy Corporation
33 Entergy Mississippi Inc.	Entergy Corporation
34 Entergy Louisiana Inc.	Entergy Corporation
35 Entergy Arkansas Inc.	Entergy Corporation
36 System Energy Resources Inc.	Entergy Corporation
37 Equitable Resources Inc.	Equitable Resources Inc.
38 Ohio Edison Co	FirstEnergy
39 Toledo Edison Co.	FirstEnergy
40 Cleveland Electric Illuminating Co.	FirstEnergy
41 Pennsylvania Power Co.	FirstEnergy
42 Florida Power & Light Co.	FPL Group Inc

**Integrated Electric, Gas, and Combination Utilities**

43	Kansas City Power & Light Co.	Great Plains Energy
44	Green Mountain Power Corp.	Green Mountain Power
45	Hawaiian Electric Co. Inc.	Hawaiian Electric Industries Inc
46	Idaho Power Co.	IDACORP
47	IDACORP Inc.	IDACORP Inc.
48	Kaneb Pipe Line OperPartnership L.P.	Kaneb Pipe Line LP
49	Kentucky Utilities Co.	LG&E Energy Corp
50	Montana-Dakota Utilities Co.	MDU Resources
51	Madison Gas & Electric Co.	MGE Energy
52	MidAmerican Energy Co	MidAmerican Energy Holding Co
53	National Fuel Gas Co.□	National Fuel Gas Co
54	Northern Indiana Public Service Co.	NiSource
55	Columbia Energy Group	NiSource
56	NiSource Inc.	NiSource Inc.
57	Public Service Co. of New Hampshire	Northeast Utilities System
58	Northern Border Partners L.P.	Northern Plains
59	Enogex Inc.	OGE Energy
60	Oklahoma Gas & Electric Co.	OGE Energy Corp
61	Portland General Electric Co.	Oregon Electric Utility Co
62	Pacific Gas & Electric Co.	PG&E National Energy Group Inc
63	Arizona Public Service Co.	Pinnacle West Capital Corp.
64	Pinnacle West Capital Corp.	Pinnacle West Capital Corp.
65	Public Service Co. of New Mexico	PNM Resources
66	PNM Resources Inc.	PNM Resources Inc.
67	Louisville Gas & Electric Co.	Powergen Plc
68	Progress Energy Carolinas Inc.	Progress Energy Inc
69	Progress Energy Florida	Progress Energy Inc
70	Puget Energy Inc.	Puget Energy
71	Puget Sound Energy Inc.	Puget Energy
72	Questar Market Resources Inc.	Questar Corp
73	Questar Corp	Questar Corp
74	SCANA Corp.	SCANA Corp.
75	South Carolina Electric & Gas Co.	SCANA Corp.
76	PacifiCorp	Scottish Power Group
77	San Diego Gas & Electric Co	Sempra Energy
78	Southern Co.	Southern Company
79	Alabama Power Co	Southern Company
80	Georgia Power Co	Southern Company
81	Savannah Electric & Power Co	Southern Company
82	Gulf Power Co.	Southern Company
83	Mississippi Power Co	Southern Company
84	Tampa Electric Co.	TECO Energy Inc
85	TXU U.S. Holdings Co.	TXU
86	Vectren Utility Holdings Inc.	Vectren Corporation
87	Southern Indiana Gas & Electric Co.	Vectren Corporation

**Integrated Electric, Gas, and Combination Utilities**

88	Wisconsin Electric Power Co.	Wisconsin Energy Corp.
89	Wisconsin Energy Corp.	Wisconsin Energy Corp.
90	Wisconsin Public Service Corp.	WPS Resources
91	Southwestern Public Service Co.	XCEL Energy Inc
92	Public Service Co. of Colorado	XCEL Energy Inc
93	Northern States Power Wisconsin	XCEL Energy Inc
94	Northern States Power Co.	XCEL Energy Inc
95	Xcel Energy Inc.	XCEL Energy Inc

**S&P'S VERTICALLY INTEGRATED ELECTRIC UTILITIES**  
**DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS**

	Company	% Current Divid Yield (1)	Proj EPS Growth (2)
1	ALLETE	3.2	
2	Alliant Energy	3.6	6.0
3	Ameren Corp.	5.0	2.5
4	Amer. Elec. Power	4.4	2.5
5	Cleco Corp.	4.0	4.5
6	Edison Int'l	2.7	10.5
7	El Paso Electric	0.0	18.5
8	Empire Dist. Elec.	5.8	6.5
9	Energy East Corp.	4.8	4.0
10	Entergy Corp.	3.1	5.0
11	FirstEnergy Corp.	3.6	8.5
12	FPL Group Green Mountain	3.8	6.5
13	Pwr.	4.0	3.5
14	Hawaiian Elec.	4.6	2.5
15	IDACORP Inc.	3.7	4.5
16	MGE Energy	4.2	5.0
17	Northeast Utilities	3.5	9.0
18	PG&E Corp. Pinnacle West	3.4	26.5
19	Capital	5.1	5.5
20	PNM Resources	3.6	7.0
21	Progress Energy	5.5	
22	Puget Energy Inc.	4.7	5.5
23	Southern Co.	4.7	5.0
24	TECO Energy	4.6	8.5
25	Wisconsin Energy	2.3	5.0
26	Xcel Energy Inc.	4.8	7.5
	<b>AVERAGE</b>	3.9	7.1

**Notes:**  
**Column 1, 2: Value Line**  
**Investment Analyzer, 4/2006**

**S&P'S VERTICALLY INTEGRATED ELECTRIC UTILITIES  
 DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS**

Company	% Current Divid Yield (1)	Proj EPS Growth (2)	% Expected Divid Yield (3)	Cost of Equity (4)	ROE (5)
1 Alliant Energy	3.6	6.0	3.8	9.8	10.0
2 Ameren Corp.	5.0	2.5	5.1	7.6	7.9
3 Amer. Elec. Power	4.4	2.5	4.5	7.0	7.2
4 Cleco Corp.	4.0	4.5	4.2	8.7	8.9
5 Edison Int'l	2.7	10.5	3.0	13.5	13.6
6 Empire Dist. Elec.	5.8	6.5	6.1	12.6	13.0
7 Energy East Corp.	4.8	4.0	5.0	9.0	9.3
8 Entergy Corp.	3.1	5.0	3.3	8.3	8.5
9 FirstEnergy Corp.	3.6	8.5	3.9	12.4	12.6
10 FPL Group	3.8	6.5	4.0	10.5	10.7
11 Green Mountain Pwr.	4.0	3.5	4.1	7.6	7.8
12 Hawaiian Elec.	4.6	2.5	4.7	7.2	7.4
13 IDACORP Inc.	3.7	4.5	3.9	8.4	8.6
14 MGE Energy	4.2	5.0	4.4	9.4	9.6
15 Northeast Utilities	3.5	9.0	3.8	12.8	13.0
16 Pinnacle West Capital	5.1	5.5	5.3	10.8	11.1
17 PNM Resources	3.6	7.0	3.9	10.9	11.1
18 Puget Energy Inc.	4.7	5.5	5.0	10.5	10.7
19 Southern Co.	4.7	5.0	4.9	9.9	10.2
20 TECO Energy	4.6	8.5	5.0	13.5	13.8
21 Wisconsin Energy	2.3	5.0	2.4	7.4	7.5
22 Xcel Energy Inc.	4.8	7.5	5.2	12.7	12.9
<b>AVERAGE</b>	4.1	5.7	4.3	10.0	10.2
<b>DTE Energy</b>	5.0	6.5	5.3	11.8	12.1

Notes:

Column 1, 2: Value Line Investment Analyzer, 4/2006  
 Column 3 = Column 1 times (1 + Column 2/100)  
 Column 4 = Column 3 + Column 2  
 Column 5 = (Column 3 / 0.95) + Column 2

**S&P'S VERTICALLY INTEGRATED ELECTRIC UTILITIES**  
**DCF ANALYSIS: ANALYSTS' GROWTH FORECASTS**

		%	
	Company	Current Divid Yield (1)	Analysts' Growth Forecast (2)
1	ALLETE	3.2	6.8
2	Alliant Energy	3.6	4.0
3	Ameren Corp. Amer. Elec. Power	5.0	6.0
4		4.4	3.0
5	Cleco Corp.	4.0	4.0
6	Edison Int'l	2.7	7.8
7	El Paso Electric Empire Dist. Elec.	0.0	15.0
8		5.8	
9	Energy East Corp.	4.8	4.5
10	Entergy Corp.	3.1	7.4
11	FirstEnergy Corp.	3.6	4.8
12	FPL Group	3.8	6.5
14	Hawaiian Elec.	4.6	5.2
15	IDACORP Inc.	3.7	4.5
16	MGE Energy	4.2	
17	Northeast Utilities	3.5	8.7
18	PG&E Corp. Pinnacle West Capital	3.4	7.0
19		5.1	6.8
20	PNM Resources	3.6	8.3
21	Progress Energy Puget Energy Inc.	5.5	3.8
22		4.7	7.0
23	Southern Co.	4.7	4.8
24	TECO Energy Wisconsin Energy	4.6	5.7
25		2.3	7.2
26	Xcel Energy Inc.	4.8	4.2

Notes:  
 Column 1: Value Line Investment  
 Analyzer, 4/2006  
 Column 2: Zacks long-term  
 earnings growth forecast, 4/2006

**S&P'S VERTICALLY INTEGRATED ELECTRIC UTILITIES  
 DCF ANALYSIS: ANALYSTS' GROWTH FORECASTS**

Company	% Current Divid Yield (1)	Analysts' Growth Forecast (2)	% Expected Divid Yield (3)	Cost of Equity (4)	ROE (5)
1 ALLETE	3.2	6.8	3.4	10.1	10.3
2 Alliant Energy	3.6	4.0	3.7	7.7	7.9
3 Ameren Corp.	5.0	6.0	5.3	11.3	11.6
4 Amer. Elec. Power	4.4	3.0	4.5	7.5	7.7
5 Cleco Corp.	4.0	4.0	4.1	8.1	8.4
6 Edison Int'l	2.7	7.8	2.9	10.7	10.9
7 Energy East Corp.	4.8	4.5	5.0	9.5	9.8
8 Entergy Corp.	3.1	7.4	3.4	10.8	11.0
9 FirstEnergy Corp.	3.6	4.8	3.8	8.6	8.8
10 FPL Group	3.8	6.5	4.0	10.4	10.7
11 Hawaiian Elec.	4.6	5.2	4.8	10.0	10.2
12 IDACORP Inc.	3.7	4.5	3.9	8.4	8.6
13 Northeast Utilities	3.5	8.7	3.8	12.5	12.7
14 PG&E Corp.	3.4	7.0	3.6	10.6	10.8
15 Pinnacle West Capital	5.1	6.8	5.4	12.2	12.4
16 PNM Resources	3.6	8.3	3.9	12.2	12.4
17 Progress Energy	5.5	3.8	5.7	9.4	9.7
18 Puget Energy Inc.	4.7	7.0	5.1	12.1	12.3
19 Southern Co.	4.7	4.8	4.9	9.6	9.9
20 TECO Energy	4.6	5.7	4.9	10.6	10.8
21 Wisconsin Energy	2.3	7.2	2.5	9.7	9.8
22 Xcel Energy Inc.	4.8	4.2	5.0	9.2	9.4
<b>AVERAGE</b>	4.0	5.8	4.3	10.1	10.3
DTE Energy	5.0	5.5	5.3	10.8	11.1

Notes:

- Column 1: Value Line Investment Analyzer, 4/2006
- Column 2: Zacks long-term earnings growth forecast, 4/2006
- Column 3 = Column 1 times (1 + Column 2/100)
- Column 4 = Column 3 + Column 2
- Column 5 = (Column 3 / 0.95) + Column 2

**MOODY'S ELECTRIC UTILITIES  
 DCF ANALYSIS: VALUE LINE GROWTH PROJECTIONS**

	Company	% Current Divid Yield (1)	Proj EPS Growth (2)
1	Amer. Elec. Power	4.1	2.0
2	CH Energy Group	4.4	3.5
3	Energy Corp.	4.5	4.0
4	Consol. Edison	5.0	2.5
5	Constellation Energy	2.6	13.5
6	Dominion Resources	3.7	8.0
7	DPL Inc.	3.7	1.0
8	Duquesne Light Hldgs	5.8	4.0
9	Duke Energy	4.5	8.5
10	Energy East Corp.	4.8	4.0
11	Exelon Corp.	3.0	7.0
12	FirstEnergy Corp.	3.6	8.5
13	IDACORP Inc.	3.7	4.5
14	NiSource Inc.	4.5	0.5
15	OGE Energy	4.7	5.5
16	PPL Corp.	3.5	8.0
17	Progress Energy	5.5	
18	Public Serv. Enterprise	3.3	1.5
19	Southern Co.	4.5	5.0
20	TECO Energy	4.5	8.5
21	Xcel Energy Inc.	4.8	7.5

Notes:

Column 1, 2: Value Line Investment Survey for Windows, 3/2006  
 No Value Line growth forecasts  
 available for Progress Energy



**MOODY'S ELECTRIC UTILITIES  
 DCF ANALYSIS: VALUE LINE GROWTH  
 PROJECTIONS**

Company	% Current Divid Yield (1)	Proj EPS Growth (2)	% Expected Divid Yield (3)	Cost of Equity (4)	ROE (5)
1 Amer. Elec. Power	4.1	2.0	4.1	6.1	6.3
2 CH Energy Group	4.4	3.5	4.5	8.0	8.3
3 Consol. Edison	5.0	2.5	5.2	7.7	7.9
4 Constellation Energy	2.6	13.5	2.9	16.4	16.6
5 Dominion Resources	3.7	8.0	4.0	12.0	12.2
6 Duquesne Light Hldgs	5.8	4.0	6.0	10.0	10.3
7 Duke Energy	4.5	8.5	4.9	13.4	13.6
8 Energy East Corp.	4.8	4.0	5.0	9.0	9.2
9 Exelon Corp.	3.0	7.0	3.2	10.2	10.3
10 FirstEnergy Corp.	3.6	8.5	3.9	12.4	12.6
11 IDACORP Inc.	3.7	4.5	3.8	8.3	8.5
12 NiSource Inc.	4.5	0.5	4.5	5.0	5.3
13 OGE Energy	4.7	5.5	4.9	10.4	10.7
14 PPL Corp.	3.5	8.0	3.8	11.8	12.0
15 Southern Co.	4.5	5.0	4.7	9.7	10.0
16 TECO Energy	4.5	8.5	4.9	13.4	13.6
17 Xcel Energy Inc.	4.8	7.5	5.1	12.6	12.9

**AVERAGE**

5.9                      4.4                      10.4                      10.6

**Notes:**

Column 1, 2: Value Line Investment Survey for Windows, 3/2006

Column 3 = Column 1 times (1 + Column 2/100)

Column 4 = Column 3 + Column 2

Column 5 = (Column 3 /0.95) + Column 2

No Value Line growth forecasts available for Progress Energy

DPL Inc estimate less than cost of debt

Public Service Enterprise in merger activity

**MOODY'S ELECTRIC UTILITIES**

**DCF ANALYSIS:  
 ANALYSTS' GROWTH  
 FORECASTS**

	<b>Company</b>	<b>% Current Divid Yield (1)</b>	<b>Analysts' Growth Forecast (2)</b>
1	Amer. Elec. Power	4.4	3.0
2	CH Energy Group	4.4	
3	Energy Corp.	4.5	4.0
4	Consol. Edison	5.2	4.2
5	Constellation Energy	2.7	11.0
6	Dominion Resources	4.0	9.0
7	DPL Inc.	3.6	7.0
8	Duquesne Light Hldgs	5.9	
9	Duke Energy	4.3	6.0
10	Energy East Corp.	4.8	4.5
11	Exelon Corp.	3.1	9.4
12	FirstEnergy Corp.	3.6	4.8
13	IDACORP Inc.	3.7	4.5
14	NiSource Inc.	4.5	3.4
15	OGE Energy	4.5	3.0
16	PPL Corp.	3.7	8.3
17	Progress Energy	5.5	3.8
18	Public Serv. Enterprise	3.5	7.8

19	Southern Co.	4.7	4.8
20	TECO Energy	4.6	5.7
21	Xcel Energy Inc.	4.8	4.2

Notes:

Column 1: Value Line  
Investment Analyzer, 4/2006

Column 2: Zacks long-term  
earnings growth forecast,  
4/2006

No growth forecast available  
for CH Energy Group,  
Duquesne Light  
Public Serv Enterprise and  
Cinergy in merger

**MOODY'S ELECTRIC UTILITIES  
 DCF ANALYSIS: ANALYSTS' GROWTH FORECASTS**

<b>Company</b>	<b>% Current Divid Yield (1)</b>	<b>Analysts' Growth Forecast (2)</b>	<b>% Expected Divid Yield (3)</b>	<b>Cost of Equity (4)</b>	<b>ROE (5)</b>
1 Amer. Elec. Power	4.4	3.0	4.5	7.5	7.7
2 Consol. Edison	5.2	4.2	5.4	9.6	9.9
3 Constellation Energy	2.7	11.0	3.0	14.0	14.2
4 Dominion Resources	4.0	9.0	4.3	13.3	13.5
5 DPL Inc.	3.6	7.0	3.9	10.9	11.1
6 Duke Energy	4.3	6.0	4.6	10.6	10.8
7 Energy East Corp.	4.8	4.5	5.0	9.5	9.8
8 Exelon Corp.	3.1	9.4	3.4	12.8	13.0
9 FirstEnergy Corp.	3.6	4.8	3.8	8.6	8.8
10 IDACORP Inc.	3.7	4.5	3.9	8.4	8.6
11 NiSource Inc.	4.5	3.4	4.6	8.1	8.3
12 OGE Energy	4.5	3.0	4.6	7.6	7.9
13 PPL Corp.	3.7	8.3	4.0	12.3	12.5
14 Progress Energy	5.5	3.8	5.7	9.4	9.7
15 Southern Co.	4.7	4.8	4.9	9.6	9.9
16 TECO Energy	4.6	5.7	4.9	10.6	10.8
17 Xcel Energy Inc.	4.8	4.2	5.0	9.2	9.4
<b>AVERAGE</b>	<b>4.2</b>	<b>5.7</b>	<b>4.4</b>	<b>10.1</b>	<b>10.4</b>

Notes:

Column 1: Value Line Investment Analyzer,  
4/2006

Column 2: Zacks long-term earnings growth forecast, 4/2006

Column 3 = Column 1 times (1 + Column 2/100)

Column 4 = Column 3 + Column 2

Column 5 = (Column 3 / 0.95) + Column 2

No growth forecast available for CH Energy Group, Duquesne  
Lt.

Public Serv Enterprise and Cinergy in merger

**VERTICALLY INTEGRATED ELECTRIC UTILITIES  
COMMON EQUITY RATIOS**

Company	Industry	% Common Equity
1 ALLETE	UTILCENT	60.9
2 Alliant Energy	UTILCENT	50.2
3 Ameren Corp.	UTILCENT	52.6
4 Amer. Elec. Power	UTILCENT	44.9
5 Cen. Vermont Pub. S	UTILEAST	60.4
6 Cleco Corp.	UTILCENT	52.0
7 Edison Int'l	UTILWEST	40.9
8 El Paso Electric	UTILWEST	58.4
9 Empire Dist. Elec.	UTILCENT	49.0
10 Energy East Corp.	UTILEAST	40.6
11 Entergy Corp.	UTILCENT	52.9
12 FirstEnergy Corp.	UTILEAST	45.4
13 FPL Group	UTILEAST	51.4
14 Green Mountain Pwr.	UTILEAST	52.9
15 Hawaiian Elec.	UTILWEST	51.0
16 IDACORP Inc.	UTILWEST	50.7
17 MGE Energy	UTILCENT	62.6
18 Northeast Utilities	UTILEAST	34.0
19 PG&E Corp.	UTILWEST	53.2
20 Pinnacle West Capita	UTILWEST	53.3
21 PNM Resources	UTILWEST	52.4
22 Progress Energy	UTILEAST	44.3
23 Puget Energy Inc.	UTILWEST	39.4
24 Southern Co.	UTILEAST	44.1
25 TECO Energy	UTILEAST	24.9
26 Wisconsin Energy	UTILCENT	43.3
27 Xcel Energy Inc.	UTILWEST	44.1
<b>AVERAGE</b>		<b>48.7</b>

Source: Value Line Investment Analyzer 4/2006.





**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT AND POWER COMPANY ) CASE NO. 2006-00172  
D/B/A DUKE ENERGY KENTUCKY )

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**DIRECT TESTIMONY OF**  
**PAUL F. OCHSNER**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE .....	- 1 -
II. PRIOR COMMISSION DIRECTIVES .....	- 2 -
III. SCHEDULES AND FILING REQUIREMENTS SPONSORED BY WITNESS .....	- 3 -
IV. COST OF SERVICE STUDIES .....	- 4 -
V. CONCLUSION .....	- 21 -

**ATTACHMENTS**

ATTACHMENT PFO-1 – Summary of Demand Peak Allocation Factor  
Methodologies Capacity Cost Reallocation  
Percentages Forecasted Test Year 2007

ATTACHMENT PFO-2 – Summary of Class Rate Increase Ratio Percentages  
By Demand Allocation Method Reflecting Proposed  
Subsidy/Excess and Change in Base  
Rate Fuel Costs

ATTACHMENT PFO-3 – Cost of Service Results

ATTACHMENT PFO-4 – Proposed Base Revenue Increase Including Fuel

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Paul F. Ochsner. My business address is 139 East Fourth Street,  
3 Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by the Duke Energy Corporation ("Duke Energy") affiliated  
6 companies as a Rate Coordinator.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION.**

8 A. I graduated from Northern Kentucky University in 1978 with a Bachelor of  
9 Science in Business. I completed the Edison Electric Institute's Electric  
10 Fundamental and Advanced Rate Courses conducted by the Graduate School of  
11 Business at Indiana University; the American Gas Association's Gas Fundamental  
12 Rate Seminar conducted by The University of Wisconsin's Graduate School of  
13 Business; and the Association of Edison Illuminating Company's Fundamental Load  
14 Research Seminar.

15 **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.**

16 A. I joined The Cincinnati Gas & Electric Company d/b/a Duke Energy Ohio ("Duke  
17 Energy Ohio") in 1971 and I progressed through various positions in the Customer  
18 Accounting and General Accounting Departments. In 1979, I became Staff  
19 Assistant in the Rate Department and I have progressed through various job levels  
20 within the Rate Department to my current position of Rate Coordinator.

21 **Q. PLEASE BRIEFLY DESCRIBE YOUR DUTIES AS RATE**  
22 **COORDINATOR?**

PAUL F. OCHSNER DIRECT

1 A. I prepare the gas and electric cost of service studies that support Duke Energy's  
2 regulated operating companies' revenue distribution and rate design proposals in  
3 base rate proceedings.

4 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

5 A. Yes. In Case No. 91-370, I provided testimony supporting the Company's existing  
6 and proposed electric rates and revenues. In Case No. 2001-00092 and Case No.  
7 2005-00042, I provided testimony supporting the Company's gas cost of service  
8 studies and jurisdictional allocation procedures and the proposed distribution of the  
9 gas rate increases.

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
11 **PROCEEDING?**

12 A. I discuss the Commission's directives from the Company's last retail electric base  
13 rate case relating to cost of service studies. I sponsor Schedules B-7, B-7.1, B-7.2,  
14 D-3, D-4, and D-5. I also support the electric cost of service studies identified as  
15 Filing Requirement ("FR") FR 10(9)v-1 through FR 10(9)v-18.

## **II. PRIOR COMMISSION DIRECTIVES**

16 **Q. DID THE COMMISSION ISSUE ANY DIRECTIVES IN CASE NO. 91-370**  
17 **RELATING TO THE COST OF SERVICE STUDIES FOR THE**  
18 **COMPANY'S FUTURE RATE CASES?**

19 A. Yes. The Commission recommended that, in future rate cases, the Company  
20 should separate out distribution plant into primary and secondary components for  
21 its Cost of Service Study. If not feasible, then the Commission directed the  
22 Company to explain in testimony the reasons why it could not do so. The

**PAUL F. OCHSNER DIRECT**

1 Commission also directed the Company to file multiple cost of service studies that  
2 use, among other things, demand allocation methods from each of the peak  
3 demand, energy weighting, and time-differentiated families of production plant  
4 allocation methodologies.

5 **Q. HAS THE COMPANY ADDRESSED THOSE RECOMMENDATIONS IN**  
6 **PREPARING THE COST OF SERVICE STUDIES FOR THIS**  
7 **PROCEEDING?**

8 A. Yes. I will discuss the Company's responses in more detail later in my testimony.

**III. SCHEDULES AND FILING REQUIREMENTS**  
**SPONSORED BY WITNESS**

9 **Q. PLEASE DESCRIBE SCHEDULES B-7 AND D-3.**

10 A. These schedules report the allocation factors used to determine the jurisdictional  
11 percentages of electric plant, expenses, *etc.*, necessary to allocate the amount of  
12 the proposed new electric rates between jurisdictional and non-jurisdictional  
13 customers. These schedules indicate that 100% of the costs are jurisdictional,  
14 because The Union Light, Heat and Power Company d/b/a Duke Energy Kentucky  
15 ("Duke Energy Kentucky") does not provide service to any non-jurisdictional  
16 electric customers.

17 **Q. PLEASE DESCRIBE SCHEDULES B-7.1 AND D-4.**

18 A. These schedules are the support for Schedules B-7 and D-3 described above.  
19 They provide the basis for the actual jurisdictional allocation factors.

20 **Q. PLEASE DESCRIBE SCHEDULES B-7.2 AND D-5.**

21 A. These schedules explain changes made to the jurisdictional allocation from the  
22 Company's prior electric rate proceeding in Case No. 91-370. In that case, the

PAUL F. OCHSNER DIRECT

1 company had a firm FERC-jurisdictional wholesale power agreement with the  
2 City of Williamstown. The Company no longer has the Williamstown agreement,  
3 so no Commission jurisdictional allocation of costs is required.

4 **Q. PLEASE DESCRIBE FR 10(9)V-1 THROUGH FR 10(9)V-18**

5 A. FR10 (9)v-1, 2 and 3 are fully allocated, embedded cost of service studies by rate  
6 class. FR 10(9)v-4 through FR 10(9)v-18 are functionalized cost of service  
7 studies for each rate class based on the results from FR10 (9)v-1.

#### IV. COST OF SERVICE STUDIES

8 **Q. WHAT INFORMATION DID THE COMPANY USE TO DEVELOP THE**  
9 **COST ALLOCATION FACTORS FOR THE COST OF SERVICE STUDIES**  
10 **USED IN THIS PROCEEDING?**

11 A. The test year for this proceeding is the twelve months ending December 31, 2007,  
12 which is comprised of forecasted test period data. The development of the test year  
13 allocation factors is primarily based on historical data for the twelve months ended  
14 December 2005. Otherwise, forecasted test year information was used as  
15 appropriate. I will discuss the actual development of the various allocation factors  
16 used in this proceeding later in my testimony.

17 **Q. HOW DID THE COMPANY IDENTIFY THE APPROPRIATE**  
18 **DISTRIBUTION PLANT AS PRIMARY AND SECONDARY VOLTAGE**  
19 **FOR THE ALLOCATION FACTORS?**

20 A. The Engineering Standards Group analyzed the Overhead and Underground  
21 Conductor and Devices Accounts, Accounts 3650 and 3670, and made engineering  
22 estimates for the facilities that provide service at the primary and secondary

1 voltages. The results of this study were used to develop the factors used to allocate  
2 the cost of these facilities to the primary and secondary voltage customer classes.  
3 Pages 46 through 50 of work paper WPFR-9v, provide the results of the engineering  
4 study, which was used in part to develop the allocation factor K205.

5 **Q. WHAT IS THE PURPOSE OF A COST OF SERVICE STUDY?**

6 A. The purpose of a Cost of Service Study is to allocate a utility company's costs to  
7 the different customer classes which are responsible for causing these costs. After  
8 the costs are assigned to the appropriate customer classes, rates are designed to  
9 provide the Company with an opportunity to generate a stream of revenues to  
10 recover these costs.

11 **Q. HAS THE COMPANY PREPARED AND FILED MULTIPLE COST OF**  
12 **SERVICE STUDIES AS DIRECTED BY THE COMMISSION IN THE**  
13 **COMPANY'S LAST ELECTRIC BASE RATE CASE?**

14 A. Yes. The Company has filed three Class Cost of Service Studies that contain  
15 essentially the same data, except that different methodologies were used to develop  
16 the allocation factors for the demand component of Production and Transmission  
17 plant and other functionally-related costs. The demand allocation methods are as  
18 follows: (1) the Average of the Twelve (12) Coincident Peaks ("12 CP") method;  
19 (2) the Average and Excess ("A&E") method; and (3) the Summer / Non-Summer  
20 ("S/NS") method. These cost of service studies can be found as FR 10(9)v-1, 2 and  
21 3, respectively.

22 **Q. PLEASE DESCRIBE THE DEMAND METHODOLOGIES USED IN**  
23 **THESE COST OF SERVICE STUDIES.**

1 A. The 12 CP method is designed to allocate capacity related costs to the customer  
2 classes using the system during maximum system load. The allocation of capacity  
3 costs to each customer class is based on the class load contribution to the maximum  
4 peak, at the time of peak, regardless of what their respective loads were at other  
5 times of the day.

6 The A&E method, also referred to as the “used and unused capacity  
7 method,” recognizes both the class average use of the system capacity and the class  
8 contribution to the capacity required to meet the maximum system load. The  
9 allocation of capacity costs are allocated in a two part formula.

10 The “class-used” capacity component is the proportion of the class’s  
11 respective average hourly kilowatt-hour (“kWh”) sales to the total average hourly  
12 sales. The “class-unused” capacity is the class excess hourly peak demand  
13 contribution ratio, which is the difference between the class average hourly demands  
14 and the hourly class peak demands. The used and unused capacity factors for each  
15 class are combined to allocate capacity costs to the respective rate classes.

16 The S/NS method is a time-differentiated method designed to allocate  
17 capacity costs based on the weighted class average coincident peak demand  
18 contributions during the maximum system load for the summer and non-summer  
19 months. The S/NS demand ratios allocate 38.38% of capacity costs using the class  
20 average coincident peaks for the four summer months, June, July, August and  
21 September, and the remaining 61.62 % of capacity costs using average of the 12  
22 monthly class coincident peaks for each rate group. The summer / non-summer  
23 capacity cost split was determined by the ratio of the annual energy delivered during



1 the on and off-peak periods for each month.

2 **Q. DID YOU COMPARE THE CLASS DEMAND RATIOS FOR EACH OF**  
3 **THE DEMAND METHODOLOGIES?**

4 A. Yes. I compared the class demand ratios for the 12 CP and S/NS methods, which  
5 showed the S/NS method results in minimal increases in capacity cost responsibility  
6 for Rates RS, DS and DP. Rates EH, GS-FL, DT, TT and Lighting receive the  
7 decrease in capacity cost responsibility. The total class capacity cost switching  
8 between these two methods is approximately 1.1%.

9 I then compared the 12 CP and the A&E methods, which showed the A&E  
10 method results in a total class capacity cost switching percentage of approximately  
11 7.6%, with Rate RS absorbing approximately 7% of the total. Attachment PFO-1  
12 compares the results of the three demand methodologies.

13 **Q. BASED UPON YOUR COMPARISON OF THE 12 CP, A&E AND S/NS**  
14 **METHODOLOGIES, WHICH DO YOU RECOMMEND THE**  
15 **COMMISSION APPROVE IN THIS PROCEEDING?**

16 A. I recommend using the Average 12 CP methodology for three reasons. First, the 12  
17 CP method is generally accepted in the utility industry and was approved by the  
18 Commission in the Company's last electric base rate case. The 12 CP demand  
19 methodology is used in other jurisdictions including Duke Energy Ohio's and Duke  
20 Energy Indiana's rate proceedings. Second, this methodology recognizes that Duke  
21 Energy Kentucky's current generating facilities are in place precisely to meet the  
22 monthly maximum peak loads of customers. Third, there was no compelling reason  
23 to adopt a new methodology. Rate subsidies will generally occur among customer

1 classes, regardless of the cost of service methodology used. Changing to either the  
2 A&E or S/NS methodology will not change this fact. The Company believes that  
3 the use of the 12 CP methodology is the appropriate means to align capacity costs  
4 with the customer classes that are imposing the costs.

5 **Q. PLEASE DESCRIBE THE TYPE OF COST OF SERVICE STUDY USED**  
6 **FOR THIS PROCEEDING.**

7 A. The Cost of Service Study is an embedded fully allocated study by rate class for the  
8 forecasted test period ending December 31, 2007, as adjusted. The Cost of Service  
9 Study allocates Total Company functional cost items such as plant, operating  
10 expenses, and taxes to the various customer classes based demand- energy- and  
11 customer related allocation factors and calculates the *revenue responsibility* of each  
12 class. This study is identified as FR 10(9)v-1.

13 **Q. HOW IS THE COST OF SERVICE STUDY IN SCHEDULE FR 10(9)v-1**  
14 **ORGANIZED?**

15 A. Schedule 1 of the Cost of Service Study contains a summary of the cost of service.  
16 Schedules 2 through 10 and Schedule 12 show the complete detail of all the  
17 elements of the Cost of Service Study. Schedules 11 and 13 list the allocation  
18 factors, tax rates, and rate of return data that were utilized in the cost of service  
19 program. The detailed calculation and derivation of the allocation factors used in  
20 the Cost of Service Study are included in the work papers filed in this case.

21 **Q. DID YOU PREPARE ANY ADDITIONAL COST OF SERVICE STUDIES?**

22 A. Yes. I used the results of the Cost of Service Study by rate class, FR 10(9)v-1, to  
23 prepare functionalized Cost of Service Studies for each rate class. These studies

1 provide support for the customer, demand and energy charges proposed by Mr.  
2 Bailey. The functionalized studies use the allocated cost column by rate class, and  
3 then classify each line item into production, transmission or distribution functions.  
4 The production function was then classified into demand and energy functions. The  
5 transmission function was classified as demand and the distribution function was  
6 classified as demand or customer. I then allocated Duke Energy Kentucky's  
7 revenues under proposed rates into these functional categories, based on the results  
8 of the functional Cost of Service Study. This provides the revenue requirement by  
9 functional group. The functionalized Cost of Service Studies for each rate class are  
10 at FR 10(9)v-4 through FR 10(9)v-18.

11 **Q. WHAT JURISDICTIONAL CUSTOMER CLASSES WERE USED IN THE**  
12 **COST OF SERVICE STUDIES?**

13 A. The jurisdictional customer classes are as follows:

- 14 Residential – Rate RS
- 15 Secondary Distribution Small – Rates DS and DS-RTP
- 16 Secondary Distribution Small – Rate GS-FL
- 17 Secondary Distribution Small – Rate EH
- 18 Secondary Distribution Small – Rate SP
- 19 Secondary Distribution Large – Rates DT-Primary, DT-Secondary,  
20 DT-Primary-RTP and DT-Secondary-RTP
- 21 Primary Distribution – Rate DP
- 22 Transmission – Rates TT and TT-RTP
- 23 Lighting – Rates NSU, NSP, OL, SC, SE, SL, TL and UOLS

1 Other.

2 **Q. PLEASE LIST EACH ELEMENT OF THE COST OF SERVICE STUDIES**  
3 **THAT YOU PREPARED.**

4 A. The elements of a Cost of Service Study are the following:

5 Operating & Maintenance Expense

6 + Depreciation

7 + Other Taxes

8 + Federal Income Tax

9 + State Income Tax

10 + Return

11 - Revenue Credits

12 = Revenue Requirement or Cost of Service

13 **Q. HOW DID YOU DEVELOP THE BASIC COST OF SERVICE STUDY**  
14 **THAT YOU USED TO ALLOCATE COSTS TO THE DIFFERENT**  
15 **CUSTOMER CLASSES?**

16 A. I used Coincident Peak, Non-coincident Peak, Diversified Class Peak demand data  
17 to develop demand statistics. Allocation factors were developed from customer,  
18 energy or demand statistics associated with the forecasted test period. Next, I  
19 classified costs into the specific utility functions, *i.e.*, production, transmission and  
20 distribution, and then I classified the costs as customer-, energy- or demand-related.

21 I then allocated the costs to the various rate classes following the cost causation  
22 guidelines published in the National Association of Regulatory Utility  
23 Commissioners' "Electric Utility Cost Allocation Manual" and based on my

PAUL F. OCHSNER DIRECT

1 experience with cost of service studies.

2 **Q. HOW DID YOU DERIVE THE CUSTOMER, ENERGY AND DEMAND**  
3 **STATISTICS FOR EACH RATE CLASS?**

4 A. The customer, energy and demand statistics by rate class were developed using  
5 forecasted test period data contained in work papers WPFR-9v pages 63 and 64, and  
6 the load research data shown reflected on work papers WPFR-9v 38 through 45,  
7 which is taken from actual customer data for the twelve month period ended  
8 December 31, 2005.

9 **Q. WHAT METHOD WAS USED TO ALLOCATE PRODUCTION DEMAND**  
10 **RELATED COST?**

11 I used the 12 CP method to allocate these costs. The allocation of capacity costs to  
12 each class is based on their load contribution to the maximum peak at the time of  
13 peak regardless of what their respective loads were at other times of the day.

14 **Q. DO YOU BELIEVE THE 12 CP METHOD IS A REASONABLE**  
15 **ALLOCATION METHOD TO USE IN THIS PROCEEDING?**

16 A. Yes. As I stated previously, the 12 CP method is widely accepted in the utility  
17 industry, and Duke Energy Kentucky's current base rates were established using  
18 the 12 CP method. Duke Energy Kentucky's generating facilities, a major portion  
19 of the Company's costs, are in place to meet customers' monthly maximum peak  
20 loads. The 12 CP method allocates capacity-related costs to the customer classes  
21 that use the system during the monthly maximum system peaks.

1 **Q. HOW WERE THE DEMAND VALUES DEVELOPED FROM COMPANY**  
2 **CUSTOMER LOAD RESEARCH DATA?**

3 A. Load research data for the twelve months ended December 31, 2005, and kWh sales  
4 levels for the twelve months ended December 31, 2007, were used to determine  
5 monthly peak day demand data. This monthly demand information is included on  
6 pages 11 through 30 of work paper WPFR-9v. The following is an example of how  
7 the class group demand was calculated for rate RS for the month of January 2007.

8 Step 1 – Determine the average demand by dividing the total kWh by the  
9 number of hours in the month.

10 
$$158,621,000 \text{ kWh} \div 744 \text{ hours} = 213,200 \text{ kW}$$

11 Step 2 – Determine the coincident peak demand by dividing the average  
12 demand from Step 1 by the coincident peak load factor (from load research data).

13 

- $213,200 \text{ kW} \div 63.97\% = 333,281 \text{ kW}$

14 Step 3 – Add line losses by multiplying the loss factor.

15 

- $333,281 \times 1.04452 = 348,119 \text{ kW (with losses)}$

16 I followed this process for all customer classes for the twelve months of the  
17 forecasted test year to determine each class's monthly peak coincident with Duke  
18 Energy Kentucky's monthly system peak. I used a similar procedure to develop  
19 each class's diversified class peak and highest (single) non-coincident peak  
20 demands.

21 **Q. PLEASE DESCRIBE HOW THE 12 CP DEMAND ALLOCATOR WAS**  
22 **USED TO ALLOCATE COSTS.**

23 A. The 12 CP demand allocator was used to allocate Production and Transmission

PAUL F. OCHSNER DIRECT

1 capacity related costs to rate groups.

2 **Q. PLEASE DESCRIBE THE METHODS USED TO ALLOCATE**  
3 **DISTRIBUTION PLANT COSTS TO THE VARIOUS CUSTOMER**  
4 **CLASSES.**

5 A. Several different allocation factors are used to allocate distribution plant costs to  
6 the customer classes.

7 Substations are allocated using the average demand ratio developed from  
8 the diversified class peak demand ratios for the twelve months ended December  
9 31, 2007. *See* allocation factor K215.

10 Poles, Towers, & Fixtures and Conductors are allocated using the  
11 weighted distribution line allocation factor, K205. This factor allocates these  
12 costs to customers based on the diversified class peak demand ratio weighted for  
13 the primary/secondary service voltage calculation.

14 Line Transformers are allocated to secondary voltage customers based on  
15 class maximum non-coincident peak demand ratio. Line Transformers are sized  
16 to meet the maximum demand of the customer and are located in close proximity  
17 to the customer, so there is little or no customer load diversity. As a result, the  
18 maximum non-coincident peak demand allocation factor is appropriate. *See*  
19 allocation factor K203.

20 Services are allocated to secondary voltage customers based on a  
21 weighted-average number of customers' ratio. The weighting is determined by an  
22 engineering analysis which prices various service drop costs according to demand.  
23 For example, it is three times as costly for a service drop at 51 kilovolts ("kVA")

1           versus a service drop of 5 kVA. (*See* allocation factor K217.)

2                     Meter costs are allocated to customer classes based on a meter cost study.

3           *See* allocation factor K407.

4                     Lighting costs are directly assigned to Lighting Class.

5   **Q.   WHAT METHOD DID YOU USE TO ALLOCATE ADMINISTRATIVE**  
6   **AND GENERAL EXPENSES?**

7   A.   I used a two step approach. First, I functionalized Administrative and General  
8       ("A&G") expenses based on the specific groupings of employee salaries and  
9       wages for the forecasted test period. These groupings include Production Demand  
10      and Energy, Transmission, Distribution, Customer Accounting, Customer Service  
11      and Information and Sales. I then allocated these expenses to each rate class  
12      based on operating and maintenance ("O&M") expense allocation factors. For  
13      example, I allocated the A&G expense as production demand plant to each rate  
14      class based on the demand-related production O&M expense. I used the same  
15      procedure to allocate the other A&G expenses to each rate class. I used the A315  
16      allocation factor for adjustments to all A&G costs throughout the basic Cost of  
17      Service Study. The A315 allocation factor simply consists of the sum of the  
18      weighted functionalized A&G expenses by class. This is the same procedure used  
19      in Case Nos. 2001-00092 and 2005-00042. The functional salary and wage  
20      amounts are on page 65 of WFPR-9v. The calculation of allocation factor A 315  
21      is at FR 10(9)v-1, Schedule 6.

22   **Q.   HOW DID YOU ALLOCATE THE COSTS FOR COMMON AND**  
23   **GENERAL PLANT?**

PAUL F. OCHSNER DIRECT



1 A. I functionalized common and general plant based on the functionalization of salaries  
2 and wages used in the A&G factor. I then used the A&G expenses to allocate each  
3 function to customer classes.

4 **Q. HOW DID YOU ALLOCATE CONSTRUCTION WORK IN PROGRESS**  
5 **COSTS?**

6 A. Production, transmission, distribution, common and general plant Construction  
7 Work In Progress costs were allocated based on the class weighted gross plant ratios  
8 by function.

9 **Q. HOW DID YOU ALLOCATE THE ADJUSTMENTS THAT WERE**  
10 **SUBTRACTED FROM RATE BASE?**

11 A. I used allocation factor NP29, Net Plant Ratio to allocate the balances in the  
12 accumulated deferred income taxes in Accounts 282, 283, and 284 to each rate  
13 class.

14 **Q. HOW DID YOU ALLOCATE ADJUSTMENTS THAT WERE ADDED TO**  
15 **RATE BASE?**

16 A. I used the A&G expense cost factor, A315, to allocate the amounts reflected in the  
17 Accumulated Deferred Income Tax Account 190. Items included in this account  
18 relate to post-retirement and pension benefits, vacation pay accruals, deferred  
19 compensation benefits, and miscellaneous deferrals.

20 **Q. HOW DID YOU ALLOCATE WORKING CAPITAL?**

21 A. Working capital consists of the following items: fuel inventories, materials and  
22 supplies, prepayments, cash, and other miscellaneous items. Fuel Inventories were  
23 allocated to rate groups based on K301, class kWh ratios; materials and supplies

1 were allocated using NP29, class net plant ratios; prepaid insurance was allocated to  
2 rate groups using A315, A&G expense; and prepayment for fuel and fuel related  
3 expenses were allocated to rate groups based on K301, class kWh ratios.

4 **Q. HOW DID YOU ALLOCATE PRODUCTION AND TRANSMISSION**  
5 **DISTRIBUTION RELATED OPERATION & MAINTENANCE**  
6 **EXPENSES?**

7 A. I allocated O&M expenses associated with production, transmission and  
8 distribution facilities to class based on the customer- demand- and energy-related  
9 allocation factors.

10 **Q. HOW DID YOU ALLOCATE CUSTOMER ACCOUNTING,**  
11 **UNCOLLECTIBLE ACCOUNTS, CUSTOMER SERVICE AND**  
12 **INFORMATION, AND SALES EXPENSES?**

13 A. I developed four allocation factors based on an analysis performed on the specific  
14 customer activity that occurred during the year 2005. The four factors are K409,  
15 K411, 413 and K419. K409 was used to allocate the Customer Accounting  
16 Expenses in Accounts 901, 902, 903 and 905. K411 was used to allocate Account  
17 904. K413 was used to allocate expenses in the Customer Service and Information  
18 Accounts 908, 909 and 910. K419 was used to allocate Sales Expense, which is  
19 included in Accounts 911, 912 and 913. Except for Accounts 902 and 904, specific  
20 account activities for each account were determined to be either, residential and/or  
21 non-residential or applicable to all classes. I allocated these amounts to classes  
22 based on the appropriate customer ratio analysis. The allocation of Account 902  
23 expense is based on meter reading cost estimates by meter type for the year 2005.

1 Expenses in Account 904 were allocated to rate classes based on a customer class  
2 charge-off analysis for the year 2005. The support for these allocation factors can be  
3 found on page 52 of WPFR-9v.

4 **Q. HOW DID YOU ALLOCATE DEPRECIATION EXPENSES?**

5 A. I allocated depreciation expenses to rate class based on the functional class net-  
6 depreciated plant ratios.

7 **Q. HOW DID YOU ALLOCATE REAL ESTATE AND PROPERTY TAXES?**

8 A. I allocated real estate and property taxes to rate class based on the functional class  
9 net-depreciated plant ratios.

10 **Q. HOW DID YOU ALLOCATE PAYROLL AND HIGHWAY TAXES, THE  
11 PSC ASSESSMENT AND OTHER MISCELLANEOUS TAXES?**

12 A. I allocated the PSC Maintenance Taxes to class based on each rate class present  
13 revenue ratio. I allocated Payroll, Highway and Other Miscellaneous Taxes to rate  
14 class based the class-weighted A&G expense ratio.

15 **Q. HOW DID YOU ALLOCATE FEDERAL AND STATE INCOME TAX  
16 ADJUSTMENTS AND DEDUCTIONS?**

17 A. I reviewed each income tax adjustment and deduction to determine the functional  
18 cause of the adjustment and deduction, then selected the appropriate allocation  
19 factor. For example: an Other Tax Deduction item, Depreciation in Excess of Book  
20 Depreciation, was allocated to the rate classes based on the class depreciation  
21 expense ratio.

22 **Q. HOW DID YOU ALLOCATE OTHER OPERATING REVENUES?**

23 A. I evaluated each other operating revenue item to determine source of the revenue,

1 then selected the appropriate allocation factor. The class ratio of present revenues  
2 was the primary allocation factor used to allocate the revenue credits to the  
3 respective rate groups.

4 **Q. WHERE CAN THE VARIOUS ELEMENTS OF A COST OF SERVICE**  
5 **STUDY BE FOUND IN THE COMPANY'S COST OF SERVICE STUDY?**

6 A. A summary of each item is listed on Schedule 1 of the Cost of Service Study.  
7 Schedules 2, 3, 4 and 5 contain detailed information on Rate Base; Schedule 6,  
8 Operation and Maintenance expenses; Schedule 7, Depreciation; Schedule 8, Other  
9 Taxes; Schedules 9 and 12 Federal and State Income Tax; Schedule 10, the Cost of  
10 Service Computation; Schedule 11, Capitalization Dollars, Rate of Return, Revenue  
11 and Income Tax Rates; and Schedule 13, Allocation Factors.

12 **Q. PLEASE DESCRIBE THE RESULTS OF THE COMPANY'S PROPOSED**  
13 **COST OF SERVICE STUDY.**

14 A. The class Cost of Service Study, FR10(9)v-1, which includes the 12 CP capacity  
15 allocation method, the incremental increase in base rate fuel costs and the rate of  
16 return of 8.761% requested in this proceeding, supports the Company's overall  
17 proposed increase of approximately \$66.5 million for the test period ending  
18 December 31, 2007, as adjusted for known and measurable changes.

19 **Q. HOW DO THE RESULTS OF THE 12 CP DEMAND COST OF SERVICE**  
20 **STUDY COMPARE WITH THE A&E, FR10(9)V-2, AND S/NS, FR10(9)V-3,**  
21 **DEMAND COST OF SERVICE STUDIES?**

22 A. The 12 CP, A&E and S/NS studies all support the Company's proposed revenue  
23 increase of approximately \$66.5 million. The comparative results of the revenue

1 deficiency distributions follow the same pattern as the demand allocation  
2 methodology comparison shown in Attachment PFO-1. Attachment PFO-2 has  
3 been prepared to show interclass switching percentages of the revenue increases  
4 justified by rate group.

5 **Q. HOW DID YOU DETERMINE THE PROPOSED REVENUE**  
6 **DISTRIBUTION FOR THIS PROCEEDING?**

7 A. First, I reviewed the present rates of return earned, justified increase amounts and  
8 associated percentage increase for each rate group from the 12 CP Class Cost of  
9 Service Study. From this review, I determined that the justified base rate increases  
10 were significant and varied by rate group because of the magnitude of the  
11 Company's proposed increase. I evaluated the revenue subsidy/excess positions for  
12 each rate group. I found that significant changes in the current revenue distribution  
13 would be required to move each class to the requested rate of return. As a result, I  
14 determined that the base revenue distribution proposal should reflect the elimination  
15 of 25% of the revenue subsidy/excess that currently exists between customer  
16 classes. I then allocated the proposed rate increase to customer classes based on the  
17 class allocation of Capitalization Costs allocated to electric operations.

18 **Q. WHY DID YOU USE THIS METHOD IN DETERMINING THE**  
19 **PROPOSED REVENUE DISTRIBUTION FOR THIS PROCEEDING?**

20 A. The amount of the proposed increase is derived from a revenue stream based on a  
21 requested rate of return on the Company's Electric Capitalization Dollars. The  
22 Company's goal is to move toward earning the same rate of return on all customer  
23 classes, based on equitable considerations and on the principle of cost causation.

PAUL F. OCHSNER DIRECT

1 Attachment PFO-3 is Schedule 1, Summary of Results of the 12 CP Cost of Service  
2 Study prior to the subsidy/excess revenue calculation and development of proposed  
3 revenues. Rather than eliminating the subsidy/excess issue in this proceeding, the  
4 Company is proposing to use the principle of gradualism to mitigate the revenue  
5 subsidy/excess issue over time. This methodology minimizes the rate shock that  
6 would occur if 100% of the subsidy/excess amounts at issue were remedied in a  
7 single case. This base revenue distribution methodology was also used in Case No.  
8 2005-00042.

9 **Q. DOES THE COMPANY PROPOSE TO ESTABLISH A NEW BASE RATE**  
10 **FUEL AMOUNT IN THIS PROCEEDING?**

11 A. Yes. The Company proposes to increase the base rate fuel amount to 2.1619 cents  
12 per kWh, as Mr. Wathen discusses in his testimony.

13 **Q WHAT IS THE COMPANY'S CURRENT FUEL RATE?**

14 A The current fuel rate is 1.6566 cents per kWh. This rate consists of a base fuel  
15 component of 1.9091 cents per kWh and an incremental fuel adjustment clause rate  
16 of a negative 0.2525 cents per kWh.

17 **Q DOES YOUR PROPOSED REVENUE DISTRIBUTION INCLUDE THE**  
18 **INCREASE IN THE PROPOSED BASE RATE FUEL COST AMOUNT?**

19 A. Yes. The change in the proposed base fuel cost rate results in approximately \$20.0  
20 million in additional revenues to cover the increase in projected fuel costs for the  
21 forecasted test period.

22 **Q WHERE ARE THE REVENUE IMPACTS OF THE BASE RATE**  
23 **INCREASE OF \$46.5 MILLION AND THE INCREMENTAL INCREASE**

PAUL F. OCHSNER DIRECT

1           **OF \$20.0 MILLION IN BASE RATE FUEL COSTS FOUND?**

2    A       Attachment PFO-4 provides the results of the Company's proposed base revenue  
3           increase including fuel. This attachment also supports the Company's proposed  
4           25% reduction of the revenue subsidy/excess positions that currently exist.

5    **Q.       HOW WERE THE RESULTS OF YOUR COST OF SERVICE STUDIES**  
6           **AND THE IMPACT OF THE PROPOSED BASE FUEL RATE CHANGE**  
7           **REVENUE USED IN THIS PROCEEDING?**

8    A.       I provided the results of the fully allocated Cost of Service Study by rate class and  
9           function, including the incremental increases in base fuel revenue, to Mr. Bailey to  
10          develop the proposed revenue distribution and rate design for this proceeding.

**V.       CONCLUSION**

11   **Q.       WERE SCHEDULES B-7, B-7.1, B-7.2, D-3, D-4, AND D-5, FR 10(9)V-1**  
12          **THROUGH FR 10(9)V-18, AND ATTACHMENTS PFO-1 THROUGH**  
13          **PFO-4 PREPARED BY YOU OR UNDER YOUR SUPERVISION?**

14   A.       Yes.

15   **Q.       DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

16   A.       Yes.

**VERIFICATION**

State of Ohio            )  
                                  )  
County of Hamilton    )

SS:

The undersigned, Paul F. Ochsner, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

*Paul F. Ochsner*

Paul F. Ochsner, Affiant

Subscribed and sworn to before me by Paul F. Ochsner on this 19th day of May, 2006.

*Anita M. Schafer*  
NOTARY PUBLIC

My Commission Expires



**ANITA M. SCHAFER**  
Notary Public - State of Ohio  
My Commission Expires  
November 4, 2008



**Duke Energy Kentucky  
Summary of Demand Peak Allocation Factor Methodologies  
Capacity Cost Reallocation Percentages  
Forecasted Test Year 2007**

Rate Group	(1)	(2)	(3)	(4)	(5)
	12 CP Demand Ratio %	S / NS Demand Ratio %	Capacity Cost Switch %	Average & Excess Demand Ratio %	Capacity Cost Switch %
			(Col. 2 - Col. 1)		(Col 4 - Col 1)
Residential	44.71%	45.28%	0.57%	51.71%	6.99%
Dist Secondary - DS	26.59%	27.15%	0.56%	22.23%	-4.36%
Dist Secondary - DS RTP	0.02%	0.02%	0.00%	0.02%	0.00%
Dist Secondary - GS-FL	0.12%	0.11%	-0.01%	0.09%	-0.03%
Dist Secondary - EH	0.34%	0.20%	-0.14%	0.43%	0.09%
Dist Secondary - SP	0.01%	0.01%	0.00%	0.01%	0.00%
Dist Secondary - DT	14.80%	14.54%	-0.26%	12.28%	-2.53%
Dist Secondary - DT RTP	0.16%	0.15%	-0.01%	0.18%	0.02%
Dist Primary - DT	8.30%	8.04%	-0.26%	7.88%	-0.42%
Dist Primary - DT RTP	0.38%	0.38%	-0.01%	0.38%	0.00%
Dist Primary - DP	0.81%	0.81%	0.01%	0.59%	-0.22%
Transmission - TT	3.23%	2.93%	-0.30%	3.48%	0.25%
Transmission - TT RTP	0.20%	0.19%	-0.01%	0.20%	0.00%
Lighting	0.32%	0.18%	-0.13%	0.52%	0.20%
Other	0.01%	0.01%	0.00%	0.02%	0.01%
<b>Total Retail</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>	<b>100.00%</b>	<b>0.00%</b>

**Duke Energy Kentucky**  
**Summary of Class Rate Increase Ratio Percentages By Demand Allocation Method**  
**Changes Reflecting Subsidy Excess and Increase in Base Rate Fuel Costs**  
**Case No. 2006-00172**

<b>Rate Class</b>	<b>(1) 12 CP Percent of Total</b>	<b>(2) S /NS Percent of Total</b>	<b>(3) Interclass Switching % Col 2- Col 1</b>	<b>(4) A&amp;E Percent of Total</b>	<b>(5) Interclass Switching % Col 4 - Col 1</b>
Rate RS	49.04%	49.54%	0.50%	55.50%	6.46%
Rate DS	23.65%	24.18%	0.53%	19.61%	-4.04%
Rate DS-RTP	0.01%	0.01%	0.00%	0.01%	0.00%
Rate GS-FL	0.05%	0.05%	0.00%	0.03%	-0.02%
Rate EH	0.39%	0.26%	-0.13%	0.47%	0.08%
Rate SP	0.01%	0.01%	0.00%	0.01%	0.00%
Rate DT - Secondary	14.44%	14.20%	-0.24%	12.10%	-2.34%
Rate DT RTP-Sec.	0.12%	0.11%	-0.01%	0.14%	0.02%
Rate DT-Primary	8.46%	8.22%	-0.24%	8.07%	-0.39%
Rate DT RTP-Primary	0.27%	0.26%	-0.01%	0.27%	0.00%
Rate DP	0.75%	0.76%	0.01%	0.55%	-0.20%
Rate TT	2.12%	1.84%	-0.28%	2.35%	0.23%
Rate TT-RTP	0.09%	0.08%	-0.01%	0.09%	0.00%
Lighting	0.59%	0.47%	-0.12%	0.78%	0.19%
Other	0.01%	0.01%	0.00%	0.02%	0.01%
Total	100.00%	100.00%	0.00%	100.00%	0.00%





**DUKE ENERGY KENTUCKY**  
 FR-9v-1 KW ( 12 COIN PEAK )  
 ELECTRIC CASE NO: 2006-00172  
 COMPUTATION OF THE RATE INCREASE AMOUNT BY RATE CLASS  
 TWELVE MONTHS ENDING DECEMBER 31, 2007

Line No.	Rate Class	Capitalization (A)	Present Revenues (1) (B)	Net Operating Income (C)	Present ROR (D)	Gross Revenues At Average ROR (E)	Subsidy ( ) Excess (F)	25% Reduction In Subsidy ( ) Excess (G)	Rate Increase (H)	Proposed Revenues (I)	Proposed Percent Increase (J)	ROR At Proposed Rates (K)	Proposed Increase With Subsidy/Excess (L)
					(C) / (A)			(F) * 25%		(B) - (G) + (H)			(I) - (G)
1	Rate RS	\$260,738,880	\$97,639,085	\$135,024	0.051785%	\$103,567,898	-\$5,928,813	(1,482,204)	\$31,153,475	\$130,274,764	33.42%	7.716695%	\$32,635,679
2	Rate DS	144,231,279	66,709,383	5,730,869	3.973388%	60,752,583	5,956,800	1,489,200	17,232,970	82,453,153	23.60%	10.657897%	15,743,770
3	Rate DS-RTP	122,605	70,100	24,610	20.072591%	32,804	37,296	9,324	14,649	75,425	7.60%	22.732285%	5,325
4	Rate GS-FL	618,721	471,911	101,409	16.390102%	320,905	151,006	37,752	73,926	508,085	7.67%	19.970422%	36,174
5	Rate EH	1,942,428	694,501	(39,580)	-2.037656%	804,945	(110,444)	(27,611)	232,084	954,196	37.39%	6.149610%	259,695
6	Rate SP	61,611	35,117	6,745	10.947720%	25,556	9,561	2,390	7,361	40,088	14.16%	15.888617%	4,971
7	Rate DT - Secondary	81,087,630	38,378,456	1,354,947	1.670966%	38,078,242	300,214	75,054	9,688,472	47,991,874	25.05%	8.931080%	9,613,418
8	Rate DT RTP-Sec.	907,692	343,715	75,379	8.304469%	242,030	101,685	25,421	108,452	426,746	24.16%	13.906196%	83,031
9	Rate DT-Primary	42,899,388	19,862,321	(615,107)	-1.433836%	21,878,521	(2,016,200)	(504,050)	5,125,683	25,492,054	28.34%	6.602478%	5,629,733
10	Rate DT RTP-Primary	1,967,407	782,491	164,685	8.370663%	559,964	222,527	55,632	235,069	961,928	22.93%	13.955853%	179,437
11	Rate DP	3,998,327	1,764,802	6,349	0.158791%	1,848,731	(83,929)	(20,982)	477,726	2,263,510	28.26%	7.796942%	498,708
12	Rate TT	12,710,431	8,534,952	451,451	3.551815%	8,097,508	437,444	109,361	1,518,661	9,944,252	16.51%	10.341715%	1,409,300
13	Rate TT-RTP	799,385	404,272	95,134	11.900899%	267,773	136,499	34,125	95,512	465,659	15.18%	16.603527%	61,387
14	Lighting	4,948,623	2,194,212	557,207	11.259839%	1,401,015	793,197	198,299	591,269	2,587,182	17.91%	16.122738%	392,970
15	Other	46,295	12,408	(3,522)	-7.607733%	19,251	(6,843)	(1,711)	5,531	19,650	58.37%	1.971807%	7,242
16	<b>Total</b>	<b>\$557,080,702</b>	<b>\$237,897,726</b>	<b>\$8,045,600</b>	<b>1.444243%</b>	<b>\$237,897,726</b>	<b>0</b>	<b>0</b>	<b>\$66,560,840</b>	<b>\$304,458,566</b>	<b>27.98%</b>	<b>8.761038%</b>	<b>\$66,560,840</b>

Tax Complement 61.2378900%  
 Average ROR 1.444243%

(1) Note: Present revenues for all rates except RTP include present base and FAC revenues.

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF AN ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT, AND POWER COMPANY )  
D/B/A/DUKE ENERGY KENTUCKY )

CASE NO. 2006-00172

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**DIRECT TESTIMONY OF**  
**JEFFREY R. BAILEY**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE.....	- 1 -
II. SCHEDULES SPONSORED BY WITNESS .....	- 3 -
III. FILING REQUIRMENTS SUPPORTED BY WITNESS .....	- 5 -
IV. RETAIL ELECTRIC RATE SCHEDULES AND RIDERS.....	- 7 -
A. RATE DESIGN AND MAJOR RETAIL ELECTRIC RATE SCHEDULES .....	- 7 -
B. LIGHTING RATES.....	- 16 -
C. MISCELLANEOUS NEW OR REVISED RIDERS .....	- 19 -
V. OTHER TARIFF CHANGES .....	- 33 -
VI. MISCELLANEOUS CHARGES .....	- 34 -
VII. CHANGES TO TARIFF LANGUAGE AND SERVICE REGULATIONS .....	- 35 -
VIII. CONCLUSION.....	- 36 -

**ATTACHMENTS**

ATTACHMENT JRB-1 – Customer Charge/Minimum Bill Rationale, Twelve  
Months Ending December 31, 2007.

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Jeffrey R. Bailey. My business address is 1000 East Main Street,  
3 Plainfield, Indiana 46168.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by the Duke Energy Corporation ("Duke Energy") affiliated  
6 companies as Manager, Pricing.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION.**

8 A. I received Bachelor of Science degrees in Industrial Management and Engineering  
9 from Purdue University, West Lafayette, Indiana. I also received a Master of  
10 Science degree majoring in Industrial Engineering from Purdue University.

11 **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.**

12 A. I began my employment with PSI Energy, Inc. ("PSI") in 1990 as Supervisor, Rate  
13 Engineering. I was subsequently promoted to Manager, Rate Engineering in  
14 1991. I held several positions in the Rate, Pricing, and Market Planning areas  
15 until 1997, when I accepted the position of Manager, Sales Analysis. In 2000, I  
16 joined the Financial Operations Department, where I held the positions of  
17 Manager, Financial Projects, and Manager, Finance. I returned to the Rate  
18 Department in 2002, in my current position as Manager, Pricing.

19 Before joining PSI in 1990, I was employed by the Indiana Utility  
20 Regulatory Commission ("IURC"). I began my employment there in 1983 as a  
21 Staff Engineer. During my tenure with the IURC, I held several positions,  
22 progressively increasing in responsibility, the last of which was Assistant Chief

**JEFFREY R. BAILEY DIRECT**



1 Engineer. My primary responsibility as Assistant Chief Engineer was the  
2 supervision of the gas and electric sections that investigated rate and regulatory  
3 matters pending before the IURC.

4 **Q. WHAT ARE YOUR DUTIES AS MANAGER, PRICING?**

5 A. As Manager, Pricing, my primary responsibility is to develop and administer the  
6 rates and charges, contained in tariffs and contracts for gas or electric service, for  
7 Duke Energy's operating companies, including Duke Energy Kentucky.

8 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
9 **PROCEEDING?**

10 A. I am responsible for Duke Energy Kentucky's proposed electric rate design and  
11 tariffs. My testimony will demonstrate that the rates Duke Energy Kentucky  
12 proposes are just and reasonable, that they reflect appropriate rate making  
13 principles, and that they result in an equitable basis for recovery of Duke Energy  
14 Kentucky's revenue requirements across its various customer classes and rate  
15 schedules. The purpose of my testimony in this proceeding is to: (1) sponsor  
16 Schedules D-2.34, L, L-1, L-2.1, L-2.2, M, M-2.1, M-2.2, M-2.3 and N; (2)  
17 sponsor Filing Requirements ("FR") FR10(1)(b)(7), FR10(1)(b)(8), FR10(3)(a),  
18 FR10(3)(b), FR10(3)(c), FR10(10)(l), FR10(10)(m) and FR10(10)(n); (3) describe  
19 changes that have been made to the Company's retail electric rate schedules,  
20 riders, and Service Regulations; (4) quantify the effect of these changes to our  
21 retail electric customers; and (5) discuss implementation procedures for filing the  
22 Company's tariffs after the Kentucky Public Service Commission's order in this  
23 proceeding.

**JEFFREY R. BAILEY DIRECT**

- 2 -

**II. SCHEDULES SPONSORED BY WITNESS**

1 **Q. PLEASE DESCRIBE SCHEDULE D-2.34.**

2 A Schedule D-2.34 is an adjustment to reconcile revenue calculated on Schedule M  
3 with revenue contained in the Company's forecast and to reflect a proposed  
4 increase in Reconnection Charges.

5 The reconciliation adjustment is necessary because of a discrepancy  
6 between the revenue contained within the sales forecast and that calculated on  
7 Schedule M. The projected revenue for non-residential customers is calculated  
8 by customer class by applying average realizations to their respective kWh sales  
9 forecasts. The revenues calculated on Schedule M, however, take total kWh sales  
10 as determined by the sales forecast and blend that information with what we know  
11 to represent the historical relationship between demand and energy sales. This  
12 enhanced information results in additional revenue on Schedule M of \$2,255,960.  
13 An adjustment has also been made on this schedule to increase previously  
14 approved Reconnection Charges by \$22,965.

15 **Q. PLEASE DESCRIBE SCHEDULE L.**

16 A. Schedule L is my "Narrative Rationale for Tariff Changes." This schedule  
17 describes the changes to Duke Energy Kentucky's current tariffs and the reasons  
18 for those changes.

19 **Q. PLEASE DESCRIBE SCHEDULE L-1.**

20 A. Schedule L-1 shows the rate schedules that Duke Energy Kentucky proposes to  
21 implement.

22 **Q. PLEASE DESCRIBE SCHEDULE L-2.1.**

JEFFREY R. BAILEY DIRECT

1 A. Schedule L-2.1 shows the current rate schedules that Duke Energy Kentucky  
2 proposes to revise. The changes are reflected by indicating additions by  
3 underscoring and deletions are over-stricken. Codes are also in the right-hand  
4 margin to explain the type of change being proposed.

5 **Q. PLEASE DESCRIBE SCHEDULE L-2.2.**

6 A. Schedule L-2.2 contains Duke Energy Kentucky's proposed rate schedules,  
7 showing the revisions that Duke Energy Kentucky proposes in this filing.  
8 Proposed changes are designated in the same way as in Schedule L-2.1

9 **Q. PLEASE DESCRIBE SCHEDULE M.**

10 A. Schedule M is a one page, side-by-side comparison of Duke Energy Kentucky's  
11 test period revenues at current and proposed rates. Schedule M shows that Duke  
12 Energy Kentucky is proposing a 33.4% increase in the Residential service class, a  
13 25.0% increase in the Distribution Voltage service class, a 17.2% increase in the  
14 Transmission Voltage service class, and a 17.9% increase in the Lighting Service  
15 class. These average increases are based upon base rates which include the fuel  
16 cost adjustment expense at current rates.

17 **Q. PLEASE DESCRIBE SCHEDULE M-2.1.**

18 A. Schedule M-2.1 shows test period actual base revenue dollars and the percentage  
19 distribution among the various rate classes, as well as a breakdown of total  
20 revenue. Schedule M-2.1 also shows the actual base revenue average rates per  
21 kWh for each rate class.

22 **Q. PLEASE DESCRIBE SCHEDULES M-2.2 AND M-2.3.**

23 A. Schedule M-2.2, page 1, shows the test period bills in summary form, base

1 revenues under current rates, current total revenues, and proposed base revenue  
2 increases, all broken down by rate and revenue class. The billing determinants  
3 used on these schedules are normalized sales for the twelve months ended  
4 December 31, 2007. Schedule M-2.2, pages 2-21, contains a detailed calculation  
5 of base period numbers, by rate and revenue class, as summarized on Schedule M-  
6 2.2, page 1. Schedule M-2.3 is almost identical to M-2.2, page 1, except that it  
7 shows the revenue summary and detailed data calculated at the rates proposed in  
8 this case.

9 **Q. PLEASE DESCRIBE SCHEDULE N.**

10 A. Schedule N shows monthly bill comparisons for various consumption levels under  
11 each of Duke Energy Kentucky's primary tariff schedules, Rates RS, DS, DT, DP,  
12 and TT. This schedule allows comparisons and assessment of how these changes  
13 impact customers' bills.

### 14 **III. FILING REQUIRMENTS SUPPORTED BY WITNESS**

14 **Q. PLEASE DESCRIBE FR 10(1)(B)(7).**

15 A. FR 10(1)(b)(7) shows the proposed tariffs in a form complying with 807 KAR  
16 5:011. The effective dates of these tariffs are not less than 30 days from the date  
17 of the filing of the application in the present case.

18 **Q. PLEASE DESCRIBE FR 10(1)(B)(8).**

19 A. FR 10(1)(b)(8) consists of Duke Energy Kentucky's current tariffs in a  
20 comparative form showing proposed changes. The changes are reflected by  
21 italicizing additions and striking over deletions.

22 **Q. PLEASE DESCRIBE FR 10(3)(A).**

**JEFFREY R. BAILEY DIRECT**

1 A. FR 10(3)(a) shows the amount of change requested in dollars and the resulting  
2 percentage increase for each customer classification and by each rate classification  
3 to which the change will apply. In the present case, Duke Energy Kentucky  
4 proposes an overall retail revenue increase of 28.0%, which breaks down as  
5 previously described.

6 **Q. PLEASE DESCRIBE FR 10(3)(B).**

7 A. FR 10(3)(b) shows the current and proposed rates for each customer class, and the  
8 rate schedule to which the change would apply.

9 **Q. PLEASE DESCRIBE FR 10(3)(C).**

10 A. FR 10(3)(c) shows the effect on an average electric bill for each customer class  
11 and the rate schedule to which the change will apply.

12 **Q. PLEASE DESCRIBE FR 10(10)(L).**

13 A. FR 10(10)(l) is a narrative description and explanation of all proposed tariff  
14 changes.

15 **Q. PLEASE DESCRIBE FR 10(10)(M).**

16 A. FR 10(10)(m) is a revenue summary for both the base and forecast periods with  
17 supporting schedules that provide detailed billing analysis for all customer classes.

18 **Q. PLEASE DESCRIBE FR 10(10)(N).**

19 A. FR 10(10)(n) is a typical bill comparison under current and proposed rates for all  
20 customer classes.

**IV. RETAIL ELECTRIC RATE SCHEDULES AND RIDERS**

**A. RATE DESIGN AND MAJOR RETAIL ELECTRIC RATE SCHEDULES**

1 Q. HOW DID YOU DESIGN THE VARIOUS RATE SCHEDULES IN THIS  
2 CASE?

3 A. I used the cost of service information provided by Mr. Ochsner as a major  
4 component for the rate design. As he describes, the cost of service information  
5 provided the allocation of costs to the various rate classes and separation of the  
6 customer and demand components of cost. Additionally, we reviewed the  
7 Company's load research data to determine relationships between energy and  
8 demand that might prove pertinent to the design of the Company's rates.

9 Q. WHAT ARE THE COMPANY'S MAJOR RETAIL ELECTRIC RATE  
10 SCHEDULES?

11 A. The Company's major retail electric rate schedules include: Rate RS - Residential  
12 Service ("Rate RS"); Rate DS - Service at Secondary Distribution Voltage ("Rate  
13 DS"); Rate DP - Service at Primary Distribution Voltage ("Rate DP"); Rate DT -  
14 Time of Day Rate for Service at Distribution Voltage ("Rate DT"); and Rate TT -  
15 Time of Day Rate for Service at Transmission Voltage ("Rate TT"). Together,  
16 these rate schedules comprise a substantial portion of the Company's retail  
17 electric revenue requirement.

1 Q. IN CASE NO. 91-370, THE COMMISSION ORDERED THE COMPANY  
2 TO ADDRESS THE APPROPRIATE STRUCTURE OF RESIDENTIAL  
3 RATES. HAVE YOU UNDERTAKEN AN ANALYSIS AND FORMED  
4 CONCLUSIONS FOR THAT RATE?

5 A. Yes, I have.

6 Q. PLEASE DESCRIBE THE METHODS USED TO EVALUATE THE  
7 STRUCTURE OF RATE RS.

8 A. We used the Company's load research data for residential customers to fully  
9 examine their usage characteristics. Our load research data consists of a sample  
10 of 210 residential customers at December 2005, which are distinguished by strata  
11 based on the annual kWh consumed by these customers. For general information,  
12 the strata and their respective annual usage brackets are as follows:

13 **Table 1 – Residential Strata and Annual Usage**

Strata	kWh
1	Less than 9,250
2	Greater than or equal to 9,250 and less than or equal to 19,250
3	Greater than 19,250

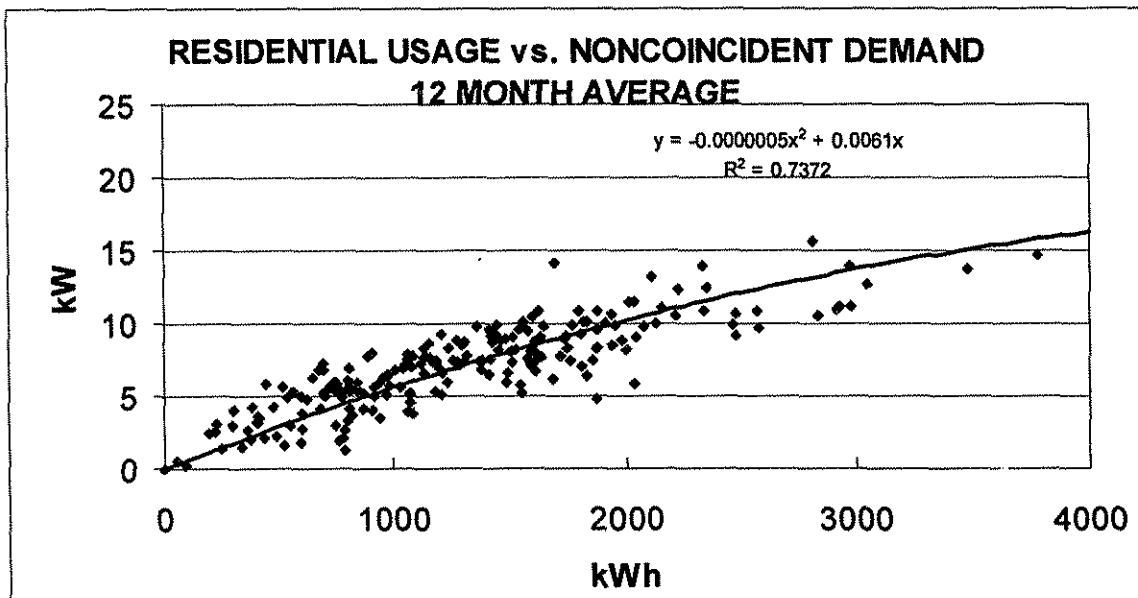
14 We reviewed the characteristics of these customers to examine the  
15 relationships between demand and energy use, both on a coincident and non-  
16 coincident basis, and how these load characteristics might impact operating costs  
17 during seasonal and time-of-use periods. We also used cost of service

1 information to develop demand and energy costs in serving this class of  
2 customers.

3 **Q. PLEASE DESCRIBE YOUR ANALYSIS.**

4 A. We began by reviewing the relationships between demand and energy relative to  
5 the customers' monthly kWh consumption. From our load research data, we  
6 plotted individual customers' average monthly kWh usage versus their average  
7 non-coincident demand, which is the highest demand imposed by these customers  
8 during the calendar month. We found that, on average, load factor modestly  
9 improved with increased usage. This means that the per unit, or proportion, of  
10 non-coincident load imposed by these customers does not substantially change  
11 with increased usage. This is depicted in the following graph.

12 **Table 2 – Residential Usage vs. Noncoincident Demand**



13  
14 The above graph illustrates the individual customers and the gradual  
15 improvement in load factor with additional usage. The equation contained within

JEFFREY R. BAILEY DIRECT



1 the graph is a polynomial expression that explains nearly 74% of the variability of  
2 the data. Using the above formula, the average calculated load factor of  
3 customers at various usage levels is shown below.

4 **Table 3 – Load Factor at Various Usage Levels**

Usage	Demand	Load Factor
100	0.61	22.6%
200	1.20	22.8%
300	1.79	23.0%
400	2.36	23.2%
500	2.93	23.4%
1000	5.60	24.5%
1500	8.03	25.6%
2000	10.20	26.9%
3000	13.80	29.8%
4000	16.40	33.4%

5 **Q. WHAT STRUCTURE FOR RATE RS DOES THIS ANALYSIS SUPPORT?**

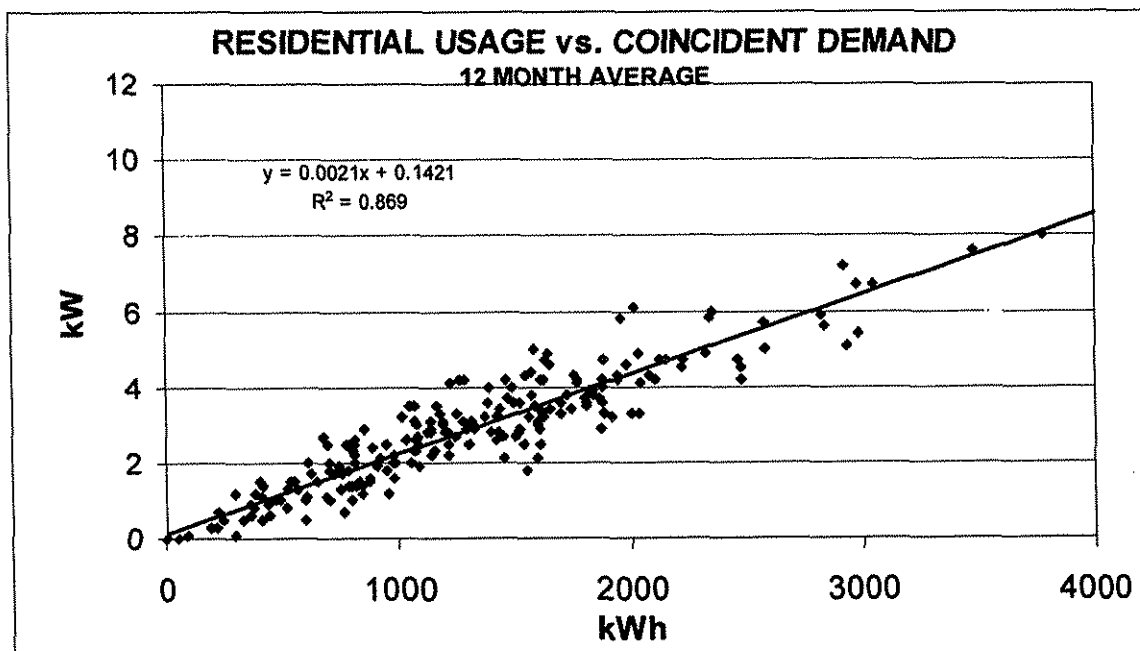
6 A. Improvements in load factor have typically supported a declining block structure;  
7 however, in my judgment, the improvements in load factor are not significant. As  
8 shown in the table above, the improvement in load factor between 100 and 500  
9 kWh is less than one percent, and the improvement in load factor between 500  
10 and 2,000 kWh is approximately three and one-half percent. So, from a usage  
11 perspective, a block between these amounts is not warranted. Also, in my  
12 opinion, even though the load factor improves more significantly beyond 2000  
13 kWh, the number of customers that use an average of greater than 2,000 kWh per  
14 month is small, so a declining step somewhere beyond 2,000 kWh is also not  
15 warranted. By itself, though, this does not fully address what the rate structure for  
16 Rate RS should be.

**JEFFREY R. BAILEY DIRECT**

- 10 -

1 For further analysis, we also plotted individual customers' average  
2 monthly kWh usage versus their average coincident demand, which is the demand  
3 imposed by these customers during the calendar month at time of system peak.  
4 We found that, on average, as consumption increases load imposed at time of  
5 system peak also increases proportionately, as demonstrated in the graph below.

6 **Table 4 – Residential Usage vs. Coincident Demand**



7  
8 The equation within the graph explains nearly 87% of the variability of the data.

9 Whatever the strata, this graph convincingly demonstrates that coincident  
10 demand is proportional to usage. Since approximately 77% of the cost of serving  
11 residential customers is attributable to generation and transmission related  
12 expenditures, this graph supports the position that the overall structure of Rate RS  
13 should be a single (flat) kWh charge for all kWh consumed.

14 **Q. WHEN ARE DECLINING BLOCK STRUCTURES WARRANTED?**

15 **A.** Declining block structures can be used to recover fixed costs of the utility in the

1 early blocks to aid the utility in revenue stability, or to recover the customer  
2 component of costs not recovered in the customer charge.

3 Additionally, declining block structures are justified when improving load  
4 factor with increased usage warrants a reduction in the price to be paid because  
5 these customers impose less demand as a function of usage than lower load factor  
6 customers. In essence, a customer that has a greater proportion of energy usage to  
7 their demand usage should have a lower per unit cost, otherwise these higher load  
8 factor customers would contribute excessively to the fixed costs of the utility. Our  
9 analysis has shown that improvements in load factor are not significant in most  
10 usage ranges. We therefore concluded that a declining block structure is not  
11 appropriate.

12 **Q. BASED UPON THIS INFORMATION, DO YOU HAVE AN OPINION**  
13 **REGARDING WHETHER AN INVERTED BLOCK STRUCTURE IS**  
14 **APPROPRIATE FOR RATE RS?**

15 **A.** Yes, I have. In general, an inverted block structure implies that increased usage is  
16 inefficient and lower usage is efficient. Duke Energy Kentucky's load research  
17 data has shown that higher use customers are as efficient, in terms of impacting  
18 on-peak periods and coincident peaks, as lower usage customers. In my opinion,  
19 therefore, there is no justifiable basis from a cost perspective to support an  
20 inverted block structure. However, inverted block structures may still serve  
21 various policy goals, such as "lifeline" rates. Inverted block structures have also  
22 commonly been associated with attempting to reflect marginal costs. However,  
23 without a time-differentiated rate (which would eliminate the need for an inverted

**JEFFREY R. BAILEY DIRECT**

- 12 -

1 structure in the first place) there is no way to determine whether the usage at any  
 2 point during the monthly billing period is truly on the margin. Furthermore,  
 3 without declining load factor with increased usage or proportionately increased  
 4 on-peak usage with additional usage, one can conclude that an inverted block  
 5 structure is not cost justifiable.

6 **Q. DID YOU EXAMINE WHETHER OR NOT A SEPARATE SUMMER AND**  
 7 **WINTER ENERGY RATE SHOULD BE ESTABLISHED FOR RATE RS?**

8 A. Yes. We used a production cost simulation for all hours of the forecasted test  
 9 period to determine if there was a significant cost difference between summer and  
 10 winter periods. This also allowed examination of any differences in costs by  
 11 strata for peak and off-peak periods. This was accomplished by establishing  
 12 native load requirement and native load costs to determine a cost per kW per hour  
 13 to serve customers during the forecasted test period. The results of this analysis  
 14 are shown in the following table.

15 **Table 5 – Native Load Costs and Costs to Serve**

	<b><u>Strata 1 Cost per kWh</u></b>		
	<b>On Peak</b>	<b>Off Peak</b>	<b>Average</b>
Summer	\$0.029788	\$0.019166	\$0.022477
Winter	\$0.026095	\$0.020863	\$0.022407

	<b><u>Strata 2 Cost per kWh</u></b>		
	<b>On Peak</b>	<b>Off Peak</b>	<b>Average</b>
Summer	\$0.029549	\$0.019183	\$0.022528
Winter	\$0.026015	\$0.020697	\$0.022264

	<b><u>Strata 3 Cost per kWh</u></b>		
	<b>On Peak</b>	<b>Off Peak</b>	<b>Average</b>
Summer	\$0.029461	\$0.019148	\$0.022436
Winter	\$0.026014	\$0.020619	\$0.022148

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1           From the above table, there is not a significant difference in the variable  
2 costs of providing service under Rate RS during the summer and winter periods.  
3 Thus, there is no significant justification – in terms of variable costs – to support a  
4 differential in price between the summer and winter periods. This is likely due to  
5 the large amount of baseload capacity now providing service to the Company’s  
6 load. Furthermore, the information in the table demonstrates the consistency of  
7 costs across the various strata. This further confirms previous analysis that overall  
8 load shapes of customers within the various strata are similar and impose similar  
9 costs on the system.

10 **Q. PLEASE BRIEFLY SUMMARIZE YOUR POSITION REGARDING THE**  
11 **STRUCTURE OF RATE RS.**

12 A. My analysis revealed several salient points for designing Rate RS. First, greater  
13 consumption does not create a significant improvement in load factor, supporting  
14 the position that a declining block structure is inappropriate. Second, the  
15 demands imposed by customers during times of peak are proportional to the kWh  
16 used, which tends to support a flat charge for the majority of costs imposed by  
17 these customers. Both of these findings suggest that an inverted block structure is  
18 not appropriate. Finally, there does not appear to be sufficient support for a  
19 distinct summer and winter energy charge. All of these facts tend to support a flat  
20 (single) charge per kWh for all kWh consumed by residential customers without  
21 any differential between summer and winter energy charges.

22 **Q. WHAT PROPOSAL HAS THE COMPANY MADE REGARDING THE**  
23 **RESIDENTIAL CUSTOMER CHARGE?**

**JEFFREY R. BAILEY DIRECT**

1 A. The analysis supports a customer charge of just under \$11 per month. In keeping  
2 with the concept of gradualism, Duke Energy Kentucky proposes to modestly  
3 increase the customer charge from \$3.73 per month to \$5.00 per month.

4 **Q. WHAT IS THE FINAL DESIGN FOR RATE RS?**

5 A. Based on the preceding discussion, the final rate design for Rate RS is as follows:

6	Customer Charge:	\$5.00 per month
7	Energy Charge:	\$0.081299 per kWh.

8 **Q. WHAT IS THE EFFECT OF THIS RATE INCREASE ON A**  
9 **RESIDENTIAL CUSTOMER USING 1,000 KWH PER MONTH?**

10 A. A residential customer using 1,000 kWh per month will experience an increase of  
11 \$19.48 or 29.6% on a total bill basis. This calculation reflects all applicable riders  
12 in effect at the time of filing.

13 **Q. PLEASE DESCRIBE THE COMPANY'S RATE DESIGN OBJECTIVES**  
14 **FOR RATES DS, DP, DT, AND TT.**

15 A. Given the large percentage increase, our rate design objectives for these rate  
16 schedules (hereinafter referred to as "power rate schedules" or "power rates") are  
17 to generally increase the rates to maintain a similar structure that minimizes  
18 impacts to the class of customers while collecting the total revenue requirement.  
19 Aside from this, there are no significant structural changes to the power rates.  
20 The Company performed a thorough review of the general structure of the rates.  
21 Duke Energy Kentucky reviewed the legitimacy of providing the first 15 kW at no  
22 cost to customers served under Rate DS, as well as the various caps provided  
23 under this rate. We found no significant justification for these provisions. We

**JEFFREY R. BAILEY DIRECT**

1 also reviewed power factor provisions and believe some movement toward kVAR  
2 for pricing is a means to improve price signals. However, due to the significant  
3 increase requested, we have chosen to not seek implementation of any of these  
4 specific findings in this case.

5 **Q. WHAT ARE THE PROPOSED CUSTOMER CHARGES?**

6 A. The customer charge for each power rate is as follows: for Rate DS, the customer  
7 charges are \$7.50 for single phase service and \$15.00 for three phase service; for  
8 Rate DP the customer charge is \$100.00; for Rate DT, the customer charges are  
9 \$7.50 for single phase service and \$15.00 for three phase service; and for TT, the  
10 customer charge is \$500.00. Attachment JRB-1 sets forth the customer-related  
11 costs of providing service to the various customer classes. This information was  
12 obtained from the functional cost of service study provided by Mr. Ochsner.

13 **Q. HAVE YOU PREPARED RATE STRUCTURES FOR THE POWER**  
14 **RATES?**

15 A. Yes. Again, there are no significant structural changes. The design objective of  
16 the power rates was to collect the revenue requirement while maintaining the  
17 existing structural characteristics of the rate to the greatest extent practicable.  
18 More detailed information can be found on Schedule L.

**B. LIGHTING RATES**

19 **Q. PLEASE DESCRIBE THE COMPANY'S RATE DESIGN OBJECTIVES**  
20 **FOR ITS LIGHTING SERVICES?**

21 A. Our rate design objectives for these rate schedules (hereinafter referred to as "flat  
22 rate lighting schedules") are to increase the Rate/ Unit charge of the rate schedules

1 resulting from the increase in the cost of service study, and to phase out certain  
2 street lighting tariffs.

3 **Q. WHY DOES THE COMPANY PROPOSE TO PHASE OUT CERTAIN**  
4 **STREET LIGHTING TARIFFS, AND WHICH STREET LIGHTING**  
5 **TARIFFS WOULD BE PHASED OUT?**

6 A. The number of lighting types and fixtures has grown considerably over the years,  
7 making the administration of our lighting programs more difficult and time  
8 consuming. We believe that our limited resources should be available for the  
9 provision of safe, adequate, and reliable electric service rather than administering  
10 discretionary ornamental lighting programs which are currently supported by these  
11 rate schedules and which could be obtained from a private contractor. The  
12 Company proposes to provide a reasonable number of essential lighting services,  
13 while limiting the variety of available lamp types and requiring customers to pay  
14 more directly for costs incurred on their behalf. Customers who desire a lighting  
15 system not offered by Duke Energy Kentucky can procure a system from any  
16 contractor and pay for the energy through Rate UOLS – Unmetered Outdoor  
17 Lighting Service (“Rate UOLS”).

18 New customers will be offered Company standard lighting equipment and  
19 maintenance under the Company’s Rate OLE – Outdoor Lighting Equipment rate  
20 schedule (“Rate OLE”), with the associated energy provided under Rate UOLS.

21 The Company anticipates canceling Rates Street Lighting Service (“Rate  
22 SL”) Street Lighting Service – Overhead Equipment, (“Rate SE”). Street Lighting  
23 Service – Customer Owned (“Rate SC”), and Street Lighting Service for Non-



1 Standard Units, ("Rate NSU"), in 20 years, and Outdoor Lighting Service, ("Rate  
2 OL") and Private Outdoor Lighting for Non-Standard Units, ("NSP") in ten years.  
3 During these time periods, the existing flat rate lighting schedules customers will  
4 be migrated to the UOLS/OLE rates as their existing lighting systems reach the  
5 end of their useful life.

6 When the Company cancels Rates SL, SE, SC, and NSU in 20 years, and  
7 Rates OL and NSP in ten years, the remaining customers will be offered  
8 maintenance of any remaining lights under Rate OLE, and will be served under  
9 Rate UOLS for their energy service. At any time, customers can choose to have a  
10 new system installed by Duke Energy Kentucky under Rates UOLS/OLE, or they  
11 can purchase a new system from a lighting contractor.

12 **Q. WILL ELIMINATING THESE RATES BENEFIT LIGHTING**  
13 **CUSTOMERS?**

14 **A.** Yes. Rate OLE provides a one-on-one equipment contract with the customer  
15 where the customer pays the current cost of the lighting system. This locks-in the  
16 customer's equipment cost, insulates customers from future rate increases on the  
17 equipment portion of the lights, and eliminates subsidies to and from other  
18 lighting customers. Customers will have an option to pay for the physical lighting  
19 equipment up-front or over time, up to a maximum of ten years. Once the  
20 customer has fully paid-off the lighting equipment costs, they will no longer have  
21 a monthly payment for the equipment, and will be required to pay only for  
22 maintenance. In contrast, under current rates customers pay a single monthly fee,  
23 which includes an equipment charge, as long as they require electric service. If

**JEFFREY R. BAILEY DIRECT**

- 18 -

1 the customer's lighting system exceeds the average system life, they end up over-  
2 paying for the physical equipment since their rates remain the same.

3 **Q. WILL ELIMINATING THESE TARIFFS RESULT IN HIGHER**  
4 **LIGHTING COSTS FOR CUSTOMERS?**

5 A. Customers who install new systems will see higher lighting equipment costs in the  
6 first years relative to the current tariff, but will see only maintenance and energy  
7 costs in the later years, as discussed above.

**C. MISCELLANEOUS NEW OR REVISED RIDERS**

8 **Q. PLEASE DESCRIBE PROPOSED CHANGES TO THE COMPANY'S**  
9 **GREEN POWER RIDER.**

10 A. Duke Energy Kentucky's current Green Power Rider ("Rider GP"), Sheet No. 88,  
11 provides customers the opportunity to enter into a written service agreement  
12 through which the customer voluntarily contributes at least \$1.00 per month to be  
13 added to the customer's normal bill for electric service. These contributions are  
14 used to purchase power from environmentally friendly sources or to help pay for  
15 the development of Green Power Energy Sources.

16 The new Rider GP continues to be a voluntary program for residential and  
17 small commercial customers. However, instead of merely asking customers to  
18 voluntarily contribute money to support the acquisition or development of Green  
19 Power, the customers will now be empowered to voluntarily designate a monthly  
20 kWh purchase level for Green Power. Each customer may voluntarily, at a  
21 minimum, purchase 200 kWh monthly with additional voluntary purchases to be  
22 made in 100 kWh increments. Participants will continue to be billed for electric

**JEFFREY R. BAILEY DIRECT**

- 19 -

1 service under their standard applicable tariffs, including all applicable riders. The  
2 voluntary increments of Green Power purchases will be billed at the applicable  
3 Green Power rate times the amount of Green Power kWh the customer has  
4 requested to purchase per month.

5 The customer will enter into a service agreement that specifies the amount  
6 and price of green power to be purchased monthly. Duke Energy Kentucky  
7 requests authority to adjust, up or down, the price voluntarily paid per 100 kWh of  
8 Green Power and, if necessary, adjust the size of the kWh Green Power blocks.  
9 The customers may cancel their participation in this Rider at any time after giving  
10 Duke Energy Kentucky 30 days' prior notice.

11 **Q. PLEASE DESCRIBE HOW DUKE ENERGY KENTUCKY WILL USE**  
12 **THE REVENUES FROM THIS NEW RIDER GP.**

13 A. Amounts collected above our standard applicable tariff rate plus applicable riders  
14 will be used for acquisition of Renewable Energy Certificates ("RECs") and  
15 Carbon Credits to promote the development of Green Power and to cover the  
16 costs of educational materials, marketing materials, and advertising the Green  
17 Power program.

18 **Q. WHAT ARE RECS AND CARBON CREDITS?**

19 A. A REC is the tradable commodity unit which represents the generation of one  
20 MWH of renewable or environmentally friendly generation. A Carbon Credit is a  
21 tradable commodity unit which represents one ton of CO<sub>2</sub> reduction or its  
22 equivalent. Both REC and Carbon Credits are commonly used and widely  
23 accepted industry standards.

**JEFFREY R. BAILEY DIRECT**

- 20 -

1 **Q. CAN LARGE COMMERCIAL AND INDUSTRIAL CUSTOMERS**  
2 **PARTICIPATE IN THE NEW GREEN POWER PROGRAM?**

3 A. Yes. Duke Energy Kentucky proposes to address the needs of larger commercial  
4 and industrial customers on a customer specific special contract basis, taking into  
5 consideration their particular business objectives as they relate to Green Power  
6 and climate issues. This will require an offering of Green Power and Carbon  
7 Credits to be made available for their purchase.

8 **Q. WILL DUKE ENERGY KENTUCKY KEEP THE COMMISSION AND**  
9 **STAKEHOLDERS APPRISED OF THE PROGRAM RESULTS?**

10 A. Yes. Duke Energy Kentucky will provide annual updates on the performance of  
11 the revised Green Power Tariff Rider to stakeholders through December 31, 2009.  
12 Duke Energy Kentucky will also update the Kentucky Public Service Commission  
13 with a final report on its success.

14 **Q. IF FEDERAL OR STATE LAWS ARE ENACTED THAT REQUIRE**  
15 **KENTUCKY ELECTRIC UTILITIES TO HAVE A SPECIFIC**  
16 **RENEWABLE PORTFOLIO STANDARD ("RPS") DURING THE**  
17 **THREE-YEAR TERM OF THIS PROPOSAL, SHOULD THIS PROGRAM**  
18 **CONTINUE?**

19 A. If lawfully mandated to maintain an RPS, there may be no need for this voluntary,  
20 proposed program. Accordingly, Duke Energy Kentucky requests Commission  
21 approval to reserve the right to modify or withdraw this program if an RPS is  
22 enacted.

1 Q. YOU PREVIOUSLY STATED THAT DUKE ENERGY KENTUCKY  
2 SEEKS AUTHORIZATION TO ADJUST THE AMOUNT CHARGED  
3 MONTHLY FOR 100 KWH OF GREEN POWER DURING THE THREE  
4 YEAR TERM OF THIS PROGRAM AND TO ADJUST THE MINIMUM  
5 KWH PURCHASE AMOUNT. WHY DOES DUKE ENERGY KENTUCKY  
6 MAKE THIS REQUEST?

7 A. The market price for RECs fluctuates. If this Green Power Rider is approved,  
8 Duke Energy Kentucky will make a commitment to its customers to go to the  
9 marketplace and acquire the level of RECs necessary to match the Green Power  
10 commitments made voluntarily by Duke Energy Kentucky retail customers. The  
11 cost of that commitment may fluctuate with market conditions. As such, it is  
12 reasonable that Duke Energy Kentucky should reserve the right to make certain  
13 the amount it charges is sufficient to purchase a load matching level of RECs.

14 Additionally, the REC market is open and competitive. Duke Energy  
15 Kentucky customers do not necessarily have to participate in the Green Power  
16 Rider for RECs. Rather, they can directly purchase RECs over the internet from  
17 Green Power generators and marketers. Thus, if customers believe that Duke  
18 Energy Kentucky's Green Power Rider are unreasonably high, they can financially  
19 support Green Power through a competitor.

20 Just as other green power generators and marketers will base their price for  
21 RECs on prevailing market conditions, Duke Energy Kentucky requests the  
22 flexibility to adjust its price per 100 kWh of Green Power to maximize the  
23 success of this program, higher or lower. That success is maximized by growing

1 the number of participants and an increased proliferation of the Green Power  
2 market and Green Power generation.

3 Thus, if the price per 100 kWh of Green Power needs to be lowered to  
4 improve voluntary participation, Duke Energy Kentucky needs the flexibility to  
5 make the downward adjustment. Conversely, if the market price of RECs  
6 increases, Duke Energy Kentucky wants the flexibility to increase the price  
7 voluntarily paid for 100 kWh of Green Power to further support for the REC  
8 market.

9 **Q. SHOULD THE COMMISSION BE CONCERNED THAT DUKE ENERGY**  
10 **KENTUCKY MIGHT UNREASONABLY INCREASE THE COST OF**  
11 **GREEN POWER TO PARTICIPANTS IN THIS PROGRAM?**

12 **A.** No. It certainly would not be in Duke Energy Kentucky's interests to compromise  
13 its own voluntary program by proposing an unreasonable price for green energy.  
14 We are proposing this tariff in order to encourage customer satisfaction and  
15 consumption of green energy; charging a higher price that would, in effect,  
16 discourage participation would make no sense. As pointed out above, RECs are  
17 openly traded in a free, competitive marketplace. So, if a customer believes that  
18 Duke Energy Kentucky's price is unreasonably high, the customer can shop  
19 elsewhere or discontinue participation in the renewable energy program altogether  
20 with appropriate notice. Also, customers will be notified 60 days in advance of  
21 any price or minimum purchase amount adjustments and may withdraw from the  
22 program upon 30 days' notice.

1 **Q. WHAT SOURCES OF ENERGY WILL QUALIFY UNDER THE GREEN**  
2 **POWER STANDARD CONTRACT RIDER NO. 88?**

3 A. Rider GP includes energy generated from renewable and environmentally friendly  
4 sources including wind, solar, photovoltaic, biomass co-firing of agricultural  
5 crops and all energy crops, hydro-as certified by the Low Impact Hydro Institute,  
6 incremental improvements in large scale hydro, coal mine methane, landfill gas,  
7 biogas digesters, biomass co-firing of all woody waste including mill residue but  
8 excluding painted or treated lumber. This is a generally accepted and supported  
9 list of environmentally-friendly generation resources.

10 **Q. WOULD THE COMMISSION BE ACTING IN THE PUBLIC INTEREST**  
11 **BY ALLOWING DUKE ENERGY KENTUCKY CUSTOMERS THE**  
12 **OPPORTUNITY TO VOLUNTARILY PAY HIGHER THAN NORMAL**  
13 **RATES TO SUPPORT GREEN POWER?**

14 A. Yes. Those who voluntarily choose to pay premium rates for Green Power  
15 improve the cost effectiveness of Green Power generation. Those volunteers also  
16 increase the market's perceived financial viability of Green Power, stimulate more  
17 Green Power investments, create more no or low emissions generating sources,  
18 and satisfy their own desire to support such a program. Given that current Green  
19 Power Generation technology is often not as cost-effective as traditional  
20 generation, it is a fair balance that those customers who most support Green  
21 Power promote it by paying its higher costs. Logically, as demand for Green  
22 Power increases, Green Power production should increase and the cost of Green  
23 Power energy should decline. This decline should stimulate interest in,

**JEFFREY R. BAILEY DIRECT**

- 24 -

1 participation in, and the financial viability of Green Power which is beneficial to  
2 the public.

3 **Q. WILL DUKE ENERGY KENTUCKY PERFORM CUSTOMER**  
4 **EDUCATION AND MARKETING FOR THE RIDER GP?**

5 A. Yes. Our proposed modifications to the Rider GP are intended to increase  
6 customer satisfaction and participation in the Green Power Program. Educating  
7 customers on the availability of the program and on the environmental benefits of  
8 Green Power generation is expected to increase the number of participants in the  
9 program. Increased participation results in higher demand for Green Power  
10 energy and additional financial support for Green Power technologies and for the  
11 Green Power generation market. It is reasonable to expect that as demand for  
12 Green Power energy grows, the marketplace will meet that demand with  
13 additional investment in Green Power generation and technology. But that  
14 process cannot occur without educating the public as to the benefits of Green  
15 Power energy and marketing its availability.

16 **Q. HOW WILL DUKE ENERGY KENTUCKY INFORM CUSTOMERS**  
17 **ABOUT THE PROPOSED RIDER GP?**

18 A. Duke Energy Kentucky's customer education and marketing effort will begin with  
19 a broad announcement on the customer bill to all residential and commercial  
20 customers after the Commission approves the program. Duke Energy Kentucky  
21 then proposes to start with a pilot effort of up to 10,000 customers to initially  
22 determine the success and suitability of local meetings, newspaper and radio ads,  
23 bill inserts, and direct mailing to inform and educate the public. Customer

**JEFFREY R. BAILEY DIRECT**

- 25 -



1 feedback on the program promotion will be incorporated into the program on a  
2 real time basis to help improve the program's efficiency and effectiveness.

3 **Q. WHAT ACTIVITIES WILL DUKE ENERGY KENTUCKY USE IN ITS**  
4 **EDUCATION AND MARKETING EFFORTS?**

5 A. Duke Energy Kentucky will use direct mailing, local meetings between Company  
6 experts and customers, radio advertising, and newspaper advertising.  
7 Additionally, Duke Energy Kentucky hopes to roll out Green Power  
8 demonstration projects that will be visible to and will help educate the public.

9 **Q. WILL CUSTOMERS BE SOLICITED BY TELEPHONE FOR THIS**  
10 **PROGRAM?**

11 A. No.

12 **Q. IS IT IMPORTANT FOR THE PROGRAM'S SUCCESS FOR DUKE**  
13 **ENERGY KENTUCKY TO BE ABLE TO ADJUST THE PRICE AND THE**  
14 **LEVEL OF THE CONSUMPTION BLOCKS DURING THE THREE-**  
15 **YEAR TERM OF THIS PROGRAM?**

16 A. Yes. Green Power and RECs are openly traded in a competitive marketplace.  
17 Thus, their prices may fluctuate and Duke Energy Kentucky's costs to obtain those  
18 commodities may vary over time. Our interaction with our customer base may  
19 demonstrate that we need to adjust the Green Power consumption blocks to satisfy  
20 customer needs and maximize participation. Similarly, we may need to lower the  
21 Green Power unit price to maximize participation. That flexibility will benefit the  
22 program and our customers. The requested flexibility satisfies two of the most  
23 important goals of this program – enhanced customer satisfaction and robust

**JEFFREY R. BAILEY DIRECT**

- 26 -

1 participation in, and the proliferation of, the Green Power marketplace.

2 **Q. DOES DUKE ENERGY KENTUCKY PROPOSE CHANGES TO ITS NET**  
3 **METERING TARIFF?**

4 A. Yes. The Company proposes a change to the availability section of Net Metering  
5 Rider ("Rider NM"). This change, if approved, will allow the Company, at its  
6 discretion, to provide net metering under Rider NM to customers who may not  
7 otherwise be eligible for net metering. There are no other changes to the net  
8 metering rider.

9 **Q. PLEASE DESCRIBE THE COMPANY'S PROPOSAL TO ESTABLISH A**  
10 **TARIFF TO PROVIDE BACKUP CAPACITY FROM ITS**  
11 **DISTRIBUTION AND / OR TRANSMISSION SYSTEM(S) UNDER RIDER**  
12 **BDP -BACKUP DELIVERY POINT.**

13 A. Rider BDP - Backup Delivery Point ("Rider BDP"), provides for additional access  
14 to the Company's distribution and / or transmission system(s) for customers that  
15 require enhanced reliability (but does not imply uninterrupted service). This  
16 additional access generally takes the form of an electrical tie to another  
17 distribution and / or transmission circuit to provide a redundant source of power to  
18 a customer in the event that the customer's primary service experiences  
19 interruption. Rider BDP also contemplates a fee to compensate Duke Energy  
20 Kentucky for reserving capacity on the redundant circuit.

21 Customer demand for this type of service has grown in recent years.  
22 Customers are demanding increasing levels of reliability. Many customers are  
23 willing to pay the additional costs of obtaining a redundant system to insulate their

**JEFFREY R. BAILEY DIRECT**

- 27 -

1 operations from normal outage situations. To respond to this demand, the  
2 Company has developed Rider BDP. Under this rider, customers are required to  
3 pay the Company's costs for any dedicated facilities required to provide the  
4 backup service. Customers are also required to pay for the Company reserving  
5 capacity on the facilities serving the backup facilities. This helps to ensure that  
6 the line capacity is available to the customer's backup point in the event their  
7 primary source of energy experiences an interruption. In addition, customers are  
8 charged for acceleration of capacity additions, if applicable. Appropriately  
9 charging for reserve capacity helps to cover real costs, avoid subsidization by  
10 other customers, and establish a reasonable basis to continue to provide this value  
11 added service.

12 **Q. HOW HAVE THE CHARGES FOR RIDER BDP BEEN DEVELOPED?**

13 A. There are two primary components to how Rider BDP will be charged. The first  
14 component is an Access Charge, and the other, if applicable, is an Acceleration  
15 Charge.

16 Customer characteristics determine the charges under Rider BDP, and how  
17 the service is delivered to the customer is a key component in determining those  
18 charges. Customers requesting distribution and transmission sources that are  
19 distinctly different from the sources providing the customers' primary service are  
20 charged an Access Charge. This charge is based upon the transmission and  
21 distribution components of the applicable Duke Energy Kentucky rate (*i.e.*, Rates  
22 DS, DP, DT, or TT).

23 The next component of Rider BDP charges depends on whether facilities

1 must be constructed in advance of planning estimates. The advancement, in  
2 number of years, is used to determine the amount of the acceleration charge. The  
3 annual acceleration charge is the product of the capital investment, a levelized  
4 fixed charge rate ("LFCR") and the project advancement in years. Typically, the  
5 charges associated with advanced construction would be discounted to present  
6 value terms and paid in a lump sum.

7 Any dedicated facilities needed to provide access to the Company's  
8 distribution and / or transmission system(s) are priced under the Company's  
9 normal excess facilities agreements / arrangements.

10 **Q. PLEASE EXPLAIN THE COMPANY'S PROPOSED TRANSMISSION**  
11 **COST RECOVERY MECHANISM.**

12 A. As detailed in the testimony of Mr. Wathen and Mr. Swez, this mechanism,  
13 known as the Transmission Cost Recovery Mechanism ("Rider TCRM"), will  
14 allow the Company to update its transmission rates annually for recovery of all  
15 credits, charges and revenues related to congestion and financial transmission  
16 rights assessed to Duke Energy Kentucky by the applicable regional transmission  
17 organization, currently the Midwest Independent Transmission System Operator,  
18 Inc. ("Midwest ISO"), or otherwise approved by the Federal Energy Regulatory  
19 Commission ("FERC").

20 **Q. DOES DUKE ENERGY KENTUCKY PROPOSE ANY CHANGES FOR**  
21 **ITS TARIFFS RELATING TO COGENERATION AND POWER SALES**  
22 **AND PURCHASES?**

23 A. Yes. Duke Energy Kentucky proposes to change both of its tariffs relating to

1 cogeneration and power sales and purchases. Both tariffs currently provide that  
2 Duke Energy Kentucky will purchase power from qualifying cogeneration  
3 facilities at Duke Energy Kentucky's avoided cost. My understanding is that this  
4 was formerly required by the Public Utility Regulatory Policies Act of 1978  
5 ("PURPA"). I further understand that Section 1253 of the Energy Policy Act of  
6 2005 repealed this PURPA requirement, such that, if a qualifying facility has  
7 access to a competitive wholesale market, then the utility is still required to  
8 purchase the qualifying facility's output, but at the market price instead of the  
9 utility's avoided cost. Duke Energy Kentucky's service area has access to a  
10 competitive wholesale market, that is, the Midwest ISO's Day 2 energy markets.  
11 Accordingly, we are revising these tariffs to provide for Duke Energy Kentucky to  
12 purchase the qualifying facility's output at the market price.

13 **Q. WHAT PRICE DOES DUKE ENERGY KENTUCKY PROPOSE TO USE**  
14 **FOR COGENERATION AND SMALL POWER PRODUCTION SALE**  
15 **AND PURCHASE – OF 100 KW OR LESS?**

16 A. Duke Energy Kentucky proposes to determine a price based upon a production  
17 cost simulation whereby a decrement of capacity is used to determine the value of  
18 the facility.

19 **Q. WHAT MARKET PRICE DOES DUKE ENERGY KENTUCKY PROPOSE**  
20 **TO USE FOR COGENERATION AND SMALL POWER PRODUCTION**  
21 **SALE AND PURCHASE - GREATER THAN 100 KW?**

22 A. Duke Energy Kentucky proposes that the market price for Cogeneration and Small  
23 Power Production Sale and Purchase - greater than 100 kW should be the

1 locational marginal price for power purchased through the Midwest ISO day-  
2 ahead energy market, inclusive of the energy, congestion and losses charges,  
3 delivered to the Midwest ISO's Cinergy hub load zone.

4 **Q. WHY IS THIS A JUST AND REASONABLE MARKET PRICE FOR**  
5 **PURCHASING POWER FROM QUALIFYING FACILITIES AT THE**  
6 **MARKET PRICE?**

7 A. This is a just and reasonable methodology for establishing a market price because  
8 the price is determined by an independent third party based on actual supply and  
9 demand conditions as indicated by participants in the Midwest ISO day-ahead  
10 energy market. Additionally, this price is transparent and easily monitored, such  
11 that those interested in constructing qualifying facilities will have ready access to  
12 this information.

13 **Q. WHAT CHANGES DOES DUKE ENERGY KENTUCKY PROPOSE FOR**  
14 **ITS POWERSHARE® PROGRAM?**

15 A. Since inception of the program in 2000, PowerShare® has been a market-based  
16 program where the credits provided to customers for load curtailments have been  
17 based on the value of those curtailments in the short term wholesale energy  
18 market. Because market prices are highly variable, customer credits have varied  
19 dramatically from year-to-year. For instance, in 2000 and 2001, customer credits  
20 were relatively high and these credits produced excellent customer participation.  
21 However, recent low market prices have resulted in low credits for customers that  
22 have the ability to curtail load. These low credits have drastically reduced  
23 participation in the PowerShare® program, even as the Company has set new peak

**JEFFREY R. BAILEY DIRECT**

- 31 -

1 demand records. So, while the PowerShare<sup>®</sup> program has great potential value in  
2 providing capacity, it has been valued less by customers because of the low  
3 market-based credits.

4 In an effort to reinvigorate the program, and to transition it to a stable  
5 program capable of producing consistent capacity value, we propose to treat  
6 PowerShare<sup>®</sup> CallOption similar to the Company's regulated demand side  
7 management ("DSM") programs. Our DSM programs are evaluated based upon  
8 the long-term avoided costs, rather than on short-term market prices for the  
9 summer ahead. In essence, we will be giving a long-term capacity value to the  
10 CallOption customer's agreement to curtail usage. Under this new pricing  
11 methodology, which we propose on an annual basis, the credits offered to  
12 PowerShare<sup>®</sup> CallOption customers would be based upon the value of avoiding  
13 investment in a combustion turbine as opposed to the short-term, highly variable  
14 market value. This should stabilize the credits the Company can pay customers at  
15 an attractive level in exchange for an agreement to reduce their load when called  
16 upon. While this would be a material increase over current credits, the credits  
17 would not exceed the value of the annual avoided cost of a combustion turbine.  
18 Pricing at or below these levels will help to ensure the cost-effectiveness of the  
19 program overall.

20 **Q. WHAT IS THE LEVEL OF CREDITS, OR PREMIUMS, CONTAINED IN**  
21 **THE TEST PERIOD AS AN OPERATING EXPENSE?**

22 **A.** The test period does not contain any expenditures in the form of bill credits  
23 related to the PowerShare<sup>®</sup> CallOption program. With our transition of this

**JEFFREY R. BAILEY DIRECT**

- 32 -

1 program to more traditional DSM pricing, we expect increased participation in the  
2 program.

3 Due to the enhancement of this program, we propose to cancel the  
4 Interruptible Service Rider ("Rider IS"). There is only one customer served under  
5 this rider, and our initial calculations show the customer would benefit from  
6 greater option premiums and reduced exposure to curtailment. There is \$58,320  
7 built into base rates for credits to this customer.

8 **Q. HOW WILL ADDITIONAL EXPENSES RELATED TO THIS PROGRAM**  
9 **BE RECOVERD IN RATES?**

10 A. We propose to collect any additional expenses beyond what is built into base  
11 rates, or credit any amounts below what is built into base rates, by collecting or  
12 crediting these dollars through the Fuel Adjustment Clause ("Rider FAC").

V. **OTHER TARIFF CHANGES**

13 **Q. WHAT OTHER CHANGES DO YOU PROPOSE TO IMPLEMENT?**

14 A. The Company proposes to eliminate its Thermal Energy Storage Rider, ("Rider  
15 TES"). This rider merely refers the applicant to the, Load Management Rider  
16 ("Rider LM"), for applicable pricing. Any customer shifting load, including  
17 thermal storage, is eligible to participate in the pricing benefits of Rider LM.  
18 Therefore, we believe this rider is redundant and should be eliminated.

19 The Company also proposes to eliminate Rider SES, Standby or  
20 Emergency Service at Distribution Voltage Rider ("Rider SES"). This rider has  
21 also been rendered obsolete as Rider GSS, Generation Support Services, and our  
22 proposed Rider BDP, Backup Delivery Point Capacity Rider, provide more

JEFFREY R. BAILEY DIRECT

- 33 -



1 detailed, unbundled prices to render backup or standby services.

2 Finally, the Company proposes to eliminate the Energy Call Option  
3 Program applicable to real time pricing ("RTP") customers ("Rider EOP-RTP").  
4 This rider sought to make call options available to RTP accounts. Full market  
5 pricing approved in 2005, and the increase in premiums sought for the  
6 PowerShare® program, would overcompensate customers for price response.  
7 Therefore, we propose to eliminate this Rider. Customers can still respond to  
8 price under the RTP program, or receive service under the standard rate and  
9 participate in the PowerShare® program.

#### VI. MISCELLANEOUS CHARGES

10 **Q. WHAT CHANGES WERE MADE TO THE COMPANY'S**  
11 **MISCELLANEOUS CHARGES AND SERVICE REGULATIONS?**

12 **A.** Reconnections at the pole where the Company was unable to gain access to the  
13 meter will be \$65.

14 We are also implementing an after-hours reconnection charge of \$50  
15 (Sheet No. 91). This fee will apply if the Company receives notice after 12:30  
16 p.m. that the customer wants same-day reinstatement of service. After hours  
17 reconnection at the pole will be \$90.

18 We are also proposing a field collection fee of \$15 (Sheet No. 91),  
19 whereby employees dispatched to reconnect service may accept payment from the  
20 customer.

21 The Company has also added a provision related to the relocation of  
22 facilities to its service regulations (Sheet No. 23). This provision requires that

**JEFFREY R. BAILEY DIRECT**

- 34 -

1 when a customer or private party request the relocation of facilities, the requesting  
2 party is required to pay all expenses related to the relocation. In situations where  
3 facilities are relocated at the request of a governmental entity or entities, and if the  
4 project receives public or quasi-public funding, an additional provision requires  
5 that the entity or entities pay for the relocation in proportion to the funding for the  
6 project.

7 Any other changes not fully described herein are minor wording changes,  
8 are clerical in nature, or were made to update the tariff to conform to Duke Energy  
9 Kentucky's current practice.

**VII. CHANGES TO TARIFF LANGUAGE  
AND SERVICE REGULATIONS**

10 **Q. DOES THE COMPANY PROPOSE ANY CHANGES TO THE**  
11 **LANGUAGE CONTAINED IN THE TARIFFS AND SERVICE**  
12 **REGULATIONS?**

13 **A.** Yes. In the Company's Emergency Electric Procedures Tariff, the Company is  
14 deleting Section V pertaining to Transmission Emergency Rules. This language  
15 was added in 2002 after the Kentucky General Assembly enacted Senate Bill 257,  
16 which became codified as KRS 278.214. My understanding is that this law, in  
17 essence, required utilities to refrain from curtailing in-state customers' electrical  
18 service until service had been interrupted to all other customers. My further  
19 understanding is that a federal court ruled this statute unconstitutional in 2005.  
20 As a result, the Company is deleting this language from its tariff.

1 Q. HOW DOES THE COMPANY PROPOSE THAT THE COMPANY'S  
2 TARIFFS, INCLUDING THE PREVIOUSLY DISCUSSED RATES AND  
3 CHARGES, BE IMPLEMENTED?

4 A. We propose that the revised tariff, including the rates and charges complying with  
5 the Commission's order in this Case, be established effective July 1, 2006, for all  
6 customers.

#### VIII. CONCLUSION

7 Q. WERE SCHEDULES D-2.34, L, L-1, L-2.1, L-2.2, M, M-2.1, M-2.3, AND N,  
8 FRS 10(1)(B)(7), 10(1)(B)(8), 10(3)(A), 10(3)(B), 10(3)(C), 10(10)(L), 10(10)(M)  
9 AND 10(10)(N), AND ATTACHMENT JRB-1 PREPARED BY YOU OR  
10 UNDER YOUR SUPERVISION?

11 A. Yes.

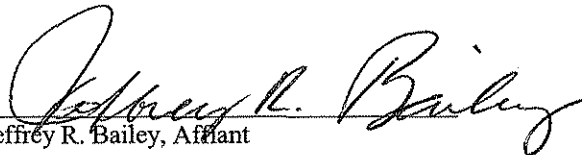
12 Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

13 A. Yes.

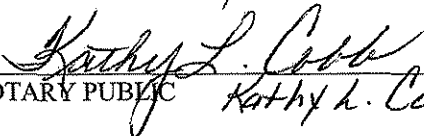
**VERIFICATION**

State of Indiana        )  
                                  )        SS:  
County of Hendricks    )

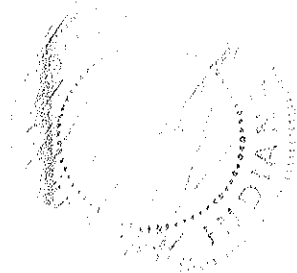
The undersigned, Jeffrey R. Bailey, being duly sworn, deposes and says that he is the Manager, Pricing, Duke Energy Shared Services, Inc., that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

  
Jeffrey R. Bailey, Affiant

Subscribed and sworn to before me by Jeffrey R. Bailey on this 11<sup>th</sup> day of May, 2006.

  
NOTARY PUBLIC Kathy L. Cobb

My Commission Expires: 05.01.07



Duke Energy Kentucky  
Case No. 2006-00172  
Residential Service  
Customer Charge / Minimum Bill Rationale  
Twelve Months Ending December 31, 2007

Line No.	Description	Amount
1	Capitalization allocated to Electric Operations	<u>\$33,408,833</u>
2	Operating Expense	\$13,448,166
3	Return at 7.7166946%	<u>2,578,058</u>
4	Operating Expense plus Return	\$16,026,224
5	Less Total Other Operating Revenues	<u>(112,538)</u>
6	Customer Cost Component (Revenue Requirement)	<u>\$15,913,686</u>
7	Total Residential Customers (Bills)	1,457,429
8	Monthly Revenue / Customer	<u>\$10.92</u>
9	Annual Revenue / Customer	<u>\$131.03</u>

Duke Energy Kentucky  
Case No. 2006-00172  
Service at Secondary Distribution Voltage  
Customer Charge / Minimum Bill Rationale  
Twelve Months Ending December 31, 2007

Line No.	Description	Amount
1	Capitalization allocated to Electric Operations	<u>\$7,993,507</u>
2	Operating Expense	\$2,838,094
3	Return at 10.6578976%	<u>851,940</u>
4	Operating Expense plus Return	\$3,690,034
5	Less Total Other Operating Revenues	<u>(27,331)</u>
6	Customer Cost Component (Revenue Requirement)	<u>\$3,662,703</u>
7	Customer Cost Component (Revenue Requirement) (Single Phase)	<u>\$1,195,056</u>
8	Customer Cost Component (Revenue Requirement) (Three Phase)	<u>\$2,467,647</u>
9	Total Secondary Distribution Voltage Customers (Bills) (Single Phase)	84,787
10	Total Secondary Distribution Voltage Customers (Bills) (Three Phase)	61,274
11	Monthly Revenue / Customer (Single Phase)	<u>\$14.09</u>
12	Annual Revenue / Customer (Single Phase)	<u>\$169.14</u>
13	Monthly Revenue / Customer (Three Phase)	<u>\$40.27</u>
14	Annual Revenue / Customer (Three Phase)	<u>\$483.27</u>

Duke Energy Kentucky  
Case No. 2006-00172  
Distribution - Time of Day Service - Secondary  
Customer Charge / Minimum Bill Rationale  
Twelve Months Ending December 31, 2007

Line No.	Description	Amount
1	Capitalization allocated to Electric Operations	<u>\$2,628,497</u>
2	Operating Expense	\$346,909
3	Return at 8.9310799%	<u>234,753</u>
4	Operating Expense plus Return	\$581,662
5	Less Total Other Operating Revenues	<u>(8,180)</u>
6	Customer Cost Component (Revenue Requirement)	<u>\$573,482</u>
7	Customer Cost Component (Revenue Requirement) (Single Phase)	<u>\$0</u>
8	Customer Cost Component (Revenue Requirement) (Three Phase)	<u>\$573,482</u>
9	Customer Cost Component (Revenue Requirement) (Primary Voltage)	<u>\$0</u>
10	Total Distribution Time-of-Day Customers (Bills) (Single Phase)	0
11	Total Distribution Time-of-Day Customers (Bills) (Three Phase)	2,258
12	Total Distribution Time-of-Day Customers (Bills) (Primary Voltage)	0
13	Monthly Revenue / Customer (Single Phase)	<u>\$0.00</u>
14	Annual Revenue / Customer (Single Phase)	<u>\$0.00</u>
15	Monthly Revenue / Customer (Three Phase)	<u>\$253.98</u>
16	Annual Revenue / Customer (Three Phase)	<u>\$3,047.74</u>
17	Monthly Revenue / Customer (Primary Voltage)	<u>\$0.00</u>
18	Annual Revenue / Customer (Primary Voltage)	<u>\$0.00</u>

Duke Energy Kentucky  
Case No. 2006-00172  
Distribution - Time of Day Service - Primary  
Customer Charge / Minimum Bill Rationale  
Twelve Months Ending December 31, 2007

Line No.	Description	Amount
1	Capitalization allocated to Electric Operations	<u>\$35,532</u>
2	Operating Expense	\$9,131
3	Return at 6.6024788%	<u>2,346</u>
4	Operating Expense plus Return	\$11,477
5	Less Total Other Operating Revenues	<u>(114)</u>
6	Customer Cost Component (Revenue Requirement)	<u>\$11,363</u>
7	Customer Cost Component (Revenue Requirement) (Single Phase)	<u>\$0</u>
8	Customer Cost Component (Revenue Requirement) (Three Phase)	<u>\$0</u>
9	Customer Cost Component (Revenue Requirement) (Primary Voltage)	<u>\$11,363</u>
10	Total Distribution Time-of-Day Customers (Bills) (Single Phase)	0
11	Total Distribution Time-of-Day Customers (Bills) (Three Phase)	0
12	Total Distribution Time-of-Day Customers (Bills) (Primary Voltage)	427
13	Monthly Revenue / Customer (Single Phase)	<u>\$0.00</u>
14	Annual Revenue / Customer (Single Phase)	<u>\$0.00</u>
15	Monthly Revenue / Customer (Three Phase)	<u>\$0.00</u>
16	Annual Revenue / Customer (Three Phase)	<u>\$0.00</u>
17	Monthly Revenue / Customer (Primary Voltage)	<u>\$26.61</u>
18	Annual Revenue / Customer (Primary Voltage)	<u>\$319.33</u>

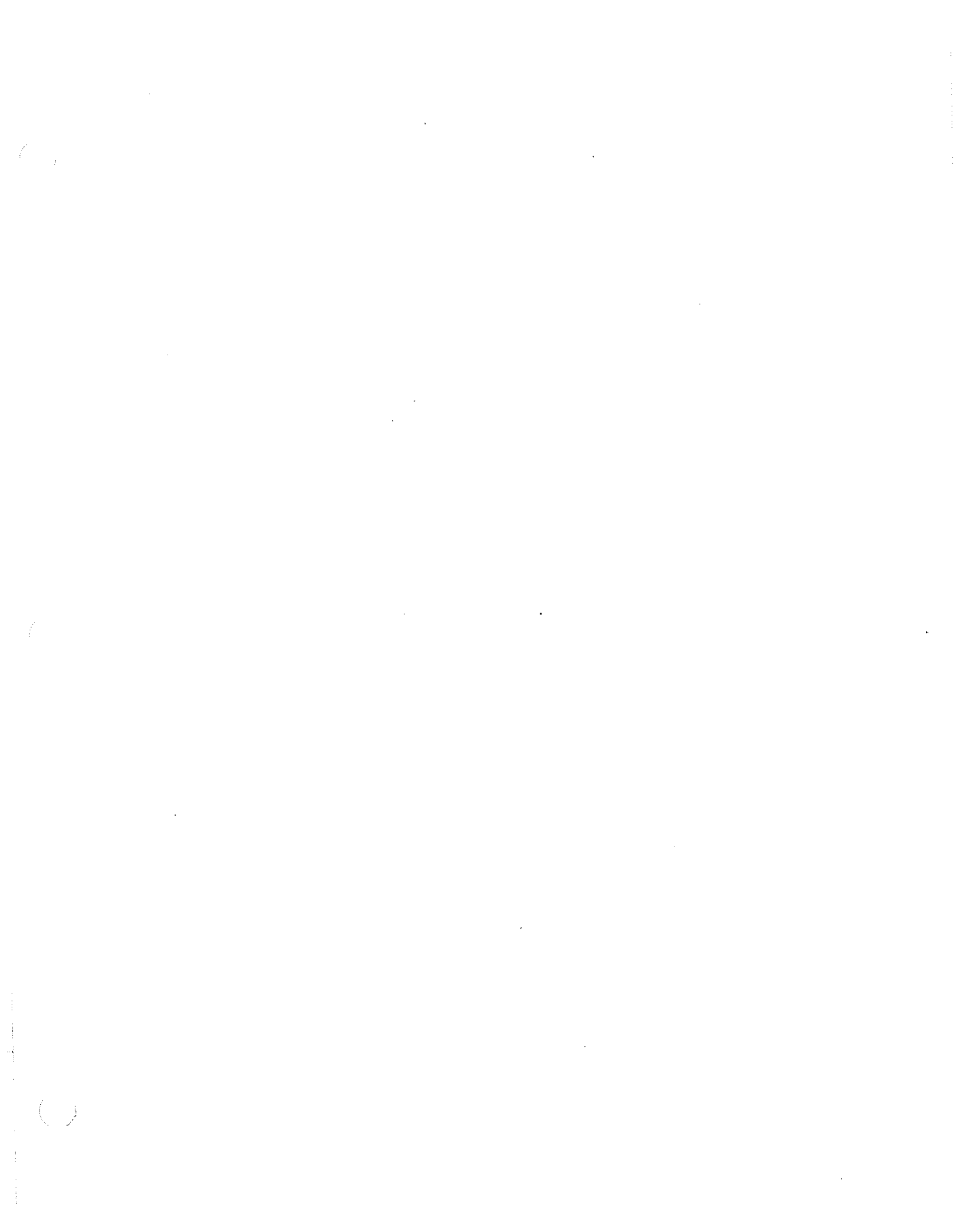


Duke Energy Kentucky  
Case No. 2006-00172  
Service at Primary Distribution Voltage  
Customer Charge / Minimum Bill Rationale  
Twelve Months Ending December 31, 2007

Line No.	Description	Amount
1	Capitalization allocated to Electric Operations	<u>\$4,568</u>
2	Operating Expense	\$2,426
3	Return at 7.7969361%	<u>356</u>
4	Operating Expense plus Return	\$2,782
5	Less Total Other Operating Revenues	<u>(17)</u>
6	Customer Cost Component (Revenue Requirement)	<u>\$2,765</u>
7	Total Primary Distribution Voltage Customers (Bills)	127
8	Monthly Revenue / Customer	<u>\$21.77</u>
9	Annual Revenue / Customer	<u>\$261.28</u>

Duke Energy Kentucky  
Case No. 2006-00172  
Transmission - Time of Day Service  
Customer Charge / Minimum Bill Rationale  
Twelve Months Ending December 31, 2007

<u>Line No.</u>	<u>Description</u>	<u>Amount</u>
1	Capitalization allocated to Electric Operations	<u>\$28,431</u>
2	Operating Expense	\$55,805
3	Return at 10.3417185%	<u>2,940</u>
4	Operating Expense plus Return	\$58,745
5	Less Total Other Operating Revenues	<u>(160)</u>
6	Customer Cost Component (Revenue Requirement)	<u>\$58,585</u>
7	Total Transmission Time-of-Day Customers (Bills)	162
8	Monthly Revenue / Customer	<u>\$361.64</u>
9	Annual Revenue / Customer	<u>\$4,339.65</u>



**COMMONWEALTH OF KENTUCKY**

**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT AND POWER COMPANY ) CASE NO. 2006-00172  
D/B/A DUKE ENERGY KENTUCKY )

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**DIRECT TESTIMONY OF**  
**WILLIAM DON WATHEN, JR.**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE.....	- 1 -
II. TEST PERIOD AND RATE BASE .....	- 3 -
III. SCHEDULES SPONSORED BY WITNESS.....	- 4 -
IV. RECOVERY OF FUEL COSTS .....	- 30 -
V. TRANSMISSION COST RECOVERY MECHANISM.....	- 35 -
VI. CONCLUSION .....	- 37 -

**ATTACHMENTS**

- ATTACHMENT WDW-1– Calculation of Fuel Rate to be Included in Base Rates
  
- ATTACHMENT WDW-2a – Attachment O filing with Midwest ISO for Duke Energy Midwest Companies for 2005 and 2006
  
- ATTACHMENT WDW-2b –Attachment O Filing with Midwest ISO FERC Electric Tariff, Third Revised Vol. No. 1
  
- ATTACHMENT WDW-3 – Calculation of Attachment O Revenue Requirement for Duke Energy Kentucky using Dr. Morin’s Recommended ROE
  
- ATTACHMENT WDW-4 – Adjustment to Capitalization to Reflect AMI Revenue Requirements
  
- ATTACHMENT WDW-5 – Proposed FAC – Fuel Adjustment Clause Tariff Applicable to Retail Rate Groups
  
- ATTACHMENT WDW-6 – Rider TCRM – Transmission Cost Recovery Mechanism Applicable to Retail Rate Groups

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is William Don Wathen, Jr. My business address is 139 East Fourth  
3 Street, Cincinnati, Ohio 45202

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by the Duke Energy Corporation ("Duke Energy") affiliated  
6 companies as Manager, Revenue Requirements.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION.**

8 A. I received Bachelor degrees in Business and Chemical Engineering in 1985 and  
9 1986, respectively, and Master of Business Administration degree in 1988, all from  
10 the University of Kentucky.

11 **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.**

12 A. After completing graduate studies, I was employed by Kentucky Utilities Company  
13 as a planning analyst. In 1989, I began employment with the Indiana Utility  
14 Regulatory Commission ("IURC") as a senior engineer. From 1992 until mid-1998,  
15 I was employed by SVBK Consulting Group, where I held several positions as a  
16 consultant focusing primarily on utility rate matters. Since 1998, I have been  
17 employed by Cinergy Services, Inc. (now "Duke Energy Shared Services, Inc.") and  
18 have held positions in Budgets and Forecasts, Project Management, and, since 2003,  
19 as Manager, Revenue Requirements.

20 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

21 A. Yes. I previously testified in Case No. 2005-00042 in The Union Light, Heat and  
22 Power Company d/b/a Duke Energy Kentucky's ("Duke Energy Kentucky") recent

1 gas base rate case and in Case No. 2004-00098 in Duke Energy Kentucky's 2004  
2 annual filing to establish new rates under Rider AMRP.

3 **Q. HAVE YOU TESTIFIED IN ANY OTHER REGULATORY**  
4 **PROCEEDINGS?**

5 A. I have previously sponsored testimony before the IURC, the Public Utilities  
6 Commission of Ohio ("PUCO"), the Federal Energy Regulatory Commission  
7 ("FERC"), and the City Council of New Orleans in various electric, gas, water, and  
8 sewer proceedings addressing rate design, revenue requirements, cost of service, and  
9 rate of return.

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
11 **PROCEEDING?**

12 A. I describe the test period and rate base used in this proceeding. I also support the  
13 revenue requirement proposed by Duke Energy Kentucky. Toward that end, I  
14 support various adjustments to the projected data for the forecasted test period  
15 provided by Mr. Davey. I support Duke Energy Kentucky's proposal to implement  
16 its Fuel Adjustment Clause ("FAC") for costs incurred on and after January 1, 2007.  
17 I support Duke Energy Kentucky's proposal to implement a new cost recovery  
18 mechanism to pass through changes in certain transmission costs charged by the  
19 Midwest Independent System Operator, Inc. ("Midwest ISO") for transmission  
20 service rendered for Duke Energy Kentucky's retail electric customers ("Rider  
21 TCRM – Transmission Cost Recovery Mechanism").

22 I sponsor the following schedules: Schedules A, B-1, B-5, B-5.1, B-6, B-8,  
23 C-1 through C-2.2, D-1, D-2.1 through D-2.28, D-2.30 through D-2.33, D-2.35, F-1

1 through F-7, G-1 through G-3, H, and K. I sponsor Attachments WDW-1 through  
2 WDW-6 to my testimony. I also sponsor the following Filing Requirements ("FR"):

- 3 1. FR 6(9), a detailed income statement and balance sheet;
- 4 2. FR 10(8)(a), the financial data for the forecasted period in the form of *pro*  
5 *forma* adjustments to the base period;
- 6 3. FR 10(8)(b), the forecasted adjustments for the twelve months immediately  
7 following the suspension period;
- 8 4. FR 10(8)(c), the 13-month average capitalization and net investment rate  
9 base for the forecasted test period;
- 10 5. FR 10(8)(f), a reconciliation of the rate base and capital used to determine  
11 the revenue requirement; and
- 12 6. FR 10(9)(t), a list of all commercially available or in-house developed  
13 computer software, programs, and models used in the development of the  
14 schedules and workpapers associated with the filing of the utility's  
15 application.

## II. TEST PERIOD AND RATE BASE

16 **Q. WHAT IS THE TEST PERIOD IN THIS PROCEEDING?**

17 A. The Company has elected to use a forecasted test period in this proceeding. The  
18 forecasted test period reflects the twelve months ending December 31, 2007,  
19 adjusted for known and measurable changes, and a base period of twelve months  
20 ending August 31, 2006. The base period consists of six months of actual data,  
21 through February 28, 2006, and the remaining six months consist of forecasted  
22 data.

23 **Q. HOW WERE THE RATE BASE AND CAPITALIZATION DETERMINED**  
24 **IN THIS PROCEEDING?**



1 A. The Company determined rate base and capitalization using a 13-month average  
2 for the forecasted test period ending December 31, 2007. The base period rate  
3 base and capitalization represent end-of-period balances.

4 **Q. DID THE COMPANY FOLLOW THE COMMISSION'S GUIDELINES IN**  
5 **DEVELOPING THE BASE AND FORECASTED TEST PERIOD DATA?**

6 A. Yes. Per the Commission's rules, 807 KAR 5:001, Section (9)(e)(2), "the forecast  
7 contains the same assumptions and methodologies as used in the forecast period for  
8 use by management." As described by Mr. Davey, the base and forecasted test  
9 periods were developed using the same methods applied in the Company's annual  
10 budgeting process. The first six months of the base period are actual results and are  
11 taken from the Company's books and records.

### **III. SCHEDULES SPONSORED BY WITNESS**

12 **Q. PLEASE DESCRIBE SCHEDULE A.**

13 A. Schedule A is the overall financial summary for both the base period and the  
14 forecasted period at present and proposed rates. Based on the filing in this  
15 proceeding, as adjusted, the Company's electric operations are projected to earn a  
16 return on capitalization of 3.68% for the forecasted test period, which is  
17 considerably less than the 8.761% return requested in this proceeding. In order to  
18 achieve the appropriate return on capitalization, Duke Energy Kentucky's non-fuel  
19 base electric revenues must increase \$46,520,476, as shown in Schedule A.

20 Although the Company proposes to establish a level of fuel cost recovery in  
21 its base rates, the revenue requirement calculations were such that fuel and non-fuel  
22 revenue requirements could be addressed separately. The Commission's FAC

1 regulations require that fuel cost recovery in base rates be separable from non-fuel  
2 base rates. The current rate of fuel recovery reflected in Duke Energy Kentucky's  
3 base rates is 1.9091 ¢/kWh. The FAC rate, which has been frozen since 2001, is  
4 (0.2525) ¢/kWh. The Company's net fuel recovery rate is 1.6566 ¢/kWh. At that  
5 rate, Duke Energy Kentucky would only recover \$66,371,596 for its fuel expenses,  
6 compared to approximately \$86,616,415 which it projects in 2007. In Attachment  
7 WDW-1, I show the calculation of the fuel rate to be included in base rates. The  
8 new fuel rate will be 2.1619 ¢/kWh. I discuss how the projection for 2007 fuel cost  
9 recovery was calculated later in my testimony. Note that Schedule A shows only the  
10 fuel cost recovery from non-RTP customers.

11 **Q. HOW WAS TOTAL CAPITALIZATION FROM SCHEDULE J**  
12 **ALLOCATED TO ELECTRIC OPERATIONS ON SCHEDULE A?**

13 A. The Company determined the amount of total capitalization allocated to electric  
14 operations using the methodology approved by the Commission in prior Duke  
15 Energy Kentucky rate proceedings. This process involves applying an electric rate  
16 base ratio, as determined on WPA-1d, to total company capitalization, as shown on  
17 Schedule J-1, page 2, adjusted for non-jurisdictional rate base.

18 **Q. WHAT ARE THE MAJOR FACTORS THAT PREVENT DUKE ENERGY**  
19 **KENTUCKY FROM EARNING A FAIR RETURN ON THE CAPITAL**  
20 **INVESTED IN THE ELECTRIC SYSTEM?**

21 A. In addition to the higher fuel costs I described, Mr. Smith outlines these factors in  
22 his testimony and in FR 10(1)(b)(1). In general, Duke Energy Kentucky's  
23 opportunity to earn a reasonable return is impaired due to: (1) significant increases in

1 plant, particularly due to The Cincinnati Gas & Electric Company d/b/a Duke  
2 Energy Ohio's ("Duke Energy Ohio") transfer to Duke Energy Kentucky of the East  
3 Bend Generating Station ("East Bend"), the Miami Fort Generating Station Unit 6  
4 ("Miami Fort 6"), and the Woodsdale Generating Station ("Woodsdale")  
5 (collectively, "the Plants"); (2) the significant increases in fuel costs during the  
6 period of frozen rates; (3) increases in transmission costs associated with Duke  
7 Energy Kentucky's membership in the Midwest ISO; and (4) normal inflationary  
8 increases in overall operation and maintenance ("O&M") expenses. These costs are  
9 partially offset by load growth and the Company's ongoing efforts to reduce costs,  
10 including savings that will accrue to Duke Energy Kentucky as a result of the recent  
11 merger between Duke Energy Corporation and Cinergy Corp.

12 **Q. PLEASE DESCRIBE SCHEDULE B-1.**

13 A. Schedule B-1 is the rate base summary for both the base and forecasted periods  
14 and is supported by various schedules in Section B of the Company's filing. The  
15 plant in service, reserve for accumulated depreciation and amortization, and  
16 construction work in progress for the base and forecasted periods were  
17 summarized from Schedules B-2, B-3, and B-4, as supported by Mr. Council and  
18 Mr. Jacobs. The working capital component was summarized from Schedule B-5,  
19 and other items of rate base were obtained from Schedule B-6. The jurisdictional  
20 electric rate base as contained in Schedule B-1 is \$590,909,461.

21 **Q. PLEASE DESCRIBE SCHEDULE B-5.**

22 A. Schedule B-5 is a summary of the jurisdictional working capital calculation based on  
23 the Commission's traditional methodology. The calculation includes a cash element

1 of working capital, material and supplies inventory, fuel inventory, emission  
2 allowance inventory, and prepayments.

3 **Q. PLEASE DESCRIBE SCHEDULE B-5.1.**

4 A. Schedule B-5.1 reflects the itemized miscellaneous working capital items for both  
5 the base and forecasted periods.

6 **Q. PLEASE EXPLAIN THE MATERIALS AND SUPPLIES INVENTORY ON**  
7 **SCHEDULE B-5.1.**

8 A. The materials and supplies shown on Schedule B-5.1 represent the 13-month  
9 average for the forecasted period, and the end of period balance for both the base  
10 and forecasted periods. These supplies consist primarily of supplies kept on hand in  
11 the Company's storerooms. These investments assure that adequate supplies are  
12 available to provide reliable service to customers. The 13-month average of material  
13 and supplies included in electric working capital for the forecasted test period is  
14 \$8,467,889.

15 **Q. PLEASE EXPLAIN THE FUEL AND EMISSION ALLOWANCE**  
16 **INVENTORIES ON SCHEDULE B-5.1.**

17 A. The fuel and emission allowance inventories shown on Schedule B-5.1 represent the  
18 13-month average for the forecasted period, and the end of period balance for both  
19 the base and forecasted periods. The 13-month average balances of fuel and  
20 emission allowance inventories included in electric working capital for the  
21 forecasted test period are \$8,873,933 and \$5,919,968, respectively.

22 **Q. PLEASE EXPLAIN THE PREPAYMENTS ON SCHEDULE B-5.1.**

1 A. The prepayments shown on Schedule B-5.1 represent the 13-month average for the  
2 forecasted period, and the end of period balance for both the base and forecasted  
3 periods. These prepayments are expenditures that, as required by the vendor or  
4 taxing authority, must be paid in advance prior to being charged to operations and,  
5 therefore, represent a working capital requirement. The total amount of  
6 prepayments included in the forecasted test period is \$6,699,569.

7 **Q. PLEASE EXPLAIN THE CASH WORKING CAPITAL COMPUTATION**  
8 **ON SCHEDULE B-5.1.**

9 A. Cash working capital was computed for both the base and forecasted periods. It  
10 represents the financing incurred to bridge the gap between the time when  
11 expenditures are incurred to provide service and the time when payment is received  
12 for that service. The cash working capital computation is based upon the traditional  
13 methodology used by this Commission, which is one-eighth of O&M expense, as  
14 adjusted, excluding fuel and purchased power costs. For the base period, the  
15 resulting cash working capital is \$9,043,344 and for the forecasted period cash  
16 working capital is \$13,962,791.

17 **Q. PLEASE DESCRIBE SCHEDULE B-6.**

18 A. Schedule B-6 presents certain deferred credits, accumulated deferred income  
19 taxes ("ADIT"), and other items that form the adjustments to rate base as  
20 summarized on Schedule B-1. On this schedule, the first column contains  
21 balances as of the end of the base period (page 1 of 2) and the 13-month average  
22 balance for the forecasted period (page 2 of 2). The second and third columns  
23 allocate the balances to jurisdictional customers. Duke Energy Kentucky's

1 electric operations are 100% jurisdictional, as indicated in column three. The  
2 fourth column contains adjustments to the balances and a footnote reference  
3 describing the adjustment, and the fifth column is the jurisdictional amount  
4 included in rate base. The balances shown are: Investment Tax Credits, Account  
5 255; and Deferred Income Taxes, Account Nos. 190, 282, and 283.

6 **Q. WHY ARE SOME OF THESE AMOUNTS EXCLUDED FROM RATE**  
7 **BASE?**

8 A. There are several reasons for items to be excluded from rate base. First, with regard  
9 to the investment tax credits, certain amounts cannot be used as a cost of service  
10 reduction in accordance with the Internal Revenue Code. Second, certain amounts  
11 were eliminated to be consistent with other adjustments proposed by the Company.  
12 Third, as explained by Mr. Butler, the Company has recorded the ADIT and  
13 Accumulated Deferred Investment Tax Credit ("ADITC") transferred from Duke  
14 Energy Ohio below-the-line, and has excluded the ADIT and ADITC as of  
15 December 31, 2005, in accordance with the Commission's December 5, 2003 Order  
16 in Case No. 2003-00252.

17 In addition, certain of the Company's gas facilities are not used exclusively  
18 to serve Kentucky customers. Liberalized Depreciation ADIT and ADITC related to  
19 this non-jurisdictional gas plant was eliminated from jurisdictional gas rate base in  
20 determining the rate base ratio, consistent with the development of the ratio in prior  
21 proceedings. The items and corresponding amounts to be excluded from  
22 jurisdictional gas rate base are shown on WPB-6c and WPB-6d. The ratio of gas

1 plant devoted to other than Duke Energy Kentucky's customers is based on a  
2 methodology accepted by the Commission in Case No. 2005-00042.

3 **Q. PLEASE DESCRIBE SCHEDULE B-8.**

4 A. Schedule B-8 contains comparative balance sheet information for the most recent  
5 five calendar years, the base period and the forecasted period.

6 **Q. PLEASE DESCRIBE SCHEDULE C-1.**

7 A. Schedule C-1 is a jurisdictional operating income summary for the forecasted period  
8 ended December 31, 2007. This schedule includes the operating income summary at  
9 both current and proposed rates. It assumes that the Commission allows the total  
10 amount of the requested electric revenue increase of \$46,519,810. The adjusted  
11 operating results at current rates were summarized from Schedule C-2 and the  
12 proposed increase was obtained from Schedule M. The revenue at proposed rates  
13 was developed by adding the revenue increase to the operating revenues at current  
14 rates. The related expenses and taxes on the proposed increase were added to the  
15 current adjusted operating results to determine the jurisdictional *pro forma* amounts  
16 and the corresponding rate of return. The rate base as shown on this schedule is  
17 calculated on Schedule B-1. The capitalization allocated to electric operations is  
18 calculated on workpaper WPA-1c.

19 **Q. PLEASE DESCRIBE SCHEDULE C-2.**

20 A. Schedule C-2 is a jurisdictional operating income statement to be used for  
21 ratemaking purposes. In order to develop the forecasted test year that is appropriate  
22 for ratemaking, a two-step process was required. First, as required by 807 KAR  
23 5:001, Section 10(8)(a), it was necessary to show the adjustments necessary to

1 transform the financial data for the base period into the forecasted period. Second,  
2 it was necessary to adjust the forecasted period data to reflect any fixed, known and  
3 measurable adjustments required to ensure that the revenues and expenses to be  
4 recovered in rates are representative of the expected costs to serve Duke Energy  
5 Kentucky electric customers on an ongoing basis.

6 Schedule C-2 starts with the unadjusted base period and shows the  
7 adjustments required to extend the Company's income statement from the base  
8 period to the forecasted period. The next column on the schedule summarizes the  
9 adjustments to the unadjusted forecasted test year. These adjustments are described  
10 below. Generally, they relate to costs that were not reflected in the Company's  
11 forecasted data or were reflected in the forecasted data but not allocable to Duke  
12 Energy Kentucky's customers. The unadjusted operating results are summarized  
13 from Schedule C-2.1. The adjusted amounts include the effects of the adjustments  
14 summarized on Schedule D-1.

15 **Q. PLEASE DESCRIBE SCHEDULE C-2.1.**

16 A. Schedule C-2.1 sets forth the detail of total Company operating results for both the  
17 base and forecasted periods. The operating results as shown in this Schedule C-2.1  
18 are listed by account and are summarized on Schedule C-2.

19 **Q. PLEASE DESCRIBE SCHEDULE C-2.2.**

20 A. Schedule C-2.2 contains a monthly comparison of revenue and expense in the base  
21 period to the 12-month period prior to the beginning of the base period. Variances  
22 from prior periods are indicated in dollars and in percent.

23 **Q. PLEASE DESCRIBE SCHEDULE D-1.**



1 A. Schedule D-1 is a summary of the detailed adjustments to test period operating  
2 revenues and operating expenses as set forth in Schedules D-2.1 through D-2.35.  
3 These *pro forma* adjustments to the base period data are necessary to derive the  
4 forecasted test period level which includes the fixed, known, and measurable  
5 adjustments required to ensure that revenue and expenses to be recovered in rates are  
6 set at the level required to cover the cost of providing service to Duke Energy  
7 Kentucky's electric customers.

8 **Q. WHY ARE ADJUSTMENTS TO THE BASE AND FORECASTED**  
9 **PERIOD INFORMATION NECESSARY?**

10 A. The adjustments shown in Schedules D-2.1 through D-2.14 reflect the normal  
11 budgetary changes that are expected to occur from the base period through the  
12 forecasted period. The remaining adjustments, shown in Schedules D-2.15 through  
13 D-2.35, present adjustments to the forecasted period data needed to ensure that the  
14 correct level of revenue and expense is included in rates at the proper ongoing level.  
15 Some costs, although reflected in the normal forecasting process, are not recoverable  
16 from Duke Energy Kentucky's customers. Other adjustments were made to reflect  
17 traditional ratemaking methodology (*e.g.*, amortizing a regulatory asset to reflect the  
18 Commission's prior orders). The reflection of a proper cost level is necessary in  
19 order to give the Company a reasonable opportunity to earn its authorized return and  
20 to ensure that customers are not paying for more than the cost of providing service.  
21 Ignoring appropriate adjustments to the test year used for setting rates puts the  
22 Company at risk for potentially under-recovering its ongoing costs and also puts  
23 customers at risk for overpaying for service.

1 **Q. HOW ARE THE TAX EFFECTS OF THESE ADJUSTMENTS SHOWN ON**  
2 **YOUR SCHEDULES?**

3 A. All adjustments to taxes, including taxes other than income taxes and state and  
4 federal income taxes resulting from the adjustments, described below, are shown for  
5 each individual adjustment on Schedule D-1.

6 **Q. PLEASE DESCRIBE SCHEDULE D-2.1.**

7 A. Schedule D-2.1 adjusts base period revenue to the level included in the forecasted  
8 test period. The adjustment results in a net revenue increase of \$38,000,376. The  
9 federal and state income tax effects are shown on Schedule D-1.

10 **Q. PLEASE DESCRIBE SCHEDULE D-2.2.**

11 A. Schedule D-2.2 adjusts base period fuel and purchased power costs to the level  
12 included in the forecasted test period. The effect of the adjustment on Duke Energy  
13 Kentucky's electric operations is a decrease in pre-tax operating expenses of  
14 \$10,242,540.

15 **Q. PLEASE DESCRIBE SCHEDULE D-2.3.**

16 A. Schedule D-2.3 adjusts base period other production expenses to the level  
17 included in the forecasted test period. The effect of the adjustment on electric  
18 operations is an increase in pre-tax operating expenses of \$24,790,695.

19 **Q. PLEASE DESCRIBE SCHEDULE D-2.4.**

20 A. Schedule D-2.4 was not used in this filing.

21 **Q. PLEASE DESCRIBE SCHEDULE D-2.5.**

1 A. Schedule D-2.5 adjusts base period transmission expenses to the level included in  
2 the forecasted test period. The effect of the adjustment on electric operations is  
3 an increase in pre-tax operating expenses of \$9,457,702.

4 **Q. PLEASE DESCRIBE SCHEDULE D-2.6.**

5 A. Schedule D-2.6 adjusts base period electric distribution expenses to the level  
6 included in the forecasted test period. The effect of the adjustment on electric  
7 operations is an increase in pre-tax operating expenses of \$648,970.

8 **Q. PLEASE DESCRIBE SCHEDULE D-2.7.**

9 A. Schedule D-2.7 adjusts base period customer accounts expenses to the level  
10 included in the forecasted test period. The effect of the adjustment on electric  
11 operations is an increase in pre-tax operating expenses of \$163,429.

12 **Q. PLEASE DESCRIBE SCHEDULE D-2.8.**

13 A. Schedule D-2.8 adjusts base period customer service and informational expenses  
14 to the level included in the forecasted test period. The effect of the adjustment on  
15 electric operations is a decrease in pre-tax operating expenses of \$77,858.

16 **Q. PLEASE DESCRIBE SCHEDULE D-2.9.**

17 A. Schedule D-2.9 adjusts base period sales expense to the level included in the  
18 forecasted test period. The effect of the adjustment on electric operations is an  
19 increase in pre-tax operating expenses of \$135,672.

20 **Q. PLEASE DESCRIBE SCHEDULE D-2.10.**

21 A. Schedule D-2.10 adjusts base period administrative and general expenses to the  
22 level included in the forecasted test period. The effect of the adjustment on  
23 electric operations is an increase of pre-tax operating expenses of \$5,590,919.

1 **Q. PLEASE DESCRIBE SCHEDULE D-2.11.**

2 A. Schedule D-2.11 adjusts base period other operating expenses to the level  
3 included in the forecasted test period. Since there are no other operating expenses  
4 in this case, the adjustment is \$0.

5 **Q. PLEASE DESCRIBE SCHEDULE D-2.12.**

6 A. Schedule D-2.12 adjusts base period depreciation expense to the level included in  
7 the forecasted test period. The effect of the adjustment on electric operations is  
8 an increase in pre-tax operating expenses of \$9,019,894.

9 **Q. PLEASE DESCRIBE SCHEDULE D-2.13.**

10 A. Schedule D-2.13 adjusts base period taxes other than income taxes to the level  
11 included in the forecasted test period. The effect of the adjustment on electric  
12 operations is an increase in pre-tax operating expenses of \$2,119,914.

13 **Q. PLEASE DESCRIBE SCHEDULE D-2.14.**

14 A. Schedule D-2.14 adjusts base period income taxes to the level included in the  
15 forecasted test period. The effect of the adjustment on electric operations is a  
16 decrease in income tax expense of \$45,782.

17 **Q. PLEASE DESCRIBE SCHEDULE D-2.15.**

18 A. Duke Energy Kentucky has two regulatory assets which it proposes to amortize  
19 and include for rate recovery in this case. The first regulatory asset represents  
20 costs associated with a severance program offered in 1992. The gas portion of the  
21 severance program costs and savings were reflected in gas rates by the  
22 Commission in its Order in Case No. 92-346. Since the Company has not filed an  
23 electric rate case since Case No. 91-370, it has not had an opportunity to recover

1 these costs from ratepayers. In Case No. 92-346, the Commission ordered that  
2 downsizing costs that reflect an immediate cash outlay should be amortized over  
3 three years and costs that might require cash outlays for up to ten years should be  
4 amortized over ten years. Since it has been over ten years since the severance  
5 program was offered, the Company believes a three-year amortization period in  
6 this proceeding is appropriate.

7 The second regulatory asset, deferred project cost, is the balance of  
8 deferred costs, \$1,291,571, as of March 31, 2006, associated with the transfer of  
9 the Plants, plus additional costs of \$187,000, expected to be incurred related to  
10 issuance and approval of a Request For Proposals for the Back-up Power Supply  
11 Agreement ("Back-up PSA"), as discussed by Mr. Esamann. The Commission  
12 specifically allowed the Company to defer these costs, up to \$2.45 million, for  
13 recovery in its next base electric rate case over a period of five years (*see*  
14 December 5, 2003 Order in Case No. 2003-00252). The adjustment increases  
15 amortization expenses by \$806,020.

16 **Q. PLEASE DESCRIBE SCHEDULE D-2.16.**

17 A. The adjustment in Schedule D-2.16 is to amortize the projected cost of presenting  
18 the instant case. Duke Energy Kentucky proposes to amortize these costs over  
19 three years, which raises amortization expenses includable in revenue  
20 requirements by \$78,333.

21 **Q. PLEASE DESCRIBE SCHEDULE D-2.17.**

22 A. Schedule D-2.17 shows the adjustment required to recognize certain affiliated  
23 company transactions that had not been included in the Company's budget and,

1 thus, not in the forecasted test period. Including these inter-company revenues  
2 and expenses, the net effect is a pre-tax reduction of the revenue requirement of  
3 \$9,707.

4 **Q. PLEASE DESCRIBE SCHEDULE D-2.18.**

5 A. Interest synchronization is used to ensure that the revenue requirements reflect the  
6 appropriate income tax effects for interest expense determined in the weighted-  
7 average cost of capital. Schedule D-2.18 presents the calculation of the state and  
8 federal income taxes on the interest cost included in the cost of capital. The  
9 adjustment is calculated by first determining the electric, gas, and non-  
10 jurisdictional percentages of the Company's total rate base. These percentages  
11 are then used to allocate total capitalization to electric operations as shown in  
12 WPA-1c. The capitalization allocated to electric is then multiplied by the long-  
13 term and short-term debt percentage of total capitalization. An adjustment is  
14 made to eliminate the applicable portion of Construction Work in Progress  
15 ("CWIP") subject to Allowance for Funds Used During Construction ("AFUDC")  
16 from the components of capitalization.

17 The result is then multiplied by the average cost of long-term and short-  
18 term debt. The sum of these results represents the annualized electric interest cost  
19 deductible for income tax purposes. From this annualized total, we subtract the  
20 forecasted test period electric book interest as described by the Commission's  
21 ratemaking guidance in Case No. 2001-00092 to determine the electric interest  
22 expense adjustment for income tax purposes. The effect of this adjustment on

1 electric operations is to decrease federal income taxes by \$1,019,112 and to  
2 decrease state income taxes by \$179,280.

3 **Q. PLEASE DESCRIBE SCHEDULE D-2.19.**

4 A. Revenue and expenses associated with off-system sales are included in the budget  
5 and, consequently, in the forecasted test year. As I will discuss later in my  
6 testimony, Duke Energy Kentucky will be crediting customers with a share of its  
7 margins on off-system sales through its monthly FAC beginning January 1, 2007;  
8 therefore, Schedule D-2.19 is intended to completely exclude the impact of off-  
9 system sales from the calculation of the base rate revenue requirement. Other  
10 Revenue is reduced by \$17,670,012 for off-system sales revenue and related  
11 expenses are reduced by \$13,257,666. Related expenses include fuel, allocated  
12 emission allowance expenses, and other variable expenses.

13 **Q. PLEASE DESCRIBE SCHEDULE D-2.20.**

14 A. Schedule D-2.20 is an adjustment to reflect the calculation of AFUDC on the  
15 CWIP balance as of the plant valuation date. This adjustment is calculated by  
16 multiplying CWIP subject to AFUDC, as shown on Schedule B-4, page 2, times  
17 the rate of return as shown on Schedule J-1, page 2. The Company is following  
18 Commission precedent by using the overall rate of return for this calculation. An  
19 adjustment of \$373,481 was made to net operating income after tax, based on the  
20 Company's use of the overall rate of return for this adjustment.

21 **Q. PLEASE DESCRIBE SCHEDULE D-2.21.**

22 A. The adjustment in Schedule D-2.21 eliminates the impact of Demand Side  
23 Management ("DSM") revenue, \$2,018,144, and DSM expense of the same

1 amount. In addition, as a result of eliminating the DSM revenue, uncollectible  
2 expense is reduced by \$11,085 and Kentucky Public Service Commission  
3 maintenance fees are reduced by \$3,370.

4 **Q. PLEASE DESCRIBE SCHEDULE D-2.22.**

5 A. Schedule D-2.22 is an adjustment to eliminate miscellaneous expenses such as  
6 community relations, advertising, donations, employee recognition, governmental  
7 affairs, club dues and miscellaneous events expenses from the forecasted test  
8 period. These adjustments were made in order to comply with the Commission's  
9 orders in prior rate proceedings. The effect of the adjustment on electric  
10 operations is a decrease in pre-tax operating expenses of \$360,386.

11 **Q. PLEASE DESCRIBE SCHEDULE D-2.23.**

12 A. Schedule D-2.23 is an adjustment to annualize depreciation expense for the  
13 forecasted test period. Depreciation expense projected for the test year using the  
14 accrual rates proposed by Mr. Spanos and reflected in Schedule B-3.2 are  
15 compared to the depreciation expense included in the forecasted test period,  
16 Schedule C-2.1. The adjustment increases depreciation expense by \$227,766.

17 **Q. PLEASE DESCRIBE SCHEDULE D-2.24.**

18 A. Schedule D-2.24 is an adjustment to eliminate unbilled revenue from the  
19 forecasted test period. The adjustment decreases revenue in the forecasted test  
20 period by \$90,983. In addition, as a result of eliminating the unbilled revenue,  
21 uncollectible expense is reduced by \$500 and Kentucky Public Service  
22 Commission maintenance fees are reduced by \$152.

23 **Q. PLEASE DESCRIBE SCHEDULE D-2.25.**



1 A. As described by Mr. Esamann, Duke Energy Kentucky followed the methodology  
2 used in Case No. 2003-00252 to calculate the capacity payments that will be  
3 included in the Back-up PSA. These payments were not included in the budget or  
4 the forecasted test period; therefore, Schedule D-2.25 is necessary to include this  
5 cost in the forecasted test year revenue requirement. Mr. Esamann discusses the  
6 Back-up PSA in more detail. The impact of this adjustment is to increase  
7 production expenses by \$10,431,923.

8 **Q. PLEASE DESCRIBE SCHEDULE D-2.26.**

9 A. The unadjusted budget and forecasted test year include expenses related to the  
10 provision of network integration transmission service ("NITS"). Duke Energy  
11 Kentucky relies on the transmission owned by Duke Energy Ohio and its own  
12 local transmission facilities to provide network service. The cost of this service is  
13 established using a formula rate method approved by the FERC.

14 The formula rate method is reflected in the Duke Energy Midwest  
15 companies' (consisting of Duke Energy Kentucky, Duke Energy Ohio and Duke  
16 Energy Indiana) annual Attachment O filing with the Midwest ISO, which  
17 aggregates the revenue requirement associated with each of the Duke Energy  
18 Midwest companies. Attachment WDW-2 includes the Attachment O filings for  
19 2005 and 2006. The cost to Duke Energy Kentucky is based on its load ratio  
20 share of the entire Duke Energy Midwest companies' transmission system and is  
21 approved by the FERC. This cost is reflected in the Company's forecast.

22 Because Duke Energy Kentucky's own local transmission investment is  
23 included in the revenue requirement calculation in Attachment O and in the

1 revenue requirement in this case, it is necessary to adjust the test year  
2 transmission expenses to ensure that retail customers are not paying twice for the  
3 same service. Of the total amount of network service transmission costs assigned  
4 to Duke Energy Kentucky, \$4,187,956 is for use of its own facilities, which is  
5 included in the revenue requirements calculation. This number is slightly  
6 different than the amount shown in Attachment O because the FERC allows a  
7 12.38% return on equity ("ROE") for transmission investment. In Attachment  
8 WDW-3, I substituted the ROE recommended by Dr. Morin of 11.50% in this  
9 case and recomputed Duke Energy Kentucky's revenue requirement. This last  
10 step is merely to recognize the retail rate of return allowed on Duke Energy  
11 Kentucky's own local transmission investment. By eliminating this amount from  
12 transmission expenses in Schedule D-2.26, customers will be paying only for the  
13 use of the Company's own local transmission system and the "incremental"  
14 transmission service provided through the Midwest ISO.

15 **Q. PLEASE DESCRIBE SCHEDULE D-2.27.**

16 A. Schedule D-2.27 is an adjustment to reflect a sharing of incentive compensation  
17 costs between customers and shareholders. The adjustment utilizes a  
18 methodology similar to the one adopted by the Commission in Case No. 2005-  
19 00042. Mr. O'Connor describes the incentive compensation plans and the sharing  
20 percentages that the Company proposes to use in its adjustment. The adjustment  
21 decreases incentive compensation expense in the forecasted test period by  
22 \$2,510,033.

23 **Q. PLEASE DESCRIBE SCHEDULE D-2.28.**

1 A. As I mentioned in discussing NITS costs in Schedule D-2.26, Duke Energy  
2 recently updated its NITS rates as part of its Attachment O filing. This change,  
3 which occurred in May 2006, came after the 2006 budget and the 2007 forecasted  
4 test period were developed and, consequently, was not included in the forecasted  
5 test period revenue requirement. The only material change is the price of network  
6 service, which increased from \$1.2235 per kW-month through May 31, 2006, to  
7 \$1.3654 per kW-month beginning June 1, 2006.

8 Applying the difference in the two rates (\$1.3654 - \$1.2235) to the same  
9 billing demands used to develop the forecasted test period, indicates that Duke  
10 Energy Kentucky's network service costs will increase by \$1,377,707 per year, as  
11 shown in Schedule D-2.28.

12 **Q. PLEASE DESCRIBE SCHEDULE D-2.30.**

13 A. With the transfer of the Plants from Duke Energy Ohio to Duke Energy Kentucky  
14 on January 1, 2006, related ADIT and ADITC were also transferred to Duke  
15 Energy Kentucky. As Mr. Butler discusses, these ADIT and ADITC are treated  
16 as non-jurisdictional and the amortization of these balances is recorded below-the-  
17 line. This accords with the Commission's December 5, 2003 Order in Case No.  
18 2003-00252. The adjustment on Schedule D-2.30 reflects the below-the-line  
19 treatment of the ADIT amortization, which was not included in the Company's  
20 forecasted test year. This adjustment does not impact the overall base revenue  
21 requirements.

22 **Q. PLEASE DESCRIBE SCHEDULE D-2.31.**

1 A. The Company sells all of its accounts receivable to an affiliate, Cinergy  
2 Receivables, L.L.C. ("Cinergy Receivables") at a discount. The discount is based  
3 on a formula that compensates the purchasing company for the time value of  
4 money and a discount rate based on Duke Energy Kentucky's uncollectible  
5 expense.

6 Since the Company's capitalization includes the average balance of  
7 receivables at the interest rate being paid to Cinergy Receivables, Schedule D-  
8 2.31 ensures that there is no double recovery of the time value of money in the  
9 uncollectible expense. Consequently, the time value of money component of the  
10 discount being charged to Uncollectible Expense (Account 904) is eliminated  
11 from the forecasted test year expenses. The adjustment reduces expenses by  
12 \$2,289,942. Note that the calculation of the gross revenue conversion factor  
13 ("GRCF") includes only the portion of the discount rate not associated with the  
14 time value of money.

15 **Q. PLEASE DESCRIBE SCHEDULE D-2.32.**

16 A. In its November 29, 2005 Order in Case No. 2005-00228, approving the  
17 Duke/Cinergy merger, the Commission approved a plan to allow the Company to  
18 share in anticipated savings that are expected to result from the merger. The  
19 revenues in the forecasted test period reflect the impact of the credit. To ensure  
20 that customers continue to receive the full value of the credit, the forecasted test  
21 year revenue must be increased to eliminate the impact of the merger credit rider.  
22 Schedule D-2.32 accomplishes this by increasing revenues in the amount of  
23 merger credits projected for the forecasted test year, \$2,044,825. Increasing test

1 year revenue lowers the rate increase request and allows customers to continue to  
2 receive the share of merger savings per the terms of the Commission's November  
3 29, 2005 Order in the merger case.

4 As Mr. Davey describes in his testimony, the Company's forecast does not  
5 reflect the post-merger savings because, per the Commission's Order, the  
6 approved amount of net merger savings are passed through to customers via the  
7 Company's merger savings credit mechanism.

8 **Q. PLEASE DESCRIBE SCHEDULE D-2.33.**

9 A. Traditional ratemaking addresses fuel and purchased power costs separately from  
10 non-fuel base rates. Although the Company proposes to continue its practice of  
11 including a "base" level of fuel cost in its base rates, fuel and purchased power  
12 costs are addressed separately. I will discuss the derivation of the base fuel rate  
13 further below. Schedule D-2.33 eliminates fuel and purchased power costs and  
14 associated FAC revenue from the base rate revenue requirement calculation.  
15 Fuel revenue is reduced by \$100,771,619 and related fuel expense is reduced by  
16 \$102,961,803. The difference is attributable to off-system sales sharing credited  
17 against fuel revenue.

18 **Q. PLEASE DESCRIBE SCHEDULE D-2.35.**

19 A. Schedule D-2.35 is an adjustment to reflect the revenue and expense impacts of  
20 the Company's recent decision to implement the advanced metering infrastructure  
21 ("AMI"). As described further in the testimony of Mr. Stanley, the AMI program  
22 will produce savings and enhance reliability that will benefit ratepayers. In order  
23 to reflect the impact of the program in the forecasted test year, I assumed a *pro*

1           *rata* share of the savings based on the proportion of the program expected to be  
2 completed during the forecasted test period. It is projected that 45% of the meters  
3 will be replaced during 2007. By 2011, the program will have reached a “steady  
4 state” such that all of the net savings will have leveled out. Mr. Stanley provides  
5 Attachment JLS-2 showing more detail on the costs and savings of the program.

6           The adjustments in Schedule D-2.35 can be broken down into four groups.  
7 The first group is the benefit of reducing billing cycle time that is expected to  
8 result from improved metering. This is identified as “revenue recovery” in JLS-2.  
9 Second, there are O&M savings that will be realized by eliminating nearly all  
10 physical meter reading. Third, there are expenses associated with owning the  
11 property such as depreciation and property taxes. Finally, there are costs to  
12 implement the program such as the severance costs associated with headcount  
13 reductions for meter readers.

14           For the first three items, I assumed that 2011 represented a steady-state  
15 and, thus, assumed that 45% of these savings would apply to the portion of the  
16 program being completed in 2007. In some cases, I had to discount the projected  
17 savings due to the fact that the dollars Mr. Stanley’s data were in nominal value.

18           For implementation costs, I summed the total implementation costs and  
19 amortized the costs over five years. Again, I assumed only 45% of this cost was  
20 applicable to the forecasted test period.

21           The net impact on pre-tax operating income from the adjustment for the  
22 AMI program is an increase of \$259,982.

1 **Q. IS THE ADJUSTMENT SHOWN IN SCHEDULE D-2.35 THE ONLY**  
2 **IMPACT OF THE AMI PROGRAM REFLECTED IN THE REVENUE**  
3 **REQUIREMENTS?**

4 A. No. As shown in Attachment WDW-4, the addition of the assets and capital  
5 associated with this program also affects the rate base and capitalization allocable  
6 to electric operations. In Attachment WDW-4, I calculate the additional  
7 capitalization allocable to electric by re-evaluating the rate base ratio calculation  
8 from WPA-1d including the increased rate base associated with both the electric  
9 and gas AMI program. The impact on capitalization allocable to electric is  
10 \$6,195,185, which is reflected in Schedule WPA-1c and, ultimately, on Schedule  
11 A.

12 This methodology was used because the AMI program was only recently  
13 approved by executive management. I believe this method is a reasonable way of  
14 incorporating the rate base and capitalization impacts of the AMI program. All of  
15 the data for the adjustments was provided by Mr. Stanley.

16 **Q. PLEASE DESCRIBE SCHEDULE F-1.**

17 A. Schedule F-1, entitled "Social and Service Club Dues," lists social and service club  
18 dues that were incurred by the Company and charged below-the-line. As indicated  
19 on the schedule, no social or service club dues were charged to electric operating  
20 expenses during the forecasted test period.

21 **Q. PLEASE DESCRIBE SCHEDULE F-2.1.**

22 A. Schedule F-2.1, entitled "Charitable Contributions," lists the charitable contributions  
23 made by the Company. As indicated on the schedule, there were no charitable

1 contributions charged to electric operating expenses during the forecasted test  
2 period.

3 **Q. PLEASE DESCRIBE SCHEDULE F-2.2.**

4 A. Schedule F-2.2, entitled "Initiation Fees/Country Club Expense," indicates that the  
5 country club expenses incurred by the Company are included on Schedule F-1. No  
6 country club expenses were charged to electric operating expenses during the  
7 forecasted test period and, thus, there are no related costs in the forecasted test  
8 period revenue requirements.

9 **Q. PLEASE DESCRIBE SCHEDULE F-2.3.**

10 A. Schedule F-2.3, entitled "Employee Party, Outing, & Gift Expense," indicates that  
11 there were no employee party, outing, or gift expenses projected to be included for  
12 Duke Energy Kentucky's electric operations during the forecasted test period.

13 **Q. PLEASE DESCRIBE SCHEDULE F-3.**

14 A. Schedule F-3 sets forth the detail, by account, of Customer Service and  
15 Informational Sales and General Advertising Expense for both the base and  
16 forecasted test periods. Marketing/Customer Relations expenses in Account 913 and  
17 Community Relations expenses included in Account 930 have been eliminated  
18 through an adjustment on Schedule D-2.22, in order to comply with the  
19 Commission's Orders in prior rate proceedings.

20 **Q. PLEASE DESCRIBE SCHEDULE F-4.**

21 A. Schedule F-4, entitled "Advertising," indicates the advertising expenses projected for  
22 electric operations during the forecasted test period. These expenses have been  
23 eliminated through an adjustment on Schedule D-2.22, in accordance with regulation



1 807 KAR 5:016, Section 4.

2 **Q. PLEASE DESCRIBE SCHEDULE F-5.**

3 A. Schedule F-5, entitled "Professional Services Expenses," indicates the professional  
4 services expenses projected for electric operations during the forecasted test period.

5 **Q. PLEASE DESCRIBE SCHEDULE F-6.**

6 A. Schedule F-6, entitled "Rate Case Expense," indicates the estimated expense of  
7 presenting this case. The top half of this schedule details the estimated expense of  
8 this proceeding. Also included is a comparison to the rate case expense in the  
9 Company's last two gas rate case proceedings. The bottom half of this schedule  
10 shows the amortization over a three-year period. This amount is included in expense  
11 through the adjustment contained in Schedule D-2.16.

12 **Q. PLEASE DESCRIBE SCHEDULE F-7.**

13 A. Schedule F-7, entitled "Civic, Political and Related Expense," indicates that there are  
14 no civic, political and related expenses projected to electric operations during the  
15 forecasted test period.

16 **Q. PLEASE DESCRIBE SCHEDULE G-1.**

17 A. Schedule G-1 contains a summary of all payroll costs and related benefits and taxes  
18 included in electric O&M expense.

19 **Q. PLEASE DESCRIBE SCHEDULE G-2.**

20 A. Schedule G-2 is a Total Company payroll analysis for the most recent five years, the  
21 base period and the forecasted period. Pages 1 and 2 summarize total company  
22 costs. Pages 3 through 8 show detail of payroll by employee classification including  
23 union, exempt, and non-exempt. Labor hours, labor dollars, employee benefits,

1 payroll taxes, and the number of employees presented on Schedule G-2 represent  
2 Duke Energy Kentucky's direct amounts. Only O&M expenses include amounts  
3 allocated from Duke Energy Shared Services, Inc.

4 **Q. PLEASE DESCRIBE SCHEDULE G-3.**

5 A. Schedule G-3 details executive compensation and related benefits and taxes, of each  
6 of the highest paid executives as contained in Cinergy Corp's 2005 Proxy Statement  
7 that had salary and benefits allocated to Duke Energy Kentucky.

8 **Q. PLEASE DESCRIBE SCHEDULE H.**

9 A. Schedule H, entitled "Computation of Gross Revenue Conversion Factor," sets forth  
10 the calculation of the GRCF. This is the factor, or multiplier, used to gross-up the  
11 operating income deficiency to a revenue deficiency amount. It includes an  
12 uncollectible accounts factor which represents the portion of the average total  
13 discount rate that is related to charge-offs, collection costs and late payment charges.  
14 Also included in the GRCF are the Kentucky Public Service Commission  
15 assessment, and state and federal income taxes. The GRCF is included on Schedule  
16 A and is used to compute the calculated revenue deficiency.

17 **Q. PLEASE DESCRIBE SCHEDULE K.**

18 A. Schedule K contains certain financial and statistical information for Duke Energy  
19 Kentucky, as required pursuant to 807 KAR 5:001, Section 10(10)(k). Mr.  
20 Council sponsors the plant data and the composite depreciation rates contained on  
21 page 1. Ms. Good sponsors the fixed charge coverage ratios, the stock and bond  
22 ratings and the percentage of construction expenditures financed internally on  
23 page 3. I sponsor the remaining financial and statistical information.

**IV. RECOVERY OF FUEL COSTS**

1 **Q. DESCRIBE THE COMPANY'S PROPOSAL FOR FUEL COST**  
2 **RECOVERY.**

3 A. Projected recoverable fuel costs through the end of the forecasted test year are  
4 included in base rates. After the rate freeze period ends on December 31, 2006,  
5 Duke Energy Kentucky will begin making monthly FAC filings. These monthly  
6 FAC filings will measure Duke Energy Kentucky's actual recoverable fuel costs  
7 against the amount included in base rates. Duke Energy Kentucky will refund or  
8 recover the difference using the FAC pursuant to Commission regulation 807 KAR  
9 5:056 and subject to certain provisions identified in Case No. 2003-00252 regarding  
10 the recoverability of replacement power during outages.

11 **Q. WHEN WILL DUKE ENERGY KENTUCKY FILE ITS INTIAL**  
12 **ADJUSTMENT FOR THE FAC?**

13 A. The first month Duke Energy Kentucky will compare actual fuel costs to the base  
14 rate amount is for January 2007, which is the first month after the rate freeze ends.  
15 Duke Energy Kentucky will not have actual data for January 2007 until February,  
16 when the January books are closed. Therefore, for at least for the first two months  
17 of 2007, the FAC will be \$0. Duke Energy Kentucky expects to make a FAC filing  
18 in February for a new FAC rate effective with the beginning of the March 2007  
19 billing cycle. This filing will be based on the actual data for January 2007 and will  
20 be the first adjustment to the FAC. The FAC rate for any period may be positive or  
21 negative depending on how Duke Energy Kentucky's projected fuel cost recovery  
22 contained in the base rates compares with its actual fuel costs.

1 Q. HAS DUKE ENERGY KENTUCKY PREVIOUSLY MADE FAC  
2 FILINGS?

3 A. Yes. Until the Commission's June 1, 2001 Order in Case No. 2001-00058 froze the  
4 FAC rate, Duke Energy Kentucky made monthly FAC filings with the Commission.  
5 These filings provided timely recovery of the fuel costs included in the power  
6 acquired from its affiliate, Duke Energy Ohio.

7 Q. DOES THE COMPANY PROPOSE TO CHANGE ITS FAC FILINGS, AS  
8 COMPARED TO THE FAC FILINGS THE COMPANY PREVIOUSLY  
9 MADE?

10 A. Yes. Importantly, Duke Energy Kentucky now owns the Plants; therefore, it must  
11 purchase fuel to generate electricity. Prior to 2001, Duke Energy Kentucky's FAC  
12 filings flowed through the fuel costs included in power acquired from Duke Energy  
13 Ohio. Now most of Duke Energy Kentucky's fuel costs will come from operating  
14 the Plants. Duke Energy Kentucky will also make purchases of power on an  
15 economic basis from the wholesale market. Subject to some of the pricing  
16 restrictions related to replacement power for outages, these wholesale power  
17 purchases will also be included in the FAC. The pricing restrictions for replacement  
18 power relate to the Back-up PSA which was proposed in Case No. 2003-00252, and  
19 is discussed by Mr. Esamann. Another change involves the Off-System Sales  
20 Sharing Mechanism that was also approved in that case.

21 Q. HOW WILL THE FAC REFLECT COSTS RELATED TO THE BACK-UP  
22 PSA?

23 A. Per the terms of the Back-up PSA described in Mr. Esamann's testimony, Duke

1 Energy Kentucky's monthly FAC filings will cap the recovery of replacement power  
2 for outages at East Bend and Miami Fort 6 at the prior month's variable operating  
3 cost of the unit that is being backed up.

4 **Q. ARE THE PRICING TERMS OF THE BACK-UP PSA REFLECTED IN**  
5 **THE BASE FUEL RATE?**

6 A. Yes. Attachment WDW-1 presents the Company's estimated recoverable fuel costs  
7 for the forecasted test year. The data reflects implementing the pricing terms for  
8 replacement power in the Back-up PSA, and also reflects the credit for projected  
9 margins on off-system sales. This attachment establishes a fuel rate to be  
10 incorporated into base rates representative of the Company's expectations for the  
11 forecasted test year, incorporating the special pricing provisions that were included  
12 in Case No. 2003-00252 (*i.e.*, the Back-up PSA and the sharing of margins on Off-  
13 System Sales).

14 **Q. HOW WILL THE FAC REFLECT THE REPLACEMENT POWER**  
15 **PRICING LIMIT, AS PROVIDED IN THE BACK-UP PSA?**

16 A. Duke Energy Kentucky will maintain records of all outages lasting longer than six  
17 hours to identify those outages subject to the provisions of the Back-up PSA.  
18 During those hours when an outage at East Bend or Miami Fort 6 requires the  
19 Company to replace the lost generation with economic purchases from the market or  
20 from internal resources, the cost of such power exceeding the previous month's  
21 variable cost of power from the unit experiencing the outage will be excluded.

22 Since the Back-up PSA extends only through 2009, Duke Energy Kentucky  
23 will thereafter revert to the Commission's statutory guidelines for fuel cost recovery

1 in 807 KAR 5:056, with the only exception then being the sharing of margins on off-  
2 system sales.

3 **Q. HOW DOES THE COMPANY PROPOSE TO INCORPORATE THE OFF-  
4 SYSTEM SHARING PROVISIONS INCLUDED IN THE COMMISSION'S  
5 ORDER IN CASE NO. 2003-00252?**

6 A. As I suggest above, the margins on off-system sales will be included as part of the  
7 FAC calculation and the customer share of the margins will be credited against the  
8 fuel cost to be recovered from customers. As a result of the recent merger case, the  
9 Company implemented Rider PSM – Off-System Sales Profit Sharing Mechanism  
10 during 2006. The objective of this Rider is similar to the sharing being proposed in  
11 the FAC with slightly different thresholds. The sharing arrangement approved in the  
12 merger case ends after 2006. At that point, the provisions of the Order in Case No.  
13 2003-00252 become effective, and we propose to eliminate Rider PSM and share the  
14 off-system sales margins through the FAC.

15 **Q. WHY NOT JUST MODIFY THE TERMS OF RIDER PSM AND  
16 CONTINUE THIS RIDER AFTER 2006?**

17 A. If the Commission prefers, the Company would be willing to modify and continue  
18 the Rider PSM to reflect the provisions of the sharing mechanism that will be  
19 applicable after 2006. However, since the calculation of the off-system sales margin  
20 eligible for sharing is a product of the FAC process, it seems more appropriate to  
21 simplify the process, have one less rider, and still provide the same benefit to  
22 customers by including the sharing mechanism in the FAC itself.

1 **Q. HOW WILL THE FAC REFLECT THE OFF-SYSTEM SALES SHARING**  
2 **MECHANISM?**

3 A. The Commission's December 5, 2003 Order in Case No. 2003-00252 approved a  
4 proposal for Duke Energy Kentucky to share profits from off-system sales. Under  
5 this sharing mechanism, Duke Energy Kentucky will credit customers with 100% of  
6 the annual profits on off-system sales up to \$1 million. Additionally, Duke Energy  
7 Kentucky will share equally with customers the profits for each calendar year on off-  
8 system sales in excess of \$1 million. Beginning with the FAC filing for January  
9 2007, Duke Energy Kentucky will provide a schedule with its FAC filings,  
10 reflecting a credit for profits from off-system sales, consistent with the sharing  
11 mechanism. Beginning with off-system sales occurring in each subsequent January,  
12 the credit will be re-set to zero and Duke Energy Kentucky will apply the first \$1  
13 million in profits from off-system sales to customers for that year. Any over-/under-  
14 recovery from the prior year will be passed through in the form of true-ups in future  
15 FAC filings.

16 **Q. HOW DOES DUKE ENERGY KENTUCKY PROPOSE TO DETERMINE**  
17 **THE COST OF FUEL ALLOCABLE TO NATIVE VERSUS NON-NATIVE**  
18 **SALES?**

19 A. Duke Energy Kentucky's customers will continue to have "first call" on generation  
20 from the Plants. Duke Energy Kentucky will dispatch its resources into the Midwest  
21 ISO's Day-Ahead and Real-Time energy markets in a cost-effective manner. After  
22 each month, the Company will compare the actual hourly generation and purchased  
23 power, from least-cost to highest-cost, to load in the same hour. By "stacking"

1 resources against native- and non-native load, the Company can incrementally  
2 assign the lowest cost generation and/or purchased power to native load subject to  
3 the reliability constraints that may be required as mentioned above. This process  
4 also allows the Company to determine the amount of profits from off-system sales to  
5 be credited to customers through the sharing mechanism.

6 **Q. PLEASE DESCRIBE ATTACHMENT WDW-5**

7 A. Attachment WDW-5 is a proposed tariff showing the formula we will apply to  
8 calculate the monthly FAC.

**V. TRANSMISSION COST RECOVERY MECHANISM**

9 **Q. HOW DOES DUKE ENERGY KENTUCKY PROPOSE TO RECOVER**  
10 **TRANSMISSION COSTS?**

11 A. The Company proposes traditional base rate recovery of its projected transmission  
12 costs for the forecasted test year. In addition, because of the volatility and  
13 magnitude of transmission costs associated with participation in the Midwest ISO  
14 Day 2 market, we propose to establish a tracker cost recovery mechanism ("Rider  
15 TCRM") to pass through to customers incremental changes in costs compared to  
16 the amounts included in base rates.

17 **Q. WHAT TRANSMISSION COSTS ARE INCLUDED IN THE**  
18 **FORECASTED TEST PERIOD?**

19 A. Mr. Swez and Mr. Jett describe the nature of the transmission costs and have  
20 provided estimates that were used in the forecast included in this case. As they  
21 have described, the Company has and will incur significant expenses as a  
22 participant in the Midwest Day 2 markets. While some of the costs are somewhat



1           predictable and stable, certain costs can be quite volatile. For example, some of  
2           the administrative costs, such as Schedules 16 and 17, are unlikely to be  
3           substantially different than projected and are not expected to fluctuate  
4           significantly from month-to-month. Other costs, particularly congestion costs, are  
5           more volatile and difficult to forecast.

6   **Q.   WHICH COSTS WILL DUKE ENERGY KENTUCKY INCLUDE IN RIDER**  
7   **TCRM?**

8   A.   As I stated above, we propose to recover all incremental Midwest ISO transmission  
9       costs via a tracking mechanism.

10 **Q.   WHY SHOULD ALL INCREMENTAL MIDWEST ISO TRANSMISSION**  
11 **COSTS BE RECOVERED THROUGH RIDER TCRM?**

12 A.   Tracking mechanisms are often and appropriately used to pass-through to customers  
13       charges or credits for a number of reasons. These transmission costs: (1) cannot be  
14       avoided by the utility and are outside the utility's control; (2) can be substantial and  
15       (3) are volatile. Because the costs of Duke Energy Kentucky's participation in the  
16       Midwest ISO are regulated by the FERC, which has approved the Midwest ISO's  
17       rates, the Company cannot avoid these costs. As described by Mr. Swez, congestion  
18       costs can be substantial in relation to the rest of the Company's overall operating  
19       costs and, lastly, congestion costs can increase or decrease significantly from period  
20       to period.

21 **Q.   DESCRIBE HOW RIDER TCRM WOULD OPERATE.**

22 A.   Attachment WDW-6 is a draft of the tariff we propose. It is analogous to the FAC in  
23       that current costs are measured against costs included in base rates. The filing would

1 occur annually to mitigate the volatility of the Midwest ISO's transmission rates.  
2 We will true-up the costs and revenue and we propose to establish deferral  
3 accounting to track over- and under-recovery of costs.

4 **Q. WILL THE COMPANY PROFIT FROM IMPLEMENTATING THE**  
5 **TRACKER?**

6 A. The Company does not intend to profit from implementing this tracker. Similar to  
7 the reasoning behind the FAC, the Company only intends to be made whole for  
8 the Midwest ISO's transmission costs that it incurs.

#### **VI. CONCLUSION**

9 **Q. WERE SCHEDULES A, B-1, B-5, B-5.1, B-6, B-8, C-1 THROUGH C-2.2, D-**  
10 **1, D-2.1 THROUGH D-2.28, D-2.30 THROUGH D-2.33, D-2.35, F-1**  
11 **THROUGH F-7, G-1 THROUGH G-3, H, AND K, FR 6(9), 10(8)(A),**  
12 **10(8)(B), 10(8)(C), 10(8)(F) AND 10(9)(T), AND ATTACHMENTS WDW-1**  
13 **THROUGH WDW-6 PREPARED BY YOU OR UNDER YOUR**  
14 **DIRECTION AND SUPERVISION?**

15 A. Yes.


16 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

17 A. Yes.

VERIFICATION

State of Ohio            )  
                                  )     SS:  
County of Hamilton    )

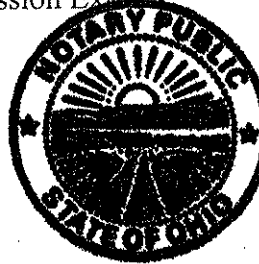
The undersigned, William Don Wathen, Jr., being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

  
\_\_\_\_\_  
William Don Wathen, Jr., Affiant

Subscribed and sworn to before me by William Don Wathen, Jr. on this 22 day of May  
2006.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires



**ANITA M. SCHAFER**  
Notary Public, State of Ohio  
My Commission Expires  
November 4, 2009

Duke Energy Kentucky  
 Calculation of Projected Test Year Fuel Cost in Base Rates <sup>(a)</sup>

	Estimated Actual Cost	Adjustment for Backup Pricing	Recoverable Cost
Fuel Costs			
East Bend 2	\$42,888,860	\$0	\$42,888,860
Miami Fort 6	13,945,194	-	13,945,194
Woodssdale	7,398,465	-	7,398,465
Total Fossil Fuel Cost	\$64,232,519	\$0	\$64,232,519
Purchased Power			
Economy Purchases	13,325,740	-	13,325,740
Cost of Replacement Power for:			
Forced Outages	9,770,528	(5,623,314)	4,147,214
Planned Outages	15,633,016	(8,414,452)	7,218,564
Total Purchased Power Cost	\$38,729,284	(\$14,037,766)	\$24,691,518
Total Recoverable Cost of Fuel & Purch Power	\$102,961,803	(\$14,037,766)	\$88,924,037
Credit for Sharing of Margin on Off-System Sales			(\$2,306,284)
Estimated Net Fuel Cost for Recovery in Base Rates for Test Year			\$86,617,753
Projected Test Year Retail Sales (metered kWh)			4,006,495,000 kWh
Fuel Cost Recovery included in <u>base rates (¢/kWh)</u>			2.1619 ¢/kWh

Note: <sup>(a)</sup> See testimony of Douglas F. Esamann for a detailed discussion of the Back-up Power Agreement.

Duke Energy Kentucky  
Calculation of Credit for Margins on Off-System Sales <sup>(a)</sup>

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Revenues	\$2,115,048	\$2,401,842	\$1,214,222	\$0	\$1,767,968	\$1,037,976	\$1,098,032	\$1,310,849	\$1,319,817	\$1,894,424	\$1,979,954	\$1,529,880	\$17,670,011
Fuel Cost	1,116,129	1,221,099	648,872	-	1,153,995	781,078	731,902	828,717	961,317	1,255,182	1,261,946	970,336	10,930,572
SO <sub>2</sub>	119,371	144,762	70,586	-	131,482	99,203	97,952	119,103	137,471	164,540	182,751	175,027	1,442,247
NO <sub>x</sub>	-	-	-	-	16,198	14,854	16,885	23,239	29,525	-	-	-	100,701
MISO Congestion & Loss	79,030	87,745	44,922	-	87,961	56,305	52,452	60,038	70,682	89,613	89,255	66,142	784,144
Other Variable O&M	84,015	92,504	47,207	-	85,615	56,607	53,021	60,846	69,681	89,596	90,628	70,058	799,778
Gross Margin	\$716,503	\$855,733	\$402,634	\$0	\$292,718	\$29,929	\$145,819	\$218,906	\$51,142	\$295,493	\$355,374	\$248,317	\$3,612,568

Note: <sup>(a)</sup> Estimate of 2007 margin on off-system sales is based on Company's production cost model as used in the forecasted test period in the case.

\$2,612,568  
1,306,284  
(\$2,306,284) 2,306,284

Rate Formula Template  
Utilizing FERC Form 1 Data  
CINERGY

Formula Rate - Non-Levelized  
GROSS REVENUE REQUIREMENT (page 3, line 29)  
NET REVENUE REQUIREMENT (line 1 minus line 6)

REVENUE CREDITS  
TOTAL REVENUE CREDITS (sum lines 2-5)

Line No.	Description	Allocated Amount	Notes
1	Midwest ISO		
2	FERC Electric Tariff		
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Line 4 supported by schedules.  
Line 5 supported by schedules.  
Line 8 supported with monthly CP and associated net energy.

Don't need. Doesn't go anywhere per Jeff Sprague



A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
109	110	Midwest ISO																		
110	111	FERC Electric Tariff, Volume No. 1																		
111	112	FERC Electric Tariff, Volume No. 1																		
112	113																			
113	114																			
114	115																			
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	A	B	C	D	E	F	G	H	I	J	K	L	NN	O	P	Q	R	S	T	U
169	Midwest ISO									First Revised S		1321								
170	FERC Electric Tariff		revised Volume No. 1																	
171																				
172																				
173																				
174	Formula Rate - Non-Levelized				Rate Formula Template															
175					Utilizing FERC Form 1 Data															
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181	No.																			
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Schedule 1 Recoverable Expenses	
11,443,035	Acct 561 included in Line 137
	Revenue Credits for Sched 1/Acct 561
1,468,433	transactions <1 yr
0	non-firm
0	transactions w/ load not in divisor
\$1,468,433	total Revenue Credits
\$9,974,602	Net Schedule 1 Expenses (Acct 561 minus Credits)

A	Midwest ISO
B	FERC Electric Tariff
C	FERC Electric Tariff
D	FERC Electric Tariff
E	FERC Electric Tariff
F	FERC Electric Tariff
G	FERC Electric Tariff
H	FERC Electric Tariff
I	FERC Electric Tariff
J	FERC Electric Tariff
K	FERC Electric Tariff
L	FERC Electric Tariff
M	FERC Electric Tariff
N	FERC Electric Tariff
O	FERC Electric Tariff
P	FERC Electric Tariff
Q	FERC Electric Tariff
R	FERC Electric Tariff
S	FERC Electric Tariff
T	FERC Electric Tariff
U	FERC Electric Tariff

KYPSC Case No. 06-00172 Attachment WDW-2a page 5 of 24

Formula Rate - Non-Levelized Rate Formula Template Utilizing FERC Form 1 Data For the 12 months ended 12/31/04

General Note: References to pages in this formula rate are indicated as: (page#, line#, col.#) References to data from FERC Form 1 are indicated as: #, y, x (page, line, column)

Note Letter

A Peak as would be reported on page 401, column d of Form 1 at the time of the ISO coincident monthly peaks.

B Labeled LF, LU, LF, LU on pages 310-311 of Form 1 at the time of the ISO coincident monthly peaks.

C Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.

D Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.

E The FERC's annual charges for the year assessed the Transmission Owner for service under this tariff.

F The balances in Accounts 190, 281, 282 and 283, as adjusted by any amounts in contra accounts identified as regulatory assets or liabilities related to FASB 106 or 109. Balance of account 255 is reduced by prior flow throughs and excluded if the utility

G identified in Form 1 as being only transmission related.

H Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission at page 3, line 8, column 5.

I Prepayments are the electric related prepayments booked to Account No. 165 and reported on Pages 100 line 46 in the Form 1.

J Line 5 - EPRF Annual Membership Dues listed in Form 1 at 353, all Regulatory Commission Expenses itemized at 351 h, and non-safety ISO filings, or transmission filing itemized at 351 i.

K Includes only FICA, unemployment, highway, property, gross receipts, and other assessments charged in the current year.

L Taxes related to income are excluded. Gross receipts taxes are not included in transmission revenue requirement in the Rate Formula Template.

M since they are recovered elsewhere.

N The currently effective income tax rate, where FIT is the Federal income tax rate, SIT is the State income tax rate, and P = "the percentage of federal income tax deductible for state income taxes". If the utility is taxed in more than one state it must attach a

O work paper showing the name of each state and how the blended or composite SIT was developed. Furthermore, a utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce

P rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 256.8.i) multiplied by (1/(1-T)) (page 3, line 26).

Q Inputs Required: 35.00% FIT = 7.55% (State Income Tax Rate or Composite SIT) 0.00% p = (percent of federal income tax deductible for state purposes)

R Removes dollar amount of transmission expenses included in the OATT ancillary services rates, including all of Account No. 561.

S Removes dollar amount of transmission plant determined by Commission order to be state-jurisdictional according to the seven-factor test (until Form 1

T balances are adjusted to reflect application of seven-factor test).

U Removes dollar amount of transmission plant included in the development of OATT ancillary services rates and generation step-up facilities, which are deemed to be included in OATT ancillary services. For these purposes, generation step-up

V facilities are those facilities at a generator substation on which there is no through-flow when the generator is shut down.

W Enter dollar amounts

X Debt cost rate = long-term interest (line 21) / long term debt (line 27). Preferred cost rate = preferred dividends (line 22) / preferred outstanding (line 28). RCE will be supported in the original filing and no change in RCE may be made absent a filing with FERC.

Y Line 33 must equal zero since all short-term power sales must be unbundled and the transmission component reflected in Account No. 456 and all other uses are to be included in the divisor.

Z Includes income related only to transmission facilities, such as pole attachments, rents and special use. Grandfathered agreements whose rates have been changed to eliminate or mitigate - the revenues are included in line 4 page 1 and the loads are included in line 13, page 1. Grandfathered agreements whose rates have not been changed to eliminate or mitigate

AA The revenues credited on page 1 lines 2-5 shall include only the amounts received directly (in the case of grandfathered agreements) from the ISO (or service under this tariff) reflecting the Transmission Owner's integrated transmission facilities. They do not include

AB revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AC assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AD revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AE revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AF revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AG revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AH revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AI revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AJ revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AK revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AL revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AM revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AN revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AO revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AP revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

AQ revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

Line No.	Description	Total	Allocator	Allocated Amount	Notes
1	GROSS REVENUE REQUIREMENT (page 3, line 29)			\$ 92,913,459	
2	Account No. 454 (page 4, line 34)	64,000	TP 0.95483	61,109	
3	Account No. 456 (page 4, line 37)	15,182,000	TP 0.95483	14,496,272	
4	Revenues from Grandfathered Interzonal Transactions	0	TP 0.95483	0	Line 4 supported by schedules.
5	Revenues from service provided by the ISO at a discount	0	TP 0.95483	0	Line 5 supported by schedules.
6	TOTAL REVENUE CREDITS (sum lines 2-5)			14,557,382	
7	NET REVENUE REQUIREMENT (line 1 minus line 6)			\$ 78,356,077	
8	DIVISOR				
9	Average of 12 coincident system peaks for requirements (RQ) service (Note A)	4,954,000		4001	Line 8 supported with monthly CP and associated net energy.
10	Plus 12 CP of firm bundled sales over one year not in line 8 (Note B)	0		5028	
11	Plus 12 CP of Network Load not in line 8 (Note C)	0		5400	
12	Less 12 CP of firm P-T-P over one year (enter negative) (Note D)	-324,000		5660	
13	Plus Contract Demand of firm P-T-P over one year	0		5618	
14	Less Contract Demand from Grandfathered Interzonal Transactions over one year (enter negative) (Note S)	0		5030	
15	Less Contract Demands from service over one year provided by ISO at a discount (enter negative)	0		3923	
	Divisor (sum lines 8-14)	4,630,000		4204	
				4954	
				4830	
16	Annual Cost (\$/kWYr) (line 7 / line 15)	16.924			
17	Network & P-to-P Rate (\$/KWMo) (line 16 / 12)	1.410			
		Peak Rate	Off-Peak Rate		
18	Point-To-Point Rate (\$/kW/Wk) (line 16 / 52; line 16 / 52)	0.325		\$0.325	
19	Point-To-Point Rate (\$/kW/Day) (line 18 / 5; line 19 / 7)	0.065	Capped at weekly rate	\$0.048	
20	Point-To-Point Rate (\$/MWh) (line 19 / 16; line 19 / 24 times 1,000)	4.068	Capped at weekly and daily rates	\$1.937	
21	FERC Annual Charge(\$/MWh) (Note E)	\$0.000	Short Term	\$0.000	Short Term
22		\$0.000	Long Term	\$0.000	Long Term

Line No.	(1) Formula Rate - Non-Levelized	(2) Form No. 1 Page, Line, Col.	(3) Rate Formula Template Utilizing FERC Form 1 Data	(4) Allocator	(5) Transmission (Col 3 times Col 4)
PSI ENERGY, INC.					
Company Total					
1	GROSS PLANT IN SERVICE	208.46.g	3,532,021,700	NA	
2	Production	206.56.g	771,076,088	TP	736,248,785
3	Transmission	206.75.g	1,794,502,881	NA	
4	Distribution	206.5.c & 90.g	288,792,988	W/S	18,841,246
5	General & Intangible	356.1	0	CE	0
6	Common		6,386,393,737	GP=	755,090,031
7	TOTAL GROSS PLANT (sum lines 1-5)				
8	ACCUMULATED DEPRECIATION				
9	Production	219.20-24.c	1,522,698,424	NA	
10	Transmission	219.25.c	314,847,877	TP	300,628,907
11	Distribution	219.26.c	890,804,758	NA	
12	General & Intangible	219.27.c	63,228,367	W/S	4,125,104
13	Common	356.1	0	CE	0
14	TOTAL ACCUM. DEPRECIATION (sum lines 7-11)		2,591,519,226		304,752,012
15	NET PLANT IN SERVICE				
16	Production	(line 1 - line 7)	2,009,383,276		
17	Transmission	(line 2 - line 8)	456,228,411		435,621,878
18	Distribution	(line 3 - line 9)	1,103,698,203		
19	General & Intangible	(line 4 - line 10)	225,584,621		14,716,142
20	Common	(line 5 - line 11)	0		0
21	TOTAL NET PLANT (sum lines 13-17)		3,794,874,511	NP=	450,338,019
22	ADJUSTMENTS TO RATE BASE (Note F)				
23	Account No. 281 (enter negative)	273.8.k	-17,383,184	NA	0
24	Account No. 282 (enter negative)	275.2.k	-695,722,120	NP	-62,561,392
25	Account No. 283 (enter negative)	277.9.k	-147,264,831	NP	-17,478,301
26	Account No. 190	234.8.c	168,894,706	NP	20,042,746
27	Account No. 255 (enter negative)	267.8.h	-28,602,988	NP	-3,156,980
28	TOTAL ADJUSTMENTS (sum lines 19-23)		-718,098,427		-83,153,928
29	LAND HELD FOR FUTURE USE (Note G)		88,742	TP	85,689
30	WORKING CAPITAL (Note H)				
31	CWC	calculated	28,030,039		3,584,092
32	Materials & Supplies (Note G)	227.8.c & 15.c	6,203,893	TE	4,368,181
33	Prepayments (Account 165)	440.46-d 111.57.c	4,091,393	GP	480,195
34	TOTAL WORKING CAPITAL (sum lines 28 - 29)		36,295,325		8,442,468
35	RATE BASE (sum lines 16, 24, 25, & 29)		3,116,161,161		375,712,250

2,795,146 will change Form 1

Midwest ISO  
FERC Electric Tariff, Third Revised Volume No. 1

First Revised Sheet 1320  
Attachment O  
page 3 of 5

For the 12 months ended 12/31/04

Formula Rate - Non-Levelized  
Rate Formula Template  
Utilizing FERC Form 1 Data

PSI ENERGY, INC.

(1)	(2)	(3)	(4)	(5)
Line No.	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)
<b>O&amp;M</b>				
1	Transmission 321.100.b	27,839,460	TE 0.70410	19,672,284
2	Less Account 565 321.88.b	3,986,552	1.00000	3,986,552
3	A&G 323.168.b	204,780,884	W/S 0.06524	13,360,835
4	Less FERC Annual Fees	484,099	W/S 0.06524	31,583
5	Less EPRI & Reg. Comm. Exp. & Non-safety Ad. (Note I)	4,019,384	W/S 0.06524	262,230
5a	Plus Transmission Related Reg. Comm. Exp. (Note I)	0	TE 0.70410	0
6	Common 358.1	0	CE 0.06524	0
7	Transmission Lease Payments	0	1.00000	0
8	TOTAL O&M (sum lines 1, 3, 5a, 6, 7 less lines 2, 4, 5)	224,240,309		28,752,733
<b>DEPRECIATION EXPENSE</b>				
9	Transmission 336.7.b	16,530,876	TP 0.95463	15,784,224
10	General 336.9.b	6,071,813	W/S 0.06524	398,120
11	Common 336.10.b	0	CE 0.06524	0
12	TOTAL DEPRECIATION (Sum lines 9 - 11)	22,602,489		16,180,344
<b>TAXES OTHER THAN INCOME TAXES (Note J)</b>				
<b>LABOR RELATED</b>				
13	Payroll 263.i	9,890,321	W/S 0.06524	632,210
14	Highway and vehicle 263.i	22,794	W/S 0.06524	1,487
15	<b>PLANT RELATED</b>			
16	Property 263.i	16,928,555	GP 0.11823	2,001,297
17	Gross Receipts 263.i	18,828,758	NA zero	0
18	Other 263.i	150,000	GP 0.11823	17,735
19	Payments in lieu of taxes	1,575	GP 0.11823	186
20	TOTAL OTHER TAXES (sum lines 13 - 19)	45,620,001		2,652,915
<b>INCOME TAXES (Note K)</b>				
21	T = 1 - ((1 - SIT) * (1 - FIT)) / (1 - SIT * FIT * p) =	40.33%		
22	CIT = (T/(1-T)) * (1 - (WCLTD/R)) =	48.07%		
where WCLTD = (page 4, line 27) and R = (page 4, line 30) and FIT, SIT & p are as given in footnote K.				
23	1 / (1 - T) = (from line 21)	1.6759		
24	Amortized Investment Tax Credit (265.8f) (enter negative)	0		
25	Income Tax Calculation = line 22 * line 28	118,530,228	NA	14,295,652
26	ITC adjustment (line 23 * line 24)	0	NP 0.11867	0
27	Total Income Taxes (line 25 plus line 26)	118,530,228		14,295,652
28	RETURN [Rate Base (page 2, line 30) * Rate of Return (page 4, line 30)]	257,295,586	NA	31,031,815
29	REV. REQUIREMENT (sum lines 8, 12, 20, 27, 28)	688,288,614		92,913,459

1,989,146 FERC fee paid through MISO, on line 5

this is FERC assessment coming through MISO

9,568,188 263.5.i Fed income contribution sounds like income tax

exclud this amount included in Account 255 on row 97

For the 12 months ended 12/31/04

Rate Formula Template  
Utilizing FERC Form 1 Data

PSI ENERGY, INC.  
SUPPORTING CALCULATIONS AND NOTES

Formula Rate - Non-Levelized

TRANSMISSION PLANT INCLUDED IN ISO RATES

1	Total transmission plant (page 2, line 2, column 3)	771,076,088
2	Less transmission plant excluded from ISO rates (Note M)	0
3	Less transmission plant included in OATT Ancillary Services (Note N)	34,827,303
4	Transmission plant included in ISO rates (line 1 less lines 2 & 3)	736,248,785
5	Percentage of transmission plant included in ISO Rates (line 4 divided by line 1)	TP= 0.95483

TRANSMISSION EXPENSES

6	Total transmission expenses (page 3, line 1, column 3)	27,939,460
7	Less transmission expenses included in OATT Ancillary Services (Note L) (page 321, line 84, column (b))	7,336,625
8	Included transmission expenses (line 6 less line 7)	20,602,835
9	Percentage of transmission expenses after adjustment (line 8 divided by line 6)	0.73741
10	Percentage of transmission plant included in ISO Rates (line 5)	0.95483
11	Percentage of transmission expenses included in ISO Rates (line 9 times line 10)	0.70410

WAGES & SALARY ALLOCATOR (W&S)

12	Production	84,289,460	0.00	Allocation	0
13	Transmission	354,181.b	7,211,535		7,211,535
14	Distribution	354,201.b	22,153,887		0
15	Other	354,212,223.b	16,530,234		0
16	Total (sum lines 12-15)	110,596,248	7,211,535		0.06524 = WS

COMMON PLANT ALLOCATOR (CE) (Note O)

17	Electric	200.3.c	5,726,790,375	% Electric (line 17 / line 20)	CE
18	Gas	201.3.d	0		1.00000
19	Water	201.3.e	0		0.06524 =
20	Total (sum lines 17 - 19)	5,726,790,375			

RETURN (R)

21	Long Term Interest (117, sum of 62c through 66e 67c)	\$ 898,437,979
22	Preferred Dividends (118, 29c) (positive number)	\$ 2,586,717

Development of Common Stock:

23	Proprietary Capital (112, 16c)	1,723,530,361
24	Less Preferred Stock (line 28)	-42,333,100
25	Less Account 216.1 (112, 128 c) (enter negative)	0
26	Common Stock	1,681,197,261
27	Long Term Debt (112, sum of 47d 16c through 204 21c)	2,019,532,749
28	Preferred Stock (line 28)	42,333,100
29	Common Stock (line 26)	1,681,197,261
30	Total (sum lines 27-29)	3,743,063,110

REVENUE CREDITS

31	ACCOUNT 447 (SALES FOR RESALE) (310-311) (Note Q)	0
32	a. Bundled Non-RQ Sales for Resale (311.x.h)	0
33	b. Bundled Sales for Resale included in Divisor on page 1	0
34	ACCOUNT 454 (RENT FROM ELECTRIC PROPERTY) (Note R)	\$64,000
35	ACCOUNT 456 (OTHER ELECTRIC REVENUES) (330.x.n)	\$22,136,000
36	a. Transmission charges for all transmission transactions	\$6,954,000
37	b. Transmission charges for all transmission transactions included in Divisor on Page 1	\$15,182,000
38	Total of (a)-(b)	

Schedule I Recoverable Expenses

7,336,625 Acct 561 included in Line 13? Revenue Credits for Sched 1/Acct 561

511,249 transactions <1 yr

0 non-firm

0 transactions w/ load not in divisor

\$511,249 total Revenue Credits

\$6,825,376 Net Schedule I Expenses (Acct 561 minus Credits)

Sch. 1 CPMT & NonCPMT

2,131,001 Acct 430

12.36 ordered CInergy Return on Equity approved by FERC will not change until a filing is made with FERC to do so

Line 34 supported by notes in Form 1 or detailed Schedule

Line 35 supported by notes in Form 1 or detailed Schedule

Line 36 supported by notes in Form 1 or detailed Schedule

Formula Rate - Non-Levelized  
 Rate Formula Template  
 Utilizing FERC Form 1 Data  
 For the 12 months ended 12/31/04

First Revised Sheet  
 1/22  
 A  
 5 of 5  
 Page 5 of 5

General Note: References to pages in this formula are indicated as: (page#, line#, col.#)  
 References to data from FERC Form 1 are indicated as: #.y.x (page, line, column)

244 Midwest ISO  
 245 FERC Electric Tariff, Third Revised Volume No. 1  
 247  
 248  
 249  
 250  
 251  
 252  
 253  
 254  
 255  
 256 Note  
 257 Letter  
 258 A Peak as would be reported on page 401, column d of Form 1 at the time of the ISO coincident monthly peaks.  
 259 B Labeled LF, LU, LF, LU on pages 310-311 of Form 1 at the time of the ISO coincident monthly peaks.  
 260 C Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.  
 261 D Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.  
 262 E The FERC's annual charges for the year assessed the Transmission Owner for service under this tariff.  
 263 F The balances in Accounts 190, 281, 282 and 283, as adjusted by any amounts in contra accounts identified as regulatory assets or liabilities related to FASB 106 or 109. Balance of Account 255 is reduced by prior flow throughs and excluded if the utility chose to utilize amortization of tax credits against taxable income as discussed in Note K. Account 281 is not allocated.  
 264 G Identified in Form 1 as being only transmission related.  
 265 H Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission at page 3, line 8, column 5.  
 266 I Prepayments are the electric related prepayments booked to Account No. 165 and reported on Pages 100 line 46 in the Form 1. Line 5 - EPR) Annual Membership Dues listed in Form 1 at 353.f, all Regulatory Commission Expenses itemized at 351.h, and non-safety related advertising included in Account 930.1. Line 5a - Regulatory Commission Expenses directly related to transmission service.  
 270 ISO filings, or transmission siting itemized at 351.h.  
 271 J Includes only FICA, unemployment, highway, property, gross receipts, and other assessments charged in the current year. Taxes related to income are excluded. Gross receipts taxes are not included in transmission revenue requirement in the Rate Formula Template.  
 272 K The currently effective income tax rate, where FIT is the Federal income tax rate, SIT is the State income tax rate, and p = "the percentage of federal income tax deductible for state income taxes". If the utility is taxed in more than one state it must attach a work paper showing the name of each state and how the blended or composite SIT was developed. Furthermore, a utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.i) multiplied by (1/(1-T)) (page 3, line 26).  
 280 Inputs Required:  
 281 FIT = 35.00%  
 282 SIT = 8.20% (State Income Tax Rate or Composite SIT)  
 283 p = 0.00% (percent of federal income tax deductible for state purposes)  
 284 L Removes dollar amount of transmission expenses included in the OATT ancillary services rates, including all of Account No. 561. Removes transmission plant determined by Commission order to be state-jurisdictional according to the seven-factor test (until Form 1 balances are adjusted to reflect application of seven-factor test).  
 286 N Removes dollar amount of transmission plant included in the development of OATT ancillary services rates and generation step-up facilities, which are deemed to included in OATT ancillary services. For these purposes, generation step-up facilities are those facilities at a generator substation on which there is no through-flow when the generator is shut down.  
 287 O Enter dollar amounts  
 288 P Debt cost rate = long-term interest (line 27) / long term debt (line 27). Preferred cost rate = preferred dividends (line 22) / preferred outstanding (line 28). ROE will be supported in the original filing and no change in ROE may be made absent a filing with FERC.  
 289 Q Line 33 must equal zero since all short-term power sales must be unbundled and the transmission component reflected in Account No. 456 and all other zero uses are to be included in the divisor.  
 295 R Includes income related only to transmission facilities, such as pole attachments, rentals and special use. (Statement A.U)  
 296 S Grandfathered agreements whose rates have been changed to eliminate or mitigate penalties are included in line 4 page 1 and loads are included in line 13, page 1. Grandfathered agreements whose rates have not been changed to eliminate or mitigate penalties - the revenues are not included in line 4, page 1 nor are the loads included in line 13, page 1.  
 299 T The revenues credited on page 1 lines 2-5 shall include only the amounts received directly (in the case of grandfathered agreements) or from the ISO (for service under this tariff) reflecting the Transmission Owner's integrated transmission facilities. They do not include revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.  
 303  
 304

SIT work papers if required

KYPSC Case No. 00172  
Attachment WDW-2a  
Page 11 of 24

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

For the 12 months ended 12/31/04

Rate Formula Template  
Utilizing FERC Form 1 Data

THE CINCINNATI GAS & ELECTRIC COMPANY

Line No.	Description	Total	Allocator	Allocated Amount	Notes
1	Midwest ISO				
2	FERC Electric Tariff, issued Volume No. 1				
3	Formula Rate - Non-Levelized				
4	GROSS REVENUE REQUIREMENT (page 3, line 23)				
5	REVENUE CREDITS (Note T)				
6	Account No. 454 (page 4, line 34)	127,000	TP 0.94562	120,084	Line 4 supported by schedules.
7	Account No. 456 (page 4, line 37)	18,424,000	TP 0.94562	17,422,088	Line 5 supported by schedules.
8	Revenues from Grandfathered Interzonal Transactions	0	TP 0.94562	0	
9	Revenues from service provided by the ISO at a discount	0	TP 0.94562	0	
10	TOTAL REVENUE CREDITS (sum lines 2-5)			17,542,182	
11	NET REVENUE REQUIREMENT (line 1 minus line 6)			\$ 42,322,269	
12	DIVISOR				
13	Average of 12 coincident system peaks for requirements (RO) service		(Note A)	2,722,000	Line 8 supported with monthly CP and associated net energy.
14	Plus 12 CP of firm bundled sales over one year not in line 8		(Note B)	\$13,000	
15	Plus 12 CP of Network Load not in line 8		(Note C)	3,355	
16	Less 12 CP of firm P-T-P over one year (enter negative)		(Note D)	3,478	
17	Plus Contract Demand of firm P-T-P over one year		(Note E)	3,453	
18	Less Contract Demand from Grandfathered Interzonal Transactions over one year (enter negative) (Note S)			3,019	
19	Less Contract Demands from service over one year provided by ISO at a discount (enter negative)			2,307	
20	Divisor (sum lines 8-14)			2,503	
21	Annual Cost (\$/MWh) (line 7 / line 15)	13,083		2,255	
22	Network & P-to-P Rate (\$/MWh) (line 16 / 12)	1,050		2,722	
23	Point-To-Point Rate (\$/MWh) (line 16 / 52)	0.252			
24	Point-To-Point Rate (\$/MWh/Day) (line 18 / 5; line 18 / 7)	0.050			
25	Point-To-Point Rate (\$/MWh) (line 19 / 16; line 19 / 24 times 1,000)	3.145			
26	FERC Annual Charge (\$/MWh) (Note E)	\$0,000	Short Term	\$0,000	
27		\$0,000	Long Term	\$0,000	
28	Off-Peak Rate				
29				\$0,252	
30				\$0,036	
31				\$1,486	
32	Short Term			\$0,000	
33	Long Term			\$0,000	



KypSC Case No. 2006-00172  
Attachment WDW-2a  
Page 12 of 24

Attachment O  
page 2 of 5

For the 12 months ended 12/31/04

Line No.	(1)	(2)	(3)	(4)	(5)	
Line No.	Form No. 1 Page, Line, Col.	Rate Formula Template Utilizing FERC Form 1 Data	Company Total	Allocater	Transmission (Col 3 times Col 4)	
THE CINCINNATI GAS & ELECTRIC COMPANY						
52		Formula Rate - Non-Levelized				
53	206.46.g	Production	3,479,281,795	NA		
54	206.58.g	Transmission	476,574,799	TP	450,656,277	
55	206.75.g	Distribution	1,457,510,198	NA		
56	206.5.g & 90.g	General & Intangible	79,104,098	W/S	3,714,987	
57	356.1	Common	158,765,840	CE	7,363,196	
58		TOTAL GROSS PLANT (sum lines 1-5)	5,649,256,720	GP=	461,738,470	
59		TOTAL GROSS PLANT (sum lines 1-5)				
60		ACCUMULATED DEPRECIATION				
61	219.20-24.c	Production	1,603,464,664	NA		
62	219.25.c	Transmission	175,754,459	TP	168,196,790	
63	219.26.c	Distribution	466,692,361	NA		
64	219.27.c	General & Intangible	11,727,284	W/S	550,754	
65	356.1	Common	45,749,037	CE	2,148,533	
66		TOTAL ACCUM. DEPRECIATION (sum lines 7-11)	2,325,297,865		168,696,076	
67		TOTAL ACCUM. DEPRECIATION (sum lines 7-11)				
68		NET PLANT IN SERVICE				
69	(line 1 - line 7)	Production	1,875,817,131		284,461,487	
70	(line 2 - line 8)	Transmission	300,620,340			
71	(line 3 - line 9)	Distribution	966,907,837		3,164,243	
72	(line 4 - line 10)	General & Intangible	67,376,794		5,214,663	
73	(line 5 - line 11)	Common	111,036,753		292,840,394	
74		TOTAL NET PLANT (sum lines 13-17)	3,323,858,855	NP=	8.810%	
75		TOTAL NET PLANT (sum lines 13-17)				
76		ADJUSTMENTS TO RATE BASE (Note F)				
77	Account No. 281 (entire negative)	273.8.k	0	NA	0	
78	Account No. 282 (entire negative)	275.2.k	-729,961,289	NP	-84,309,504	779,095,463
79	Account No. 283 (entire negative)	277.9.k	-197,733,635	NP	-17,420,311	
80	Account No. 190	234.8.c	81,967,398	NP	7,221,318	88,137,130
81	Account No. 255 (entire negative)	267.8.h	-20,448,702	NP	-1,801,528	
82		TOTAL ADJUSTMENTS (sum lines 19-23)	-668,176,208		-76,310,025	
83		TOTAL ADJUSTMENTS (sum lines 19-23)				
84		LAND HELD FOR FUTURE USE (Note G)	125,772	TP	118,932	
85		WORKING CAPITAL (Note H)				
86	CWC	calculated	23,290,560		2,005,173	
87	Materials & Supplies (Note G)	227.9.c & .15.c	3,219,100	TE	2,700,818	3,443,847
88	Prepayments (Account 165)	111.57.c	28,189,141	GP	2,904,012	
89		TOTAL WORKING CAPITAL (sum lines 26 - 28)	54,698,801		7,010,003	
90		TOTAL WORKING CAPITAL (sum lines 26 - 28)				
91		RATE BASE (sum lines 18, 24, 25, & 29)	2,512,607,220		223,658,303	
92		RATE BASE (sum lines 18, 24, 25, & 29)				

Line No.	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)
108				
109				
110	Midwest ISO			
111	FERC Electric Tariff, Third Revised Volume No. 1			
112				
113	Formula Rate - Non-Levelized			
114				
115				
116				
117				
118				
119				
120				
121				
122				
123	O&M			
124	1 Transmission 321.100.b	27,602,354	TE 0.83900	23,158,320
125	2 Less Account 565 321.89.b	15,289,094	1.00000	15,289,094
126	3 A&G 323.168.b	177,461,933	W/S 0.04698	8,334,216
127	4 Less FERC Annual Fees	-358,241	W/S 0.04698	-16,824
128	5 Less EPRI & Reg. Comm. Exp. & Non-safety Ad. (Note I)	3,808,957	W/S 0.04698	178,882
129	5a Plus Transmission Related Reg. Comm. Exp. (Note I)	0	TE 0.83900	0
130	6 Common 356.1	0	CE 0.04698	0
131	7 Transmission Lease Payments	0	1.00000	0
132	8 TOTAL O&M (sum lines 1, 3, 5a, 6, 7 less lines 2, 4, 5)	188,324,477		16,041,384
133				
134	DEPRECIATION EXPENSE			
135	9 Transmission 336.7.b	8,832,591	TP 0.84562	8,352,268
136	10 General 336.9.b	347,150	W/S 0.04698	16,303
137	11 Common 336.10.b	1,434,363	CE 0.04698	67,363
138	12 TOTAL DEPRECIATION (Sum lines 9 - 11)	10,614,104		8,435,933
139				
140	TAXES OTHER THAN INCOME TAXES (Note J)			
141	LABOR RELATED			
142	13 Payroll 263.i	8,808,280	W/S 0.04698	413,573
143	14 Highway and vehicle 263.i	81,164	W/S 0.04698	2,872
144	15 PLANT RELATED			
145	16 Property 263.i	68,549,510	GP 0.08173	5,602,827
146	17 Gross Receipts 263.i	1,227,882	NA zero	0
147	18 Other 263.i	0	GP 0.08173	0
148	19 Payments in lieu of taxes	2,550	GP 0.08173	208
149	20 TOTAL OTHER TAXES (sum lines 13 - 19)	78,647,168		6,019,481
150				
151	INCOME TAXES (Note K)			
152	21 $T = 1 - \frac{((1 - SIT) * (1 - FIT))}{(1 - SIT * FIT * p)}$	39.23%		
153	22 $CIT = (T / (1 - T)) * (1 - (WCLTD / R))$	45.07%		
154	where WCLTD = (page 4, line 27) and R = (page 4, line 30)			
155	and FIT, SIT & p are as given in footnote K.			
156	1 / (1 - T) = (from line 21)	1.6454		
157	23 Amortized Investment Tax Credit (266.8f) (enter negative)	0		
158				
159	25 Income Tax Calculation = line 22 * line 28	102,501,649	NA	9,124,167
160	26 ITC adjustment (line 23 * line 24)	0	NP 0.08810	0
161	27 Total Income Taxes ((line 25 plus line 26)	102,501,649		9,124,167
162				
163				
164	28 RETURN	227,416,997	NA	20,243,485
165	[ Rate Base (page 2, line 30) * Rate of Return (page 4, line 30)]			
166				
167	29 REV. REQUIREMENT (sum lines 8, 12, 20, 27, 28)	605,504,392		59,884,451

1,249,854 Fee paid through MISO, in line 5

this is FERC assessment coming through MISO

70,649,278 excise tax 263.24.i (not transmission related)  
499 excise tax 283.13.i

exclud this amount included in Account 255 on row 97

Midwest ISO FERC Electric Tariff, 1, revised Volume No. 1

KypSC Case No. 2006-00172 Attachment WDW-2a Page 14 of 24

For the 12 months ended 12/31/04

Rate Formula Template Utilizing FERC Form 1 Data

THE CINCINNATI GAS & ELECTRIC COMPANY SUPPORTING CALCULATIONS AND NOTES

TRANSMISSION PLANT INCLUDED IN ISO RATES

176	Line No.	
177	1	Total transmission plant (page 2, line 2, column 3) (Note M)
178	2	Less transmission plant excluded from ISO rates
179	3	Less transmission plant included in OATT Ancillary Services (Note N)
180	4	Transmission plant included in ISO rates (line 1 less lines 2 & 3)
181	5	Percentage of transmission plant included in ISO Rates (line 4 divided by line 1)

478,574,799	Year End Bulk/Common Split
0	
25,916,522	
450,658,277	
0.94592	TP=

TRANSMISSION EXPENSES

182	6	Total transmission expenses (page 3, line 1, column 3)	27,602,354
183	7	Less transmission expenses included in OATT Ancillary Services (Note L) (page 321, line 84, column (b))	3,112,242
184	8	Included transmission expenses (line 6 less line 7)	24,490,112
185	9	Percentage of transmission expenses after adjustment (line 8 divided by line 6)	0.86725
186	10	Percentage of transmission plant included in ISO Rates (line 5)	0.94592
187	11	Percentage of transmission expenses included in ISO Rates (line 9 times line 10)	0.83900

3,112,242	Schedule 1 Recoverable Expenses
Revenue Credits for Sched. 1/Acct. 561	
955,184	transactions <1 yr
0	non-firm
0	transactions w/ load not in divisor
\$955,184	total Revenue Credits
\$2,157,058	Net Schedule 1 Expenses (Acct. 561 minus Credits)

WAGES & SALARY ALLOCATOR (W&S)

192	Form 1 Reference	Allocation
193	354.18.b	0
194	354.19.b	4,569,139
195	354.20.b	0
196	354.21,22,23.b	0
197	Other	4,569,139
198	Total (sum lines 12-15)	9,138,278

0.86725	TP
0.94592	TE=
0.83900	
0.04696	WS

COMMON PLANT ALLOCATOR (CE) (Note O)

200	Electric	200.3.c	5,037,341,216
201	Gas	201.3.d	0
202	Water	201.3.e	0
203	Total (sum lines 17 - 19)		5,037,341,216

690,359,814	W&S Allocator (line 16)
0.04696	CE
0.04696	
2,552,559	Acct 430

RETURN (R)

210	Long Term Interest (117, sum of 62c through 66c 67c)	\$	892,667,140
211	Preferred Dividends (118,29c) (positive number)	\$	845,657
212	Development of Common Stock		
213	Proprietary Capital (112,16c)		1,939,197,572
214	Less Preferred Stock (line 28)		-20,484,900
215	Less Account 216.1 (112,12c) (enter negative)		-192,880,058
216	Common Stock (sum lines 23-25)		1,728,032,614
217	Total (sum lines 21-26)		2,552,559,140

\$	892,667,140
\$	845,657

218	Long Term Debt (112, sum of 47c 48c through 20c 21c)	\$	1,647,520,663	48%
219	Preferred Stock (112,3c)		20,484,900	1%
220	Common Stock (line 26)		1,728,032,614	51%
221	Total (sum lines 27-29)		3,394,038,177	

0.0275	Weighted
0.0002	=WCLTD
0.0630	
0.0905	=R

REVENUE CREDITS

230	ACCOUNT 447 (SALES FOR RESALE)	(310-311)	(Note Q)
231	a. Bundled Non-RQ Sales for Resale (311.x.h)		
232	b. Bundled Sales for Resale included in Divisor on page 1		
233	Total of (a)-(b)		
234	ACCOUNT 454 (RENT FROM ELECTRIC PROPERTY) (Note R)		\$127,000
235	ACCOUNT 456 (OTHER ELECTRIC REVENUES) (330.x.n)		\$38,552,000
236	a. Transmission charges for all transmission transactions		\$18,128,000
237	b. Transmission charges for all transmission transactions included in Divisor on Page 1		\$18,424,000
238	Total of (a)-(b)		\$36,552,000

Line 34 supported by notes in Form 1 or detailed Schedule  
 Line 35 supported by notes in Form 1 or detailed Schedule  
 Line 36 supported by notes in Form 1 or detailed Schedule



Line No.	Description	Total	Allocator	Allocated Amount	12CP
1	Midwest ISO			0	
2	FERC Electric Tariff, revised Volume No. 1			0	
3				5	
4	Formula Rate - Non-Levelized				
5	Rate Formula Template				
6	Utilizing FERC Form 1 Data				
7	For the 12 months ended 12/31/04				
8	THE UNION LIGHT HEAT AND POWER COMPANY				
9					
10	Line			Allocated Amount	
11	No.				
12	1 GROSS REVENUE REQUIREMENT (page 3, line 29)			\$ 3,661,243	
13					
14					
15	REVENUE CREDITS (Note T)	Total	Allocator		
16	2 Account No. 454 (page 4, line 34)	33,547	TP 1.00000	33,547	
17	3 Account No. 456 (page 4, line 37)	163,000	TP 1.00000	163,000	
18	4 Revenues from Grandfathered Interzonal Transactions	0	TP 1.00000	0	
19	5 Revenues from service provided by the ISO at a discount	0	TP 1.00000	0	
20	6 TOTAL REVENUE CREDITS (sum lines 2-5)			196,547	
21					
22					
23	7 NET REVENUE REQUIREMENT (line 1 minus line 6)			\$ 3,464,696	
24					644
25					609
26					571
27	8 DIVISOR				541
28	9 Average of 12 coincident system peaks for requirements (RC) service (Note A)	660,000		660,000	694
29	10 Plus 12 CP of firm bundled sales over one year not in line 8 (Note B)	0		0	762
30	11 Plus 12 CP of Network Load not in line 8 (Note C)	0		0	814
31	12 Less 12 CP of firm P-T-P over one year (enter negative) (Note D)	0		0	809
32	13 Plus Contract Demand of firm P-T-P over one year	0		0	734
33	14 Less Contract Demand from Grandfathered Interzonal Transactions over one year (enter negative) (Note S)	0		0	510
34	15 Less Contract Demands from service over one year provided by ISO at a discount (enter negative)	0		0	558
35	15 Divisor (sum lines 8-14)	660,000		660,000	671
36					660
37	16 Annual Cost (\$/KWYr) (line 7 / line 15)	5.250			
38	17 Network & P-to-P Rate (\$/kW/Mo) (line 16 / 12)	0.437			
39					
40					
41	18 Point-To-Point Rate (\$/KW/Wk) (line 16 / 52; line 16 / 52)	0.101		\$0.101	
42	19 Point-To-Point Rate (\$/KW/Day) (line 18 / 5; line 18 / 7)	0.020	Capped at weekly rate	\$0.014	
43	20 Point-To-Point Rate (\$/MWh) (line 19 / 16; line 19 / 24 times 1,000)	1.262	Capped at weekly and daily rates	\$0.601	
44					
45					
46					
47	21 FERC Annual Charge(\$/MWh) (Note E)	\$0.000	Short Term	\$0.000	Short Term
48	22	\$0.000	Long Term	\$0.000	Long Term

Line 4 supported by schedules.  
Line 5 supported by schedules.

Line 8 supported with monthly CP and associated net energy.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
54	Midwest ISO											0													
55	FERC Electric Tariff,	vised Volume No. 1								Atte	0														
56										p.	5														
57																									
58	Formula Rate - Non-Levelized																								
59																									
60																									
61																									
62		(1)	(2)	(3)	(4)	(5)																			
63			Form No. 1			Transmission																			
64	Line		Page, Line, Col.	Company Total	Allocator	(Col 3 times Col 4)																			
65	No.	RATE BASE:																							
66																									
67		GROSS PLANT IN SERVICE																							
68	1	Production	206.46.g	0	NA																				
69	2	Transmission	206.58.g	21,099,871	TP	1.00000	21,099,871																		
70	3	Distribution	206.75.g	262,009,113	NA																				
71	4	General & Intangible	206.5.g & 90.g	2,719,342	W/S	0.06511	177,060																		
72	5	Common	356.1	15,440,307	CE	0.06511	1,005,336																		
73	6	TOTAL GROSS PLANT (sum lines 1-5)		301,268,633	GP=	7.398%	22,282,267																		
74																									
75		ACCUMULATED DEPRECIATION																							
76	7	Production	219.20-24.c	0	NA																				
77	8	Transmission	219.25.c	8,883,018	TP	1.00000	8,883,018																		
78	9	Distribution	219.26.c	100,254,503	NA																				
79	10	General & Intangible	219.27.c	149,692	W/S	0.06511	9,747																		
80	11	Common	356.1	5,879,686	CE	0.06511	382,833																		
81	12	TOTAL ACCUM. DEPRECIATION (sum lines 7-11)		115,166,899			9,275,598																		
82																									
83		NET PLANT IN SERVICE																							
84	13	Production	(line 1- line 7)	0																					
85	14	Transmission	(line 2- line 8)	12,216,853			12,216,853																		
86	15	Distribution	(line 3 - line 9)	161,754,610																					
87	16	General & Intangible	(line 4 - line 10)	2,569,650			167,313																		
88	17	Common	(line 5 - line 11)	9,560,621			622,503																		
89	18	TOTAL NET PLANT (sum lines 13-17)		186,101,734	NP=	6.888%	13,006,669																		
90																									
91		ADJUSTMENTS TO RATE BASE (Note F)																							
92	19	Account No. 281 (enter negative)	273.8.k	0	NA	zero	0																		
93	20	Account No. 282 (enter negative)	275.2.k	-20,587,509	NP	0.06989	-1,437,465	20,587,509																	
94	21	Account No. 283 (enter negative)	277.9.k	-1,188,391	NP	0.06989	-82,917																		
95	22	Account No. 190	234.8.c	3,466,757	NP	0.06989	242,292	3,807,441	confirm sign of adjustment																
96	23	Account No. 255 (enter negative)	267.8.h	-1,113,088	NP	0.06989	-77,792																		
97	24	TOTAL ADJUSTMENTS (sum lines 19- 23)		-19,400,211			-1,355,883																		
98																									
99	25	LAND HELD FOR FUTURE USE	214.x.d (Note G)	0	TP	1.00000	0																		
100																									
101		WORKING CAPITAL (Note H)																							
102	26	CWC	calculated	1,284,124			129,569																		
103	27	Materials & Supplies (Note G)	227.8.c & .15.c	16,595	TE	0.93802	17,442																		
104	28	Prepayments (Account 165)	111.57.c	284,770	GP	0.07396	21,062																		
105	29	TOTAL WORKING CAPITAL (sum lines 26 - 28)		1,587,489			168,074																		
106																									
107	30	RATE BASE (sum lines 18, 24, 25, & 29)		168,289,012			11,818,860																		

Line No.	(1)	(2)	(3)	(4)	(5)
<p>Attachment O page 3 of 5</p> <p>0</p>					
<p>Formula Rate - Non-Levelized      Rate Formula Template      For the 12 months ended 12/31/04 Utilizing FERC Form 1 Data</p>					
<p>THE UNION LIGHT HEAT AND POWER COMPANY</p>					
	(1)	(2)	(3)	(4)	(5)
Line No.	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)	
122	O&M				
124	1 Transmission 321.100.b	16,039,884	TE 0.93802	15,045,696	
125	2 Less Account 565 321.88.b	14,583,181	1.00000	14,583,181	
126	3 A&G 323.168.b	9,457,385	WS 0.06511	615,781	
127	4 Less FERC Annual Fees	283,397	WS 0.06511	17,150	261,581 FERC fee missing
128	5 Less EPRI & Reg. Comm. Exp. & Non-safety Ad. (Note I)	377,682	WS 0.06511	24,591	
129	5a Plus Transmission Related Reg. Comm. Exp. (Note I)	0	TE 0.93802	0	this is FERC assessment coming through MISO
130	6 Common 356.1	0	CE 0.06511	0	
131	7 Transmission Lease Payments	0	1.00000	0	
132	8 TOTAL O&M (sum lines 1, 3, 5a, 6, 7 less lines 2, 4, 5)	10,272,989		1,036,555	
133	DEPRECIATION EXPENSE				
135	9 Transmission 336.7.b	653,745	TP 1.00000	653,745	
136	10 General 336.9.b	6,665	WS 0.06511	434	
137	11 Common 336.10.b	193,628	CE 0.06511	12,607	
138	12 TOTAL DEPRECIATION (Sum lines 9 - 11)	854,039		666,788	
139	TAXES OTHER THAN INCOME TAXES (Note J)				
140	LABOR RELATED				
142	13 Payroll 263.i	415,447	WS 0.06511	27,050	
143	14 Highway and vehicle 263.i	8,712	WS 0.06511	567	
144	15 PLANT RELATED				
145	16 Property 263.i	1,306,174	GP 0.07396	96,607	
146	17 Gross Receipts 263.i	0	NA zero	0	
147	18 Other 263.i	0	GP 0.07396	0	
148	19 Payments in lieu of taxes	0	GP 0.07396	0	
149	20 TOTAL OTHER TAXES (sum lines 13 - 19)	1,730,333		124,224	
150	INCOME TAXES (Note K)				
152	21 $T = 1 - \frac{((1 - SIT) * (1 - FIT))}{(1 - SIT * FIT * p)}$ =	40.33%			
154	22 $CIT = (T / (1 - T)) * (1 - (WCLTD / R))$ =	56.52%			
155	where WCLTD = (page 4, line 27) and R = (page 4, line 30)				
156	and FIT, SIT & p are as given in footnote K.				
157	23 $1 / (1 - T) =$ (from line 21)	1.6759			
158	24 Amortized Investment Tax Credit (266.8f) (enter negative)	0			exclud this amount included in Account 255 on row 97
159	25 Income Tax Calculation = line 22 * line 28	9,428,667	NA	662,171	
161	26 ITC adjustment (line 23 * line 24)	0	NP 0.06989	0	
162	27 Total Income Taxes (line 25 plus line 26)	9,428,667		662,171	
164	28 RETURN	16,681,104	NA	1,171,506	
165	[Rate Base (page 2, line 30) * Rate of Return (page 4, line 30)]				
166	29 REV. REQUIREMENT (sum lines 8, 12, 20, 27, 28)	39,967,132		3,661,243	

**KyPSC Case No. 2006-00172**  
**Attachment WDW-2a**  
**Page 19 of 24**

For the 12 months ended 12/31/04

Rate Formula Template  
 Utilizing FERC Form 1 Data

THE UNION LIGHT HEAT AND POWER COMPANY  
 SUPPORTING CALCULATIONS AND NOTES

Line No.	Description	Amount	Allocation	W/S	CE	WCLTD	Load
169	Midwest ISO						
170	FERC Electric Tariff						
171							
172							
173							
174							
175							
176							
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244							

Schedule 1 Recoverable Expenses

904,168 Acct 561 included in Line 137  
 Revenue Credits for Sched 1/Acct 561  
 0 transactions <1 yr  
 0 non-firm  
 0 transactions w/ load not in divisor  
 \$0 total Revenue Credits  
 \$994,168 Net Schedule 1 Expenses (Acct 561 minus Credits)

Line 34 supported by notes in Form 1 or detailed Schedule

Line 35 supported by notes in Form 1 or detailed Schedule

Line 36 supported by notes in Form 1 or detailed Schedule



A B C D E F G H I J K L M N O P Q R S T U

245 Midwest ISO  
246 FERC Electric Tariff,  
247  
248  
249  
250  
251  
252  
253  
254  
255  
256  
257

vised Volume No. 1  
Rate Formula Template  
Utilizing FERC Form 1 Data  
THE UNION LIGHT HEAT AND POWER COMPANY  
For the 12 months ended 12/31/04  
Attr C  
P S

Formula Rate - Non-Levelized  
General Note: References to pages in this formulary rate are indicated as: (page#, line#, col.#)  
References to data from FERC Form 1 are indicated as: #.y.x (page, line, column)

258 A Peak as would be reported on page 401, column d of Form 1 at the time of the ISO coincident monthly peaks.  
259 B Labeled LF, LU, IF, IU on pages 310-311 of Form 1 at the time of the ISO coincident monthly peaks.  
260 C Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.  
261 D Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.  
262 E The FERC's annual charges for the year assessed the Transmission Owner for service under this tariff.  
263 F The balances in Accounts 190, 281, 282 and 283, as adjusted by any amounts in contra accounts identified as regulatory assets or liabilities related to FASB 106 or 109. Balance of Account 255 is reduced by prior flow throughs and excluded if the utility chose to utilize amortization of tax credits against taxable income as discussed in Note K. Account 281 is not allocated.  
264 G Identified in Form 1 as being only transmission related.  
265 H Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission at page 3, line 8, column 5.  
266 I Prepayments are the electric related prepayments booked to Account No. 165 and reported on Pages 100 line 46 in the Form 1.  
267 J Line 5 - EPRI Annual Membership Dues listed in Form 1 at 353.f, all Regulatory Commission Expenses itemized at 351.h, and non-safety related advertising included in Account 930.1. Line 5a - Regulatory Commission Expenses directly related to transmission service, ISO filings, or transmission siting itemized at 351.h.  
268 K Taxes related to income are excluded. Gross receipts taxes are not included in transmission revenue requirement in the Rate Formula Template, since they are recovered elsewhere.  
269 L The currently effective income tax rate, where FIT is the Federal income tax rate, and p =  
270 M "the percentage of federal income tax deductible for state income taxes", if the utility is taxed in more than one state it must attach a work paper showing the name of each state and how the blended or composite SIT was developed. Furthermore, a utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.6.f) multiplied by (1/(1-T)) (page 3, line 26).  
271 Inputs Required:  
272 FIT = 35.00% (State Income Tax Rate or Composite SIT)  
273 SIT = 8.20% (percent of federal income tax deductible for state purposes)  
274 p = 0.00% (percent of federal income tax deductible for state purposes)  
275 L Removes dollar amount of transmission expenses included in the OATT ancillary services rates, including all of Account No. 561.  
276 M Removes transmission plant determined by Commission order to be state-jurisdictional according to the seven-factor test (until Form 1 balances are adjusted to reflect application of seven-factor test).  
277 N Removes dollar amount of transmission plant included in the development of OATT ancillary services rates and generation step-up facilities, which are deemed to be included in OATT ancillary services. For these purposes, generation step-up facilities are those facilities at a generator substation on which there is no through-flow when the generator is shut down.  
278 O Enter dollar amounts  
279 Debt cost rate = long-term interest (line 21) / long term debt (line 27). Preferred cost rate = preferred dividends (line 22) / preferred outstanding (line 28). ROE will be supported in the original filing and no change in ROE may be made absent a filing with FERC.  
280 Q Line 33 must equal zero since all short-term power sales must be unbundled and the transmission component reflected in Account No. 456 and all other uses are to be included in the divisor.  
281 R Includes income related only to transmission facilities, such as pole attachments, rentals and special use.  
282 S Grandfathered agreements whose rates have been changed to eliminate or mitigate pancaking - the revenues are included in line 4 page 1 and the loads are included in line 13, page 1. Grandfathered agreements whose rates have not been changed to eliminate or mitigate pancaking - the revenues are not included in line 4, page 1 nor are the loads included in line 13, page 1.  
283 T The revenues credited on page 1 lines 2-5 shall include only the amounts received directly (in the case of grandfathered agreements) or from the ISO (for service under this tariff) reflecting the Transmission Owner's integrated transmission facilities. They do not include revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.

SIT work papers if required

**KyFSC Case No. 2006-00172**  
**Attachment WDW-2a**  
**Page 21 of 24**

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9	Company	Account 190	Account 282	Account 283	
10	PSI	(4,916,379)			
11	Account 190060	17,958,138			
12	Account 190070		40,379,131		
13	Account 282490				
14	Account 282490				
15	Account 282330				
16					
17					
18					
19	CG&E (1)	6,169,732			
20	Account 190210		(58,732,168)		
21					
22	Account 282250				
23					
24	Account 283190				
25					
26					
27	(1)	79.87% of total account balance has been allocated to electric service per the Tax department and FERC Form 1.			
28					
29					
30					
31	ULREP (2)	170,542			
32					
33	Account 190210		(2,562,062)		
34					
35	Account 282250		(1,072,068)		
36					
37	Account 282750				
38					
39	Account 283190				
40					
41	(2)	61.52% of total account balance has been allocated to electric service per the Tax department and FERC Form 1.			

**KyPSC Case No. 2006-00172**  
**Attachment WDW-2a**  
**Page 22 of 24**

	A	B	C	D	E	F	G
1						Support for First Revised F	1320
2							nl O
3	Activity Description	(All)	FRT - v 3.00.0064				
4	Corporation	(All)	4/7/05 4:08 pm				
5	Activity	(All)					
6	Account type	(All)					
7							
8	Amount					Accounting Period: Accounting Period	
9						2003	2004
10	Corporation Description	Account	Account Descr	WorkCode	WorkCode Description		
11	PSI ENERGY INC	\$930,100.00	GENERAL AD	AGENCYJ	SIGNAGE / ADVER	\$15,621.05	\$8,908.75
12				EMADVERST	Advertise name to p	\$19,561.02	\$22,312.57
13				SAFETYADV	SAFETY ADVERTI	\$529,719.32	\$450,248.54
14	PSI ENERGY INC Total					\$564,901.39	\$481,467.86
15							
16							
17							
18							
19							
20	Activity Description	(All)	FRT - v 3.00.0064				
21	Corporation	(All)	4/7/05 4:08 pm				
22	Activity	(All)					
23	Account type	(All)					
24							
25	Amount					Accounting Period: Accounting Period	
26						2003	2004
27	Corporation Description	Account	Account Descr	WorkCode	WorkCode Description		
28	THE CINCINNATI GAS & ELECTRIC	\$930,000.00	GENERAL & M	AGENCYE	SIGNAGE / ADVER	\$13,619.28	\$9,438.18
29				EMADVERST	Advertise name to p	\$719.00	\$25.00
30				SAFETYADVE	SAFETY ADVERTI	\$288,162.18	\$297,875.54
31	THE CINCINNATI GAS & ELECTRIC Total					\$282,500.46	\$307,338.72
32							

**KYPSC Case No. 2006-00172  
Attachment WDW-2a  
Page 23 of 24**

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							

Support for First Revised Sheet No. 1321  
Attachment C

FSI		\$107,491.46	
Schedule 1 CPMT		\$403,757.04	
Schedule 1 Non-CPMT		\$511,248.50	
		<u>          </u>	
CGE		\$109,928.55	
Schedule 1 CPMT		\$945,257.25	
Schedule 1 Non-CPMT		\$955,163.80	
		<u>          </u>	

**KyPSC Case No. 2006-00172  
 Attachment WDW-2a  
 Page 24 of 24**

	A	B	C	D	E
1					Support for
2					Attachment C
3	State Tax Composite				
4		PSI	CG&E	ULH&P	TOTAL
5	revenue requirement	\$92,913,459.04	\$59,864,450.85	\$3,861,242.67	\$156,439,152.55
6	tax rate	8.20%	6.50%	8.20%	
7					
8	state taxes	\$7,618,903.64	\$3,891,189.31	\$300,221.90	\$11,810,314.85
9					
10	composite tax rate				7.55%
11					
12	State	Indiana	Ohio	Kentucky	
13					

Line No.	Description	Total	Allocator	Allocated Amount	Notes
1	GROSS REVENUE REQUIREMENT (page 3, line 29)			\$ 173,158,995	
2	REVENUE CREDITS (Note T)				
3	Account No. 454 (page 4, line 34)	207,369	TP 0.94802	196,590	
4	Account No. 456 (page 4, line 37)	24,666,000	TP 0.94802	23,383,860	
5	Revenues from Grandfathered Interzonal Transactions	0	TP 0.94802	0	Line 4 supported by schedules.
6	Revenues from service provided by the ISO at a discount	0	TP 0.94802	0	Line 5 supported by schedules.
7	TOTAL REVENUE CREDITS (sum lines 2-5)			23,580,450	
8	NET REVENUE REQUIREMENT (line 1 minus line 6)			\$ 149,578,545	
9	DIVISOR				
10	Average of 12 coincident system peaks for requirements (RQ) service (Note A)			9,013,000	Line 8 supported with monthly CP and associated net energy.
11	Plus 12 CP of firm bundled sales over one year not in line 8 (Note B)			464,000	
12	Plus 12 CP of Network Load not in line 8 (Note C)			0	
13	Less 12 CP of firm P-T-P over one year (enter negative) (Note D)			-348,000	
14	Plus Contract Demand of firm P-T-P over one year			0	
15	Less Contract Demand from Grandfathered Interzonal Transactions over one year (enter negative) (Note S)			0	
16	Less Contract Demands from service over one year provided by ISO at a discount (enter negative)			0	
17	Divisor (sum lines 8-14)			9,129,000	
18	Annual Cost (\$/kW/Yr) (line 7 / line 15)	16.365			
19	Network & P-to-P Rate (\$/kW/Mo) (line 16 / 12)	1.365			
20	Point-To-Point Rate (\$/kW/Wk) (line 18 / 52; line 16 / 52)	0.315		\$0.315	
21	Point-To-Point Rate (\$/kW/Day) (line 18 / 5; line 19 / 7)	0.063	Capped at weekly rate	\$0.045	
22	Point-To-Point Rate (\$/MWh) (line 19 / 18; line 19 / 24 times 1,000)	3.939	Capped at weekly and daily rates	\$1.676	
23	FERC Annual Charge(\$/MWh) (Note E)	\$0.000	Short Term	\$0.000	Don't need. Doesn't go anywhere per Jeff Sprague
24		\$0.000	Long Term	\$0.000	

KypSC Case No. 2006-00172  
Attachment WDW-2b  
Page 1 of 24

Line No.	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)
<b>RATE BASE:</b>				
<b>GROSS PLANT IN SERVICE</b>				
1	Production 207.48.g	7,411,632,739	NA	
2	Transmission 207.58.g	1,312,938,676	TP 0.94802	1,244,692,038
3	Distribution 207.75.g	3,638,905,155	NA	
4	General & Intangible 205.5.g & 207.90.g	398,611,882	W/S 0.05884	23,454,324
5	Common 356.1	185,838,392	CE 0.05884	10,934,732
6	TOTAL GROSS PLANT (sum lines 1-5)	12,947,926,844	GP= 9.878%	1,279,081,094
<b>ACCUMULATED DEPRECIATION</b>				
7	Production 219.20-24.c	3,315,931,817	NA	
8	Transmission 219.25.c	509,166,756	TP 0.94802	482,700,235
9	Distribution 219.26.c	1,348,634,706	NA	
10	General & Intangible 219.27.c	85,245,942	W/S 0.05884	5,015,871
11	Common 356.1	61,481,811	CE 0.05884	3,617,590
12	TOTAL ACCUM. DEPRECIATION (sum lines 7-11)	5,320,461,032		491,333,696
<b>NET PLANT IN SERVICE</b>				
13	Production (line 1 - line 7)	4,095,700,922		
14	Transmission (line 2 - line 8)	803,771,920		761,991,803
15	Distribution (line 3 - line 9)	2,290,270,449		
16	General & Intangible (line 4 - line 10)	313,365,940		18,438,453
17	Common (line 5 - line 11)	124,356,581		7,317,142
18	TOTAL NET PLANT (sum lines 13-17)	7,627,465,812	NP= 10.328%	787,747,398
<b>ADJUSTMENTS TO RATE BASE (Note F)</b>				
19	Account No. 281 (enter negative) 273.8.k	-23,004,029	NA zero	0
20	Account No. 282 (enter negative) 275.2.k	-1,415,895,911	NP 0.10328	-146,230,524
21	Account No. 283 (enter negative) 277.9.k	-284,610,085	NP 0.10328	-29,393,886
22	Account No. 190 234.8.c	196,102,041	NP 0.10328	20,252,975
23	Account No. 255 (enter negative) 267.8.h	-42,878,626	NP 0.10328	-4,428,407
24	TOTAL ADJUSTMENTS (sum lines 19-23)	-1,570,286,620		-159,799,842
25	LAND HELD FOR FUTURE USE 214.x.d (Note G)	215,514	TP 0.94802	204,312
<b>WORKING CAPITAL (Note H)</b>				
26	CWC calculated	58,548,310		6,625,425
27	Materials & Supplies (Note G) 227.8.c & .15.c	9,578,595	TE 0.75580	7,239,507
28	Prepayments (Account 165) 111.57.c	84,768,205	GP 0.09879	8,373,959
29	TOTAL WORKING CAPITAL (sum lines 26 - 28)	152,895,110		22,238,891
30	RATE BASE (sum lines 18, 24, 25, & 29)	6,210,269,816		650,390,758

Second Revised 3.367  
nent O  
page 2 of 5  
For the 12 months ended 12/31/05

Rate Formula Template  
Utilizing FERC Form 1 Data

CINERGY d/b/a DUKE ENERGY

Formula Rate - Non-Levelized

Midwest ISO  
FERC Electric Tariff, Volume No. 1

Line No.

GROSS PLANT IN SERVICE

1 Production 207.48.g 7,411,632,739 NA  
2 Transmission 207.58.g 1,312,938,676 TP 0.94802 1,244,692,038  
3 Distribution 207.75.g 3,638,905,155 NA  
4 General & Intangible 205.5.g & 207.90.g 398,611,882 W/S 0.05884 23,454,324  
5 Common 356.1 185,838,392 CE 0.05884 10,934,732  
6 TOTAL GROSS PLANT (sum lines 1-5) 12,947,926,844 GP= 9.878% 1,279,081,094

ACCUMULATED DEPRECIATION

7 Production 219.20-24.c 3,315,931,817 NA  
8 Transmission 219.25.c 509,166,756 TP 0.94802 482,700,235  
9 Distribution 219.26.c 1,348,634,706 NA  
10 General & Intangible 219.27.c 85,245,942 W/S 0.05884 5,015,871  
11 Common 356.1 61,481,811 CE 0.05884 3,617,590  
12 TOTAL ACCUM. DEPRECIATION (sum lines 7-11) 5,320,461,032 491,333,696

NET PLANT IN SERVICE

13 Production (line 1 - line 7) 4,095,700,922  
14 Transmission (line 2 - line 8) 803,771,920 761,991,803  
15 Distribution (line 3 - line 9) 2,290,270,449  
16 General & Intangible (line 4 - line 10) 313,365,940 18,438,453  
17 Common (line 5 - line 11) 124,356,581 7,317,142  
18 TOTAL NET PLANT (sum lines 13-17) 7,627,465,812 NP= 10.328% 787,747,398

ADJUSTMENTS TO RATE BASE (Note F)

19 Account No. 281 (enter negative) 273.8.k -23,004,029 NA zero 0  
20 Account No. 282 (enter negative) 275.2.k -1,415,895,911 NP 0.10328 -146,230,524  
21 Account No. 283 (enter negative) 277.9.k -284,610,085 NP 0.10328 -29,393,886  
22 Account No. 190 234.8.c 196,102,041 NP 0.10328 20,252,975  
23 Account No. 255 (enter negative) 267.8.h -42,878,626 NP 0.10328 -4,428,407  
24 TOTAL ADJUSTMENTS (sum lines 19-23) -1,570,286,620 -159,799,842

LAND HELD FOR FUTURE USE 214.x.d (Note G)

25 LAND HELD FOR FUTURE USE 214.x.d (Note G) 215,514 TP 0.94802 204,312

WORKING CAPITAL (Note H)

26 CWC calculated 58,548,310 6,625,425  
27 Materials & Supplies (Note G) 227.8.c & .15.c 9,578,595 TE 0.75580 7,239,507  
28 Prepayments (Account 165) 111.57.c 84,768,205 GP 0.09879 8,373,959  
29 TOTAL WORKING CAPITAL (sum lines 26 - 28) 152,895,110 22,238,891

RATE BASE (sum lines 18, 24, 25, & 29)

30 RATE BASE (sum lines 18, 24, 25, & 29) 6,210,269,816 650,390,758

KyFSC Case No. 2006-00172  
Attachment WDW-2b  
Page 3 of 24

A B C D E F G H I J K L M N O P Q R S T U

Second Revised Schedule O, page 388  
Attachment O  
page 3 of 5

For the 12 months ended 12/31/05

Rate Formula Template  
Utilizing FERC Form 1 Data

Form No. 1  
Page, Line, Col.

Company Total

Allocators

Line No.	(1)	(2)	(3)	(4)	(5)	Transmissions (Col 3 times Col 4)
108	Midwest ISO					
109	FERC Electric Tariff, Third Revised Volume No. 1					
110	Formula Rate - Non-Levelized					
111	CINERGY d/b/a DUKE ENERGY					
112	O&M	321,100.b	77,435,420	TE	0.75580	58,525,731
113	Transmission	321,100.b	30,309,292	W/S	1.00000	30,309,292
114	Less Account 565	323,168.b	432,943,700	W/S	0.05884	25,474,409
115	A&G		4,752,113	W/S	0.05884	279,614
116	Less FERC Annual Fees		6,931,232	TE	0.75580	407,834
117	Less EPRI & Reg. Comm. Exp. & Non-safety Ad. (Note I)	356.1	0	CE	1.00000	0
118	Plus Transmission Related Reg. Comm. Exp. (Note I)		0			0
119	Common		0			0
120	Transmission Lease Payments		0			0
121	TOTAL O&M (sum lines 1, 3, 5a, 6, 7 less lines 2, 4, 5)		483,386,483			53,003,400
122	DEPRECIATION EXPENSE	336.7.b	27,762,351	TP	0.94802	26,319,262
123	Transmission	336.9.b	8,006,609	W/S	0.05884	471,227
124	General	336.10.b	1,667,288	CE	0.05884	98,102
125	Common		37,438,228			26,868,591
126	TOTAL DEPRECIATION (Sum lines 9 - 11)					
127	TAXES OTHER THAN INCOME TAXES (Note J)					
128	LABOR RELATED	263.i	20,060,388	W/S	0.05884	1,180,354
129	Payroll	263.l	416,828	W/S	0.05884	24,528
130	Highway and vehicle					
131	PLANT RELATED	263.i	90,888,777	GP	0.09879	8,978,589
132	Property	263.l	81,948,207	NA	zero	0
133	Gross Receipts	263.i	0	GP	0.09879	0
134	Other	263.l	8,879	GP	0.09879	680
135	Payments in lieu of taxes					
136	TOTAL OTHER TAXES (sum lines 13 - 19)		193,319,087			10,184,149
137	INCOME TAXES (Note K)					
138	T=1 - ((1 - SIT) * (1 - FIT)) / (1 - SIT * FIT * p)) =		39.85%			
139	CR=(171-1) * (1-(WCLTD/R)) =		45.73%			
140	where WCLTD=(page 4, line 27) and R= (page 4, line 30)					
141	and FIT, SIT & p are as given in footnote K.					
142	1 / (1 - T) = (from line 21)		1.6625			
143	Authorized Investment Tax Credit (266.8f) (enter negative)		0			
144	Income Tax Calculation = line 22 * line 26		248,947,479	NA	0.10328	26,071,753
145	ITC adjustment (line 23 * line 24)		0	NP		0
146	Total Income Taxes		248,947,479			26,071,753
147	RETURN					
148	[ Rate Base (page 2, line 30) * Rate of Return (page 4, line 30)]		544,373,469	NA		57,011,103
149	REV. REQUIREMENT (sum lines 8, 12, 20, 27, 28)		1,492,484,744			173,158,995



KyPSC Case No. 2006-00172  
 Attachment WDW-2b  
 Page 4 of 24

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Second Revised  
 369  
 amt O  
 4 of 5

For the 12 months ended 12/31/05

Rate Formula Template  
 Utilizing FERC Form 1 Data

SUPPORTING CALCULATIONS AND NOTES

CINERGY d/b/a DUKE ENERGY  
 TRANSMISSION PLANT INCLUDED IN ISO RATES

TRANSMISSION EXPENSES

WAGES & SALARY ALLOCATOR (W&S) Form 1 Reference

COMMON PLANT ALLOCATOR (CE) (Note O)

REVENUE CREDITS

ACCOUNT 447 (SALES FOR RESALE)

Line No.	Description	Amount	Allocation	CE	W&S
180	180				
181	181				
182	182				
183	183				
184	184				
185	185				
186	186				
187	187				
188	188				
189	189				
190	190				
191	191				
192	192				
193	193				
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240	240				
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242	242				
243	243				
244	244				

Schedule 1 Recoverable Expenses

15,700,715 Acct 561 included in Line 77  
 820,017 Acct 561 BA for Schedule 24  
 14,880,698 Acct 561 available for Schedule 1  
 Revenue Credits for Sched. 1/Acct 561  
 1,022,074 transactions <1 yr  
 0 non-firm  
 0 transactions w/ lead not in divisor  
 \$1,022,074 total Revenue Credits  
 \$13,858,624 Net Schedule 1 Expenses (Acct 561 minus Credits)

W&S Allocator (\$/Allocation) = WS  
 12,477,761 = WS

W&S Allocator (line 16) CE  
 0.05884 = 0.05884

Long Term Interest (117, sum of 62.c through 67.c)  
 Preferred Dividends (118.29c) (positive number)

Development of Common Stock:  
 Proprietary Capital (112.16.c)  
 Less Preferred Stock (line 28)  
 Less Account 218.1 (112.12.c) (enter negative)  
 Common Stock (sum lines 23-25)

Long Term Debt (112, sum of 18.c through 21.c)  
 Preferred Stock (112.3.c)  
 Common Stock (line 26)

ACCOUNT 454 (RENT FROM ELECTRIC PROPERTY) (Note R)  
 ACCOUNT 466 (OTHER ELECTRIC REVENUES) (Note U) (330.x.n)  
 a. Transmission changes for all transmission transactions  
 b. Transmission changes for all transmission transactions included in Divisor on Page 1

Line 34 supported by notes in Form 1 or detailed Schedule

Line 35 supported by notes in Form 1 or detailed Schedule  
 Line 36 supported by notes in Form 1 or detailed Schedule

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
245			Midwest ISO							Second Revised S <sup>t</sup>		No. 370									
246			FERC Electric Tariff,	vised Volume No. 1								ant O									
247												5 of 5									
248			Formula Rate - Non-Levelized		Rate Formula Template					For the 12 months ended 12/31/05											
249					Utilizing FERC Form 1 Data																
250																					
251																					
252					CINERGY d/b/a DUKE ENERGY																
253																					
254			General Note: References to pages in this formulary rate are indicated as: (page#, line#, col.#)																		
255			References to data from FERC Form 1 are indicated as: #.y.x (page, line, column)																		
256			Note																		
257			Letter																		
258	A		Peak as would be reported on page 401, column d of Form 1 at the time of the ISO coincident monthly peaks.																		
259	B		Labeled LF, LU, IF, IU on pages 310-311 of Form 1 at the time of the ISO coincident monthly peaks.																		
260	C		Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.																		
261	D		Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.																		
262	E		The FERC's annual charges for the year assessed the Transmission Owner for service under this tariff.																		
263	F		The balances in Accounts 190, 281, 282 and 283, as adjusted by any amounts in contra accounts identified as regulatory assets																		
264			or liabilities related to FASB 106 or 109. Balance of Account 255 is reduced by prior flow throughs and excluded if the utility																		
265			chose to utilize amortization of tax credits against taxable income as discussed in Note K. Account 281 is not allocated.																		
266	G		identified in Form 1 as being only transmission related.																		
267	H		Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission at page 3, line 8, column 5.																		
268			Prepayments are the electric related prepayments booked to Account No. 165 and reported on Pages 111 line 57 in the Form 1.																		
269	I		Line 5 - EPRI Annual Membership Dues listed in Form 1 at 353.f, all Regulatory Commission Expenses itemized at 351.h, and non-safety																		
270			related advertising included in Account 930.1. Line 5a - Regulatory Commission Expenses directly related to transmission service,																		
271			ISO filings, or transmission siting itemized at 351.h.																		
272	J		Includes only FICA, unemployment, highway, property, gross receipts, and other assessments charged in the current year.																		
273			Taxes related to income are excluded. Gross receipts taxes are not included in transmission revenue requirement in the Rate Formula Template,																		
274			since they are recovered elsewhere.																		
275	K		The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p =																		
276			"the percentage of federal income tax deductible for state income taxes". If the utility is taxed in more than one state it must attach a																		
277			work paper showing the name of each state and how the blended or composite SIT was developed. Furthermore, a utility that																		
278			elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce																		
279			rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f)																		
280			multiplied by (1/1-T) (page 3, line 26).																		
281			Inputs Required: FIT =		35.00%																
282			SIT =		7.46%	(State Income Tax Rate or Composite SIT)							SIT work papers if required								
283			p =		0.00%	(percent of federal income tax deductible for state purposes)															
284	L		Removes dollar amount of transmission expenses included in the OATT ancillary services rates, including all of Account No. 561.																		
285	M		Removes transmission plant determined by Commission order to be state-jurisdictional according to the seven-factor test (until Form 1																		
286			balances are adjusted to reflect application of seven-factor test).																		
287	N		Removes dollar amount of transmission plant included in the development of OATT ancillary services rates and generation																		
288			step-up facilities, which are deemed to be included in OATT ancillary services. For these purposes, generation step-up																		
289			facilities are those facilities at a generator substation on which there is no through-flow when the generator is shut down.																		
290	O		Enter dollar amounts																		
291	P		Debt cost rate = long-term interest (line 21) / long term debt (line 27). Preferred cost rate = preferred dividends (line 22) /																		
292			preferred outstanding (line 28). ROE will be supported in the original filing and no change in ROE may be made absent																		
293			a filing with FERC.																		
294	Q		Line 33 must equal zero since all short-term power sales must be unbundled and the transmission component reflected in Account																		
295			No. 456 and all other uses are to be included in the divisor.																		
296	R		Includes income related only to transmission facilities, such as pole attachments, rentals and special use.																		
297	S		Grandfathered agreements whose rates have been changed to eliminate or mitigate pancaking - the revenues are included in line 4 page 1																		
298			and the loads are included in line 13, page 1. Grandfathered agreements whose rates have not been changed to eliminate or mitigate																		
299			pancaking - the revenues are not included in line 4, page 1 nor are the loads included in line 13, page 1.																		
300	T		The revenues credited on page 1 lines 2-5 shall include only the amounts received directly (in the case of grandfathered agreements)																		
301			or from the ISO (for service under this tariff) reflecting the Transmission Owner's integrated transmission facilities. They do not include																		
302			revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct																		
303			assignment facilities and GSUs) which are not recovered under this Rate Formula Template.																		
304	U		Account 456 entry shall be the annual total of the quarterly values reported at Form 1, 330.x.n.																		

1 Midwest ISO  
2 FERC Electric Tariff, revised Volume No. 1

Formula Rate - Non-Levelized

Rate Formula Template  
Utilizing FERC Form 1 Data

For the 12 months ended 12/31/05

PSI ENERGY, INC. d/b/a DUKE ENERGY INDIANA, INC.

Line No.	Description	Total	Allocator	Allocated Amount
1	GROSS REVENUE REQUIREMENT (page 3, line 29)			\$ 96,474,294
2	Account No. 454 (page 4, line 34)	75,000	TP 0.94684	71,013
3	Account No. 456 (page 4, line 37)	12,234,000	TP 0.94684	11,583,633
4	Revenues from Grandfathered Interzonal Transactions	0	TP 0.94684	0
5	Revenues from service provided by the ISO at a discount	0	TP 0.94684	0
6	TOTAL REVENUE CREDITS (sum lines 2-5)			11,654,646
7	NET REVENUE REQUIREMENT (line 1 minus line 6)			\$ 84,819,646
8	Average of 12 coincident system peaks for requirements (RQ) service	17.485	(Note A)	5,199,000
9	Plus 12 CP of firm bundled sales over one year not in line 8	1.457	(Note B)	0
10	Plus 12 CP of Network Load not in line 8		(Note C)	0
11	Less 12 CP of firm P-T-P over one year (enter negative)		(Note D)	-348,000
12	Plus Contract Demand of firm P-T-P over one year			0
13	Less Contract Demand from Grandfathered Interzonal Transactions over one year (enter negative) (Note 5)			0
14	Less Contract Demands from service over one year provided by ISO at a discount (enter negative)			0
15	Divisor (sum lines 8-14)			4,851,000
16	Annual Cost (\$/kWYr) (line 7 / line 15)	17.485		
17	Network & P-to-P Rate (\$/kW/Mo) (line 16 / 12)	1.457		
18	Point-To-Point Rate (\$/kW/Wk) (line 16 / 52; line 16 / 5)	0.336		\$0.336
19	Point-To-Point Rate (\$/kW/Day) (line 18 / 5; line 18 / 7)	0.067	Capped at weekly rate	\$0.048
20	Point-To-Point Rate (\$/MWh) (line 19 / 16; line 19 / 2 times 1,000)	4.203	Capped at weekly and daily rates	\$2.001
21	FERC Annual Charge(\$/MWh) (Note E)	\$0.000	Short Term	\$0.000
22		\$0.000	Long Term	\$0.000

Line 4 supported by schedules.  
Line 5 supported by schedules.

Line 8 supported with monthly CP and associated net energy.

Don't need. Doesn't go anywhere per Jeff Sprague

Second Revised Sheet No. 367  
Attachment O  
page 2 of 5  
For the 12 months ended 12/31/05

Line No.	(1)	(2) Form No. 1 Page, Line, Col.	(3) Company Total	(4) Allocator	(5) Transmission (Col 3 times Col 4)
<b>RATE BASE:</b>					
<b>GROSS PLANT IN SERVICE</b>					
1	Production	207.46.g	3,877,205,041	NA	
2	Transmission	207.58.g	796,640,610	TP	0.94684
3	Distribution	207.75.g	1,884,915,320	NA	
4	General & Intangible	205.5.g & 207.90.g	307,824,284	W/S	0.06273
5	Common	356.1	0	CE	0.06273
6	TOTAL GROSS PLANT (sum lines 1-5)		6,846,585,255	GP=	11.299%
<b>ACCUMULATED DEPRECIATION</b>					
7	Production	219.20-24.c	1,645,783,258	NA	
8	Transmission	219.25.c	327,036,610	TP	0.94684
9	Distribution	219.26.c	737,150,460	NA	
10	General & Intangible	219.27.c	72,369,187	W/S	0.06273
11	Common	356.1	0	CE	0.06273
12	TOTAL ACCUM. DEPRECIATION (sum lines 7-11)		2,782,339,513		
<b>NET PLANT IN SERVICE</b>					
13	Production	(line 1- line 7)	2,231,421,785		
14	Transmission	(line 2- line 8)	469,604,000		444,639,567
15	Distribution	(line 3 - line 9)	1,127,764,860		
16	General & Intangible	(line 4 - line 10)	235,455,097		14,770,736
17	Common	(line 5 - line 11)	0		0
18	TOTAL NET PLANT (sum lines 13-17)		4,064,245,742	NP=	11.304%
<b>ADJUSTMENTS TO RATE BASE (Note F)</b>					
19	Account No. 281 (enter negative)	273.8.k	-23,004,029	NA	zero
20	Account No. 282 (enter negative)	275.2.k	-589,203,055	NP	0.11304
21	Account No. 283 (enter negative)	277.9.k	-127,954,209	NP	0.11304
22	Account No. 190	234.8.c	125,388,608	NP	0.11304
23	Account No. 255 (enter negative)	287.8.h	-23,623,561	NP	0.11304
24	TOTAL ADJUSTMENTS (sum lines 19- 23)		-638,386,246		
25	LAND HELD FOR FUTURE USE	214.x.d (Note G)	89,742	TP	0.94684
<b>WORKING CAPITAL (Note H)</b>					
26	CWC	calculated	29,450,890		3,534,498
27	Materials & Supplies (Note G)	227.8.c & .15.c	6,348,566	TE	0.60841
28	Prepayments (Account 165)	111.57.c	25,627,513	GP	0.11299
29	TOTAL WORKING CAPITAL (sum lines 26 - 28)		61,424,969		
30	RATE BASE (sum lines 18, 24, 25, & 29)		3,487,374,207		400,213,073

Second Revised Sheet No. 368  
Attachment O  
page 3 of 5  
For the 12 months ended 12/31/05

Line No.	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)
123	O&M			
124	1 Transmission	321,100.b	TE 0.60641	17,543,465
125	2 Less Account 565	321,88.b	1.00000	2,382,336
126	3 A&G	323,168.b	W/S 0.06273	13,420,533
127	4 Less FERC Annual Fees	2,131,928	W/S 0.06273	133,742
128	5 Less EPRI & Reg. Comm. Exp. & Non-safety Ad. (Note 1)	2,740,720	W/S 0.06273	171,933
129	5a Plus Transmission Related Reg. Comm. Exp. (Note 1)	0	TE 0.60641	0
130	6 Common	356.1	CE 0.06273	0
131	7 Transmission Lease Payments	0	1.00000	0
132	8 TOTAL O&M (sum lines 1, 3, 5a, 6, 7 less lines 2, 4, 5)	235,607,123		28,275,988
133	DEPRECIATION EXPENSE			
134	9 Transmission	336.7.b	TP 0.94684	16,973,930
135	10 General	338.9.b	W/S 0.06273	479,241
136	11 Common	338.10.b	CE 0.06273	0
137	12 TOTAL DEPRECIATION (Sum lines 9 - 11)	25,566,346		17,453,171
138	TAXES OTHER THAN INCOME TAXES (Note J)			
139	LABOR RELATED			
140	13 Payroll	263.i	W/S 0.06273	611,034
141	14 Highway and vehicle	263.i	W/S 0.06273	0
142	PLANT RELATED			
143	15 Property	263.i	GP 0.11299	2,035,216
144	16 Gross Receipts	263.i	NA zero	0
145	17 Other	263.i	GP 0.11299	0
146	18 Payments in lieu of taxes	0	GP 0.11299	0
147	19 TOTAL OTHER TAXES (sum lines 13 - 18)	27,786,526		2,846,251
148	INCOME TAXES (Note K)			
149	21 $T = 1 - ((1 - SIT) * (1 - FIT)) / (1 - SIT * FIT * p) =$	40.33%		
150	22 $CIT = (T / (1 - T)) * (1 - (WCLTD / R)) =$	48.14%		
151	where WCLTD = (page 4, line 27) and R = (page 4, line 30)			
152	and FIT, SIT & p are as given in footnote K.			
153	23 $1 / (1 - T) =$ (from line 21)	1.6759		
154	24 Amortized Investment Tax Credit (266.8f) (enter negative)	0		
155	25 Income Tax Calculation = line 22 * line 28	132,329,128	NA	15,186,167
156	26 ITC adjustment (line 23 * line 24)	0	NP 0.11304	0
157	27 Total Income Taxes (line 25 plus line 26)	132,329,128		15,186,167
158	28 RETURN	286,794,635	NA	32,912,717
159	[ Rate Base (page 2, line 30) * Rate of Return (page 4, line 30)]			
160	29 REV. REQUIREMENT (sum lines 8, 12, 20, 27, 28)	708,083,757		96,474,284

exclude this amount (included in Account 255 on row 97)

PSI ENERGY, INC. d/b/a DUKE ENERGY INDIANA, INC.  
SUPPORTING CALCULATIONS AND NOTES

TRANSMISSION PLANT INCLUDED IN ISO RATES

180	Total transmission plant (page 2, line 2, column 3)	798,640,610
181	Less transmission plant excluded from ISO rates (Note M)	0
182	Less transmission plant included in OATT Ancillary Services (Note N)	42,349,858
183	Less transmission plant included in OATT Ancillary Services (Note N)	754,290,712
184	Transmission plant included in ISO rates (line 1 less lines 2 & 3)	0.94684

Percentage of transmission plant included in ISO Rates (line 4 divided by line 1)  
TP=

TRANSMISSION EXPENSES

185	Total transmission expenses (page 3, line 1, column 3)	28,930,121
186	Less transmission expenses included in OATT Ancillary Services (Note L) (page 321, line 8A, column (b))	10,401,672
187	Included transmission expenses (line 6 less line 7)	18,528,449
188	Percentage of transmission expenses after adjustment (line 8 divided by line 6)	0.64046
189	Percentage of transmission plant included in ISO Rates (line 5)	0.94684
190	Percentage of transmission expenses included in ISO Rates (line 9 times line 10)	0.60641

TP=

WAGES & SALARY ALLOCATOR (W&S) Form 1 Reference

191	Production	62,709,799	0.00
192	Transmission	7,285,088	0.95
193	Distribution	23,056,403	0.00
194	Other	16,904,241	0.00
195	Total (sum lines 12-15)	109,955,531	

COMMON PLANT ALLOCATOR (CE) (Note O)

196	Electric	200.3 c	5,866,638.877
197	Gas	201.3 c	0
198	Water	201.3 c	0
199	Total (sum lines 17 - 19)		5,866,638.877

RETURN (R)

200	Long Term Interest (117, sum of 62.c through 67.c)	\$ 113,821,733
201	Preferred Dividends (118.29.c) (positive number)	\$ 1,975,467
202	Development of Common Stock:	
203	Proprietary Capital (112.16.c)	1,973,221,207
204	Less Preferred Stock (line 28)	-11,258,100
205	Less Account 218.1 (112.12.c) (enter negative)	0
206	Common Stock (sum lines 23-25)	1,961,963,107

207	Cost (Note F)	0.0281 = WCLTD
208	Long Term Debt (112, sum of 18.c through 21.c)	0.0065
209	Preferred Stock (112.3.c)	0.1735
210	Common Stock (line 26)	0.1238
211	Total (sum lines 27-29)	0.0822 = R

REVENUE CREDITS

212	ACCOUNT 447 (SALES FOR RESALE) (310-311)	Load
213	a. Bundled Non-HQ Sales for Resale (311.x.h)	0
214	b. Bundled Sales for Resale included in Divisor on page 1	0
215	Total of (a)-(b)	0
216	ACCOUNT 454 (RENT FROM ELECTRIC PROPERTY) (Note F)	\$ 75,000

ACCOUNT 456 (OTHER ELECTRIC REVENUES) (Note U (330.x.n))

217	a. Transmission charges for all transmission transactions	\$ 19,647,000
218	b. Transmission charges for all transmission transactions included in Divisor on Page 1	7,413,000
219	Total of (a)-(b)	\$ 12,234,000

Schedule 1 Recoverable Expenses

\$10,401,672	Acct 561 included in Line 77
428,245	Acct 561.BA for Schedule 24
9,975,427	Acct 561 available for Schedule 1
502,990	Revenue Credits for Sched 1/ Acct 561
	- non-firm
	- transactions w/ load not in divisor
502,990	Total Revenue Credits
\$ 9,472,437	Net Schedule 1 Expenses (Acct 561 minus Credits)

Line 34 supported by notes in Form 1 or detailed Schedule

Line 35 supported by notes in Form 1 or detailed Schedule

Line 36 supported by notes in Form 1 or detailed Schedule

Energy Return on Equity approved by FERC will not change until a filing is made with FERC

Midwest ISO  
FERC Electric Tariff, Revised Volume No. 1

Second Revised Sheet No. 370  
Attachment O  
page 5 of 5

KypSC Case No. 2006-00172  
Attachment WDW-2b  
Page 10 of 24

Formula Rate - Non-Levelized Rate Formula Template Utilizing FERC Form 1 Data For the 12 months ended 12/31/05

PSI ENERGY, INC. d/b/a DUKE ENERGY INDIANA, INC.

General Note: References to pages in this formulary rate are indicated as: (page#, line#, col.#)  
References to data from FERC Form 1 are indicated as: #.y.x (page, line, column)

Note  
Letter

- A Peak as would be reported on page 401, column d of Form 1 at the time of the ISO coincident monthly peaks.
- B Labeled LF, LU, IF, IU on pages 310-311 of Form 1 at the time of the ISO coincident monthly peaks.
- C Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.
- D Labeled LF on page 328 of Form 1 at the time of the ISO coincident monthly peaks.
- E The FERC's annual charges for the year assessed the *Transmission Owner* for service under this tariff.
- F The balances in Accounts 190, 281, 282 and 283, as adjusted by any amounts in contra accounts identified as regulatory assets or liabilities related to FASB 106 or 109. Balance of Account 255 is reduced by prior flow throughs and excluded if the utility chose to utilize amortization of tax credits against taxable income as discussed in Note K. Account 281 is not allocated.
- G Identified in Form 1 as being only transmission related.
- H Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission at page 3, line 8, column 5. Prepayments are the electric related prepayments booked to Account No. 165 and reported on Pages 111 line 57 in the Form 1.
- I Line 5 - EPRI Annual Membership Dues listed in Form 1 at 353.f, all Regulatory Commission Expenses itemized at 351.h, and non-safety related advertising included in Account 930.1. Line 5a - Regulatory Commission Expenses directly related to transmission service, ISO filings, or transmission siting itemized at 351.h.
- J Includes only FICA, unemployment, highway, property, gross receipts, and other assessments charged in the current year. Taxes related to income are excluded. Gross receipts taxes are not included in transmission revenue requirement in the Rate Formula Template, since they are recovered elsewhere.
- K The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p = "the percentage of federal income tax deductible for state income taxes". If the utility is taxed in more than one state it must attach a work paper showing the name of each state and how the blended or composite SIT was developed. Furthermore, a utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f) multiplied by (1/1-T) (page 3, line 26).  
 Inputs Required: FIT = 35.00%  
 SIT = 8.20% (State Income Tax Rate or Composite SIT)  
 p = 0.00% (percent of federal income tax deductible for state purposes)
- L Removes dollar amount of transmission expenses included in the OATT ancillary services rates, including all of Account No. 561.
- M Removes transmission plant determined by Commission order to be state-jurisdictional according to the seven-factor test (until Form 1 balances are adjusted to reflect application of seven-factor test).
- N Removes dollar amount of transmission plant included in the development of OATT ancillary services rates and generation step-up facilities, which are deemed to be included in OATT ancillary services. For these purposes, generation step-up facilities are those facilities at a generator substation on which there is no through-flow when the generator is shut down.
- O Enter dollar amounts
- P Debt cost rate = long-term interest (line 21) / long term debt (line 27). Preferred cost rate = preferred dividends (line 22) / preferred outstanding (line 28). ROE will be supported in the original filing and no change in ROE may be made absent a filing with FERC.
- Q Line 33 must equal zero since all short-term power sales must be unbundled and the transmission component reflected in Account No. 456 and all other uses are to be included in the divisor.
- R Includes income related only to transmission facilities, such as pole attachments, rentals and special use. (Statement AU)
- S Grandfathered agreements whose rates have been changed to eliminate or mitigate pancaking - the revenues are included in line 4 page 1 and the loads are included in line 13, page 1. Grandfathered agreements whose rates have not been changed to eliminate or mitigate pancaking - the revenues are not included in line 4, page 1 nor are the loads included in line 13, page 1.
- T The revenues credited on page 1 lines 2-5 shall include only the amounts received directly (in the case of grandfathered agreements) or from the ISO (for service under this tariff) reflecting the Transmission Owner's integrated transmission facilities. They do not include revenues associated with FERC annual charges, gross receipts taxes, ancillary services, facilities not included in this template (e.g., direct assignment facilities and GSUs) which are not recovered under this Rate Formula Template.
- U Account 456 entry shall be the annual total of the quarterly values reported at Form 1, 330.x.n.

SIT work papers if required

Line No.	Description	Total	Allocator	Allocated Amount	Notes
1	Midwest ISO Second Revised Schedule 366				
2	FERC Electric Tariff, Revised Volume No. 1				
3					
4	Formula Rate - Non-Levelized				
5	Rate Formula Template				
6	Utilizing FERC Form 1 Data				
7	For the 12 months ended 12/31/05				
<b>THE CINCINNATI GAS &amp; ELECTRIC COMPANY d/b/a DUKE ENERGY OHIO</b>					
10	Line			Allocated	
11	No.			Amount	
12	1	GROSS REVENUE REQUIREMENT (page 3, line 29)		\$ 71,405,167	
13					
14					
15		REVENUE CREDITS (Note T)			
16	2	Account No. 454 (page 4, line 34)	98,822	TP 0.94768	93,652
17	3	Account No. 456 (page 4, line 37)	12,249,000	TP 0.94768	11,608,172
18	4	Revenues from Grandfathered Interzonal Transactions	0	TP 0.94768	0
19	5	Revenues from service provided by the ISO at a discount	0	TP 0.94768	0
20	6	TOTAL REVENUE CREDITS (sum lines 2-5)			11,701,824
21					
22					
23	7	NET REVENUE REQUIREMENT (line 1 minus line 6)			\$ 58,703,343
24					
25					
26		DIVISOR			
27	8	Average of 12 coincident system peaks for requirements (RQ) service (Note A)			3,118,000
28	9	Plus 12 CP of firm bundled sales over one year not in line 8 (Note B)			484,000
29	10	Plus 12 CP of Network Load not in line 8 (Note C)			0
30	11	Less 12 CP of firm P-T-P over one year (enter negative) (Note D)			0
31	12	Plus Contract Demand of firm P-T-P over one year			0
32	13	Less Contract Demand from Grandfathered Interzonal Transactions over one year (enter negative) (Note S)			0
33	14	Less Contract Demands from service over one year provided by ISO at a discount (enter negative)			0
34	15	Divisor (sum lines 8-14)			3,582,000
35					
36	16	Annual Cost (\$/kW/Yr) (line 7 / line 15)	16.668		
37	17	Network & P-to-P Rate (\$/kW/Mo) (line 16 / 12)	1.389		
38					
39					
40					
41	18	Point-To-Point Rate (\$/kW/Wk) (line 16 / 52; line 16 / 52)	0.321		\$0.321
42	19	Point-To-Point Rate (\$/kW/Day) (line 18 / 5; line 18 / 7)	0.064	Capped at weekly rate	\$0.046
43	20	Point-To-Point Rate (\$/MWh) (line 19 / 16; line 19 / 24 times 1,000)	4.007	Capped at weekly and daily rates	\$1.908
44					
45					
46	21	FERC Annual Charge(\$/MWh) (Note E)	\$0.000	Short Term	\$0.000 Short Term
47	22		\$0.000	Long Term	\$0.000 Long Term
48					
49					
50					
51					

Line 4 supported by schedules.  
Line 5 supported by schedules.

Line 8 supported with monthly CP and associated net energy.



KyPSC Case No. 2006-00172  
Attachment WDW-2b  
Page 12 of 24

Second Revised S 387  
Attachment O  
page 2 of 5  
For the 12 months ended 12/31/05

Rate Formula Template  
Utilizing FERC Form 1 Data

THE CINCINNATI GAS & ELECTRIC COMPANY db/a DUKE ENERGY OHIO

Line No.	(1)	(2)	(3)	(4)	(5)
Line No.	Formula Rate - Non-Levelized	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)
65	<b>RATE BASE:</b>				
66	<b>GROSS PLANT IN SERVICE</b>				
67	Production	207.48.0	3,534,427,698	NA	
68	Transmission	207.58.0	484,989,090	TP	469,102,350
69	Distribution	207.75.0	1,499,074,301	NA	
70	General & Intangible	205.5.g & 207.90.g	87,974,523	W/S	4,785,513
71	Common	358.1	188,332,970	CE	9,156,737
72	<b>TOTAL GROSS PLANT (sum lines 1-5)</b>		<u>5,784,808,582</u>	GP=	<u>483,044,600</u>
73	<b>ACCUMULATED DEPRECIATION</b>				
74	Production	219.20-24.c	1,870,148,581	NA	
75	Transmission	219.25.c	172,578,501	TP	163,548,145
76	Distribution	219.26.c	598,468,657	NA	
77	General & Intangible	219.27.c	12,841,067	W/S	698,510
78	Common	358.1	54,697,107	CE	2,975,335
79	<b>TOTAL ACCUM. DEPRECIATION (sum lines 7-11)</b>		<u>2,416,730,193</u>		<u>187,221,990</u>
80	<b>NET PLANT IN SERVICE</b>				
81	Production	(line 1 - line 7)	1,864,279,137		
82	Transmission	(line 2 - line 8)	322,422,289		305,554,205
83	Distribution	(line 3 - line 9)	982,607,644		
84	General & Intangible	(line 4 - line 10)	75,133,458		4,087,003
85	Common	(line 5 - line 11)	113,635,853		6,181,402
86	<b>TOTAL NET PLANT (sum lines 13-17)</b>		<u>3,368,078,389</u>	NP=	<u>315,822,609</u>
87	<b>ADJUSTMENTS TO RATE BASE (Note F)</b>				
88	Account No. 281 (enter negative)	273.8.k	0	NA	0
89	Account No. 282 (enter negative)	275.2.k	-790,851,415	NP	-74,157,844
90	Account No. 283 (enter negative)	277.9.k	-155,984,128	NP	-14,628,534
91	Account No. 190	234.8.c	68,625,121	NP	6,434,935
92	Account No. 255 (enter negative)	267.8.h	-18,318,445	NP	-1,717,709
93	<b>TOTAL ADJUSTMENTS (sum lines 19-23)</b>		<u>-896,528,867</u>		<u>-84,068,853</u>
94	<b>LAND HELD FOR FUTURE USE (Note G)</b>		125,772	TP	118,192
95	<b>WORKING CAPITAL (Note H)</b>				
96	CWC	calculated	27,441,328		2,950,842
97	Materials & Supplies (Note G)	227.8.c & .15.c	3,213,483	TE	2,612,973
98	Prepayments (Account 165)	111.57.c	54,641,044	GP	4,562,651
99	<b>TOTAL WORKING CAPITAL (sum lines 26 - 28)</b>		<u>85,295,855</u>		<u>10,128,286</u>
100	<b>RATE BASE (sum lines 18, 24, 25, &amp; 29)</b>		<u>2,590,971,147</u>		<u>242,001,115</u>

Line No.	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)
108				
109				
110	Midwest ISO			
111	FERC Electric Tariff, Third Revised Volume No. 1			
112				
113				
114	Formula Rate - Non-Levelized			
115				
116				
117	THE CINCINNATI GAS & ELECTRIC COMPANY d/b/a DUKE ENERGY OHIO			
118	(1)	(2)	(3)	(4)
119				
120	Line			
121	No.			
122				
123	O&M			
124	1 Transmission	321,100.b	TE	24,329,755
125	2 Less Account 565	321.88.b		
126	3 A&G	323.168.b	W/S	11,297,353
127	4 Less FERC Annual Fees	2,634,936	W/S	143,331
128	5 Less EPRI & Reg. Comm. Exp. & Non-safety Ad. (Note I)	3,766,926	W/S	204,908
129	5a Plus Transmission Related Reg. Comm. Exp. (Note I)	0	TE	0
130	6 Common	356.1	CE	0
131	7 Transmission Lease Payments	0		0
132	8 TOTAL O&M (sum lines 1, 3, 5a, 6, 7 less lines 2, 4, 5)	219,530,608		23,605,139
133				
134	DEPRECIATION EXPENSE			
135	9 Transmission	336.7.b	TP	8,689,563
136	10 General	336.9.b	W/S	19,748
137	11 Common	336.10.b	CE	83,317
138	12 TOTAL DEPRECIATION (Sum lines 9 - 11)	11,064,000		8,782,648
139				
140	TAXES OTHER THAN INCOME TAXES (Note J)			
141	LABOR RELATED			
142	13 Payroll	263.i	W/S	530,535
143	14 Highway and vehicle	263.i	W/S	22,017
144	15 PLANT RELATED			
145	16 Property	263.i	GP	5,936,083
146	17 Gross Receipts	263.i	NA	0
147	18 Other	263.i	GP	0
148	19 Payments in lieu of taxes	0	GP	0
149	20 TOTAL OTHER TAXES (sum lines 13 - 19)	163,158,934		6,488,636
150				
151				
152	INCOME TAXES (Note K)			
153	21 $T=1 - [(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p) =$	39.23%		
154	22 $CIT=(T/1-T) * (1-(WCLTD/R)) =$	44.48%		
155	where WCLTD=(page 4, line 27) and R=(page 4, line30)			
156	and FIT, SIT & p are as given in footnote K.			
157	23 $1 / (1 - T) =$ (from line 21)	1.6454		
158	24 Amortized Investment Tax Credit (266.6f) (enter negative)	0		
159				
160	25 Income Tax Calculation = line 22 * line 28	105,781,917	NA	10,011,588
161	26 ITC adjustment (line 23 * line 24)	0	NP	0
162	27 Total Income Taxes (line 25 plus line 26)	105,781,917		10,011,588
163				
164	28 RETURN	237,809,440	NA	22,507,156
165	[ Rate Base (page 2, line 30) * Rate of Return (page 4, line 30)]			
166				
167	29 REV. REQUIREMENT (sum lines 8, 12, 20, 27, 28)	737,344,898		71,405,167

exclud this amount included in Account 255 on row 97

Line No.	Description	Amount	TP	TE	Allocation	W&S Allocator	CE	Weighted	Notes
168	Midwest ISO								
169	FERC Electric Tariff, revised Volume No. 1								
172	Formula Rate - Non-Levelized								
173	Rate Formula Template								
174	Utilizing FERC Form 1 Data								
175	THE CINCINNATI GAS & ELECTRIC COMPANY d/b/a DUKE ENERGY OHIO								
176	SUPPORTING CALCULATIONS AND NOTES								
178	Line								
179	No.								
181	1 Total transmission plant (page 2, line 2, column 3)	494,999,090							Year End Bulk/Common Split
182	2 Less transmission plant excluded from ISO rates (Note M)	0							
183	3 Less transmission plant included in OATT Ancillary Services (Note N)	25,996,740							
184	4 Transmission plant included in ISO rates (line 1 less lines 2 & 3)	469,102,350							
185	5 Percentage of transmission plant included in ISO Rates (line 4 divided by line 1)	TP= 0.94768							
187	TRANSMISSION EXPENSES								
188									
189	6 Total transmission expenses (page 3, line 1, column 3)	29,921,183							
190	7 Less transmission expenses included in OATT Ancillary Services (Note L) (page 321, line 84, column (b))	4,248,307							
191	8 Included transmission expenses (line 6 less line 7)	25,672,876							
192									
193	9 Percentage of transmission expenses after adjustment (line 8 divided by line 6)	0.85902							
194	10 Percentage of transmission plant included in ISO Rates (line 5)	TP 0.94768							
195	11 Percentage of transmission expenses included in ISO Rates (line 9 times line 10)	TE= 0.81313							
196									
197	WAGES & SALARY ALLOCATOR (W&S)								
198	Form 1 Reference								
199									
200	12 Production	354.18.b	54,781,559	0.00	0				
201	13 Transmission	354.19.b	5,507,247	0.95	5,219,126				
202	14 Distribution	354.20.b	20,442,215	0.00	0	W&S Allocator			
203	15 Other	354.21,22,23.b	15,214,833	0.00	0	(\$ / Allocation)			
204	16 Total (sum lines 12-15)		95,945,854		5,219,126	= 0.05440 = WS			
205									
206	COMMON PLANT ALLOCATOR (CE) (Note O)								
207									
208	17 Electric	200.3.c	5,135,171,031		(line 17 / line 20)	W&S Allocator (line 16)	CE		
209	18 Gas	201.3.d	0		1.00000	0.05440	= 0.05440		
210	19 Water	201.3.e	0						
211	20 Total (sum lines 17 - 19)		5,135,171,031						
212									
213	RETURN (R)								
214	21 Long Term Interest (117, sum of 62.c through 67.c)							\$ 99,571,889	
215	22 Preferred Dividends (118.29.c) (positive number)							\$ 845,657	
216									
217	Development of Common Stock:								
218	23 Proprietary Capital (112.16.c)							1,995,916,704	
219	24 Less Preferred Stock (line 28)							-20,484,900	
220	25 Less Account 216.1 (112.12.c) (enter negative)							-198,744,917	
221	26 Common Stock (sum lines 23-25)							1,776,686,887	
222									
223									
224									
225	27 Long Term Debt (112, sum of 18.c through 21.c)		1,647,520,663	48%	0.0604			0.0289 =WCLTD	
226	28 Preferred Stock (112.3.c)		20,484,900	1%	0.0413			0.0002	
227	29 Common Stock (line 26)		1,776,686,887	52%	0.1238			0.0639	
228	30 Total (sum lines 27-29)		3,444,692,450					0.0930 =R	
229									
230									
231	REVENUE CREDITS								
232									
233	ACCOUNT 447 (SALES FOR RESALE) (310-311) (Note Q)							Load	
234	31 a. Bundled Non-RQ Sales for Resale (311.x.h)							0	
235	32 b. Bundled Sales for Resale included in Divisor on page 1							0	
236	33 Total of (a)-(b)							0	
237									
238	34 ACCOUNT 454 (RENT FROM ELECTRIC PROPERTY) (Note R)							\$ 98,822	Line 34 supported by notes in Form 1 or detailed Schedule
239									
240	ACCOUNT 456 (OTHER ELECTRIC REVENUES) (Note U) (330.x.n)								
241	35 a. Transmission charges for all transmission transactions							\$ 32,478,000	Line 35 supported by notes in Form 1 or detailed Schedule
242	36 b. Transmission charges for all transmission transactions included in Divisor on Page 1							20,229,000	Line 36 supported by notes in Form 1 or detailed Schedule
243	37 Total of (a)-(b)							\$ 12,249,000	

Schedule 1 Recoverable Expenses	
\$ 4,248,307	Acct 561 included in Line 77
344,735	Acct 561.BA for Schedule 24
3,903,572	Acct 561 available for Schedule 1
519,084	Revenue Credits for Sched 1/Acct 561
-	transactions <1 yr
-	non-firm
-	transactions w/ load not in divisor
519,084	total Revenue Credits
\$ 3,384,488	Net Schedule 1 Expenses (Acct 561 minus Credits)



Line No.	Description	Total	Allocator	Allocated Amount	Notes
1	GROSS REVENUE REQUIREMENT (page 3, line 29)			\$ 4,511,058	
2	Account No. 454 (page 4, line 34)	33,547	TP 1.00000	33,547	
3	Account No. 458 (page 4, line 37)	183,000	TP 1.00000	183,000	
4	Revenues from Grandfathered Interzonal Transactions	0	TP 1.00000	0	Line 4 supported by schedules.
5	Revenues from service provided by the ISO at a discount	0	TP 1.00000	0	Line 5 supported by schedules.
6	TOTAL REVENUE CREDITS (sum lines 2-5)			216,547	
7	NET REVENUE REQUIREMENT (line 1 minus line 6)			\$ 4,294,511	
8	Average of 12 coincident system peaks for requirements (RQ) service		(Note A)	696,000	Line 8 supported with monthly CP and associated net energy.
9	Plus 12 CP of firm bundled sales over one year not in line 8		(Note B)	0	
10	Plus 12 CP of Network Load not in line 8		(Note C)	0	
11	Less 12 CP of firm P-T-P over one year (enter negative)		(Note D)	0	
12	Plus Contract Demand of firm P-T-P over one year			0	
13	Less Contract Demand from Grandfathered Interzonal Transactions over one year (enter negative) (Note S)			0	
14	Less Contract Demands from service over one year provided by ISO at a discount (enter negative)			0	
15	Divisor (sum lines 8-14)			696,000	
16	Annual Cost (\$/kW/Yr) (line 7 / line 15)	6.170			
17	Network & P-to-P Rate (\$/kW/Mo) (line 16 / 12)	0.514			
18	Point-To-Point Rate (\$/kW/Wk) (line 16 / 52; line 18 / 52)	0.119		\$0.119	
19	Point-To-Point Rate (\$/kW/Day) (line 18 / 5; line 18 / 7)	0.024	Capped at weekly rate	\$0.017	
20	Point-To-Point Rate (\$/MWh) (line 19 / 16; line 19 / 24 times 1,000)	1.483	Capped at weekly and daily rates	\$0.706	
21	FERC Annual Charge(\$/MWh) (Note E)	\$0.000	Short Term	\$0.000	Short Term
22		\$0.000	Long Term	\$0.000	Long Term

KyPSC Case No. 2006-00172  
 Attachment WDW-2b  
 Page 16 of 24

Line No.	Rate Base	Form No. 1 Page, Line, Col.	Company Total (3)	Allocater (4)	Transmission (Col 3 times Col 4) (5)
54	Midwest ISO				
55	FERC Electric Tariff				
56					
57					
58					
59					
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62					
63					
64					
65					
66					
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100					
101					
102					
103					
104					
105					
106					
107					

Line No.	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)
O&M				
1	Transmission 321.100.b	18,584,116	TE 0.94348	17,533,380
2	Less Account 565 321.88.b	16,253,226		16,253,226
3	A&G 323.168.b	11,328,697	W/S 0.05999	679,443
4	Less FERC Annual Fees	-14,751	W/S 0.05999	-885
5	Less EPRI & Reg. Comm. Exp. & Non-safety Ad. (Note I)	423,586	W/S 0.05999	25,409
5a	Plus Transmission Related Reg. Comm. Exp. (Note I)	0	TE 0.84348	0
6	Common 358.1	0	CE 0.05999	0
7	Transmission Lease Payments	0	1.00000	0
8	TOTAL O&M (sum lines 1, 3, 5a, 6, 7 less lines 2, 4, 5)	13,248,752		1,935,072
DEPRECIATION EXPENSE				
9	Transmission 336.7.b	668,124	TP 1.00000	668,124
10	General 336.9.b	6,154	W/S 0.05999	369
11	Common 336.10.b	135,802	CE 0.05999	8,134
12	TOTAL DEPRECIATION (Sum lines 9 - 11)	807,880		674,627
TAXES OTHER THAN INCOME TAXES (Note J)				
LABOR RELATED				
13	Payroll 263.i	567,011	W/S 0.05999	34,013
14	Highway and vehicle 263.i	12,074	W/S 0.05999	724
PLANT RELATED				
16	Property 263.i	1,787,663	GP 0.07114	127,172
17	Gross Receipts 263.i	0	NA zero	0
18	Other 263.i	0	GP 0.07114	0
19	Payments in lieu of taxes	6,879	GP 0.07114	489
20	TOTAL OTHER TAXES (sum lines 13 - 19)	2,373,627		182,399
INCOME TAXES (Note K)				
21	$T = 1 - \frac{((1 - SIT) * (1 - FIT))}{(1 - SIT * FIT * p)}$	39.55%		
22	$CIT = (T / (1 - T)) * (1 - (WCLTD/R))$ where WCLTD=(page 4, line 27) and R=(page 4, line30) and FIT, SIT & p are as given in footnote K	51.73%		
23	$1 / (1 - T) =$ (from line 21)	1.6543		
24	Amortized Investment Tax Credit (266.8f) (enter negative)	0		
25	Income Tax Calculation = line 22 * line 28	9,059,995	NA	592,865
26	ITC adjustment (line 23 * line 24)	0	NP 0.06434	0
27	Total Income Taxes (line 25 plus line 26)	9,059,995		592,865
28	RETURN [ Rate Base (page 2, line 30) * Rate of Return (page 4, line 30)]	17,514,281	NA	1,146,094
29	REV. REQUIREMENT (sum lines 8, 12, 20, 27, 28)	43,004,535		4,511,058

exclude this amount included in Account 255 on row 97

Midwest ISO  
FERC Electric Tariff, revised Volume No. 1  
Rate Formula Template  
Utilizing FERC Form 1 Data  
For the 12 months ended 12/31/05

THE UNION LIGHT HEAT AND POWER COMPANY d/b/a DUKE ENERGY KENTUCKY  
SUPPORTING CALCULATIONS AND NOTES

Line No.	Description	Amount	TP	TE
178	Line			
179	No.			
180	TRANSMISSION PLANT INCLUDED IN ISO RATES			
181	1 Total transmission plant (page 2, line 2, column 3)	21,298,976		
182	2 Less transmission plant excluded from ISO rates (Note M)	0		
183	3 Less transmission plant included in OATT Ancillary Services (Note N)	0		
184	4 Transmission plant included in ISO rates (line 1 less lines 2 & 3)	21,298,976		
185	5 Percentage of transmission plant included in ISO Rates (line 4 divided by line 1)	TP= 1.00000		
187	TRANSMISSION EXPENSES			
189	6 Total transmission expenses (page 3, line 1, column 3)	18,584,116		
191	7 Less transmission expenses included in OATT Ancillary Services (Note L) (page 321, line 84, column (b))	1,050,736		
192	8 Included transmission expenses (line 6 less line 7)	17,533,380		
194	9 Percentage of transmission expenses after adjustment (line 8 divided by line 6)	0.94346		
195	10 Percentage of transmission plant included in ISO Rates (line 5)	TP 1.00000		
196	11 Percentage of transmission expenses included in ISO Rates (line 9 times line 10)	TE= 0.94346		
198	WAGES & SALARY ALLOCATOR (W&S)			
199	Form 1 Reference	\$	TP	Allocation
200	12 Production	354.18.b	9,854	0.00
201	13 Transmission	354.19.b	369,583	1.00
202	14 Distribution	354.20.b	2,830,583	0.00
203	15 Other	354.21,22,23.b	2,951,138	0.00
204	16 Total (sum lines 12-15)	6,161,158	389,583	= 0.05999 = WS
206	COMMON PLANT ALLOCATOR (CE) (Note O)			
207		\$	% Electric	W&S Allocator
208	17 Electric	200.3.c	278,153,947	(line 17 / line 20)
209	18 Gas	201.3.d	0	1.00000
210	19 Water	201.3.e	0	0.05999 = CE
211	20 Total (sum lines 17 - 19)	278,153,947		
213	RETURN (R)			
214	21 Long Term Interest (117, sum of 62.c through 67.c)	\$6,439,843		
215	22 Preferred Dividends (118.29c) (positive number)	0		
218	Development of Common Stock:			
219	23 Proprietary Capital (112.16.c)	196,458,896		
220	24 Less Preferred Stock (line 28)	0		
221	25 Less Account 216.1 (112.12.c) (enter negative)	0		
222	26 Common Stock (sum lines 23-25)	196,458,896		
224		\$	%	Cost (Note P)
225	27 Long Term Debt (112, sum of 18.c through 21.c)	95,000,000	33%	0.0678
226	28 Preferred Stock (112.3.c)	0	0%	0.0000
227	29 Common Stock (line 26)	196,458,896	67%	0.1238
228	30 Total (sum lines 27-29)	291,458,896		0.1055 =R
231	REVENUE CREDITS			
232				Load
233	ACCOUNT 447 (SALES FOR RESALE) (310-311) (Note Q)			
234	31 a. Bundled Non-RQ Sales for Resale (311.x.h)	0		
235	32 b. Bundled Sales for Resale included in Divisor on page 1	0		
236	33 Total of (a)-(b)	0		
237	34 ACCOUNT 454 (RENT FROM ELECTRIC PROPERTY) (Note R)	\$ 33,547		Line 34 supported by notes in Form 1 or detailed Schedule
238	35 ACCOUNT 456 (OTHER ELECTRIC REVENUES) (Note U) (330.x.n)	\$ 183,000		Line 35 supported by notes in Form 1 or detailed Schedule
239	36 a. Transmission charges for all transmission transactions	0		Line 36 supported by notes in Form 1 or detailed Schedule
240	37 b. Transmission charges for all transmission transactions included in Divisor on Page 1	\$ 183,000		
241	38 Total of (a)-(b)	\$ 183,000		
242	39			
243	40			
244	41			

Schedule 1 Recoverable Expenses	
\$ 1,050,736	Acct 561 included in Line 77
49,037	Acct 561.BA for Schedule 24
1,001,699	Acct 561 available for Schedule 1
	Revenue Credits for Sched 1/Acct 561
	- transactions <1 yr
	- non-firm
	- transactions w/ load not in divisor
	- total Revenue Credits
\$ 1,001,699	Net Schedule 1 Expenses (Acct 561 minus Credits)





KypSC Case No. 2006-00172  
Attachment WDW-2b  
Page 21 of 24

	A	B	C	D	E
1					
2		Cinergy			
3				Support for Second Revised Sheet No. 387	
4		1108 Regulatory Assets & Liabilities			Attachment D
5		Accounts 190, 282 & 283			
6					
7	Company	Account 190	Account 282	Account 283	
8					
9	PSI				
10	Account 190050	(11,856,881)			
11	Account 190053	15,880,726			
12	Account 190150	621,654			
13					
14	Account 282050		(10,617,687)		
15	Account 282150		11,108,824		
16					
17	Account 283230				
18					
19					
20	CG&E (1)				
21	Account 190050	(30,570,350)			
22	Account 190053	12,358,010			
23	Account 190150	21,869,110			
24					
25	Account 282050		(46,334,823)		
26	Account 282150		32,196,783		
27					
28	Account 283230				
29					
30					
31	(1) 74.11% of total account balance has been allocated to electric service per the Tax department and FERC Form 1.				
32					
33					
34					
35	ULH&P (2)				
36					
37	Account 190050	(1,836,423)			
38	Account 190053	1,569,473			
39	Account 190150	11,100			
40					
41	Account 282050		833,219		
42	Account 282150		5,383,908		
43					
44	Account 283230				
45					
46	(2) 61.87% of total account balance has been allocated to electric service per the Tax department and FERC Form 1.				



**KYPSC Case 2006-00172**  
**Attachment WDW-2b**  
**Page 23 of 24**

	A	B	C	D	E	F	G
	Support for Second Revised Sheet No. 368 Attachment C						
1							
2							
3							
4							
5	Duke Energy Indiana		\$ 108,274				
6	Schedule 1 CPMT		384,716				
7	Schedule 1 Non-CPMT		502,590				
8							
9							
10	Duke Energy Ohio		\$ 59,532				
11	Schedule 1 CPMT		419,552				
12	Schedule 1 Non-CPMT		519,084				
13							
14							
15							
16							
17							
18	Balancing Authority Costs	Account	561,BA				
19							
20	PSI		\$ 428,246				
21	CG&E		344,735				
22	U&MF		48,037				
23	Total		\$ 820,017				

KyPSC Case . . . . 2006-00172  
Attachment WDW-2b  
Page 24 of 24

	A	B	C	D	E
	Support for Second Revised Sheet No. 370 Attachment O				
1					
2					
3	State Tax Composite				
4		Indiana	Ohio	Kentucky	
5		Duke Energy Indiana	Duke Energy Ohio	Duke Energy Kentucky	TOTAL
6		\$ 98,474,294.02	\$ 71,405,187.29	\$ 4,511,057.78	\$ 172,390,519.09
7	revenue requirement	8.20%	6.50%	7.00%	
8	tax rate				
9		\$ 7,910,892.11	\$ 4,641,335.87	\$ 315,774.04	\$ 12,868,002.02
10	state taxes				7.48%
11	composite tax rate				
12					

A B C D E F G H I J K L M N O P Q R S T U

Midwest ISO  
 FERC Electric Tariff, Third Revised Volume No. 1  
 Rate Formula Template  
 Utilizing FERC Form 1 Data

Second Revised Sheet No. 386  
 Attachment C  
 page 1 of 5

For the 12 months ended 12/31/05

THE UNION LIGHT HEAT AND POWER COMPANY d/b/a DUKE ENERGY KENTUCKY

Line No.	Description	Total	Allocator	Allocated Amount	Notes
1	GROSS REVENUE REQUIREMENT (page 3, line 29)			\$ 4,404,503	
2	REVENUE CREDITS (Note T)				
3	Account No. 454 (page 4, line 34)	33,547	TP	33,547	Line 4 supported by schedules.
4	Account No. 456 (page 4, line 37)	183,000	TP	183,000	Line 5 supported by schedules.
5	Revenues from Grandfathered Interzonal Transactions	0	TP	0	
6	Revenues from service provided by the ISO at a discount	0	TP	0	
7	TOTAL REVENUE CREDITS (sum lines 2-5)	216,547		216,547	
8	NET REVENUE REQUIREMENT (line 1 minus line 6)			\$ 4,187,956	Revised revenue requirement for DEK at Dr. Morin's recommended ROE.
9	DIVISOR			696,000	Line 8 supported with monthly CP and associated net energy.
10	Average of 12 coincident system peaks for requirements (RC) service		(Note A)	0	
11	Plus 12 CP of firm bundled sales over one year not in line 8		(Note B)	0	
12	Plus 12 CP of Network Load not in line 8		(Note C)	0	
13	Less 12 CP of firm P-T-P over one year (enter negative)		(Note D)	0	
14	Plus Contract Demand of firm P-T-P over one year		(Note S)	0	
15	Less Contract Demand from Grandfathered Interzonal Transactions over one year (enter negative)		(Note S)	0	
16	Less Contract Demands from service over one year provided by ISO at a discount (enter negative)		(Note S)	0	
17	Divisor (sum lines 9-14)			696,000	
18	Annual Cost (\$/KW/Yr) (line 7 / line 15)	6.017			
19	Network & P-to-P Rate (\$/KW/Mo) (line 16 / line 17)	0.501			
20	Point-To-Point Rate (\$/KW/Mo)				
21	Point-To-Point Rate (\$/KW/Day) (line 18 / 5; line 19 / 7)	0.116		\$0.116	Off-Peak Rate
22	Point-To-Point Rate (\$/MWh) (line 19 / 16; line 19 / 24 times 1,000)	1.446	Capped at weekly and daily rates	\$0.017	
23	FERC Annual Charge (\$/MWh) (Note E)	\$0.000	Short Term	\$0.000	Short Term
24		\$0.000	Long Term	\$0.000	Long Term

Second Revised Sheet No. 367  
 Attachment O  
 page 2 of 5

Line No.	(1)	(2)	(3)	(4)	(5)
Line No.	Formula Rate - Non-Levelized	Rate Formula Template Utilizing FERC Form 1 Data	Company Total	Allocator	Transmission (Col 3 times Col 4)
54	Midwest ISO				
55	FERC Electric Tariff, Third Revised Volume No. 1				
56					
57					
58	Formula Rate - Non-Levelized				
59	Rate Formula Template Utilizing FERC Form 1 Data				
60	For the 12 months ended 12/31/05				
61	THE UNION LIGHT HEAT AND POWER COMPANY d/b/a DUKE ENERGY KENTUCKY				
62	(1)	(2)	(3)	(4)	(5)
63		Form No. 1	Company Total	Allocator	Transmission
64		Page, Line, Col.			(Col 3 times Col 4)
65	<b>RATE BASE:</b>				
66	GROSS PLANT IN SERVICE				
67	1	Production 207.46.g	0	NA	
68	2	Transmission 207.58.g	21,298,976	TP 1.00000	21,298,976
69	3	Distribution 207.75.g	274,915,534	NA	
70	4	General & Intangible 205.5.g & 207.90.g	2,813,075	W/S 0.05999	168,745
71	5	Common 358.1	17,505,422	CE 0.05999	1,050,080
72	6	TOTAL GROSS PLANT (sum lines 1-5)	316,533,007	GP= 7.114%	22,517,801
73	ACCUMULATED DEPRECIATION				
74	7	Production 219.20-24.c	0	NA	
75	8	Transmission 219.25.c	9,553,345	TP 1.00000	9,553,345
76	9	Distribution 219.26.c	105,017,589	NA	
77	10	General & Intangible 219.27.c	35,688	W/S 0.05999	2,141
78	11	Common 358.1	6,784,704	CE 0.05999	406,987
79	12	TOTAL ACCUM. DEPRECIATION (sum lines 7-11)	121,391,326		9,962,473
80	NET PLANT IN SERVICE				
81	13	Production (line 1 - line 7)	0		
82	14	Transmission (line 2 - line 8)	11,745,631		11,745,631
83	15	Distribution (line 3 - line 9)	169,897,945		
84	16	General & Intangible (line 4 - line 10)	2,777,387		166,804
85	17	Common (line 5 - line 11)	10,720,718		643,093
86	18	TOTAL NET PLANT (sum lines 13-17)	195,141,681	NP= 6.434%	12,555,328
87	ADJUSTMENTS TO RATE BASE (Note F)				
88	19	Account No. 281 (enter negative) 273.8.k	0	NA zero	0
89	20	Account No. 282 (enter negative) 275.2.k	-35,841,441	NP 0.06434	-2,306,022
90	21	Account No. 283 (enter negative) 277.9.k	-671,758	NP 0.06434	-43,221
91	22	Account No. 190 234.8.c	2,078,312	NP 0.06434	133,718
92	23	Account No. 255 (enter negative) 267.8.h	-936,620	NP 0.06434	-60,262
93	24	TOTAL ADJUSTMENTS (sum lines 19-23)	-35,371,507		-2,275,787
94	25	LAND HELD FOR FUTURE USE 214.x.d (Note G)	0	TP 1.00000	0
95	WORKING CAPITAL (Note H)				
96	26	CWC calculated	1,656,094		241,884
97	27	Materials & Supplies (Note G) 227.8.c & .15.c	18,546	TE 0.94346	17,497
98	28	Prepayments (Account 165) 111.57.c	4,499,648	GP 0.07114	320,100
99	29	TOTAL WORKING CAPITAL (sum lines 26 - 28)	6,174,288		579,481
100	30	RATE BASE (sum lines 18, 24, 25, & 29)	165,944,482		10,859,022

A B C D E F G H I J K L M N O P Q R S T U

Second Revised Sheet No. 368  
 Attachment O  
 page 3 of 5

For the 12 months ended 12/31/05

Rate Formula Template  
 Utilizing FERC Form 1 Data

Formula Rate - Non-Levelized

THE UNION LIGHT, HEAT AND POWER COMPANY d/b/a DUKE ENERGY KENTUCKY

Line No.	Form No. 1 Page, Line, Col.	(1)	(2)	(3)	(4)	(5)
Line No.		Company Total	Allocator	Transmission (Col 3 times Col 4)		
108						
109						
110	Midwest ISO					
111	FERC Electric Tariff, Third Revised Volume No. 1					
112						
113						
114						
115						
116						
117						
118						
119						
120						
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exclud this amount included in Account 255 on row 97







Duke Energy Kentucky  
Adjustment to Capitalization to Reflect AMR in Revenue Requirements

	<u>Total \$</u>	<u>Ratio</u>	
1 Rate Base Before Adjustment for AMI			
2 Electric	\$591,137,227	74.439%	Schedule WPA-1d, line 34, 38
3 Gas	202,983,847	25.561%	Schedule WPA-1d, line 34, 38
4 Total Rate Base Before Adjustment for AMI	<u>\$794,121,074</u>	<u>100.000%</u>	
5 Capitalization Before Adjustment for AMI			
6 Allocated to Electric	\$550,186,484	74.439%	Schedule WPA-1c, line 9
7 Allocated to Gas	188,924,041	25.561%	Line 8 - Line 6
8 Total Capitalization Before Adjustment for AMI	<u>\$739,110,525</u>	<u>100.000%</u>	Schedule WPA-1c, line 7
9 Additional Rate Base from AMI Project			
10 Electric	\$6,084,103	58.902%	Per JLS-2 (2007 Rate Base)
11 Gas	4,245,025	41.098%	Per JLS-2 (2007 Rate Base)
12 Total Additional Rate Base from AMI Project	<u>\$10,329,128</u>	<u>100.000%</u>	
13 Total Rate Base Including AMI Project			
14 Electric	\$597,221,330	74.240%	Line 2 + Line 10
15 Gas	207,228,872	25.760%	Line 3 + Line 11
16 Total Rate Base Including AMI Project	<u>\$804,450,202</u>	<u>100.000%</u>	
17 Capitalization Including AMI Project			
18 Allocated to Electric	\$556,381,669	74.240%	Line 14 * Line 20
19 Allocated to Gas	193,057,983	25.760%	Line 15 * Line 20
20 Total Capitalization Including AMI	<u>\$749,439,653</u>	<u>100.000%</u>	Line 8 + Line 12
21 Increase in Capitalization Allocated to Electric	<u>\$6,195,185</u>		Line 18 - Line 6

Duke Energy Kentucky  
1697-A Monmouth Street  
Newport, KY 41071

KY. P.S.C. Electric No. 1  
First Revised Sheet No. 80  
Cancels and Supersedes  
Original Sheet No. 80  
Page 1 of 2

**RIDER FAC  
FUEL ADJUSTMENT CLAUSE**

(C)

**APPLICABLE**

In all territory service.

**AVAILABILITY OF SERVICE**

This schedule is a mandatory rider to all electric rate schedules.

- (1) The monthly amount computed under each of the rate schedules to which this fuel clause is applicable shall be increased or (decreased) at a rate per kilowatt-hour of monthly consumption in accordance with the following formula:

$$\text{Fuel Cost Adjustment} = \frac{F(m)}{S(m)} - \$0.021619 \text{ per kWh}$$

Where F is the expense of fuel in the second preceding month and S is the sales in the second preceding month, as defined below:

- (2) Fuel costs (F) shall be the cost of:
- (a) Fossil fuel consumed in the Company's plants plus the cost of fuel which would have been used in plants suffering forced generation or transmission outages, but less the cost of fuel related to substitute generation, plus
  - (b) The actual identifiable fossil and nuclear fuel costs associated with energy purchased for reasons other than identified in paragraph (c) of this subsection, but excluding the cost of fuel related to purchases to substitute for the forced outages; plus
  - (c) The net energy cost of energy purchases, exclusive of capacity or demand charges (irrespective of the designation assigned to such transaction) when such energy is purchased on an economic dispatch basis. Included therein are such costs as the charges for economy energy purchases and the charges as a result of scheduled outage, all such kinds of energy being purchased by the Company to substitute for its own higher cost energy, and less
  - (d) The cost of fossil fuel recovered through inter-system sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis.
  - (e) All fuel costs shall be based on a weighted-average inventory costing. The cost of fossil fuel shall include no items other than the invoice price of fuel less any cash or other discounts. The invoice price of fuel includes the cost of fuel itself and necessary charges for transportation of fuel from the point of acquisition to the unloading point, as listed in Account 151 of the FERC Uniform System of Accounts for Public Utilities and Licensees.

Issued by authority of an Order of the Kentucky Public Service Commission dated  
2006-00172.

in Case No.

Issued;

Effective:

Issued by Sandra P. Meyer, President

Duke Energy Kentucky  
1697-A Monmouth Street  
Newport, KY 41071

KY. P.S.C. Electric No. 1  
First Revised Sheet No. 80  
Cancels and Supersedes  
Original Sheet No. 80  
Page 2 of 2

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**AVAILABILITY OF SERVICE (Contd.)**

- (f) As used herein, the term "forced outages" means all non-scheduled losses of generation or transmission which require substitute power for a continuous period in excess of six (6) hours. Where forced outages are not as a result of faulty equipment, faulty manufacture, faulty design, faulty installations, faulty operation, or faulty maintenance, but are Acts of God, riot, insurrection, or acts of the public enemy, then the Company may, upon proper showing, with the approval of the Commission, include the fuel cost of substitute energy in the adjustment.
- (3) Sales (S) shall be determined in kilowatt-hours as follows:

**Add:**

- (a) net generation
- (b) purchases
- (c) interchange in

**Subtract:**

- (d) inter-system sales including economy energy and other energy sold on an economic dispatch basis.
- (e) total system losses

Issued by authority of an Order of the Kentucky Public Service Commission dated  
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Issued by Sandra P. Meyer, President

Duke Energy Kentucky  
1697-A Monmouth Street  
Newport, Kentucky 41071

KY.P.S.C. Electric No. 1  
Original Sheet No. 83  
Page 1 of 1

**RIDER TCRM  
TRANSMISSION COST RECOVERY MECHANISM**

(N)

**APPLICABILITY**

Applicable to all jurisdictional retail customers in the Company's electric service area.

Whenever the average cost of transmission charged to the Company by its Regional Transmission Organization is greater or less than the average cost of this transmission included per kilowatt-hour of sales in the base period, there shall be added to or subtracted from the net monthly bill to which this Rider is applicable, an amount determined by multiplying the number of kilowatt-hours consumed by the customer during the period for which the bill is rendered by a Rider TCRM adjustment.

1. The charge per kilowatt-hour delivered under the rate schedule to which this adjustment is applicable shall be increased or decreased during each year in accordance with the following formula:

$$\text{Adjustment Factor} = \frac{T(y)}{S(y)} - \frac{T(b)}{S(b)}$$

where:

- a. "T" is the transmission related Midwest ISO Costs billed to Duke Energy Kentucky.
  - b. "S" is the kilowatt-hour sales.
  - c. "y" is the current year.
  - d. "b" is the base year.
2. Eligible transmission costs (T) shall be the most recent actual annual cost of:
    - a. Retail share of charges billed to Duke Energy Kentucky for Schedules 10, 10-FERC, 16, 17, and 24 of the Midwest ISO's Transmission Energy Market Tariff.
    - b. Retail share of net charges billed to Duke Energy Kentucky for congestion and marginal losses as billed from the Midwest ISO under its Transmission Energy Market Tariff.
    - c. Retail share of all other charges billed to Duke Energy Kentucky for congestion and marginal losses as billed from the Midwest ISO under its Transmission Energy Market Tariff excluding Day-Ahead and Real-Time energy costs, Revenue Sufficiency Guarantee Make-whole Payments, Virtual transactions, and Disputed amounts.
    - d. Eligible transmission expenses, T(b), included in the base year are \$12,047,693.
    - e. Sales, S(b), for the base year, the twelve months ending December 31, 2007, are 4,006,495,000 kWh.

Issued by authority of an Order of the Kentucky Public Service Commission dated  
2006-00172.

in Case No.

Issued:

Effective:

Issued by Sandra P. Meyer, President



**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

IN THE MATTER OF THE ADJUSTMENT )  
OF ELECTRIC RATES OF THE UNION )  
LIGHT, HEAT AND POWER COMPANY ) CASE NO. 2006-00172  
D/B/A DUKE ENERGY KENTUCKY )

---

**DIRECT TESTIMONY OF**  
**PAUL G. SMITH**  
**ON BEHALF OF**  
**DUKE ENERGY KENTUCKY**

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**TABLE OF CONTENTS**

	<b><u>PAGE</u></b>
I. INTRODUCTION AND PURPOSE.....	-1-
II. REASONS FOR RATE INCREASE .....	-3-
III. COMPLIANCE WITH COMMISSION DIRECTIVES FROM 1991 RATE CASE.....	-6-
IV. REQUESTED RATEMAKING TREATMENTS RELATED TO CASE NO. 2003-00252.....	-8-
V. RATEMAKING-RELATED MERGER COMMITMENTS IN CASE NO. 2005-00228.....	-11-
VI. FILING REQUIREMENTS SPONSORED BY WITNESS.....	-13-
VII. CONCLUSION .....	-14-

**I. INTRODUCTION AND PURPOSE**

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Paul G. Smith and my business address is 139 East Fourth Street,  
3 Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by the Duke Energy Corporation ("Duke Energy") affiliated  
6 companies as Vice President, Rates.

7 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL  
8 QUALIFICATIONS.**

9 A. I received a Bachelor of Science in Industrial Management Degree from Purdue  
10 University and a Master of Business Administration Degree, with Honors, from  
11 the University of Chicago Graduate School of Business. I am a Certified Public  
12 Accountant ("CPA") in the State of Ohio and a member of the American Institute  
13 of Certified Public Accountants. I am also a member of the Edison Electric  
14 Institute's Economic Regulation and Competition Committee, and Budgeting and  
15 Financial Forecasting Committee.

16 **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.**

17 A. Upon graduation from Purdue University in 1982, I was employed by the CPA  
18 firm of Touche, Ross & Co. as a member of the audit staff in their Chicago office.  
19 From 1984 to 1987 I was employed by the CPA firm of Crowe, Chizek & Co. as a  
20 member of the commercial audit and tax staff in their Indianapolis office. Since  
21 1987 I have held various positions with PSI Energy, Inc., Cinergy Services, Inc.,  
22 and Duke Energy Shared Services including responsibilities in the Rates and

1 Regulation, Budgets and Forecasts, Investor Relations, and Corporate  
2 Development departments as well as the International Business Unit. From  
3 March 1998 to July 1999, I was assigned to and worked full-time at Midlands  
4 Electricity, the regional electric company in the United Kingdom of which  
5 Cinergy previously held a 50% equity ownership. From March 2005 to March  
6 2006, I was assigned to evaluating and analyzing the strategic merger between  
7 Cinergy Corp. and Duke Energy, including serving as Project Manager for the  
8 merger integration process. I was appointed to my current position as Vice  
9 President, Rates in April 2006.

10 **Q. PLEASE DESCRIBE YOUR DUTIES AS VICE PRESIDENT, RATES.**

11 A. As Vice President, Rates, I am responsible for the regulatory accounting and  
12 filings, cost of service and rate design for The Union Light, Heat and Power  
13 Company d/b/a Duke Energy Kentucky ("Duke Energy Kentucky") and The  
14 Cincinnati Gas & Electric Company d/b/a Duke Energy Ohio ("Duke Energy  
15 Ohio").

16 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

17 A. Yes, I testified in Duke Energy Kentucky's 2001 gas rate case, Case No. 2001-  
18 00092.

19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
20 **PROCEEDING?**

21 A. I discuss the reasons for Duke Energy Kentucky's requested rate increase. I also  
22 address certain matters raised by the Commission in the Company's last general  
23 electric rate case, Case No. 91-370. I list the ratemaking treatment the Company

1 seeks in the present case, related to the Commission's December 5, 2003 Order in  
2 Case No. 2003-00252 ("the Plant Transfer Order"), involving the transfer from  
3 Duke Energy Ohio to Duke Energy Kentucky of the East Bend Generating Station  
4 ("East Bend"), the Miami Fort Generating Station Unit 6 ("Miami Fort 6") and  
5 the Woodsdale Generating Station ("Woodsdale") (collectively, "the Plants"). I  
6 discuss how Duke Energy Kentucky's requested rate relief is consistent with the  
7 Company's commitments in Case No. 2005-00228 ("the Merger Order"),  
8 involving the merger of Duke Energy and Cinergy. Finally, I sponsor Filing  
9 Requirement ("FR") 10(1)(b)(1) and FR 10(2) in this proceeding, and I support  
10 the reasonableness of the Company's base rate increase request and request for  
11 certain ratemaking treatments related to the Plant transfer case.

## II. REASONS FOR RATE INCREASE

12 **Q. WHEN WERE DUKE ENERGY KENTUCKY'S PRESENT ELECTRIC**  
13 **RATES APPROVED BY THIS COMMISSION?**

14 A. Duke Energy Kentucky's current electric base rates were approved by this  
15 Commission pursuant to its Order dated May 5, 1992, and its subsequent orders  
16 issued, in Case No. 91-370. The test period in that proceeding was the actual  
17 twelve months ended July 31, 1991.

18 In Case No. 2001-00058, the Commission approved a settlement that froze  
19 the wholesale power purchase component of Duke Energy Kentucky's retail rates  
20 through the end of 2006. The Commission re-affirmed this requirement in the  
21 Plant Transfer Order (Case No. 2003-00252).

1 Q. WHAT ARE THE PRIMARY REASONS FOR DUKE ENERGY  
2 KENTUCKY'S REQUESTED RATE INCREASE IN THIS  
3 PROCEEDING?

4 A. Duke Energy Kentucky's primary reason for filing this proceeding is to comply  
5 with the Commission's directive in the Plant Transfer Order to file its next  
6 general electric rate case such that the effective date of the new rates, following  
7 the suspension period applicable to the test period selected by Duke Energy  
8 Kentucky, will be January 1, 2007. Duke Energy Kentucky has selected a  
9 forward-looking test period for this case. The suspension period for a forward-  
10 looking test period is six months. Duke Energy Kentucky is required to give 30  
11 days' notice before new rates go into effect. This 30 days' notice requirement and  
12 the six-month suspension period require that we file our application at this time.

13 Additionally, we require this relief because our present rates are based on  
14 our cost of operations in 1991 and our power supply costs have been frozen since  
15 2001. We have incurred significant cost increases and made significant  
16 investment in generation, transmission and distribution plant since that time.  
17 Duke Energy Kentucky's electric operation is projected to earn a 3.68% return on  
18 capitalization (3.47% on rate base) during the forecasted test period ending  
19 December 31, 2007. This return is well below the 9.80% return on rate base  
20 authorized by this Commission in Case 91-370, and is below the 8.761% return  
21 on capitalization proposed in this proceeding. In order to earn a fair return, Duke  
22 Energy Kentucky's retail rates must be increased by approximately \$66.6 million

1 (including fuel and emission allowances) to satisfy a total revenue requirement of  
2 approximately \$306.4 million.

3 **Q. WHAT ARE THE PRIMARY DRIVERS OF THE PROPOSED RATE**  
4 **INCREASE?**

5 A. A significant portion of Duke Energy Kentucky's revenue deficiency arises from  
6 the capital investment, operating costs, depreciation expense and taxes related to  
7 the Plants. Historically, Duke Energy Kentucky obtained all of its power supply  
8 through a full requirements wholesale power contract with its parent company,  
9 Duke Energy Ohio. In the Plant Transfer Order, the Commission approved Duke  
10 Energy Ohio's transfer of the Plants to Duke Energy Kentucky.

11 The transfer of the Plants occurred effective January 1, 2006. At closing,  
12 Duke Energy Kentucky recorded the Plants at their net book value, consistent  
13 with the Commission's December 5, 2003 Plant Transfer Order. The difference  
14 between the revenue requirement related to owning and operating the Plants  
15 versus the Company's previous wholesale power costs related to its wholesale  
16 power contract with Duke Energy Ohio is approximately \$34 million. Included in  
17 this difference are the costs of fuel and emission allowances, which have  
18 increased significantly over the past few years, as further discussed by Mr.  
19 Esamann.

20 Additionally, Duke Energy Kentucky has incurred normal inflationary  
21 cost increases since 1991 for transmission, distribution and administrative costs,  
22 and increased costs associated with membership in the Midwest ISO. Finally,  
23 Duke Energy Kentucky's electric transmission and distribution rate base is

1 projected to increase by over \$100 million as compared to the rate base used in  
2 the Company's 1991 case. Offsetting these increased costs are reduced financing  
3 costs and increased revenues attributable to retail load growth.

4 **Q. HAS DUKE ENERGY KENTUCKY TAKEN ANY ACTIONS TO**  
5 **MITIGATE THIS RATE INCREASE?**

6 A. Yes. Duke Energy Kentucky has been very proactive in controlling operation and  
7 maintenance expenses and has successfully controlled its costs through a variety  
8 of initiatives, including the 2006 merger of Duke Energy and Cinergy, the 2004  
9 CIN-10 cost reduction initiative, the 2000 early retirement program, and the 1994  
10 merger that formed Cinergy.

11 The Company has also aggressively managed its financing costs, reducing  
12 its cost of long-term debt from 9.375% at July 31, 1991 to 6.845% at December  
13 31, 2005, and projected to be 6.090% for the 13-month average forecasted period,  
14 as supported by Ms. Good.

### III. COMPLIANCE WITH COMMISSION DIRECTIVES FROM 1991 RATE CASE

15 **Q. ARE YOU FAMILIAR WITH THE COMMISSION'S DIRECTIVES**  
16 **FROM THE COMPANY'S 1991 RATE CASE?**

17 A. Yes.

18 **Q. WHAT DIRECTIVES DID THE COMMISSION ISSUE IN THE**  
19 **COMPANY'S 1991 RATE CASE?**

20 A. The Commission issued three directives relating to labor costs. The Commission  
21 directed the Company to: (1) review its process for determining the labor cost of  
22 service for rate proceedings; (2) modify its overtime labor allocation procedures;

1 and (3) to perform a labor study. These three directives do not apply to this  
2 proceeding because the Company has proposed a forecasted test period. The  
3 Commission also issued directives relating to the cost of service study and rate  
4 design, which I discuss below.

5 **Q. ARE YOU FAMILIAR WITH THE COMMISSION'S DIRECTIVE FROM**  
6 **THE 1991 RATE CASE RELATING TO THE COST OF SERVICE**  
7 **STUDY?**

8 A. Yes. In the 1991 rate case, the Commission criticized the Company's cost of  
9 service study methodology. The Commission recommended that, in future rate  
10 cases, the Company should separate out distribution plant into primary and  
11 secondary components for its cost-of-service study. The Commission also stated  
12 that the Company should file multiple cost-of-service studies that use, among  
13 other things, demand allocation methods from each of the peak demand, energy  
14 weighting, and time-differentiated families of production plant allocation  
15 methodologies. In its June 11, 1992 Order on Rehearing, the Commission stated  
16 that the Company should study the issue of whether it is feasible to separate  
17 distribution plant into primary and secondary components for its cost-of-service  
18 study. The Commission stated that, if this is not feasible, then the Company  
19 should explain in testimony the reasons why it could not do so.

20 **Q. HAS THE COMPANY COMPLIED WITH THIS COMMISSION**  
21 **DIRECTIVE?**



1 A. Yes. Mr. Ochsner supports Duke Energy Kentucky's cost of service study, and  
2 his testimony addresses the various steps he took to comply with this Commission  
3 directive.

4 **Q. ARE YOU FAMILIAR WITH THE COMMISSION'S DIRECTIVE FROM**  
5 **THE 1991 RATE CASE RELATING TO RATE DESIGN?**

6 A. Yes. The Commission directed the Company to address residential rate design in  
7 its next case. The Commission suggested that the Company should obtain end-  
8 use customer data to determine whether 1,000 kWh is still the appropriate break  
9 point for the declining block rate structure. The Commission also stated that it  
10 would take a moderate approach to implementing an inverted summer rate by  
11 increasing the second rate block by approximately one-and-one-half times the  
12 increase to the first block.

13 **Q. HAS THE COMPANY COMPLIED WITH THIS COMMISSION**  
14 **DIRECTIVE?**

15 A. Yes. Mr. Bailey supports Duke Energy Kentucky's rate design, and his testimony  
16 addresses the issue of the appropriate break point between the two summer rates  
17 for residential customers, including whether there should be a break point, in  
18 compliance with this Commission directive.

**IV. REQUESTED RATEMAKING TREATMENTS**  
**RELATED TO CASE NO. 2003-00252**

19 **Q. ARE YOU FAMILIAR WITH THE COMMISSION'S DECEMBER 5, 2003**  
20 **ORDER IN CASE NO. 2003-00252?**

21 A. Yes.

1 Q. DOES DUKE ENERGY KENTUCKY SEEK ANY RATEMAKING  
2 TREATMENT IN THE PRESENT CASE RELATING TO THE  
3 COMMISSION'S DECEMBER 5, 2003 PLANT TRANSFER ORDER?

4 A. Yes, Duke Energy Kentucky requests several ratemaking treatments related to the  
5 Plant Transfer Order, as follows:

6 • in Finding No. 7 of the Commission's December 5, 2003 Plant Transfer  
7 Order, the Commission stated that it could see no reason why the Plants  
8 should not be valued at original cost less accumulated depreciation in  
9 future ratemaking proceedings. The Company requests such treatment in  
10 this case, as supported by Mr. Jacobs;

11 • in Finding No. 8 of the Plant Transfer Order, the Commission authorized  
12 the Company to create an accounting deferral for its actual transaction  
13 costs related to the transfer of the Plants, up to \$2.45 million. The  
14 Commission stated that it could see no reason why the Company, in its  
15 next general electric rate case, should not be permitted to recover such  
16 transaction costs, to be amortized over five years, without carrying  
17 charges. The Company requests such treatment in this case, and Mr.  
18 Wathen supports this request;

19 • in Finding No. 9 of the Plant Transfer Order, the Commission authorized  
20 the Company to record below-the-line the accumulated deferred  
21 investment tax credits and accumulated deferred income tax balances  
22 related to the Plants, and stated that it could see no reason why the  
23 Company should not be accorded such below-the-line treatment in future

1 rate proceedings. The Company requests below-the-line treatment for  
2 these balances, and Mr. Butler supports this request;

- 3 • in Finding No. 10 of the Plant Transfer Order, the Commission stated that  
4 it could see no reason why the Company should not be permitted to  
5 recover in base rates the monthly capacity charges in the Back-up Power  
6 Sale Agreement ("Back-up PSA). The Company requests an increase in  
7 these capacity charges, as explained in more detail in Mr. Turner's and  
8 Mr. Esamann's testimony. The Company requests approval to recover  
9 such increased capacity charges in base rates;

- 10 • in Finding No. 11 of the Order, the Commission approved recovery of the  
11 energy charges under the Back-up PSA in accordance with 807 KAR  
12 5:056. The Company requests that the Commission confirm in this  
13 proceeding that the Back-up PSA energy charges will be recovered in this  
14 manner, as supported by Mr. Wathen; and

- 15 • in Finding No. 13 of the Order, the Commission stated that the Company's  
16 proposed mechanism for sharing profits from off-system sales appeared  
17 reasonable, and the Commission stated that it could see no reason why  
18 such mechanism should not be approved in the present proceeding, as I  
19 support below.

20 **Q. WHY SHOULD THE COMMISSION APPROVE IN THIS PROCEEDING**  
21 **THE OFF-SYSTEM SALES SHARING MECHANISM PROPOSED BY**  
22 **THE COMPANY IN CASE NO. 2003-00252?**

1 A. Under traditional ratemaking treatment, the customers receive all of the benefits  
2 from off-system sales. In Case No. 2003-00252, the Companies requested  
3 approval of an off-system sales sharing mechanism to recognize the fact that the  
4 Plants were deregulated, such that Duke Energy Ohio formerly retained all profits  
5 related to serving non-provider of last resort customers. The Commission  
6 approved an off-system sharing mechanism calling for the customers to receive  
7 the first \$1 million in profits, and for 50/50 sharing of profits above \$1 million.  
8 This was an integral part of the transaction in Case No. 2003-00252, and the  
9 Company submits that such treatment is just and reasonable, just as the  
10 Commission preliminarily determined in its Plant Transfer Order.

V. RATEMAKING-RELATED MERGER  
COMMITMENTS IN CASE NO. 2005-00228

11 Q. ARE YOU FAMILIAR WITH THE MERGER COMMITMENTS  
12 RELATED TO FUTURE RATEMAKING PROCEEDINGS THAT THE  
13 COMPANY MADE, AND THE COMMISSION APPROVED, IN CASE NO.  
14 2005-00228 (“MERGER ORDER”)?

15 A. Yes.

16 Q. PLEASE EXPLAIN THESE COMMITMENTS, AND EXPLAIN HOW  
17 THE COMPANY HAS HONORED THESE COMMITMENTS.

18 A. I will list below each merger commitment related to future ratemaking  
19 proceedings, and discuss how the Company has complied with each one:

- 20 • the settlement agreement approved in the Merger Order provided for  
21 certain rate credits, to be terminated upon the effective date of new rates in  
22 the Company’s next base rate case, excluding any case resulting in new

1 rates prior to January 1, 2008. The proposed rates in this case would take  
2 effect on January 1, 2007, following the suspension period, so the merger  
3 credits should remain in effect. The Company has satisfied this merger  
4 commitment because it proposes the continuation of the Merger Savings  
5 Credit Rider (Rider MSR-E);

- 6 • the settlement agreement contains an Attachment 2 listing 46 separate  
7 merger commitments. Merger commitments #3 and #4 relate to push-  
8 down accounting. Merger commitment #3 states that the payment for  
9 Cinergy's stock shall be excluded from Duke Energy Kentucky's books  
10 for retail ratemaking purposes. Merger commitment #4 states that any  
11 such acquisition premium would be excluded from retail ratemaking. The  
12 Company subsequently determined that it would end its voluntary  
13 reporting to the U.S. Securities and Exchange Commission, such that it  
14 would not be subject to push-down accounting. Duke Energy Kentucky  
15 did not reflect any such payment on its books; therefore, its proposed rates  
16 do not reflect any such payment or acquisition premium;

- 17 • Merger commitment #5 states that the Company would exclude change in  
18 control payments for retail ratemaking purposes. No change in control  
19 payments were allocated to Duke Energy Kentucky; therefore, its  
20 proposed rates do not reflect any change in control payments;

- 21 • Merger commitment #14 recognizes the Commission's continuing  
22 jurisdiction, for retail ratemaking purposes, over Duke Energy Kentucky's

1 capital structure, financing, and cost of capital. The Company continues  
2 to recognize that the Commission has such jurisdiction;

- 3 • Merger commitment #15 states that the merger will have no adverse  
4 impact on the base rates or the operation of the fuel adjustment clause, gas  
5 supply clause, and demand side management clause of Duke Energy  
6 Kentucky. The Company's proposed rates reflect continued operation of  
7 the merger credit savings sharing mechanism. This mechanism reflects a  
8 greater level of merger savings than merger costs allocated to Duke  
9 Energy Kentucky, so the Company has met this merger commitment;
- 10 • Merger commitment #16 states that Duke Energy Kentucky will not seek a  
11 higher rate of return on equity than would have been sought if the merger  
12 had not occurred. As supported by Dr. Morin, the Company's proposed  
13 cost of equity is not higher than it would have been absent the merger, so  
14 the Company has satisfied this merger commitment; and
- 15 • Merger commitment #17 states that the accounting and ratemaking  
16 treatment of the Company's excess deferred income taxes shall not be  
17 affected by the merger. The Company was not required to apply push-  
18 down accounting; therefore, the merger had no impact on the Company's  
19 excess deferred income taxes. Accordingly, the Company has honored  
20 this merger commitment.

VI. **FILING REQUIREMENTS SPONSORED BY WITNESS.**

21 Q. PLEASE DESCRIBE FR 10(1)(b)(1).

1 A. FR 10(1)(b)(1) is Duke Energy Kentucky's statement of the reasons for the  
2 proposed increase.

3 **Q. PLEASE DESCRIBE FR 10(2).**

4 A. FR 10(2) is a statement certifying that the Company provided four weeks' notice  
5 of its rate application, as required by the Commission's rules.

#### **VII. CONCLUSION**

6 **Q. HAVE YOU REVIEWED DUKE ENERGY KENTUCKY'S FILING IN**  
7 **THIS PROCEEDING?**

8 A. Yes, I have. I reviewed the application and supporting schedules, and the  
9 testimony and attachments of all witnesses. I believe that the costs of service are  
10 properly allocated to customer classes, and the rate design is equitable.

11 **Q. DO YOU HAVE AN OPINION REGARDING WHETHER DUKE**  
12 **ENERGY KENTUCKY'S RATE REQUEST IS REASONABLE?**

13 A. Yes.

14 **Q. PLEASE STATE YOUR OPINION.**

15 A. Duke Energy Kentucky's rate request is fair and reasonable. The date certain in  
16 the Company's last rate case was July 31, 1991, and the forecasted test period in  
17 this case extends through December 31, 2007. Duke Energy Kentucky has made,  
18 and plans to continue to make, significant investments in its electric system, and  
19 now owns and operates the Plants transferred as a result of the Commission's  
20 Plant Transfer Order. As stated previously, a reasonable return of, and on, these  
21 significant capital investments, along with appropriate recovery for the other

1 increased costs I discussed earlier in my testimony, are the main drivers of this  
2 base rate case.

3 **Q. WERE FR 10(1)(B)(1) AND 10(2) PREPARED BY YOU OR UNDER YOUR**  
4 **SUPERVISION?**

5 A. Yes.

6 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

7 A. Yes.



VERIFICATION

State of Ohio            )  
                                  )        SS:  
County of Hamilton    )

The undersigned, Paul G. Smith, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his knowledge, information and belief.

  
\_\_\_\_\_  
Paul G. Smith, Affiant

Subscribed and sworn to before me by Paul G. Smith on this 24th day of May,  
2006.

  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:



**ANITA M. SCHAFER**  
Notary Public, State of Ohio  
My Commission Expires  
November 4, 2009