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Via Electronic Mail

September 28, 2009

Chief Clerk Office
Illinois Commerce Commission
527 E. Capital
Springfield, Illinois 62701

Re: ICC Docket Nos. 09-0306, 09-0307 and 09-0308

Dear Chief Clerk:

Attached please find the DIRECT TESTIMONY AND EXHIBITS OF KEVIN C. HIGGINS ON BEHALF OF THE KROGER CO. and its NOTICE OF FILING to be filed in the above-referenced docket. Please place this document of file.

By copy of this letter, all parties on the attached certificate of service have been served.

Very truly yours,



Michael L. Kurtz, Esq.
Kurt J. Boehm, Esq.

BOEHM, KURTZ & LOWRY

MLKkew
Enclosure

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing has been served electronic mail, (when available) or ordinary U.S. mail this 28th day of September, 2009 to the persons listed on the attached certificate of service.

A handwritten signature in black ink, appearing to read "K Boehm", written over a horizontal line.

Kurt J. Boehm, Esq.

**STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION**

CENTRAL ILLINOIS LIGHT COMPANY, d/b/a AmerenCILCO	:	Docket No. 09-0306
	:	
	:	
CENTRAL ILLINOIS PUBLIC SERVICE COMPANY d/b/a Ameren CIPS	:	Docket No. 09-0307
	:	
	:	
ILLINOIS POWER COMPANY d/b/a AmerenIP	:	Docket No. 09-0308
	:	
	:	
Proposed general increase in rates for delivery service. (Tariffs filed June 5, 2009)	:	

NOTICE OF FILING

TO ALL PARTIES ON THE SERVICE LIST:

Please take notice that on this 28th day of September, 2009 THE KROGER CO. has filed its DIRECT TESTIMONY AND EXHIBITS OF KEVIN C. HIGGINS with the Illinois Commerce Commission via eDocket. Copies have been served via electronic mail.

Respectfully submitted,



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**BEFORE
THE ILLINOIS COMMERCE COMMISSION**

Central Illinois Light Company d/b/a AmerenCILCO) Proposed general increase in electric delivery service rates)	Docket No. 09-0306
Central Illinois Public Service Company d/b/a AmerenCIPS) Proposed general increase in electric delivery service rates)	Docket No. 09-0307
Illinois Power Company d/b/a/ AmerenIP,) Proposed general increase in electric delivery service rates)	Docket No. 09-0308
Central Illinois Light Company d/b/a AmerenCILCO) Proposed general increase in gas delivery service rates)	Docket No. 09-0309
Central Illinois Public Service Company d/b/a AmerenCIPS) Proposed general increase in gas delivery service rates)	Docket No. 09-0310
Illinois Power Company d/b/a/ AmerenIP,) Proposed general increase in gas delivery service rates)	Docket No. 09-0311

Direct Testimony of Kevin C. Higgins

on behalf of

The Kroger Co.

September 28, 2009

1 **DIRECT TESTIMONY OF KEVIN C. HIGGINS**

2

3 **Introduction**

4 **Q. Please state your name and business address.**

5 A. Kevin C. Higgins, 215 South State Street, Suite 200, Salt Lake City, Utah,
6 84111.

7 **Q. By whom are you employed and in what capacity?**

8 A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies
9 is a private consulting firm specializing in economic and policy analysis
10 applicable to energy production, transportation, and consumption.

11 **Q. On whose behalf are you testifying in this proceeding?**

12 A. My testimony is being sponsored by the The Kroger Co. (“Kroger”).
13 Kroger is one of the largest retail grocers in the United States, and operates 39
14 facilities that are served by the Ameren Companies in Illinois. All together,
15 Kroger’s Illinois facilities purchase more than 80 million kWh annually from
16 AmerenCILCO, AmerenCIPS, and AmerenIP combined.

17 **Q. Please describe your professional experience and qualifications.**

18 A. My academic background is in economics, and I have completed all
19 coursework and field examinations toward a Ph.D. in Economics at the University
20 of Utah. In addition, I have served on the adjunct faculties of both the University
21 of Utah and Westminster College, where I taught undergraduate and graduate
22 courses in economics. I joined Energy Strategies in 1995, where I assist private

1 and public sector clients in the areas of energy-related economic and policy
2 analysis, including evaluation of electric and gas utility rate matters.

3 Prior to joining Energy Strategies, I held policy positions in state and local
4 government. From 1983 to 1990, I was economist, then assistant director, for the
5 Utah Energy Office, where I helped develop and implement state energy policy.
6 From 1991 to 1994, I was chief of staff to the chairman of the Salt Lake County
7 Commission, where I was responsible for development and implementation of a
8 broad spectrum of public policy at the local government level.

9 **Q. Have you ever testified before this Commission?**

10 A. Yes. I testified in the previous two delivery services rate cases for three
11 Ameren utilities, Docket Nos. 06-0070, 06-0071, and 06-0072 (“2006 Dockets”);
12 and Docket Nos. 07-0585, 07-0586, 07-0587, 07-0588, 07-0589, and 07-0590
13 (“2007 Dockets”). I have also filed testimony in the current Commonwealth
14 Edison rate design case, Docket No. 08-0532, as well as in Commonwealth
15 Edison’s most recent delivery service rate case, Docket No. 07-0566.

16 **Q. Have you testified previously before any other state utility regulatory
17 commissions?**

18 A. Yes. I have testified in over one hundred proceedings on the subjects of
19 utility rates and regulatory policy before state utility regulators in Alaska,
20 Arizona, Arkansas, Colorado, Georgia, Idaho, Indiana, Kansas, Kentucky,
21 Michigan, Minnesota, Missouri, Montana, Nevada, New Mexico, New York,
22 Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Utah, Virginia,
23 Washington, West Virginia, and Wyoming.

1 A more detailed description of my qualifications is contained in
2 Attachment A, appended to my direct testimony.

3

4 **Overview and Conclusions**

5 **Q. What is the purpose of your testimony in this proceeding?**

6 A. My testimony addresses Ameren's rate spread and rate design proposals
7 for the DS-3 (General Service) and DS-4 (Large General Service) rate classes. As
8 part of my testimony, I offer recommendations to the Commission on these issues
9 in support of a just and reasonable outcome.

10 **Q. What conclusions and recommendations do you offer based on your**
11 **analysis?**

12 A. Consistent with my recommendations in the previous two rate
13 proceedings, I conclude that it is appropriate for the Distribution Delivery Charge
14 for customers on the DS-3 and DS-4 rate schedules to be approximately
15 equalized, with only a minor difference that recognizes DS-4 reactive power
16 revenues as a credit against the DS-4 Distribution Delivery Charge. To reach this
17 objective, I recommend that the Commission initiate steps to move these rate
18 schedules closer together over time. Specifically, in the current proceeding, I
19 recommend that a first step be implemented by removing 50 percent of the
20 differential between the DS-3 and DS-4 Distribution Delivery Charges, with an
21 adjustment to recognize DS-4 reactive power revenues.

1 **Distribution Delivery Charges for DS-3 and DS-4**

2 **Q. By way of background, what customers are included in Ameren’s DS-3 and**
3 **DS-4 rate classes?**

4 A. The DS-3 rate class is comprised of non-residential customers that have
5 billing demands ranging from 150 KW up to 1000 kW. The DS-4 rate class is
6 comprised of all non-residential customers with billing demands of 1000 kW or
7 greater.

8 **Q. How are rates for Delivery Service for DS-3 and DS-4 customers structured?**

9 A. There are four basic categories of charges for DS-3 and DS-4 customers:
10 (1) Customer Charges; (2) Meter charges; (3) Distribution Delivery Charges; and
11 (4) Transformation Charges. In addition, DS-4 customers are subject to a Reactive
12 Demand Charge.

13 The first three categories of charges are differentiated by voltage, e.g.,
14 secondary, primary, high voltage, and transmission voltage.¹ At each voltage
15 level, the Customer Charge is uniform between DS-3 and DS-4. Likewise, the
16 proposed Transformation Charge is uniform between DS-3 and DS-4 in each
17 service territory.

18 The Distribution Delivery Charge is a demand charge levied on a per-kW
19 basis, with rates differentiated with respect to voltage level: primary, high voltage,
20 and transmission voltage. Unlike the Customer Charge and the Transformation
21 Charge, the Distribution Delivery Charge is not uniform between DS-3 and DS-4;
22 in fact, quite the opposite is true: the DS-3 Distribution Delivery Charges are

¹ There is no separate Distribution Delivery Charge for secondary voltage. Secondary voltage customers pay the primary Distribution Delivery Charge plus the Transformation Charge.

1 significantly greater than the DS-4 Distribution Delivery Charges. As I will
2 explain below, this situation is unreasonable and should be corrected.

3 **Q. Has the issue of the relationship between DS-3 and DS-4 rates been**
4 **addressed previously before the Commission?**

5 A. Yes. I addressed this issue in the two previous delivery rate proceedings,
6 i.e., the 2006 Dockets and the 2007 Dockets.

7 In the 2006 Dockets, I recommended that the Distribution Delivery
8 Charges for DS-3 and DS-4 should be equalized for customers taking service at
9 the same voltage within a given service territory, except for a minor difference
10 that recognizes DS-4 reactive power revenues as an offset to the DS-4
11 Distribution Delivery Charge.²

12 I presented a similar recommendation in the 2007 Dockets, but also
13 offered an alternative in which I recommended that the Commission initiate steps
14 to move the DS-3 and DS-4 rate schedules closer together over time, suggesting
15 that this could be implemented by removing 50 percent of the differential between
16 the rates as an initial step.

17 In support of my recommendations, I noted that demand-related costs for
18 DS-3 and DS-4 were already combined (on a voltage-differentiated basis) as part
19 of Ameren's rate design analysis prior to the separation of the DS-3 and DS-4
20 Distribution Delivery Charges. I also cited the direct testimony of Ameren witness
21 Leonard M. Jones in the 2006 Dockets, in which Mr. Jones recognized correctly
22 that "conceptually, providing a kW of service to customers at a given voltage

² Rebuttal testimony of Kevin C. Higgins, pp. 1-3. Docket Nos. 06-0070, 06-0071, and 06-0072.

1 level costs the same whether the customer requires 150 kW or 2,000 kW.”³ Mr.
2 Jones makes a similar observation in the current proceeding.⁴

3 My conclusions and recommendations tie back to a central question: if
4 providing a kW of service to customers at a given voltage level costs the same
5 whether the customer requires 150 kW or 2,000 kW, then why are these
6 customers being placed into different rate classes in the first instance? This
7 question is particularly acute when the disparity in rates is dramatic, as occurs in
8 the Ameren service territories. It is fair to ask how it can be reasonable to charge,
9 say, a 950-kW customer a 30% to 89% greater per-kW Distribution Delivery
10 Charge than a 1,100 kW-customer taking service at the same voltage, as Ameren
11 proposes.

12 In the prior proceedings, I have pointed out that the wide disparity
13 between the Distribution Delivery Charges for rates DS-3 and DS-4 creates
14 unreasonable rate transitions. Unfortunately, Ameren’s rate design proposal in the
15 current proceeding makes these transitions even more unreasonable, as I discuss
16 further below.

17 **Q. In the 2006 dockets, did the Commission address the issue of the relationship**
18 **between DS-3 and DS-4 rates in its Final Order?**

19 A. Yes. On page 175 of the Final Order, the Commission stated:

20 “...[T]he Commission sees some merit to the concerns raised by Kroger if indeed
21 the cost of serving DS-3 and DS-4 customers at the same voltage is essentially the
22 same. Absent any justification, artificial distinctions are generally to be avoided.
23 But more importantly, the Commission wonders if there is sufficient justification
24 for separate DS-3 and DS-4 classes at all. If separate DS-3 and DS-4 classes are
25 appropriate, perhaps the cut-off between the classes is not at the proper demand

³ Docket Nos. 06-0070, et al. Direct testimony of Leonard M. Jones, AmerenCILCO, p. 17.

⁴ Direct testimony of Leonard M. Jones, p. 39.

1 level. Such questions need not be answered at this time, however, since the
2 Commission lacks sufficient information upon which to make an informed
3 judgment. As with the need for subclasses within DS-3 (as discussed in Section
4 VI.B), the Commission will defer further consideration of these issues until
5 Ameren’s next delivery services rate filing. Ameren should address these
6 questions in its next delivery services rate case filing. Until then, Commission
7 declines to adopt the same distribution delivery charge for DS-3 and DS-4
8 customers.”
9

10 **Q. Did Ameren address the issue of whether there is sufficient justification for**
11 **separate DS-3 and DS-4 classes in its subsequent direct filing in the 2007**
12 **Dockets?**

13 A. No. There was no discussion of this issue in Ameren’s direct filing. In
14 response to my assertion that such an analysis was required by the Final Order in
15 the 2006 Dockets, Ameren maintained that such an analysis was not required until
16 the first distribution case filed in 2009 or later.

17 **Q. What did the Commission state with respect to this issue in its Final Order in**
18 **the 2007 Dockets?**

19 A. On pages 362-363 of the Final Order in the 2007 Dockets, the
20 Commission concurred with Ameren that such an analysis was not required until
21 the first distribution case filed in 2009 or later. The Commission also reaffirmed
22 that it “remains open to the possibility of restructuring rates DS-3 and DS-4 when
23 sufficient information is available to fully analyze the implications of any
24 restructuring.”

25 **Q. Has Ameren addressed the issue of whether there is sufficient justification**
26 **for separate DS-3 and DS-4 classes in this proceeding?**

1 A. Yes. Ameren provides a discussion of this issue in the direct testimony of
2 Leonard M. Jones, as well as in Ameren Exhibit 16.1E. In its analysis, Ameren
3 identifies two reasons for a demand charge differential between rates DS-3 and
4 DS-4. The first reason is attributable to the recognition of DS-4 reactive power
5 revenues as an offset to the DS-4 Distribution Delivery Charge. I am not
6 disputing this relatively small differential. I recognized it in my testimony in the
7 2006 and 2007 Dockets, and continue to recognize it in my rate design proposal in
8 this proceeding.⁵

9 The second reason pertains to the more consistent distribution of billing
10 demand during the course of the year displayed by DS-4 relative to DS-3. Ameren
11 asserts that this pattern of usage justifies a reduced unit demand charge for DS-4
12 relative to DS-3.

13 **Q. Do you agree with this second reason?**

14 A. Not necessarily. I agree that, mathematically, a customer whose billing
15 demand is relatively constant throughout the year will produce more revenue than
16 a customer with the identical annual peak demand, but who exhibits more variable
17 billing demands throughout the course of the year. However, it does not
18 necessarily follow that the demand charge for a class with more constant average
19 usage should be lower than that of a class with more variable usage: to the extent
20 that a class has more variable usage this fact is already captured in the billing
21 determinant used to calculate the demand charge. There is no need to make a

⁵ However, as the costs of correcting for reactive power do not appear to be exclusively allocated to DS-4, it may be reasonable to question why the reactive power revenues are retained in DS-4 rather than being credited to retail customers generally.

1 further adjustment to account for it (as Ameren does in its rate design Exhibit
2 16.11E). Moreover, a class with more variable usage (e.g., DS-3) is likely to have
3 greater demand diversity at the time the class non-coincident peak (“NCP”) is
4 measured, all other things being equal. As individual customers are billed for
5 demand based on their individual peaks (which may not occur at the time of the
6 class NCP), a class that exhibits variable demand patterns may very well warrant
7 a lower demand charge relative to a class that exhibits a more constant demand
8 pattern (but has less diversity at the time of the class NCP). Unless both diversity
9 factors are taken account of, i.e., diversity of billing demand throughout the year
10 and diversity of class demand at the time of class NCP, one cannot conclude that a
11 given group of customers warrants a lower demand charge relative to another
12 group based on considering one aspect of diversity in isolation. For these reasons,
13 the Company’s second rationale for a difference in DS-3 and DS-4 demand
14 charges is not persuasive.

15 **Q. Do you have any additional comments on Ameren’s discussion of this issue as**
16 **presented in Ameren Exhibit 16.1E?**

17 A. Yes. Although Ameren concludes on page 8 of Exhibit 16.1E that
18 “existing rate classes should be retained,” the Company’s analysis nevertheless
19 corroborates, at least in part, the assertions I have made in prior proceedings
20 concerning the relationship between DS-3 and DS-4. Significantly, on page 7,
21 Ameren states:
22 “The gap between DS-3 and DS-4 Distribution Delivery Charges for
23 AmerenCIPS and AmerenCILCO is wider than can be explained by the effects of
24 the Reactive Demand Charge and the difference in monthly demands compared to
25 annual demands. Rather, it is possible that part of the current gap is due to

1 imperfections inherent within past cost of service models. Thus, steps should be
2 taken in the next DS rate case to pull DS-3 and DS-4 Distribution Delivery
3 Charges closer together while at the same time keeping cognizant of the important
4 cost-based and bill impact considerations that are intrinsic to ratemaking.”

5
6 This statement is consistent with my arguments presented in the last two
7 rate proceedings that the significant difference between DS-3 and DS-4
8 Distribution Delivery Charges is not justified on the basis of cost and should be
9 eliminated or, at least, reduced.

10 **Q. According to the rate proposal put forward by Ameren in this proceeding,**
11 **would the DS-3 and DS-4 Distribution Delivery Charges move closer together**
12 **or further apart relative to the differentials in current rates?**

13 A. As proposed by Ameren, the DS-3 and DS-4 Distribution Delivery
14 Charges would move even further apart than they are today. As shown in Kroger
15 Exhibit 1.1, the rates move further apart for each utility and for each voltage level
16 of service, with the exception of transmission voltage service in the AmerenCIPS
17 and AmerenCILCO territories, which have only minimal DS-3 transmission
18 voltage revenues. Thus, the Company’s proposal is inconsistent with the stated
19 objective of moving DS-3 and DS-4 Distribution Delivery Charges closer
20 together.

21 **Q. What Distribution Delivery Charges has Ameren proposed for DS-3 and DS-**
22 **4?**

23 A. The Company’s proposed Distribution Delivery Charges appear in
24 Ameren Schedule 16.14E, attached to the direct testimony of Leonard M. Jones.
25 The proposed charges are summarized in Table KCH-1, below.

**Table KCH-1
Ameren Proposed Distribution Delivery Charges**

<u>Utility Distribution Company / Voltage</u>	<u>DS-3 Charge</u> (\$/kW)	<u>DS-4 Charge</u> (\$/kW)
AmerenIP		
Primary Service	7.278	5.597
High Voltage Service	2.403	1.771
+100 kV Service	0.162	0.139
AmerenCIPS		
Primary Service	4.706	3.041
High Voltage Service	2.054	1.375
+100 kV Service	0.098	0.077
Ameren CILCO		
Primary Service	5.711	3.016
High Voltage Service	1.643	0.954
+100 kV Service	0.049	0.033

As derived from the table above, the Company's proposed DS-3 Distribution Delivery Charge for Primary Service is 30% greater than the proposed DS-4 counterpart in the AmerenIP territory. In the AmerenCIPs territory this difference is 55%, and in the AmerenCILCO territory, this difference is an astounding 89%. This means that a Primary Service customer in the AmerenCILCO territory with a billing demand of 999 kW under DS-3 would pay a total Distribution Delivery demand bill that is nearly 90 percent greater than an otherwise identical customer with a billing demand of 1001 kW taking service under DS-4.

Q. According to Ameren Exhibit 16.0E, page 11, rate DS-4 would receive a larger percentage increase than DS-3 under the Company's proposal. So how is it possible for the rates to be moving further apart?

1 A. While this statement may appear paradoxical, it is nevertheless true: the
2 \$/kW increase in Distribution Delivery Charges for DS-3 exceeds that of DS-4 for
3 each utility for Secondary, Primary, and High Voltage Service. This is shown on
4 pages 1, 3, and 5 of Kroger Exhibit 1.1. The explanation of this seeming paradox
5 is that the largest percentage increases occur for the higher voltage customers (for
6 both DS-3 and DS-4). Because the composition of DS-4 customers is more
7 heavily weighted toward higher-voltage service than DS-3, and because the
8 current charges for DS-4 are so much lower than DS-4 at the outset, the resulting
9 overall percentage increase for DS-4 is greater than that of DS-3, for each utility,
10 even though DS-3 is slated to receive the greater absolute rate increase for each
11 Distribution Delivery Charge, with the exception of Transmission Voltage
12 Service. In this situation we can see that if one only compares the percentage rate
13 increases for DS-3 and DS-4 on a class basis, it masks the fact that DS-3
14 customers are actually proposed to receive the greater rate increase for Secondary,
15 Primary, and High Voltage Service.

16 **Q. Can you illustrate with a specific example?**

17 A. Yes. Consider the situation in the AmerenCIPS territory. As shown on
18 page 4 of Exhibit Kroger 1.1, the proposed overall rate increase for DS-3 is
19 12.43%, while for DS-4 it is 19.53% (excluding distribution tax). Yet the
20 comparison of Distribution Delivery Charges on page 3 shows that the proposed
21 increase for DS-3 is greater than DS-4 for each delivery voltage level, except
22 Transmission Voltage Service.⁶ Note, for instance, that the proposed increase for

⁶ The Transmission Voltage Distribution Delivery Charge recovers less than \$500 in annual revenue from DS-3 customers.

1 the DS-4-Primary Distribution Delivery Charge is only 5.59%. In contrast, the
2 proposed increase for the DS-3-Primary Distribution Delivery Charge is 14.47%.
3 Similarly, for High Voltage Service, the proposed Distribution Delivery Charge
4 increase for DS-3 exceeds that of DS-4.

5 **Q. In establishing distribution delivery rates, what is the most important cost**
6 **distinction among non-residential customers?**

7 A. The most important cost distinction is the voltage at which customers take
8 service. This is a far more important distinction than whether a customer is above
9 or below 1000 kW of demand, which is largely irrelevant insofar as per-kW
10 delivery costs are concerned.

11 **Q. Please explain your concerns regarding Ameren's rate transitions.**

12 A. When the applicability provisions for rate schedules are defined by
13 customer size, it is common for customers to transition from one rate schedule to
14 another as their usage changes. In such situations, it is important for rate
15 schedules to be designed such that the transition from one rate schedule to another
16 occurs in a rational framework. For the transition framework to be rational,
17 transitions should avoid creating perverse incentives, such as rewarding a
18 customer for consuming more distribution services by reducing the customer's
19 total distribution bill as a consequence of the customer increasing its distribution
20 demand. In addition, transitions should avoid large discrete rate impacts when
21 crossing from one rate schedule to another. Similarly, transitions should avoid
22 treating similarly-situated customers on either side of a transition in very different
23 ways, as a matter of fundamental equity.

1 In my opinion, Ameren’s current and proposed rate designs for DS-3 and
2 DS-4 fail to provide rational transitions. In some instances, the failure can
3 properly be characterized as extreme. Consider, for example, AmerenCILCO. As
4 I discussed above, the proposed DS-3 Distribution Delivery Charge for Primary
5 Service is 89% greater than its counterpart proposed for DS-4. This means that a
6 DS-3 primary voltage customer that places a 600 kW demand on the system
7 would pay a *higher* Distribution Delivery Charge *total bill* than an otherwise
8 identical DS-4 customer that places a 1000 kW demand on the system. This is a
9 completely unreasonable result. It makes absolutely no sense to charge more
10 money for distribution delivery service to a customer that places a 40 percent
11 smaller burden on the distribution system than another otherwise identical
12 customer.

13 Indeed, the “breakeven” point for in the AmerenCILCO territory is a mere
14 528 kW of billing demand: that is, a DS-3 customer with a billing demand of just
15 528 kW would pay the same Distribution Delivery Charge total bill as an
16 otherwise identical 1000 kW DS-4 customer. This calculation is shown in Kroger
17 Exhibit 1.2.

18 The breakeven points for AmerenCIPS and AmerenIP are 646 kW and
19 769 kW, respectively. In my opinion, each of the Ameren breakeven points is
20 unreasonable and is an indication of a rate design problem that requires fixing.

21 **Q. What is your recommended approach to addressing the relative treatment of**
22 **DS-3 and DS-4 rates in this proceeding?**

1 A. Ultimately, the Distribution Delivery Charges for DS-3 and DS-4 should
2 be converged for customers taking service at the same voltage within a given
3 service territory, except for a minor difference to recognize DS-4 reactive power
4 revenues as an offset to the DS-4 Distribution Delivery Charge. To reach this
5 objective, I recommend that the Commission initiate steps to move these rate
6 schedules closer together over time. Specifically, in the current proceeding, I
7 recommend that this first step be implemented by removing 50 percent of the
8 differential between the DS-3 and DS-4 Distribution Delivery Charges, with an
9 adjustment to recognize DS-4 reactive power revenues.

10 **Q. Do you have any additional evidence to offer in support of your position that**
11 **the DS-3 and DS-4 rates should be converged?**

12 A. Yes. My position is supported by the results of Ameren's cost-of-service
13 studies in this proceeding. Using the Companies' class rates-of-return results
14 presented in Ameren Exhibit 17.1E (Revised), I compare the rates of return being
15 provided by DS-3 and DS-4 customers in Table KCH-2, below. We can see that
16 Ameren is consistently earning greater returns from DS-3 customers relative to
17 DS-4. These results are not surprising in light of the significant disparity in the
18 Distribution Delivery Charges between the two customer classes.

Table KCH-2
Comparison of DS-3 and DS-4 Class Rates of Return
at current rates⁷

<u>Utility Distribution Company</u>	Rates of Return	
	<u>DS-3</u>	<u>DS-4</u>
AmerenIP	5.19%	-1.31%
AmerenCIPS	4.77%	-7.91%
Ameren CILCO	5.53%	-3.55%

Q. What DS-3 and DS-4 rates of return would result if Ameren’s rate proposal were adopted?

A. A comparison of DS-3 and DS-4 class rates of return under Ameren’s proposed rates is presented in Table KCH-3, below. Under the Company’s proposal, DS-3 would continue to earn a significantly greater return than DS-4.

Table KCH-3
Comparison of DS-3 and DS-4 Class Rates of Return
at Ameren proposed rates⁸

<u>Utility Distribution Company</u>	Rates of Return	
	<u>DS-3</u>	<u>DS-4</u>
AmerenIP	9.77%	6.33%
AmerenCIPS	9.47%	1.22%
Ameren CILCO	10.10%	3.91%

Q. What class rates of return would result if the DS-3 rates and DS-4 rates were converged, allowing for recognition of DS-4 reactive power revenues?

A. If the DS-3 and DS-4 rates were converged at Ameren’s proposed joint revenue requirement for the two classes, the class rates of return would be as shown in Table KCH-4, below. This calculation is presented in Kroger Exhibit 1.3.

⁷ Source: Ameren Exhibit 17.1E (Revised)

Table KCH-4
Comparison of DS-3 and DS-4 Class Rates of Return
 at DS-3/DS-4 converged rates, using Ameren proposed combined DS-3/DS-4 revenues⁹

<u>Utility Distribution Company</u>	<u>Rates of Return</u>	
	<u>DS-3</u>	<u>DS-4</u>
AmerenIP	8.94%	7.31%
AmerenCIPS	7.19%	3.59%
Ameren CILCO	7.15%	7.73%

In my opinion, these results demonstrate that the current differentials between DS-3 and DS-4 rates are not grounded in cost-of-service differences. Further, these results show that moving DS-3 and DS-4 rates in the direction of convergence better aligns rates with the costs of serving each class. Interestingly, the analysis shows that at converged rates, DS-4 continues to earn lower returns than DS-3 in the AmerenIP and AmerenCIPS territories; this suggests that if rate differentials between DS-3 and DS-4 are to be maintained, then, ironically, it is the DS-3 rates that should be the lower of the two, in these two service territories.

Q. Have you calculated the impact of adopting your proposal to remove 50 percent of the differential between the DS-3 and DS-4 Distribution Delivery Charges at this time?

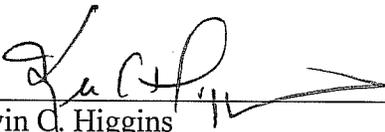
A. Yes. These results are presented in Kroger Exhibit 1.4, using the combined DS-3/DS-4 revenue requirement proposed by Ameren in this proceeding. To the extent that the final approved revenue requirement is reduced, then the results for both rate schedules should be adjusted downward while retaining the targeted rate differential.

⁸ Source: Kroger Exhibit 1.3.

⁹ Source: Kroger Exhibit 1.3.

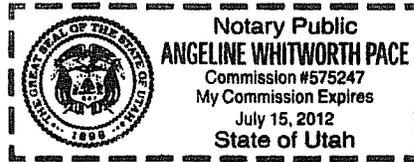
1 **Q. Does this conclude your direct testimony?**

2 A. Yes, it does.


Kevin C. Higgins

Subscribed and sworn to or affirmed before me this 25th day of September, 2009, by
Kevin C. Higgins.


Notary Public



KEVIN C. HIGGINS
Principal, Energy Strategies, L.L.C.
215 South State St., Suite 200, Salt Lake City, UT 84111

Vitae

PROFESSIONAL EXPERIENCE

Principal, Energy Strategies, L.L.C., Salt Lake City, Utah, January 2000 to present. Responsible for energy-related economic and policy analysis, regulatory intervention, and strategic negotiation on behalf of industrial, commercial, and public sector interests. Previously Senior Associate, February 1995 to December 1999.

Adjunct Instructor in Economics, Westminster College, Salt Lake City, Utah, September 1981 to May 1982; September 1987 to May 1995. Taught in the economics and M.B.A. programs. Awarded Adjunct Professor of the Year, Gore School of Business, 1990-91.

Chief of Staff to the Chairman, Salt Lake County Board of Commissioners, Salt Lake City, Utah, January 1991 to January 1995. Senior executive responsibility for all matters of county government, including formulation and execution of public policy, delivery of approximately 140 government services, budget adoption and fiscal management (over \$300 million), strategic planning, coordination with elected officials, and communication with consultants and media.

Assistant Director, Utah Energy Office, Utah Department of Natural Resources, Salt Lake City, Utah, August 1985 to January 1991. Directed the agency's resource development section, which provided energy policy analysis to the Governor, implemented state energy development policy, coordinated state energy data collection and dissemination, and managed energy technology demonstration programs. Position responsibilities included policy formulation and implementation, design and administration of energy technology demonstration programs, strategic management of the agency's interventions before the Utah Public Service Commission, budget preparation, and staff development. Supervised a staff of economists, engineers, and policy analysts, and served as lead economist on selected projects.

Utility Economist, Utah Energy Office, January 1985 to August 1985. Provided policy and economic analysis pertaining to energy conservation and resource development, with an emphasis on utility issues. Testified before the state Public Service Commission as an expert witness in cases related to the above.

Acting Assistant Director, Utah Energy Office, June 1984 to January 1985. Same responsibilities as Assistant Director identified above.

Research Economist, Utah Energy Office, October 1983 to June 1984. Provided economic analysis pertaining to renewable energy resource development and utility issues. Experience includes preparation of testimony, development of strategy, and appearance as an expert witness for the Energy Office before the Utah PSC.

Operations Research Assistant, Corporate Modeling and Operations Research Department, Utah Power and Light Company, Salt Lake City, Utah, May 1983 to September 1983. Primary area of responsibility: designing and conducting energy load forecasts.

Instructor in Economics, University of Utah, Salt Lake City, Utah, January 1982 to April 1983. Taught intermediate microeconomics, principles of macroeconomics, and economics as a social science.

Teacher, Vernon-Verona-Sherrill School District, Verona, New York, September 1976 to June 1978.

EDUCATION

Ph.D. Candidate, Economics, University of Utah (coursework and field exams completed, 1981).

Fields of Specialization: Public Finance, Urban and Regional Economics, Economic Development, International Economics, History of Economic Doctrines.

Bachelor of Science, Education, State University of New York at Plattsburgh, 1976 (cum laude).

Danish International Studies Program, University of Copenhagen, 1975.

SCHOLARSHIPS AND FELLOWSHIPS

University Research Fellow, University of Utah, Salt Lake City, Utah 1982 to 1983.

Research Fellow, Institute of Human Resources Management, University of Utah, 1980 to 1982.

Teaching Fellow, Economics Department, University of Utah, 1978 to 1980.

New York State Regents Scholar, 1972 to 1976.

EXPERT TESTIMONY

“In the Matter of the Complaint of Nucor Steel-Indiana, a Division of Nucor Corporation against Duke Energy Indiana, Inc. for Determination of Reasonable and Just Charges and Conditions for Electric Service and Request for Expedited Adjudication,” **Indiana** Utility Regulatory Commission, Cause No. 43754. Direct testimony submitted September 18, 2009.

“In the Matter of PacifiCorp’s Filing of Revised Tariff Schedules for Electric Service in Oregon,” Public Utility Commission of **Oregon**, Docket No. UE-210. Reply testimony submitted July 24, 2009.

“In The Matter of the Application of Rocky Mountain Power to Establish an Avoided Cost Methodology for Customers That Do Not Qualify for Tariff Schedule 37 – Avoided Cost Purchases from Qualifying Facilities,” **Wyoming** Public Service Commission, Docket No. 20000-342-EA-09. Direct testimony submitted July 21, 2004. Cross examined September 1, 2009.

“In the Matter of PacifiCorp, dba Pacific Power, 2010 Transition Adjustment Mechanism,” Public Utility Commission of **Oregon**, Docket No. UE-207. Reply testimony submitted July 14, 2009.

“In The Matter of the Application of The Detroit Edison Company for Authority to Increase Its Rates, Amend Its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy,” **Michigan** Public Service Commission, Case No. U-15768. Direct testimony submitted July 9, 2009. Rebuttal testimony submitted July 30, 2009.

“In the Matter of the Investigation of Westar Energy, Inc., and Kansas Gas and Electric Company to Consider the Issue of Rate Consolidation and Resulting Rate Design,” **Kansas** Corporation Commission,” Docket No. 09-WSEE-641-GIE. Direct testimony submitted June 26, 2009. Cross examined August 17, 2009.

“Illinois Commerce Commission on Its Own Motion vs Commonwealth Edison Company, Investigation of Rate Design Pursuant to Section 9-250 of the Public Utilities Act,” **Illinois** Commerce Commission, Docket No. 08-0532. Direct testimony submitted May 22, 2009.

“In the Matter of the Application of Duke Energy Kentucky, Inc. for Approval of Energy Efficiency Plan, Including an Energy Efficiency Rider and Portfolio of Energy Efficiency Programs,” **Kentucky** Public Service Commission, Case No. 2008-00495. Direct testimony submitted May 11, 2009.

“In the Matter of the Application by Nevada Power Company d/b/a NV Energy, filed Pursuant to NRS§704.110(3) and NRS §704.110(4) for Authority to Increase Its Annual Revenue

Requirement for General Rates Charged to All Classes of Customers, Begin to Recover the Costs of Acquiring the Bighorn Power Plant, Constructing the Clark Peak, Environmental Retrofits and Other Generating, Transmission and Distribution Plant Additions, to Reflect Changes in Cost of Service and for Relief Properly Related Thereto, Public Utilities Commission of **Nevada**, Docket No. 08-12002. Direct testimony submitted April 14, 2009 (revenue requirement) and April 21, 2009 (cost of service/rate design). Cross examined May 6, 2009.

“Verified Petition of Duke Energy Indiana, Inc. Requesting the Indiana Utility Regulatory Commission to Approve an Alternative Regulatory Plan Pursuant to the Ind. Code 8-1-2.5, *Et Seq.*, for the Implementation of an Electric Distribution System “SmartGrid” and Advanced Metering Infrastructure, Distribution Automation Investments, and a Distribution Renewable Generation Demonstration Project and Associated Accounting and Rate Recovery Mechanisms, Including a Ratemaking Proposal to Update Distribution Rates Annually and a “Lost Revenue” Recovery Mechanism, in Accordance with Ind. Code 8-1-2-42(a) and 8-1-2.5-1 *Et Seq.* and Preliminary Approval of the Estimated Costs and Scheduled Deployment of the Company’s SmartGrid Initiative,” **Indiana** Utility Regulatory Commission, Cause No. 43501. Direct testimony submitted February 27, 2009.

“In The Matter of the Application of Duke Energy Ohio for an Increase in Electric Distribution Rates,” Public Utilities Commission of **Ohio**, Case No. 08-709-EL-AIR; “In the Matter of the Application of Duke Energy Ohio for Tariff Approval,” Case No. 08-710-EL-ATA; “In the Matter of the Application of Duke Energy Ohio for Approval to Change Accounting Methods,” Case No. 08-711-EL-AAM. Direct testimony submitted February 26, 2009.

“In The Matter of the Amended Application of Rocky Mountain Power for Approval of a General Rate Increase of Approximately \$28.8 Million per Year (6.1 Percent Overall Average Increase)”, **Wyoming** Public Service Commission, Docket No. 20000-333-ER-08. Direct testimony submitted January 30, 2009. Summary of cross answer testimony submitted February 27, 2009. Settlement testimony submitted March 13, 2009. Cross examined March 24, 2009.

“In the Matter of the Application of Dayton Power and Light Company for Approval of Its Electric Security Plan,” Public Utilities Commission of **Ohio**, Case No. 08-1094-EL-SSO; “In the Matter of the Application of Dayton Power and Light Company for Approval of Revised Tariffs, Case No. 08-1095-EL-ATA; “In the Matter of the Application of Dayton Power and Light Company for Approval of Certain Accounting Authority Pursuant to Ohio Rev. Code §4905.13,” Case No. 08-1096-EL-AAM; In the Matter of the Application of Dayton Power and Light Company for Approval of Its Amended Corporate Separation Plan, Case No. 08-1097-EL-UNC. Direct testimony submitted January 26, 2009. Deposed February 6, 2009. Testimony withdrawn pursuant to stipulation filed February 24, 2009.

“Application of Oncor Electric Delivery Company LLC for Authority to Change Rates,” Public Utility Commission of **Texas**, SOAH Docket No. 473-08-3681, PUC Docket No. 35717. Direct testimony submitted November 26, 2008. Cross examined February 3, 2009.

“In the Matter of the Application of Columbus Southern Power Company for Approval of Its Electric Security Plan; An Amendment to Its Corporate Separation Plan; and the Sale of Certain Generating Assets”, Public Utilities Commission of **Ohio**, Case No. 08-917-EL-SSO; “In the Matter of the Application of Ohio Power Company for Approval of Its Electric Security Plan; and an Amendment to Its Corporate Separation Plan,” Case No. 08-918-EL-SSO. Direct testimony submitted October 31, 2008. Cross examined November 25, 2008.

“Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Base Rates,” **Kentucky** Public Service Commission, Case No. 2008-00252. Direct testimony submitted October 28, 2008.

“Application of Kentucky Utilities Company for an Adjustment of Base Rates,” **Kentucky** Public Service Commission, Case No. 2008-00251. Direct testimony submitted October 28, 2008.

“In the Matter of the Application of Idaho Power Company for Authority to Increase its Rates and Charges for Electric Service,” **Idaho** Public Utilities Commission, Case No. IPC-E-08-10. Direct testimony submitted October 24, 2008. Rebuttal testimony submitted December 3, 2008. Cross examined December 19, 2008.

“In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 08-035-38. Direct testimony submitted October 7, 2008 (test period) and February 12, 2009 (revenue requirement). Cross examined October 28, 2008 (test period).

“In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Establish a Standard Service Offer Pursuant to R.C. § 4928.143 in the Form of an Electric Security Plan,” Public Utility Commission of **Ohio**, Case No. 08-935-EL-SSO. Direct testimony submitted September 29, 2008. Deposed October 13, 2008. Cross examined October 21, 2008.

“In the Matter of the Application of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes In Their Charges for Electric Service,” State Corporation Commission of **Kansas**, Docket No. 08-WSEE-1041-RTS. Direct testimony submitted September 29, 2008. Cross Answer testimony submitted October 8, 2008.

“In the Matter of Appalachian Power Company’s Application for Increase in Electric Rates,” **Virginia** State Corporation Commission, Case No. PUE-2008-00046. Direct testimony submitted September 26, 2008.

“In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Approval of a Market Rate Offer to Conduct a

Competitive Bidding Process for Standard Service Offer Electric Generation Supply, Accounting Modifications with Reconciliation Mechanism and Tariffs for Generation Service,” Public Utility Commission of **Ohio**, Case No. 08-936-EL-SSO. Direct testimony submitted September 9, 2008. Deposed September 16, 2008.

“In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, to Approve Rate Schedules Designed to Develop Such Return,” **Arizona** Corporation Commission, Docket No. E-01345A-08-0172. Direct testimony submitted August 29, 2008 (interim rates), December 19, 2008 (revenue requirement), January 9, 2009 (cost of service, rate design), and July 1, 2009 (settlement agreement). Reply testimony submitted August 6, 2009 (settlement agreement). Cross examined September 16, 2008 (interim rates) and August 20, 2009 (settlement agreement).

“Verified Joint Petition of Duke Energy Indiana, Inc., Indianapolis Power & Light Company, Northern Indiana Public Service Company and Vectren Energy Delivery of Indiana, Inc. for Approval, if and to the Extent Required, of Certain Changes in Operations That Are Likely To Result from the Midwest Independent System Operator, Inc.’s Implementation of Revisions to Its Open Access Transmission and Energy Markets Tariff to Establish a Co-Optimized, Competitive Market for Energy and Ancillary Services Market; and for Timely Recovery of Costs Associated with Joint Petitioners’ Participation in Such Ancillary Services Market,” **Indiana** Utility Regulatory Commission, Cause No. 43426. Direct testimony submitted August 6, 2008. Direct testimony in opposition to Settlement Agreement submitted November 12, 2008. Testimony withdrawn pursuant to stipulation.

“In The Matter of the Application of The Detroit Edison Company for Authority to Increase Its Rates, Amend Its Rate Schedules and Rules Governing the Distribution and Supply of Electric Energy, and for Miscellaneous Accounting Authority,” **Michigan** Public Service Commission, Case No. U-15244. Direct testimony submitted July 15, 2008. Rebuttal testimony submitted August 8, 2008.

“Portland General Electric General Rate Case Filing,” Public Utility Commission of **Oregon**, Docket No. UE-197. Direct testimony submitted July 9, 2008. Surrebuttal testimony submitted September 15, 2008.

“In the Matter of PacifiCorp, dba Pacific Power, 2009 Transition Adjustment Mechanism, Schedule 200, Cost-Based Supply Service,” Public Utility Commission of **Oregon**, Docket No. UE-199. Reply testimony submitted June 23, 2008. Joint testimony in support of stipulation submitted September 4, 2008.

“2008 Puget Sound Energy General Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-072300 and UG-072301. Response testimony submitted May 30, 2008. Cross-Answer testimony submitted July 3, 2008. Joint testimony in support of partial stipulations submitted July 3, 2008 (gas rate spread/rate design), August 12, 2008 (electric rate

spread/rate design), and August 28, 2008 (revenue requirements). Cross examined September 3, 2008.

“Verified Petition of Duke Energy Indiana, Inc. Requesting the Indiana Utility Regulatory Commission to Approve an Alternative Regulatory Plan Pursuant to the Ind. Code 8-1-2.5, Et Seq., for the Offering of Energy Efficiency Conservation, Demand Response, and Demand-Side Management Programs and Associated Rate Treatment Including Incentives Pursuant to a Revised Standard Contract Rider No. 66 in Accordance with Ind. Code 8-1-2.5-1Et Seq. and 8-1-2-42(a); Authority to Defer Program Costs Associated with Its Energy Efficiency Portfolio of Programs; Authority to Implement New and Enhanced Energy Efficiency Programs in Its Energy Efficiency Portfolio of Programs; and Approval of a Modification of the Fuel Adjustment Clause Earnings and Expense Tests,” **Indiana** Utility Regulatory Commission, Cause No. 43374. Direct testimony submitted May 21, 2008. Testimony withdrawn pursuant to stipulation.

“Cinergy Corp., Duke Energy Ohio, Inc., Cinergy Power Investments, Inc., Generating Facilities LLCs,” **Federal Energy Regulatory Commission**, Docket No. EC-08-78-000. Affidavit filed May 14, 2008.

“Application of Entergy Gulf States, Inc. for Authority to Change Rates and to Reconcile Fuel Costs, Public Utility Commission of **Texas**, Docket No. 34800 [SOAH Docket No. 473-08-0334]. Direct testimony submitted April 11, 2008. Testimony withdrawn pursuant to stipulation.

“Central Illinois Light Company d/b/a AmerenCILCO Proposed General Increase in Electric Delivery Service Rates, Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Electric Delivery Service Rates, Illinois Power Company d/b/a/ AmerenIP Proposed General Increase in Electric Delivery Service Rates, Central Illinois Light Company d/b/a AmerenCILCO, Proposed General Increase in Gas Delivery Service Rates, Central Illinois Public Service Company d/b/a AmerenCIPS Proposed General Increase in Gas Delivery Service Rates, Illinois Power Company d/b/a/ AmerenIP Proposed General Increase in Gas Delivery Service Rates,” **Illinois** Commerce Commission, Docket Nos. 07-0585, 07-0586, 07-0587, 07-0588, 07-0589, 07-0590. Direct testimony submitted March 14, 2008. Rebuttal testimony submitted April 8, 2008.

“In the Matter of the Application of Public Service Company of Colorado for Authority to Implement an Enhanced Demand Side Management Cost Adjustment Mechanism to Include Current Recovery and Incentives,” **Colorado** Public Utilities Commission, Docket No. 07A-420E. Answer testimony submitted March 10, 2008. Cross examined April 25, 2008.

“An Investigation of the Energy and Regulatory Issues in Section 50 of Kentucky’s 2007 Energy Act,” **Kentucky** Public Service Commission, Administrative Case No. 2007-00477. Direct testimony submitted February 29, 2008. Supplemental direct testimony submitted April 1, 2008. Cross examined April 30, 2008.

In the Matter of the Application of Tucson Electric Power Company for the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of Its Operations throughout the State of Arizona, **Arizona** Corporation Commission, Docket No. E-01933A-07-0402. Direct testimony submitted February 29, 2008 (revenue requirement), March 14, 2008 (rate design), and June 12, 2008 (settlement agreement). Cross examined July 14, 2008.

“Commonwealth Edison Company Proposed General Increase in Electric Rates,” **Illinois** Commerce Commission, Docket No. 07-0566. Direct testimony submitted February 11, 2008. Rebuttal testimony submitted April 8, 2008.

“In the Matter of the Application of Questar Gas Company to File a General Rate Case,” **Utah** Public Service Commission, Docket No. 07-057-13. Direct testimony submitted January 28, 2008 (test period), March 31, 2008 (rate of return), April 21, 2008 (revenue requirement), and August 18, 2008 (cost of service, rate spread, rate design). Rebuttal testimony submitted September 22, 2008 (cost of service, rate spread, rate design). Surrebuttal testimony submitted May 12, 2008 (rate of return) and October 7, 2008 (cost of service, rate spread, rate design). Cross examined February 8, 2008 (test period), May 21, 2008 (rate of return), and October 15, 2008 (cost of service, rate spread, rate design).

“In the Matter of the Application of Rocky Mountain Power for Authority to Increase its Retail Electric Utility Service Rates in Utah and for Approval of its Proposed Electric Service Schedules and Electric Service Regulations, Consisting of a General Rate Increase of Approximately \$161.2 Million Per Year, and for Approval of a New Large Load Surcharge,” **Utah** Public Service Commission, Docket No. 07-035-93. Direct testimony submitted January 25, 2008 (test period), April 7, 2008 (revenue requirement), and July 21, 2008 (cost of service, rate design). Rebuttal testimony submitted September 3, 2008 (cost of service, rate design). Surrebuttal testimony submitted May 23, 2008 (revenue requirement) and September 24, 2008 (cost of service, rate design). Cross examined February 7, 2008 (test period).

“In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Increase Rates for Distribution Service, Modify Certain Accounting Practices and for Tariff Approvals,” Public Utilities Commission of **Ohio**, Case Nos. 07-551-EL-AIR, 07-552-EL-ATA, 07-553-EL-AAM, and 07-554-EL-UNC. Direct testimony submitted January 10, 2008.

“In the Matter of the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Wyoming, Consisting of a General Rate Increase of Approximately \$36.1 Million per Year, and for Approval of a New Renewable Resource Mechanism and Marginal Cost Pricing Tariff,” **Wyoming** Public Service Commission, Docket

No. 20000-277-ER-07. Direct testimony submitted January 7, 2008. Cross examined March 6, 2008.

“In the Matter of the Application of Idaho Power Company for Authority to Increase Its Rates and Charges for Electric Service to Electric Customers in the State of Idaho,” **Idaho** Public Utilities Commission, Case No. IPC-E-07-8. Direct testimony submitted December 10, 2007. Cross examined January 23, 2008.

“In The Matter of the Application of Consumers Energy Company for Authority to Increase Its Rates for the Generation and Distribution Of Electricity and Other Relief,” **Michigan** Public Service Commission, Case No. U-15245. Direct testimony submitted November 6, 2007. Rebuttal testimony submitted November 20, 2007.

“In the Matter of Montana-Dakota Utilities Co., Application for Authority to Establish Increased Rates for Electric Service,” **Montana** Public Service Commission, Docket No. D2007.7.79. Direct testimony submitted October 24, 2007.

“In the Matter of the Application of Public Service Company of New Mexico for Revision of its Retail Electric Rates Pursuant to Advice Notice No. 334,” **New Mexico** Public Regulation Commission, Case No. 07-0077-UT. Direct testimony submitted October 22, 2007. Rebuttal testimony submitted November 19, 2007. Cross examined December 12, 2007.

“In The Matter of Georgia Power Company’s 2007 Rate Case,” **Georgia** Public Service Commission, Docket No. 25060-U. Direct testimony submitted October 22, 2007. Cross examined November 7, 2007.

“In the Matter of the Application of Rocky Mountain Power for an Accounting Order to Defer the Costs Related to the MidAmerican Energy Holdings Company Transaction,” **Utah** Public Service Commission, Docket No. 07-035-04; “In the Matter of the Application of Rocky Mountain Power, a Division of PacifiCorp, for a Deferred Accounting Order To Defer the Costs of Loans Made to Grid West, the Regional Transmission Organization,” Docket No. 06-035-163; “In the Matter of the Application of Rocky Mountain Power for an Accounting Order for Costs related to the Flooding of the Powerdale Hydro Facility,” Docket No. 07-035-14. Direct testimony submitted September 10, 2007. Surrebuttal testimony submitted October 22, 2007. Cross examined October 30, 2007.

“In the Matter of General Adjustment of Electric Rates of East Kentucky Power Cooperative, Inc.,” **Kentucky** Public Service Commission, Case No. 2006-00472. Direct testimony submitted July 6, 2007. Supplemental direct testimony submitted March 14, 2008.

“In the Matter of the Application of Sempra Energy Solutions for a Certificate of Convenience and Necessity for Competitive Retail Electric Service,” **Arizona** Corporation Commission,

Docket No. E-03964A-06-0168. Direct testimony submitted July 3, 2007. Rebuttal testimony submitted January 17, 2008.

“Application of Public Service Company of Oklahoma for a Determination that Additional Electric Generating Capacity Will Be Used and Useful,” **Oklahoma** Corporation Commission, Cause No. PUD 200500516; “Application of Public Service Company of Oklahoma for a Determination that Additional Baseload Electric Generating Capacity Will Be Used and Useful,” Cause No. PUD 200600030; “In the Matter of the Application of Oklahoma Gas and Electric Company for an Order Granting Pre-Approval to Construct Red Rock Generating Facility and Authorizing a Recovery Rider,” Cause No. PUD200700012. Responsive testimony submitted May 21, 2007. Cross examined July 26, 2007.

“Application of Nevada Power Company for Authority to Increase Its Annual Revenue Requirement for General Rates Charged to All Classes of Electric Customers and for Relief Properly Related Thereto,” Public Utilities Commission of **Nevada**, Docket No. 06-11022. Direct testimony submitted March 14, 2007 (Phase III – revenue requirements) and March 19, 2007 (Phase IV – rate design). Cross examined April 10, 2007 (Phase III – revenue requirements) and April 16, 2007 (Phase IV – rate design).

“In the Matter of the Application of Entergy Arkansas, Inc. for Approval of Changes in Rates for Retail Electric Service,” **Arkansas** Public Service Commission, Docket No. 06-101-U. Direct testimony submitted February 5, 2007. Surrebuttal testimony submitted March 26, 2007.

“Monongahela Power Company and The Potomac Edison Company, both d/b/a Allegheny Power – Rule 42T Application to Increase Electric Rates and Charges,” Public Service Commission of **West Virginia**, Case No. 06-0960-E-42T; “Monongahela Power Company and The Potomac Edison Company, both d/b/a Allegheny Power – Information Required for Change of Depreciation Rates Pursuant to Rule 20,” Case No. 06-1426-E-D. Direct and rebuttal testimony submitted January 22, 2007.

“In the Matter of the Tariffs of Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-L&P Increasing Electric Rates for the Services Provided to Customers in the Aquila Networks-MPS and Aquila Networks-L&P Missouri Service Areas,” **Missouri** Public Service Commission, Case No. ER-2007-0004. Direct testimony submitted January 18, 2007 (revenue requirements) and January 25, 2007 (revenue apportionment). Supplemental direct testimony submitted February 27, 2007.

“In the Matter of the Filing by Tucson Electric Power Company to Amend Decision No. 62103, **Arizona** Corporation Commission, Docket No. E-01933A-05-0650. Direct testimony submitted January 8, 2007. Surrebuttal testimony filed February 8, 2007. Cross examined March 8, 2007.

“In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company’s Missouri Service

Area,” **Missouri** Public Service Commission, Case No. ER-2007-0002. Direct testimony submitted December 15, 2006 (revenue requirements) and December 29, 2006 (fuel adjustment clause/cost-of-service/rate design). Rebuttal testimony submitted February 5, 2007 (cost-of-service). Surrebuttal testimony submitted February 27, 2007. Cross examined March 21, 2007.

“In the Matter of Application of The Union Light, Heat and Power Company d/b/a Duke Energy Kentucky, Inc. for an Adjustment of Electric Rates,” **Kentucky** Public Service Commission, Case No. 2006-00172. Direct testimony submitted September 13, 2006.

“In the Matter of Appalachian Power Company’s Application for Increase in Electric Rates,” **Virginia** State Corporation Commission, Case No. PUE-2006-00065. Direct testimony submitted September 1, 2006. Cross examined December 7, 2006.

“In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, To Approve Rate Schedules Designed to Develop Such Return, and to Amend Decision No. 67744, **Arizona** Corporation Commission,” Docket No. E-01345A-05-0816. Direct testimony submitted August 18, 2006 (revenue requirements) and September 1, 2006 (cost-of-service/rate design). Surrebuttal testimony submitted September 27, 2006. Cross examined November 7, 2006.

“Re: The Tariff Sheets Filed by Public Service Company of Colorado with Advice Letter No 1454 – Electric,” **Colorado** Public Utilities Commission, Docket No. 06S-234EG. Answer testimony submitted August 18, 2006.

“Portland General Electric General Rate Case Filing,” Public Utility Commission of **Oregon**, Docket No. UE-180. Direct testimony submitted August 9, 2006. Joint testimony regarding stipulation submitted August 22, 2006.

“2006 Puget Sound Energy General Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-060266 and UG-060267. Response testimony submitted July 19, 2006. Joint testimony regarding stipulation submitted August 23, 2006.

“In the Matter of PacifiCorp, dba Pacific Power & Light Company, Request for a General Rate Increase in the Company’s Oregon Annual Revenues,” Public Utility Commission of **Oregon**, Docket No. UE-179. Direct testimony submitted July 12, 2006. Joint testimony regarding stipulation submitted August 21, 2006.

“Petition of Metropolitan Edison Company for Approval of a Rate Transition Plan,” **Pennsylvania** Public Utilities Commission, Docket Nos. P-00062213 and R-00061366; “Petition of Pennsylvania Electric Company for Approval of a Rate Transition Plan,” Docket Nos. P-00062214 and R-00061367; Merger Savings Remand Proceeding, Docket Nos. A-110300F0095 and A-110400F0040. Direct testimony submitted July 10, 2006. Rebuttal testimony submitted

August 8, 2006. Surrebuttal testimony submitted August 18, 2006. Cross examined August 30, 2006.

“In the Matter of the Application of PacifiCorp for approval of its Proposed Electric Rate Schedules & Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 06-035-21. Direct testimony submitted June 9, 2006 (Test Period). Surrebuttal testimony submitted July 14, 2006.

“Joint Application of Questar Gas Company, the Division of Public Utilities, and Utah Clean Energy for the Approval of the Conservation Enabling Tariff Adjustment Option and Accounting Orders,” **Utah** Public Service Commission, Docket No. 05-057-T01. Direct testimony submitted May 15, 2006. Rebuttal testimony submitted August 8, 2007. Cross examined September 19, 2007.

“Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Public Service Company d/b/a AmerenCIPS, Illinois Power Company d/b/a AmerenIP, Proposed General Increase in Rates for Delivery Service (Tariffs Filed December 27, 2005),” **Illinois** Commerce Commission, Docket Nos. 06-0070, 06-0071, 06-0072. Direct testimony submitted March 26, 2006. Rebuttal testimony submitted June 27, 2006.

“In the Matter of Appalachian Power Company and Wheeling Power Company, both dba American Electric Power,” Public Service Commission of **West Virginia**, Case No. 05-1278-E-PC-PW-42T. Direct and rebuttal testimony submitted March 8, 2006.

“In the Matter of Northern States Power Company d/b/a Xcel Energy for Authority to Increase Rates for Electric Service in Minnesota,” **Minnesota** Public Utilities Commission, Docket No. G-002/GR-05-1428. Direct testimony submitted March 2, 2006. Rebuttal testimony submitted March 30, 2006. Cross examined April 25, 2006.

“In the Matter of the Application of Arizona Public Service Company for an Emergency Interim Rate Increase and for an Interim Amendment to Decision No. 67744,” **Arizona** Corporation Commission, Docket No. E-01345A-06-0009. Direct testimony submitted February 28, 2006. Cross examined March 23, 2006.

“In the Matter of the Applications of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes in Their Charges for Electric Service,” State Corporation Commission of **Kansas**, Case No. 05-WSEE-981-RTS. Direct testimony submitted September 9, 2005. Cross examined October 28, 2005.

“In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Recover Costs Associated with the Construction and Ultimate Operation of an Integrated Combined Cycle Electric Generating Facility,” Public Utilities

Commission of **Ohio**,” Case No. 05-376-EL-UNC. Direct testimony submitted July 15, 2005. Cross examined August 12, 2005.

“In the Matter of the Filing of General Rate Case Information by Tucson Electric Power Company Pursuant to Decision No. 62103,” **Arizona** Corporation Commission, Docket No. E-01933A-04-0408. Direct testimony submitted June 24, 2005.

“In the Matter of Application of The Detroit Edison Company to Unbundle and Realign Its Rate Schedules for Jurisdictional Retail Sales of Electricity,” **Michigan** Public Service Commission, Case No. U-14399. Direct testimony submitted June 9, 2005. Rebuttal testimony submitted July 1, 2005.

“In the Matter of the Application of Consumers Energy Company for Authority to Increase Its Rates for the Generation and Distribution of Electricity and Other Relief,” **Michigan** Public Service Commission, Case No. U-14347. Direct testimony submitted June 3, 2005. Rebuttal testimony submitted June 17, 2005.

“In the Matter of Pacific Power & Light, Request for a General Rate Increase in the Company’s Oregon Annual Revenues,” Public Utility Commission of **Oregon**, Docket No. UE 170. Direct testimony submitted May 9, 2005. Surrebuttal testimony submitted June 27, 2005. Joint testimony regarding partial stipulations submitted June 2005, July 2005, and August 2005.

“In the Matter of the Application of Trico Electric Cooperative, Inc. for a Rate Increase,” **Arizona** Corporation Commission, Docket No. E-01461A-04-0607. Direct testimony submitted April 13, 2005. Surrebuttal testimony submitted May 16, 2005. Cross examined May 26, 2005.

“In the Matter of the Application of PacifiCorp for Approval of its Proposed Electric Service Schedules and Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 04-035-42. Direct testimony submitted January 7, 2005.

“In the Matter of the Application by Golden Valley Electric Association, Inc., for Authority to Implement Simplified Rate Filing Procedures and Adjust Rates,” Regulatory Commission of **Alaska**, Docket No. U-4-33. Direct testimony submitted November 5, 2004. Cross examined February 8, 2005.

“Advice Letter No. 1411 - Public Service Company of Colorado Electric Phase II General Rate Case,” **Colorado** Public Utilities Commission, Docket No. 04S-164E. Direct testimony submitted October 12, 2004. Cross-answer testimony submitted December 13, 2004. Testimony withdrawn January 18, 2005, following Applicant’s withdrawal of testimony pertaining to TOU rates.

“In the Matter of Georgia Power Company’s 2004 Rate Case,” **Georgia** Public Service Commission, Docket No. 18300-U. Direct testimony submitted October 8, 2004. Cross examined October 27, 2004.

“2004 Puget Sound Energy General Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-040641 and UG-040640. Response testimony submitted September 23, 2004. Cross-answer testimony submitted November 3, 2004. Joint testimony regarding stipulation submitted December 6, 2004.

“In the Matter of the Application of PacifiCorp for an Investigation of Interjurisdictional Issues,” **Utah** Public Service Commission, Docket No. 02-035-04. Direct testimony submitted July 15, 2004. Cross examined July 19, 2004.

“In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Kentucky Utilities Company,” **Kentucky** Public Service Commission, Case No. 2003-00434. Direct testimony submitted March 23, 2004. Testimony withdrawn pursuant to stipulation entered May 2004.

“In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Louisville Gas and Electric Company,” **Kentucky** Public Service Commission, Case No. 2003-00433. Direct testimony submitted March 23, 2004. Testimony withdrawn pursuant to stipulation entered May 2004.

“In the Matter of the Application of Idaho Power Company for Authority to Increase Its Interim and Base Rates and Charges for Electric Service,” **Idaho** Public Utilities Commission, Case No. IPC-E-03-13. Direct testimony submitted February 20, 2004. Rebuttal testimony submitted March 19, 2004. Cross examined April 1, 2004.

“In the Matter of the Applications of the Ohio Edison Company, the Cleveland Electric Illuminating Company and the Toledo Edison Company for Authority to Continue and Modify Certain Regulatory Accounting Practices and Procedures, for Tariff Approvals and to Establish Rates and Other Charges, Including Regulatory Transition Charges Following the Market Development Period,” Public Utilities Commission of **Ohio**, Case No. 03-2144-EL-ATA. Direct testimony submitted February 6, 2004. Cross examined February 18, 2004.

“In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, To Fix a Just and Reasonable Rate of Return Thereon, To Approve Rate Schedules Designed to Develop Such Return, and For Approval of Purchased Power Contract,” **Arizona** Corporation Commission, Docket No. E-01345A-03-0437. Direct testimony submitted February 3, 2004. Rebuttal testimony submitted March 30, 2004. Direct testimony regarding stipulation submitted

September 27, 2004. Responsive / Clarifying testimony regarding stipulation submitted October 25, 2004. Cross examined November 8-10, 2004 and November 29-December 3, 2004.

“In the Matter of Application of the Detroit Edison Company to Increase Rates, Amend Its Rate Schedules Governing the Distribution and Supply of Electric Energy, etc.,” **Michigan** Public Service Commission, Case No. U-13808. Direct testimony submitted December 12, 2003 (interim request) and March 5, 2004 (general rate case).

“In the Matter of PacifiCorp’s Filing of Revised Tariff Schedules,” Public Utility Commission of **Oregon**, Docket No. UE-147. Joint testimony regarding stipulation submitted August 21, 2003.

“Petition of PSI Energy, Inc. for Authority to Increase Its Rates and Charges for Electric Service, etc.,” **Indiana** Utility Regulatory Commission, Cause No. 42359. Direct testimony submitted August 19, 2003. Cross examined November 5, 2003.

“In the Matter of the Application of Consumers Energy Company for a Financing Order Approving the Securitization of Certain of its Qualified Cost,” **Michigan** Public Service Commission, Case No. U-13715. Direct testimony submitted April 8, 2003. Cross examined April 23, 2003.

“In the Matter of the Application of Arizona Public Service Company for Approval of Adjustment Mechanisms,” **Arizona** Corporation Commission, Docket No. E-01345A-02-0403. Direct testimony submitted February 13, 2003. Surrebuttal testimony submitted March 20, 2003. Cross examined April 8, 2003.

“Re: The Investigation and Suspension of Tariff Sheets Filed by Public Service Company of Colorado, Advice Letter No. 1373 – Electric, Advice Letter No. 593 – Gas, Advice Letter No. 80 – Steam,” **Colorado** Public Utilities Commission, Docket No. 02S-315 EG. Direct testimony submitted November 22, 2002. Cross-answer testimony submitted January 24, 2003.

“In the Matter of the Application of The Detroit Edison Company to Implement the Commission’s Stranded Cost Recovery Procedure and for Approval of Net Stranded Cost Recovery Charges,” **Michigan** Public Service Commission, Case No. U-13350. Direct testimony submitted November 12, 2002.

“Application of South Carolina Electric & Gas Company: Adjustments in the Company’s Electric Rate Schedules and Tariffs,” Public Service Commission of **South Carolina**, Docket No. 2002-223-E. Direct testimony submitted November 8, 2002. Surrebuttal testimony submitted November 18, 2002. Cross examined November 21, 2002.

“In the Matter of the Application of Questar Gas Company for a General Increase in Rates and Charges,” **Utah** Public Service Commission, Docket No. 02-057-02. Direct testimony submitted August 30, 2002. Rebuttal testimony submitted October 4, 2002.

“The Kroger Co. v. Dynegy Power Marketing, Inc.,” **Federal Energy Regulatory Commission**, EL02-119-000. Confidential affidavit filed August 13, 2002.

“In the matter of the application of Consumers Energy Company for determination of net stranded costs and for approval of net stranded cost recovery charges,” **Michigan** Public Service Commission, Case No. U-13380. Direct testimony submitted August 9, 2002. Rebuttal testimony submitted August 30, 2002. Cross examined September 10, 2002.

“In the Matter of the Application of Public Service Company of Colorado for an Order to Revise Its Incentive Cost Adjustment,” **Colorado** Public Utilities Commission, Docket 02A-158E. Direct testimony submitted April 18, 2002.

“In the Matter of the Generic Proceedings Concerning Electric Restructuring Issues,” **Arizona** Corporation Commission, Docket No. E-00000A-02-0051, “In the Matter of Arizona Public Service Company’s Request for Variance of Certain Requirements of A.A.C. R14-2-1606,” Docket No. E-01345A-01-0822, “In the Matter of the Generic Proceeding Concerning the Arizona Independent Scheduling Administrator,” Docket No. E-00000A-01-0630, “In the Matter of Tucson Electric Power Company’s Application for a Variance of Certain Electric Competition Rules Compliance Dates,” Docket No. E-01933A-02-0069, “In the Matter of the Application of Tucson Electric Power Company for Approval of its Stranded Cost Recovery,” Docket No. E-01933A-98-0471. Direct testimony submitted March 29, 2002 (APS variance request); May 29, 2002 (APS Track A proceeding/market power issues); and July 28, 2003 (Arizona ISA). Rebuttal testimony submitted August 29, 2003 (Arizona ISA). Cross examined June 21, 2002 (APS Track A proceeding/market power issues) and September 12, 2003 (Arizona ISA).

“In the Matter of Savannah Electric & Power Company’s 2001 Rate Case,” **Georgia** Public Service Commission, Docket No. 14618-U. Direct testimony submitted March 15, 2002. Cross examined March 28, 2002.

“Nevada Power Company’s 2001 Deferred Energy Case,” Public Utilities Commission of **Nevada**, PUCN 01-11029. Direct testimony submitted February 7, 2002. Cross examined February 21, 2002.

“2001 Puget Sound Energy Interim Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-011570 and UE-011571. Direct testimony submitted January 30, 2002. Cross examined February 20, 2002.

“In the Matter of Georgia Power Company’s 2001 Rate Case,” **Georgia** Public Service Commission, Docket No. 14000-U. Direct testimony submitted October 12, 2001. Cross examined October 24, 2001.

“In the Matter of the Application of PacifiCorp for Approval of Its Proposed Electric Rate Schedules and Electric Service Regulations,” **Utah** Public Service Commission, Docket No. 01-35-01. Direct testimony submitted June 15, 2001. Rebuttal testimony submitted August 31, 2001.

“In the Matter of Portland General Electric Company’s Proposal to Restructure and Reprice Its Services in Accordance with the Provisions of SB 1149,” Public Utility Commission of **Oregon**, Docket No. UE-115. Direct testimony submitted February 20, 2001. Rebuttal testimony submitted May 4, 2001. Joint testimony regarding stipulation submitted July 27, 2001.

“In the Matter of the Application of APS Energy Services, Inc. for Declaratory Order or Waiver of the Electric Competition Rules,” **Arizona** Corporation Commission, Docket No.E-01933A-00-0486. Direct testimony submitted July 24, 2000.

“In the Matter of the Application of Questar Gas Company for an Increase in Rates and Charges,” **Utah** Public Service Commission, Docket No. 99-057-20. Direct testimony submitted April 19, 2000. Rebuttal testimony submitted May 24, 2000. Surrebuttal testimony submitted May 31, 2000. Cross examined June 6 & 8, 2000.

“In the Matter of the Application of Columbus Southern Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues,” Public Utility Commission of **Ohio**, Case No. 99-1729-EL-ETP; “In the Matter of the Application of Ohio Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues,” Public Utility Commission of **Ohio**, Case No. 99-1730-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected May 2, 2000.

“In the Matter of the Application of FirstEnergy Corp. on Behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company for Approval of Their Transition Plans and for Authorization to Collect Transition Revenues,” Public Utility Commission of **Ohio**, Case No. 99-1212-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected April 11, 2000.

“2000 Pricing Process,” **Salt River Project** Board of Directors, oral comments provided March 6, 2000 and April 10, 2000.

“Tucson Electric Power Company vs. Cyprus Sierrita Corporation,” **Arizona** Corporation Commission, Docket No. E-000001-99-0243. Direct testimony submitted October 25, 1999. Cross examined November 4, 1999.

“Application of Hildale City and Intermountain Municipal Gas Association for an Order Granting Access for Transportation of Interstate Natural Gas over the Pipelines of Questar Gas Company for Hildale, Utah,” **Utah** Public Service Commission, Docket No. 98-057-01. Rebuttal testimony submitted August 30, 1999.

“In the Matter of the Application by Arizona Electric Power Cooperative, Inc. for Approval of Its Filing as to Regulatory Assets and Transition Revenues,” **Arizona** Corporation Commission, Docket No. E-01773A-98-0470. Direct testimony submitted July 30, 1999. Cross examined February 28, 2000.

“In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery,” **Arizona** Corporation Commission, Docket No. E-01933A-98-0471; “In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01933A-97-0772; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted June 30, 1999. Rebuttal testimony submitted August 6, 1999. Cross examined August 11-13, 1999.

“In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery,” **Arizona** Corporation Commission, Docket No. E-01345A-98-0473; “In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01345A-97-0773; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted June 4, 1999. Rebuttal testimony submitted July 12, 1999. Cross examined July 14, 1999.

“In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery,” **Arizona** Corporation Commission, Docket No. E-01933A-98-0471; “In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01933A-97-0772; “In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery,” Docket No. E-01345A-98-0473; “In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.,” Docket No. E-01345A-97-0773; “In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” Docket No. RE-00000C-94-0165. Direct testimony submitted November 30, 1998.

“Hearings on Pricing,” **Salt River Project** Board of Directors, written and oral comments provided November 9, 1998.

“Hearings on Customer Choice,” **Salt River Project** Board of Directors, written and oral comments provided June 22, 1998; June 29, 1998; July 9, 1998; August 7, 1998; and August 14, 1998.

“In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona,” **Arizona** Corporation Commission, Docket No. U-0000-94-165. Direct and rebuttal testimony filed January 21, 1998. Second rebuttal testimony filed February 4, 1998. Cross examined February 25, 1998.

“In the Matter of Consolidated Edison Company of New York, Inc.’s Plans for (1) Electric Rate/Restructuring Pursuant to Opinion No. 96-12; and (2) the Formation of a Holding Company Pursuant to PSL, Sections 70, 108, and 110, and Certain Related Transactions,” **New York** Public Service Commission, Case 96-E-0897. Direct testimony filed April 9, 1997. Cross examined May 5, 1997.

“In the Matter of the Petition of Sunnyside Cogeneration Associates for Enforcement of Contract Provisions,” **Utah** Public Service Commission, Docket No. 96-2018-01; “In the Matter of the Application of Rocky Mountain Power for an Order Approving an Amendment to Its Power Purchase Agreement with Sunnyside Cogeneration Associates,” Docket Nos. 05-035-46, and 07-035-99. Direct testimony submitted July 8, 1996. Oral testimony provided March 18, 2008.

“In the Matter of the Application of PacifiCorp, dba Pacific Power & Light Company, for Approval of Revised Tariff Schedules and an Alternative Form of Regulation Plan,” **Wyoming** Public Service Commission, Docket No. 2000-ER-95-99. Direct testimony submitted April 8, 1996.

“In the Matter of the Application of Mountain Fuel Supply Company for an Increase in Rates and Charges,” **Utah** Public Service Commission, Case No. 95-057-02. Direct testimony submitted June 19, 1995. Rebuttal testimony submitted July 25, 1995. Surrebuttal testimony submitted August 7, 1995.

“In the Matter of the Investigation of the Reasonableness of the Rates and Tariffs of Mountain Fuel Supply Company,” **Utah** Public Service Commission, Case No. 89-057-15. Direct testimony submitted July 1990. Surrebuttal testimony submitted August 1990.

“In the Matter of the Review of the Rates of Utah Power and Light Company pursuant to The Order in Case No. 87-035-27,” **Utah** Public Service Commission, Case No. 89-035-10. Rebuttal testimony submitted November 15, 1989. Cross examined December 1, 1989 (rate schedule changes for state facilities).

“In the Matter of the Application of Utah Power & Light Company and PC/UP&L Merging Corp. (to be renamed PacifiCorp) for an Order Authorizing the Merger of Utah Power & Light Company and PacifiCorp into PC/UP&L Merging Corp. and Authorizing the Issuance of Securities, Adoption of Tariffs, and Transfer of Certificates of Public Convenience and Necessity and Authorities in Connection Therewith,” **Utah** Public Service Commission, Case No. 87-035-27; Direct testimony submitted April 11, 1988. Cross examined May 12, 1988 (economic impact of UP&L merger with PacifiCorp).

“In the Matter of the Application of Mountain Fuel Supply Company for Approval of Interruptible Industrial Transportation Rates,” **Utah** Public Service Commission, Case No. 86-057-07. Direct testimony submitted January 15, 1988. Cross examined March 30, 1988.

“In the Matter of the Application of Utah Power and Light Company for an Order Approving a Power Purchase Agreement,” **Utah** Public Service Commission, Case No. 87-035-18. Oral testimony delivered July 8, 1987.

“Cogeneration: Small Power Production,” **Federal Energy Regulatory Commission**, Docket No. RM87-12-000. Statement on behalf of State of Utah delivered March 27, 1987, in San Francisco.

“In the Matter of the Investigation of Rates for Backup, Maintenance, Supplementary, and Standby Power for Utah Power and Light Company,” **Utah** Public Service Commission, Case No. 86-035-13. Direct testimony submitted January 5, 1987. Case settled by stipulation approved August 1987.

“In the Matter of the Application of Sunnyside Cogeneration Associates for Approval of the Cogeneration Power Purchase Agreement,” **Utah** Public Service Commission, Case No. 86-2018-01. Rebuttal testimony submitted July 16, 1986. Cross examined July 17, 1986.

“In the Matter of the Investigation of Demand-Side Alternatives to Capacity Expansion for Electric Utilities,” **Utah** Public Service Commission, Case No. 84-999-20. Direct testimony submitted June 17, 1985. Rebuttal testimony submitted July 29, 1985. Cross examined August 19, 1985.

“In the Matter of the Implementation of Rules Governing Cogeneration and Small Power Production in Utah,” **Utah** Public Service Commission, Case No. 80-999-06, pp. 1293-1318. Direct testimony submitted January 13, 1984 (avoided costs), May 9, 1986 (security for levelized contracts) and November 17, 1986 (avoided costs). Cross-examined February 29, 1984 (avoided costs), April 11, 1985 (standard form contracts), May 22-23, 1986 (security for levelized contracts) and December 16-17, 1986 (avoided costs).

OTHER RELATED ACTIVITY

Participant, Wyoming Load Growth Collaborative, March 2008 to present.

Participant, Oregon Direct Access Task Force (UM 1081), May 2003 to November 2003.

Participant, Michigan Stranded Cost Collaborative, March 2003 to March 2004.

Member, Arizona Electric Competition Advisory Group, December 2002 to present.

Board of Directors, ex-officio, Desert STAR RTO, September 1999 to February 2002.

Member, Advisory Committee, Desert STAR RTO, September 1999 to February 2002. Acting Chairman, October 2000 to February 2002.

Board of Directors, Arizona Independent Scheduling Administrator Association, October 1998 to present.

Acting Chairman, Operating Committee, Arizona Independent Scheduling Administrator Association, October 1998 to June 1999.

Member, Desert Star ISO Investigation Working Groups: Operations, Pricing, and Governance, April 1997 to December 1999. Legal & Negotiating Committee, April 1999 to December 1999.

Participant, Independent System Operator and Spot Market Working Group, Arizona Corporation Commission, April 1997 to September 1997.

Participant, Unbundled Services and Standard Offer Working Group, Arizona Corporation Commission, April 1997 to October 1997.

Participant, Customer Selection Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Stranded Cost Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Electric System Reliability & Safety Working Group, Arizona Corporation Commission, November 1996 to September 1998.

Chairman, Salt Palace Renovation and Expansion Committee, Salt Lake County/State of Utah/Salt Lake City, multi-government entity responsible for implementation of planning, design, finance, and construction of an \$85 million renovation of the Salt Palace Convention Center, Salt Lake City, Utah, May 1991 to December 1994.

State of Utah Representative, Committee on Regional Electric Power Cooperation, a joint effort of the Western Interstate Energy Board and the Western Conference of Public Service Commissioners, January 1987 to December 1990.

Member, Utah Governor's Economic Coordinating Committee, January 1987 to December 1990.

Chairman, Standard Contract Task Force, established by Utah Public Service Commission to address contractual problems relating to qualifying facility sales under PURPA, March 1986 to December 1990.

Chairman, Load Management and Energy Conservation Task Force, Utah Public Service Commission, August 1985 to December 1990.

Alternate Delegate for Utah, Western Interstate Energy Board, Denver, Colorado, August 1985 to December 1990.

Articles Editor, Economic Forum, September 1980 to August 1981.

COMPARISON OF CURRENT AND PROPOSED RATES FOR AMEREN IP

RATE CLASS	DS-3	CURRENT	unit	PROPOSED	\$ INCREASE	% INCREASE
		Customer Charge Secondary	\$ 168.39	Bill	\$ 168.39	\$ -
Customer Charge Primary	\$ 719.94	Bill	\$ 719.94	\$ -	0.00%	
Customer Charge High Voltage	\$ 1,479.15	Bill	\$ 1,479.15	\$ -	0.00%	
Customer Charge 100kV+	\$ 3,047.91	Bill	\$ 3,047.91	\$ -	0.00%	
Meter Charge Secondary	\$ 26.34	Meter	\$ 26.34	\$ -	0.00%	
Meter Charge Primary	\$ 27.23	Meter	\$ 27.23	\$ -	0.00%	
Meter Charge Transmission Voltage	\$ 64.41	Meter	\$ 64.41	\$ -	0.00%	
Meter Charge High Voltage	\$ 64.41	Meter	\$ 64.41	\$ -	0.00%	
Distrib. Delivery Charge Secondary	\$ 5.796	kW	\$ 7.278	\$ 1.482	25.57%	
Distrib. Delivery Charge Primary	\$ 5.796	kW	\$ 7.278	\$ 1.482	25.57%	
Distrib. Delivery Charge High Voltage	\$ 1.479	kW	\$ 2.403	\$ 0.924	62.47%	
Distrib. Delivery Charge Transm. Voltage	\$ 0.080	kW	\$ 0.162	\$ 0.082	102.50%	
Transformation Charge	\$ 0.570	Max kW	\$ 0.650	\$ 0.080	14.04%	

DS-3 VS DS-4 DIFFERENTIAL

Current		Proposed	
\$	%	\$	%
\$ 0.685	13.40%	\$ 1.681	30.03%
\$ 0.685	13.40%	\$ 1.681	30.03%
\$ 0.170	12.99%	\$ 0.632	35.69%
\$ 0.005	6.67%	\$ 0.023	16.55%
\$ -	0.00%	\$ -	0.00%

RATE CLASS	DS-4	CURRENT	unit	PROPOSED	\$ INCREASE	% INCREASE
		Customer Charge Secondary	\$ 168.39	Bill	\$ 168.39	\$ -
Customer Charge Primary	\$ 719.94	Bill	\$ 719.94	\$ -	0.00%	
Customer Charge High Voltage	\$ 1,479.15	Bill	\$ 1,479.15	\$ -	0.00%	
Customer Charge 100kV+	\$ 3,047.91	Bill	\$ 3,047.91	\$ -	0.00%	
Meter Charge Secondary	\$ 33.51	Meter	\$ 33.51	\$ -	0.00%	
Meter Charge High Voltage	\$ 34.41	Meter	\$ 34.41	\$ -	0.00%	
Meter Charge Primary	\$ 71.59	Meter	\$ 71.59	\$ -	0.00%	
Meter Charge Transmission Voltage	\$ 71.59	Meter	\$ 71.59	\$ -	0.00%	
Distrib. Delivery Charge Secondary	\$ 5.111	kW	\$ 5.597	\$ 0.486	9.51%	
Distrib. Delivery Charge Primary	\$ 5.111	kW	\$ 5.597	\$ 0.486	9.51%	
Distrib. Delivery Charge High Voltage	\$ 1.309	kW	\$ 1.771	\$ 0.462	35.29%	
Distrib. Delivery Charge Transm. Voltage	\$ 0.075	kW	\$ 0.139	\$ 0.064	85.33%	
Transformation Charge	\$ 0.570	Max kW	\$ 0.650	\$ 0.080	14.04%	
Reactive Demand Charge	\$ 0.240	kVar	\$ 0.290	\$ 0.050	20.83%	

COMPARISON OF CURRENT AND PROPOSED REVENUE FOR AMEREN IP

RATE CLASS	DS-3	CURRENT	PROPOSED	\$ INCREASE	% INCREASE
Customer Charge Secondary		\$ 3,780,524	\$ 3,780,524	\$ -	0.00%
Customer Charge Primary		\$ 1,119,507	\$ 1,119,507	\$ -	0.00%
Customer Charge High Voltage		\$ 499,953	\$ 499,953	\$ -	0.00%
Customer Charge 100kV+		\$ 18,287	\$ 18,287	\$ -	0.00%
Meter Charge Secondary		\$ 591,359	\$ 591,359	\$ -	0.00%
Meter Charge Primary		\$ 42,343	\$ 42,343	\$ -	0.00%
Meter Charge High Voltage		\$ 21,771	\$ 21,771	\$ -	0.00%
Meter Charge Transmission Voltage		\$ 386	\$ 386	\$ -	0.00%
Distrib. Delivery Charge Secondary		\$ 66,894	\$ 83,998	\$ 17,104	25.57%
Distrib. Delivery Charge Primary		\$ 28,495,422	\$ 35,781,518	\$ 7,286,096	25.57%
Distrib. Delivery Charge High Voltage		\$ 1,040,894	\$ 1,691,189	\$ 650,295	62.47%
Distrib. Delivery Charge Transmission Voltage		\$ 844	\$ 1,709	\$ 865	102.49%
Transformation Capacity Charge		\$ 4,214,291	\$ 4,805,771	\$ 591,480	14.04%
Rate Limitation		\$ (801,101)	\$ (840,232)	\$ (39,131)	4.88%
Distribution Tax		\$ -	\$ 2,968,364	\$ 2,968,364	100.00%
Total with Distribution Tax		\$ 39,091,374	\$ 50,566,447	\$ 11,475,073	29.35%
Total w/o Distribution Tax		\$ 39,091,374	\$ 47,598,083	\$ 8,506,709	21.76%

RATE CLASS	DS-4	CURRENT	PROPOSED	\$ INCREASE	% INCREASE
Customer Charge Secondary		\$ 132,018	\$ 132,018	\$ -	0.00%
Customer Charge Primary		\$ 1,152,624	\$ 1,152,624	\$ -	0.00%
Customer Charge High Voltage		\$ 897,844	\$ 897,844	\$ -	0.00%
Customer Charge 100kV+		\$ 155,443	\$ 155,443	\$ -	0.00%
Meter Charge Secondary		\$ 26,272	\$ 26,272	\$ -	0.00%
Meter Charge Primary		\$ 55,090	\$ 55,090	\$ -	0.00%
Meter High Voltage		\$ 43,455	\$ 43,455	\$ -	0.00%
Meter Charge Transmission Voltage		\$ 3,651	\$ 3,651	\$ -	0.00%
Distrib. Delivery Charge Secondary		\$ -	\$ -	\$ -	-
Distrib. Delivery Charge Primary		\$ 9,314,199	\$ 10,199,877	\$ 885,678	9.51%
Distrib. Delivery Charge High Voltage		\$ 11,701,561	\$ 15,831,523	\$ 4,129,962	35.29%
Distrib. Delivery Charge Transmission Voltage		\$ 311,474	\$ 577,265	\$ 265,791	85.33%
Transformation Capacity Charge		\$ 1,504,197	\$ 1,715,312	\$ 211,115	14.04%
Reactive Demand		\$ 1,553,619	\$ 1,877,290	\$ 323,671	20.83%
Rate Limitation		\$ (71,829)	\$ (53,267)	\$ 18,562	-25.84%
Distribution Tax		\$ -	\$ 10,268,077	\$ 10,268,077	100.00%
Total with Distribution Tax		\$ 26,779,618	\$ 42,882,474	\$ 16,102,856	60.13%
Total w/o Distribution Tax		\$ 26,779,618	\$ 32,614,397	\$ 5,834,779	21.79%

COMPARISON OF CURRENT AND PROPOSED RATES FOR AMEREN CIPS

RATE CLASS	DS-3	CURRENT		unit	PROPOSED		\$ INCREASE	% INCREASE
Customer Charge Secondary		\$	168.39	Bill	\$	168.39	\$ -	0.00%
Customer Charge Primary		\$	719.94	Bill	\$	719.94	\$ -	0.00%
Customer Charge High Voltage		\$	1,479.15	Bill	\$	1,479.15	\$ -	0.00%
Customer Charge 100kV+		\$	3,047.91	Bill	\$	3,047.91	\$ -	0.00%
Meter Charge Secondary		\$	26.34	Meter	\$	26.34	\$ -	0.00%
Meter Charge Primary		\$	27.23	Meter	\$	27.23	\$ -	0.00%
Meter Charge Transmission Voltage		\$	64.41	Meter	\$	64.41	\$ -	0.00%
Meter Charge High Voltage		\$	64.41	Meter	\$	64.41	\$ -	0.00%
Meter Reassignment		\$	85.50	Meter	\$	97.50	\$ 12.000	14.04%
Distrib. Delivery Charge Secondary		\$	4.111	kW	\$	4.706	\$ 0.595	14.47%
Distrib. Delivery Charge Primary		\$	4.111	kW	\$	4.706	\$ 0.595	14.47%
Distrib. Delivery Charge High Voltage		\$	1.260	kW	\$	2.054	\$ 0.794	63.02%
Distrib. Delivery Charge Transm. Voltage		\$	0.081	kW	\$	0.098	\$ 0.017	20.99%
Transformation Charge		\$	0.570	Max kW	\$	0.650	\$ 0.080	14.04%

DS-3 VS DS-4 DIFFERENTIAL				
Current		Proposed		
\$	%	\$	%	
\$ 1.231	42.74%	\$ 1.665	54.75%	
\$ 1.231	42.74%	\$ 1.665	54.75%	
\$ 0.372	41.89%	\$ 0.679	49.38%	
\$ 0.026	47.27%	\$ 0.021	27.27%	
\$ -	0.00%	\$ -	0.00%	

RATE CLASS	DS-4	CURRENT		unit	PROPOSED		\$ INCREASE	% INCREASE
Customer Charge Secondary		\$	168.39	Bill	\$	168.39	\$ -	0.00%
Customer Charge Primary		\$	719.94	Bill	\$	719.94	\$ -	0.00%
Customer Charge High Voltage		\$	1,479.15	Bill	\$	1,479.15	\$ -	0.00%
Customer Charge 100kV+		\$	3,047.91	Bill	\$	3,047.91	\$ -	0.00%
Meter Charge Secondary		\$	33.51	Meter	\$	33.51	\$ -	0.00%
Meter Charge High Voltage		\$	34.41	Meter	\$	34.41	\$ -	0.00%
Meter Charge Primary		\$	71.59	Meter	\$	71.59	\$ -	0.00%
Meter Charge Transmission Voltage		\$	71.59	Meter	\$	71.59	\$ -	0.00%
Meter Reassignment		\$	85.50	Meter	\$	97.50	\$ 12.000	14.04%
Distrib. Delivery Charge Secondary		\$	2.880	kW	\$	3.041	\$ 0.161	5.59%
Distrib. Delivery Charge Primary		\$	2.880	kW	\$	3.041	\$ 0.161	5.59%
Distrib. Delivery Charge High Voltage		\$	0.888	kW	\$	1.375	\$ 0.487	54.84%
Distrib. Delivery Charge Transm. Voltage		\$	0.055	kW	\$	0.077	\$ 0.022	40.00%
Transformation Charge		\$	0.570	Max kW	\$	0.650	\$ 0.080	14.04%
Reactive Demand Charge		\$	0.240	kVar	\$	0.290	\$ 0.050	20.83%

COMPARISON OF CURRENT AND PROPOSED REVENUE FOR AMEREN CIPS

RATE CLASS	DS-3	CURRENT	PROPOSED	\$ INCREASE	% INCREASE
Customer Charge Secondary		\$ 2,772,878	\$ 2,772,878	\$ -	0.00%
Customer Charge Primary		\$ 1,431,961	\$ 1,431,961	\$ -	0.00%
Customer Charge High Voltage		\$ 150,873	\$ 150,873	\$ -	0.00%
Customer Charge 100kV+		\$ -	\$ -	\$ -	-
Meter Charge Secondary		\$ 433,741	\$ 433,741	\$ -	0.00%
Meter Charge Primary		\$ 54,160	\$ 54,160	\$ -	0.00%
Meter Charge High Voltage		\$ 6,570	\$ 6,570	\$ -	0.00%
Meter Charge Transmission Voltage		\$ -	\$ -	\$ -	-
Meter Reassignment		\$ 147,510	\$ 168,213	\$ 20,703	14.03%
Distrib. Delivery Charge Secondary		\$ -	\$ -	\$ -	-
Distrib. Delivery Charge Primary		\$ 17,822,662	\$ 20,402,201	\$ 2,579,539	14.47%
Distrib. Delivery Charge High Voltage		\$ 149,193	\$ 243,208	\$ 94,015	63.02%
Distrib. Delivery Charge Transmission Voltage		\$ 348	\$ 422	\$ 74	21.26%
Transformation Capacity Charge		\$ 3,152,028	\$ 3,594,418	\$ 442,390	14.04%
Rate Limitation		\$ (717,998)	\$ (696,919)	\$ 21,079	-2.94%
Distribution Tax		\$ -	\$ 2,039,008	\$ 2,039,008	100.00%
Total with Distribution Tax		\$ 25,403,926	\$ 30,600,734	\$ 5,196,808	20.46%
Total w/o Distribution Tax		\$ 25,403,926	\$ 28,561,726	\$ 3,157,800	12.43%

RATE CLASS	DS-4	CURRENT	PROPOSED	\$ INCREASE	% INCREASE
Customer Charge Secondary		\$ 241,640	\$ 241,640	\$ -	0.00%
Customer Charge Primary		\$ 576,672	\$ 576,672	\$ -	0.00%
Customer Charge High Voltage		\$ 76,916	\$ 76,916	\$ -	0.00%
Customer Charge 100kV+		\$ -	\$ -	\$ -	-
Meter Charge Secondary		\$ 48,087	\$ 48,087	\$ -	0.00%
Meter Charge Primary		\$ 27,562	\$ 27,562	\$ -	0.00%
Meter Charge High Voltage		\$ 3,723	\$ 3,723	\$ -	0.00%
Meter Charge Transmission Voltage		\$ -	\$ -	\$ -	-
Meter Reassignment		\$ -	\$ -	\$ -	-
Distrib. Delivery Charge Secondary		\$ -	\$ -	\$ -	-
Distrib. Delivery Charge Primary		\$ 8,518,649	\$ 8,994,865	\$ 476,216	5.59%
Distrib. Delivery Charge High Voltage		\$ 4,071,191	\$ 6,303,928	\$ 2,232,737	54.84%
Distrib. Delivery Charge Transmission Voltage		\$ 122,194	\$ 171,072	\$ 48,878	40.00%
Transformation Capacity Charge		\$ 2,038,743	\$ 2,324,882	\$ 286,139	14.04%
Reactive Demand		\$ 1,110,194	\$ 1,341,485	\$ 231,291	20.83%
Rate Limitation		\$ (22,286)	\$ (14,197)	\$ 8,089	-36.30%
Distribution Tax		\$ -	\$ 6,396,564	\$ 6,396,564	100.00%
Total with Distribution Tax		\$ 16,813,285	\$ 26,493,199	\$ 9,679,914	57.57%
Total w/o Distribution Tax		\$ 16,813,285	\$ 20,096,635	\$ 3,283,350	19.53%

COMPARISON OF CURRENT AND PROPOSED RATES FOR AMEREN CILCO

RATE CLASS	DS-3	CURRENT		unit	PROPOSED		\$ INCREASE	% INCREASE
Customer Charge Secondary		\$	168.93	Bill	\$	168.39	\$ (0.540)	-0.32%
Customer Charge Primary		\$	719.94	Bill	\$	719.94	\$ -	0.00%
Customer Charge High Voltage		\$	1,479.15	Bill	\$	1,479.15	\$ -	0.00%
Customer Charge 100kV+		\$	3,047.91	Bill	\$	3,047.91	\$ -	0.00%
Meter Charge Secondary		\$	26.34	Meter	\$	26.34	\$ -	0.00%
Meter Charge Primary		\$	27.23	Meter	\$	27.23	\$ -	0.00%
Meter Charge Transmission Voltage		\$	64.41	Meter	\$	64.41	\$ -	0.00%
Meter Charge High Voltage		\$	64.41	Meter	\$	64.41	\$ -	0.00%
Distrib. Delivery Charge Secondary		\$	4.633	kW	\$	5.711	\$ 1.078	23.27%
Distrib. Delivery Charge Primary		\$	4.633	kW	\$	5.711	\$ 1.078	23.27%
Distrib. Delivery Charge High Voltage		\$	1.019	kW	\$	1.643	\$ 0.624	61.24%
Distrib. Delivery Charge Transm. Voltage		\$	0.056	kW	\$	0.049	\$ (0.007)	-12.50%
Transformation Charge		\$	0.570	Max kW	\$	0.650	\$ 0.080	14.04%

DS-3 VS DS-4 DIFFERENTIAL			
Current		Proposed	
\$	%	\$	%
\$ 2.189	89.57%	\$ 2.695	89.36%
\$ 2.189	89.57%	\$ 2.695	89.36%
\$ 0.479	88.70%	\$ 0.689	72.22%
\$ 0.024	75.00%	\$ 0.016	48.48%
\$ -	0.00%	\$ -	0.00%

RATE CLASS	DS-4	CURRENT		unit	PROPOSED		\$ INCREASE	% INCREASE
Customer Charge Secondary		\$	168.39	Bill	\$	168.39	\$ -	0.00%
Customer Charge Primary		\$	719.94	Bill	\$	719.94	\$ -	0.00%
Customer Charge High Voltage		\$	1,479.15	Bill	\$	1,479.15	\$ -	0.00%
Customer Charge 100kV+		\$	3,047.91	Bill	\$	3,047.91	\$ -	0.00%
Meter Charge Secondary		\$	33.51	Meter	\$	33.51	\$ -	0.00%
Meter Charge High Voltage		\$	34.41	Meter	\$	34.41	\$ -	0.00%
Meter Charge Primary		\$	71.59	Meter	\$	71.59	\$ -	0.00%
Meter Charge Transmission Voltage		\$	71.59	Meter	\$	71.59	\$ -	0.00%
Distrib. Delivery Charge Secondary		\$	2.444	kW	\$	3.016	\$ 0.572	23.40%
Distrib. Delivery Charge Primary		\$	2.444	kW	\$	3.016	\$ 0.572	23.40%
Distrib. Delivery Charge High Voltage		\$	0.540	kW	\$	0.954	\$ 0.414	76.67%
Distrib. Delivery Charge Transm. Voltage		\$	0.032	kW	\$	0.033	\$ 0.001	3.13%
Transformation Charge		\$	0.570	Max kW	\$	0.650	\$ 0.080	14.04%
Reactive Demand Charge		\$	0.240	kVar	\$	0.290	\$ 0.050	20.83%

COMPARISON OF CURRENT AND PROPOSED REVENUE FOR AMEREN CILCO

RATE CLASS	DS-3	CURRENT	PROPOSED	\$ INCREASE	% INCREASE
Customer Charge Secondary		\$ 1,502,294	\$ 1,497,492	\$ (4,802)	-0.32%
Customer Charge Primary		\$ 299,495	\$ 299,495	\$ -	0.00%
Customer Charge High Voltage		\$ 26,625	\$ 26,625	\$ -	0.00%
Customer Charge 100kV+		\$ -	\$ -	\$ -	0.00%
Meter Charge Secondary		\$ 234,242	\$ 234,242	\$ -	0.00%
Meter Charge Primary		\$ 11,328	\$ 11,328	\$ -	0.00%
Meter Charge High Voltage		\$ 1,159	\$ 1,159	\$ -	0.00%
Meter Charge Transmission Voltage		\$ -	\$ -	\$ -	-
Distrib. Delivery Charge Secondary		\$ -	\$ -	\$ -	-
Distrib. Delivery Charge Primary		\$ 9,737,177	\$ 12,002,809	\$ 2,265,632	23.27%
Distrib. Delivery Charge High Voltage		\$ 41,991	\$ 67,704	\$ 25,713	61.23%
Distrib. Delivery Charge Transmission Voltage		\$ -	\$ -	\$ -	-
Transformation Capacity Charge		\$ 1,723,997	\$ 1,965,962	\$ 241,965	14.04%
Rate Limitation		\$ (446,818)	\$ (458,125)	\$ (11,307)	2.53%
Distribution Tax		\$ -	\$ 697,829	\$ 697,829	100.00%
Total with Distribution Tax		\$ 13,131,490	\$ 16,346,520	\$ 3,215,030	24.48%
Total w/o Distribution Tax		\$ 13,131,490	\$ 15,648,691	\$ 2,517,201	19.17%

RATE CLASS	DS-4	CURRENT	PROPOSED	\$ INCREASE	% INCREASE
Customer Charge Secondary		\$ 45,129	\$ 45,129	\$ -	0.00%
Customer Charge Primary		\$ 504,678	\$ 504,678	\$ -	0.00%
Customer Charge High Voltage		\$ 38,458	\$ 38,458	\$ -	0.00%
Customer Charge 100kV+		\$ 146,300	\$ 146,300	\$ -	0.00%
Meter Charge Secondary		\$ 8,981	\$ 8,981	\$ -	0.00%
Meter Charge Primary		\$ 24,121	\$ 24,121	\$ -	0.00%
Meter Charge High Voltage		\$ 1,861	\$ 1,861	\$ -	0.00%
Meter Charge Transmission Voltage		\$ 3,436	\$ 3,436	\$ -	0.00%
Distrib. Delivery Charge Secondary		\$ -	\$ -	\$ -	-
Distrib. Delivery Charge Primary		\$ 3,251,559	\$ 4,012,562	\$ 761,003	23.40%
Distrib. Delivery Charge High Voltage		\$ 733,610	\$ 1,296,044	\$ 562,434	76.67%
Distrib. Delivery Charge Transmission Voltage		\$ 116,191	\$ 119,822	\$ 3,631	3.13%
Transformation Capacity Charge		\$ 1,952,403	\$ 2,226,424	\$ 274,021	14.04%
Reactive Demand		\$ 266,109	\$ 321,548	\$ 55,439	20.83%
Rate Limitation		\$ (38,744)	\$ (35,520)	\$ 3,224	-8.32%
Distribution Tax		\$ -	\$ 2,385,024	\$ 2,385,024	100.00%
Total with Distribution Tax		\$ 7,054,092	\$ 11,098,868	\$ 4,044,776	57.34%
Total w/o Distribution Tax		\$ 7,054,092	\$ 8,713,844	\$ 1,659,752	23.53%

**DS-3 AND DS-4 REVENUE BREAK-EVEN POINTS
UNDER CURRENT DISTRIBUTION DELIVERY CHARGES***

Ameren IP			
SCHEDULE DS-3 Customer A		SCHEDULE DS-4 Customer B	
kW Demand	882	kW Demand	1,000
Distribution Delivery Charge: \$	5.796	Distribution Delivery Charge: \$	5.111
Distr. Delivery Revenue: \$	5,111	Distr. Delivery Revenue: \$	5,111

Ameren CIPS			
SCHEDULE DS-3 Customer A		SCHEDULE DS-4 Customer B	
kW Demand	701	kW Demand	1,000
Distribution Delivery Charge: \$	4.111	Distribution Delivery Charge: \$	2.880
Distr. Delivery Revenue: \$	2,880	Distr. Delivery Revenue: \$	2,880

Ameren CILCO			
SCHEDULE DS-3 Customer A		SCHEDULE DS-4 Customer B	
kW Demand	528	kW Demand	1,000
Distribution Delivery Charge: \$	4.633	Distribution Delivery Charge: \$	2.444
Distr. Delivery Revenue: \$	2,444	Distr. Delivery Revenue: \$	2,444

* Primary Voltage

**DS-3 AND DS-4 REVENUE BREAK-EVEN POINTS
UNDER AMEREN PROPOSED DISTRIBUTION DELIVERY CHARGES***

Ameren IP			
SCHEDULE DS-3 Customer A		SCHEDULE DS-4 Customer B	
kW Demand	769	kW Demand	1,000
Distribution Delivery Charge:	\$ 7.278	Distribution Delivery Charge:	\$ 5.597
Distr. Delivery Revenue:	\$ 5,597	Distr. Delivery Revenue:	\$ 5,597

Ameren CIPS			
SCHEDULE DS-3 Customer A		SCHEDULE DS-4 Customer B	
kW Demand	646	kW Demand	1,000
Distribution Delivery Charge:	\$ 4.706	Distribution Delivery Charge:	\$ 3.041
Distr. Delivery Revenue:	\$ 3,041	Distr. Delivery Revenue:	\$ 3,041

Ameren CILCO			
SCHEDULE DS-3 Customer A		SCHEDULE DS-4 Customer B	
kW Demand	528	kW Demand	1,000
Distribution Delivery Charge:	\$ 5.711	Distribution Delivery Charge:	\$ 3.016
Distr. Delivery Revenue:	\$ 3,016	Distr. Delivery Revenue:	\$ 3,016

* Primary Voltage

DS-3 and DS-4 Class Rates of Return

Ameren - IP

	<u>Total DS-3</u>	<u>Total DS-4</u>
Rate Base	150,973	127,051
 <i>@ Current Rates¹</i>		
Operating Revenues	40,808	29,020
Total Operating Expenses	32,969	30,686
Operating Income for Return	7,840	(1,665)
Rate of Return	5.19%	-1.31%

1. Data Source: Ameren IP Direct ECOSS 5-20-09.xls.

 <i>Ameren Proposed²</i>		
Operating Revenues	52,283	45,123
Total Operating Expenses	37,530	37,086
Operating Income for Return	14,754	8,037
Rate of Return	9.77%	6.33%

 <i>Converged @ Ameren's Requested Revenue Increase²</i>		
Operating Revenues	50,209	47,201
Total Operating Expenses	36,705	37,912
Operating Income for Return	13,504	9,289
Rate of Return	8.94%	7.31%

2. Data Source: Kroger DS-3/DS-4 ROR by Class workpaper.

DS-3 and DS-4 Class Rates of Return

Ameren - CIPS

	<u>Total DS-3</u>	<u>Total DS-4</u>
Rate Base	66,715	63,916
 <i>@ Current Rates¹</i>		
Operating Revenues	27,223	18,717
Total Operating Expenses	<u>24,039</u>	<u>23,772</u>
Operating Income for Return	3,184	(5,055)
 Rate of Return	 4.77%	 -7.91%

1. Data Source: Ameren IP Direct ECOSS 5-20-09.xls.

<i>Ameren Proposed²</i>		
Operating Revenues	32,420	28,397
Total Operating Expenses	<u>26,105</u>	<u>27,619</u>
Operating Income for Return	6,315	778
 Rate of Return	 9.47%	 1.22%

<i>Converged @ Ameren's Requested Revenue Increase²</i>		
Operating Revenues	29,897	30,919
Total Operating Expenses	<u>25,102</u>	<u>28,621</u>
Operating Income for Return	4,795	2,298
 Rate of Return	 7.19%	 3.59%

2. Data Source: Kroger DS-3/DS-4 ROR by Class workpaper.

DS-3 and DS-4 Class Rates of Return

Ameren - CILCO

	<u>Total DS-3</u>	<u>Total DS-4</u>
Rate Base	42,326	32,666
 <i>@ Current Rates¹</i>		
Operating Revenues	13,772	7,818
Total Operating Expenses	11,432	8,979
Operating Income for Return	2,340	(1,160)
Rate of Return	5.53%	-3.55%

1. Data Source: Ameren IP Direct ECOSS 5-20-09.xls.

 <i>Ameren Proposed²</i>		
Operating Revenues	16,987	11,863
Total Operating Expenses	12,710	10,585
Operating Income for Return	4,277	1,278
Rate of Return	10.10%	3.91%

 <i>Converged @ Ameren's Requested Revenue Increase²</i>		
Operating Revenues	14,914	13,935
Total Operating Expenses	11,886	11,409
Operating Income for Return	3,028	2,526
Rate of Return	7.15%	7.73%

2. Data Source: Kroger DS-3/DS-4 ROR by Class workpaper.

DS-3 and DS-4 Distribution Delivery Charges Moved 50% to Convergence

AmerenIP

PRIMARY VOLTAGE DELIVERY CHARGE As Proposed by Ameren		(a)	(b)	(c) = (a) x (b)	
		Ameren Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
1	DS-3 Low Voltage Demand Charge (Sec. & Pri.)	4,927,935	7.278	\$35,865,511	Ameren Ex, 16.14E, p. 1 of 6.
2	DS-4 Low Voltage Demand Charge (Sec. & Pri.)	<u>1,882,383</u>	<u>5.597</u>	<u>\$10,535,698</u>	Ameren Ex, 16.14E, p. 2 of 6.
3	Total DS-3 & DS-4	6,810,318	6.813	\$46,401,209	Col. (b) = Col. (c) ÷ Col. (a)
PRIMARY VOLTAGE DELIVERY CHARGE As Modified by Kroger		(a)	(b)	(c) = (a) x (b)	
		Kroger Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
4	DS-3 Low Voltage Demand Charge (Sec. & Pri.)	4,927,935	6.853	\$33,771,139	Col (b) = Ln 25
5	DS-4 Low Voltage Demand Charge (Sec. & Pri.)	<u>1,882,383</u>	<u>6.710</u>	<u>\$12,630,790</u>	Col (b) = Ln 25 + Ln 26
6	Total DS-3 & DS-4	6,810,318	6.813	\$46,401,928	Col. (b) = Col. (c) ÷ Col. (a)
HIGH VOLTAGE DELIVERY CHARGE As Proposed by Ameren		(a)	(b)	(c) = (a) x (b)	
		Ameren Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
7	DS-3 High Voltage Demand Charge (HV)	703,782	2.403	\$1,691,188	Ameren Ex, 16.14E, p. 1 of 6.
8	DS-4 High Voltage Demand Charge (HV)	<u>8,939,313</u>	<u>1.771</u>	<u>\$15,831,523</u>	Ameren Ex, 16.14E, p. 2 of 6.
9	Total DS-3 & DS-4	9,643,095	1.817	\$17,522,711	Col. (b) = Col. (c) ÷ Col. (a)
HIGH VOLTAGE DELIVERY CHARGE As Modified by Kroger		(a)	(b)	(c) = (a) x (b)	
		Kroger Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
10	DS-3 High Voltage Demand Charge (HV)	703,782	1.838	\$1,293,551	Col (b) = Ln 33
11	DS-4 High Voltage Demand Charge (HV)	<u>8,939,313</u>	<u>1.816</u>	<u>\$16,233,792</u>	Col (b) = Ln 33 + Ln 34
12	Total DS-3 & DS-4	9,643,095	1.818	\$17,527,344	Col. (b) = Col. (c) ÷ Col. (a)
+100kV VOLTAGE DELIVERY CHARGE As Proposed by Ameren		(a)	(b)	(c) = (a) x (b)	
		Ameren Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
13	DS-3 +100kV Demand Charge	10,551	0.162	\$1,709	Ameren Ex, 16.14E, p. 1 of 6.
14	DS-4 +100KV Demand Charge	<u>4,152,982</u>	<u>0.139</u>	<u>\$577,264</u>	Ameren Ex, 16.14E, p. 2 of 6.
15	Total DS-3 & DS-4	4,163,533	0.139	\$578,974	Col. (b) = Col. (c) ÷ Col. (a)
+100kV VOLTAGE DELIVERY CHARGE As Modified by Kroger		(a)	(b)	(c) = (a) x (b)	
		Kroger Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
16	DS-3 +100kV Demand Charge	10,551	0.142	\$1,498	Col (b) = Ln 15
17	DS-4 +100KV Demand Charge	<u>4,152,982</u>	<u>0.139</u>	<u>\$577,264</u>	Col (b) = Ln 15
18	Total DS-3 & DS-4	4,163,533	0.139	\$578,763	Col. (b) = Col. (c) ÷ Col. (a)

DS-3 and DS-4 Distribution Delivery Charges Moved 50% to Convergence

AmerenIP

DERIVATION OF DEMAND CHARGE DIFFERENTIALS AND DS-4 REACTIVE DEMAND REVENUE DISCOUNT

Ln. <u>No.</u>		(a)	
Derivation of Primary Voltage Differential Reduction			
19	Current DS-3 Demand Charges (\$/kW)	\$5.796	Ameren Ex, 16.6E, p. 2 of 8.
20	Current DS-4 Demand Charges (\$/kW)	\$5.111	Ameren Ex, 16.6E, p. 2 of 8.
21	Current Difference	\$0.685	= Ln. 19 - Ln. 20
22	Less: DS-4 Reactive Demand Revenue Discount (\$/KW)	(\$0.398)	= -Ln. 37, Col. (c) ÷ Ln. 2, Col (a)
23	Net Difference	\$0.287	= Ln. 21 + Ln. 22
24	50% of DS-3/DS-4 Net Difference (\$/kW)	\$0.143	= 50% x Ln. 23
 Derivation of High Voltage Differential Reduction			
25	Current DS-3 Demand Charges (\$/kW)	\$1.479	Ameren Ex, 16.6E, p. 2 of 8.
26	Current DS-4 Demand Charges (\$/kW)	\$1.309	Ameren Ex, 16.6E, p. 2 of 8.
27	Current Difference	\$0.170	= Ln. 25 - Ln. 26
28	Less: DS-4 Reactive Demand Revenue Discount (\$/KW)	(\$0.126)	= -Ln. 38, Col. (c) ÷ Ln. 8, Col (a)
29	Net Difference	\$0.044	= Ln. 27 + Ln. 28
30	50% of DS-3/DS-4 Net Difference (\$/kW)	\$0.022	= 50% x Ln. 29
 Derivation of +100kV Differential Reduction			
31	Current DS-3 Demand Charges (\$/kW)	\$0.080	Ameren Ex, 16.6E, p. 2 of 8.
32	Current DS-4 Demand Charges (\$/kW)	\$0.075	Ameren Ex, 16.6E, p. 2 of 8.
33	Current Difference	\$0.005	= Ln. 31 - Ln. 32
34	Less: DS-4 Reactive Demand Revenue Discount (\$/KW)	\$0.000	Not Applicable
35	Net Difference	\$0.005	= Ln. 33 + Ln. 34
36	50% of DS-3/DS-4 Net Difference (\$/kW)	\$0.003	= 50% x Ln. 35

Allocation of DS4 Reactive Demand Revenue

	(a) Ameren Proposed DS-4 Demand Revenue	(b) Ameren Proposed DS-4 Revenue Percent	(c) = (b) x (a) Total Allocation of DS4 Reactive Demand Revenue ¹
37 Secondary & Primary Voltage	\$10,535,698	40%	\$750,119
38 High Voltage	\$15,831,523	60%	\$1,127,171
39 Total	\$26,367,221	100%	\$1,877,290

Note 1. Total DS-4 Reactive Demand Revenue = \$0.29/kVar x 6,473,413 kVar (see Ameren Exhibit 16.14E, page 2 of 6.)

DS-3 and DS-4 Distribution Delivery Charges Moved 50% to Convergence

AmerenCIPS

PRIMARY VOLTAGE DELIVERY CHARGE As Proposed by Ameren		(a)	(b)	(c) = (a) x (b)	
		Ameren Proposed			
<u>Ln.</u>		<u>Units</u>	<u>Unit</u>	<u>Annual</u>	<u>Source</u>
<u>No.</u>		<u>(kW)</u>	<u>Charge</u>	<u>Revenue</u>	
			<u>(\$/kW)</u>		
1	DS-3 Low Voltage Demand Charge (Sec. & Pri.)	4,335,359	4.706	\$20,402,199	Ameren Ex, 16.14E, p. 3 of 6.
2	DS-4 Low Voltage Demand Charge (Sec. & Pri.)	<u>2,957,864</u>	<u>3.041</u>	<u>\$8,994,864</u>	Ameren Ex, 16.14E, p. 4 of 6.
3	Total DS-3 & DS-4	7,293,223	4.031	\$29,397,064	Col. (b) = Col. (c) ÷ Col. (a)

PRIMARY VOLTAGE DELIVERY CHARGE As Modified by Kroger		(a)	(b)	(c) = (a) x (b)	
		Kroger Proposed			
<u>Ln.</u>		<u>Units</u>	<u>Unit</u>	<u>Annual</u>	<u>Source</u>
<u>No.</u>		<u>(kW)</u>	<u>Charge</u>	<u>Revenue</u>	
			<u>(\$/kW)</u>		
4	DS-3 Low Voltage Demand Charge (Sec. & Pri.)	4,335,359	4.226	\$18,321,227	Col (b) = Ln 25
5	DS-4 Low Voltage Demand Charge (Sec. & Pri.)	<u>2,957,864</u>	<u>3.744</u>	<u>\$11,074,243</u>	Col (b) = Ln 25 + Ln 26
6	Total DS-3 & DS-4	7,293,223	4.031	\$29,395,470	Col. (b) = Col. (c) ÷ Col. (a)

HIGH VOLTAGE DELIVERY CHARGE As Proposed by Ameren		(a)	(b)	(c) = (a) x (b)	
		Ameren Proposed			
<u>Ln.</u>		<u>Units</u>	<u>Unit</u>	<u>Annual</u>	<u>Source</u>
<u>No.</u>		<u>(kW)</u>	<u>Charge</u>	<u>Revenue</u>	
			<u>(\$/kW)</u>		
7	DS-3 High Voltage Demand Charge (HV)	118,407	2.054	\$243,208	Ameren Ex, 16.14E, p. 3 of 6.
8	DS-4 High Voltage Demand Charge (HV)	<u>4,584,675</u>	<u>1.375</u>	<u>\$6,303,928</u>	Ameren Ex, 16.14E, p. 4 of 6.
9	Total DS-3 & DS-4	4,703,082	1.392	\$6,547,136	Col. (b) = Col. (c) ÷ Col. (a)

HIGH VOLTAGE DELIVERY CHARGE As Modified by Kroger		(a)	(b)	(c) = (a) x (b)	
		Kroger Proposed			
<u>Ln.</u>		<u>Units</u>	<u>Unit</u>	<u>Annual</u>	<u>Source</u>
<u>No.</u>		<u>(kW)</u>	<u>Charge</u>	<u>Revenue</u>	
			<u>(\$/kW)</u>		
10	DS-3 High Voltage Demand Charge (HV)	118,407	1.515	\$179,387	Col (b) = Ln 33
11	DS-4 High Voltage Demand Charge (HV)	<u>4,584,675</u>	<u>1.389</u>	<u>\$6,368,114</u>	Col (b) = Ln 33 + Ln 34
12	Total DS-3 & DS-4	4,703,082	1.392	\$6,547,500	Col. (b) = Col. (c) ÷ Col. (a)

+100kV VOLTAGE DELIVERY CHARGE As Proposed by Ameren		(a)	(b)	(c) = (a) x (b)	
		Ameren Proposed			
<u>Ln.</u>		<u>Units</u>	<u>Unit</u>	<u>Annual</u>	<u>Source</u>
<u>No.</u>		<u>(kW)</u>	<u>Charge</u>	<u>Revenue</u>	
			<u>(\$/kW)</u>		
13	DS-3 +100kV Demand Charge	4,302	0.098	\$422	Ameren Ex, 16.14E, p. 3 of 6.
14	DS-4 +100KV Demand Charge	<u>2,221,713</u>	<u>0.077</u>	<u>\$171,072</u>	Ameren Ex, 16.14E, p. 4 of 6.
15	Total DS-3 & DS-4	2,226,015	0.077	\$171,493	Col. (b) = Col. (c) ÷ Col. (a)

+100kV VOLTAGE DELIVERY CHARGE As Modified by Kroger		(a)	(b)	(c) = (a) x (b)	
		Kroger Proposed			
<u>Ln.</u>		<u>Units</u>	<u>Unit</u>	<u>Annual</u>	<u>Source</u>
<u>No.</u>		<u>(kW)</u>	<u>Charge</u>	<u>Revenue</u>	
			<u>(\$/kW)</u>		
16	DS-3 +100kV Demand Charge	4,302	0.090	\$387	Col (b) = Ln 15
17	DS-4 +100KV Demand Charge	<u>2,221,713</u>	<u>0.077</u>	<u>\$171,072</u>	Col (b) = Ln 15
18	Total DS-3 & DS-4	2,226,015	0.077	\$171,459	Col. (b) = Col. (c) ÷ Col. (a)

DS-3 and DS-4 Distribution Delivery Charges Moved 50% to Convergence

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DERIVATION OF DEMAND CHARGE DIFFERENTIALS AND DS-4 REACTIVE DEMAND REVENUE DISCOUNT

Ln. <u>No.</u>		(a)	
Derivation of Primary Voltage Differential Reduction			
19	Current DS-3 Demand Charges (\$/kW)	\$4.111	Ameren Ex, 16.6E, p. 4 of 8.
20	Current DS-4 Demand Charges (\$/kW)	\$2.880	Ameren Ex, 16.6E, p. 4 of 8.
21	Current Difference	\$1.231	= Ln. 19 - Ln. 20
22	Less: DS-4 Reactive Demand Revenue Discount (\$/KW)	(\$0.267)	= -Ln. 37, Col. (c) ÷ Ln. 2, Col (a)
23	Net Difference	\$0.964	= Ln. 21 + Ln. 22
24	50% of DS-3/DS-4 Net Difference (\$/kW)	\$0.482	= 50% x Ln. 23
 Derivation of High Voltage Differential Reduction			
25	Current DS-3 Demand Charges (\$/kW)	\$1.260	Ameren Ex, 16.6E, p. 4 of 8.
26	Current DS-4 Demand Charges (\$/kW)	\$0.888	Ameren Ex, 16.6E, p. 4 of 8.
27	Current Difference	\$0.372	= Ln. 25 - Ln. 26
28	Less: DS-4 Reactive Demand Revenue Discount (\$/KW)	(\$0.121)	= -Ln. 38, Col. (c) ÷ Ln. 8, Col (a)
29	Net Difference	\$0.251	= Ln. 27 + Ln. 28
30	50% of DS-3/DS-4 Net Difference (\$/kW)	\$0.126	= 50% x Ln. 29
 Derivation of +100kV Differential Reduction			
31	Current DS-3 Demand Charges (\$/kW)	\$0.081	Ameren Ex, 16.6E, p. 4 of 8.
32	Current DS-4 Demand Charges (\$/kW)	\$0.055	Ameren Ex, 16.6E, p. 4 of 8.
33	Current Difference	\$0.026	= Ln. 31 - Ln. 32
34	Less: DS-4 Reactive Demand Revenue Discount (\$/KW)	\$0.000	Not Applicable
35	Net Difference	\$0.026	= Ln. 33 + Ln. 34
36	50% of DS-3/DS-4 Net Difference (\$/kW)	\$0.013	= 50% x Ln. 35

Allocation of DS4 Reactive Demand Revenue

	(a) Ameren Proposed DS-4 Demand Revenue	(b) Ameren Proposed DS-4 Revenue Percent	(c) = (b) x (c) Total Allocation of DS4 Reactive Demand Revenue ¹
37 Secondary & Primary Voltage	\$8,994,864	59%	\$788,721
38 High Voltage	\$6,303,928	41%	\$552,764
39 Total	\$15,298,793	100%	\$1,341,485

Note 1. Total DS-4 Reactive Demand Revenue = \$0.29/kVar x 4,625,809 kVar (see Ameren Exhibit 16.14E, page 4 of 6.)

DS-3 and DS-4 Distribution Delivery Charges Moved 50% to Convergence

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PRIMARY VOLTAGE DELIVERY CHARGE As Proposed by Ameren		(a)	(b)	(c) = (a) x (b)	
		Ameren Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
1	DS-3 Low Voltage Demand Charge (Sec. & Pri.)	2,101,700	5.711	\$12,002,809	Ameren Ex, 16.14E, p. 5 of 6.
2	DS-4 Low Voltage Demand Charge (Sec. & Pri.)	<u>1,330,425</u>	<u>3.016</u>	<u>\$4,012,562</u>	Ameren Ex, 16.14E, p. 6 of 6.
3	Total DS-3 & DS-4	3,432,125	4.666	\$16,015,371	Col. (b) = Col. (c) ÷ Col. (a)
PRIMARY VOLTAGE DELIVERY CHARGE As Modified by Kroger		(a)	(b)	(c) = (a) x (b)	
		Kroger Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
4	DS-3 Low Voltage Demand Charge (Sec. & Pri.)	2,101,700	5.055	\$10,624,094	Input
5	DS-4 Low Voltage Demand Charge (Sec. & Pri.)	<u>1,330,425</u>	<u>4.052</u>	<u>\$5,390,882</u>	Col (b) = Ln. 4, Col. (b) - Ln. 2
6	Total DS-3 & DS-4	3,432,125	4.666	\$16,014,976	Col. (b) = Col. (c) ÷ Col. (a)
HIGH VOLTAGE DELIVERY CHARGE As Proposed by Ameren		(a)	(b)	(c) = (a) x (b)	
		Ameren Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
7	DS-3 High Voltage Demand Charge (HV)	41,208	1.643	\$67,705	Ameren Ex, 16.14E, p. 5 of 6.
8	DS-4 High Voltage Demand Charge (HV)	<u>1,358,536</u>	<u>0.954</u>	<u>\$1,296,043</u>	Ameren Ex, 16.14E, p. 6 of 6.
9	Total DS-3 & DS-4	1,399,744	0.974	\$1,363,748	Col. (b) = Col. (c) ÷ Col. (a)
HIGH VOLTAGE DELIVERY CHARGE As Modified by Kroger		(a)	(b)	(c) = (a) x (b)	
		Kroger Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
10	DS-3 High Voltage Demand Charge (HV)	41,208	1.179	\$48,584	Input
11	DS-4 High Voltage Demand Charge (HV)	<u>1,358,536</u>	<u>0.968</u>	<u>\$1,315,063</u>	Col (b) = Ln. 10, Col. (b) - Ln. 3
12	Total DS-3 & DS-4	1,399,744	0.974	\$1,363,647	Col. (b) = Col. (c) ÷ Col. (a)
+100kV VOLTAGE DELIVERY CHARGE As Proposed by Ameren		(a)	(b)	(c) = (a) x (b)	
		Ameren Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
13	DS-3 +100kV Demand Charge	0	0.049	\$0	Ameren Ex, 16.14E, p. 5 of 6.
14	DS-4 +100KV Demand Charge	<u>3,630,955</u>	<u>0.033</u>	<u>\$119,822</u>	Ameren Ex, 16.14E, p. 6 of 6.
15	Total DS-3 & DS-4	3,630,955	0.033	\$119,822	Col. (b) = Col. (c) ÷ Col. (a)
+100kV VOLTAGE DELIVERY CHARGE As Modified by Kroger		(a)	(b)	(c) = (a) x (b)	
		Kroger Proposed			
		Unit			
Ln. No.		Units (kW)	Charge (\$/kW)	Annual Revenue	Source
16	DS-3 +100kV Demand Charge	0	0.045	\$0	Input
17	DS-4 +100KV Demand Charge	<u>3,630,955</u>	<u>0.033</u>	<u>\$119,822</u>	Col (b) = Ln. 16, Col. (b) - Ln. 3
18	Total DS-3 & DS-4	3,630,955	0.033	\$119,822	Col. (b) = Col. (c) ÷ Col. (a)

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DS-3 and DS-4 Distribution Delivery Charges Moved 50% to Convergence

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DERIVATION OF DEMAND CHARGE DIFFERENTIALS AND DS-4 REACTIVE DEMAND REVENUE DISCOUNT

Ln. <u>No.</u>		(a)	
Derivation of Primary Voltage Differential Reduction			
19	Current DS-3 Demand Charges (\$/kW)	\$4.633	Ameren Ex, 16.6E, p. 6 of 8.
20	Current DS-4 Demand Charges (\$/kW)	\$2.444	Ameren Ex, 16.6E, p. 6 of 8.
21	Current Difference	\$2.189	= Ln. 19 - Ln. 20
22	Less: DS-4 Reactive Demand Revenue Discount (\$/KW)	(\$0.183)	= -Ln. 37, Col. (c) ÷ Ln. 2, Col (a)
23	Net Difference	\$2.006	= Ln. 21 + Ln. 22
24	50% of DS-3/DS-4 Net Difference (\$/kW)	\$1.003	= 50% x Ln. 23
 Derivation of High Voltage Differential Reduction			
25	Current DS-3 Demand Charges (\$/kW)	\$1.019	Ameren Ex, 16.6E, p. 6 of 8.
26	Current DS-4 Demand Charges (\$/kW)	\$0.540	Ameren Ex, 16.6E, p. 6 of 8.
27	Current Difference	\$0.479	= Ln. 25 - Ln. 26
28	Less: DS-4 Reactive Demand Revenue Discount (\$/KW)	(\$0.058)	= -Ln. 38, Col. (c) ÷ Ln. 8, Col (a)
29	Net Difference	\$0.421	= Ln. 27 + Ln. 28
30	50% of DS-3/DS-4 Net Difference (\$/kW)	\$0.211	= 50% x Ln. 29
 Derivation of +100kV Differential Reduction			
31	Current DS-3 Demand Charges (\$/kW)	\$0.056	Ameren Ex, 16.6E, p. 6 of 8.
32	Current DS-4 Demand Charges (\$/kW)	\$0.032	Ameren Ex, 16.6E, p. 6 of 8.
33	Current Difference	\$0.024	= Ln. 31 - Ln. 32
34	Less: DS-4 Reactive Demand Revenue Discount (\$/KW)	\$0.000	Not Applicable
35	Net Difference	\$0.024	= Ln. 33 + Ln. 34
36	50% of DS-3/DS-4 Net Difference (\$/kW)	\$0.012	= 50% x Ln. 35

Allocation of DS4 Reactive Demand Revenue

	(a) Ameren Proposed DS-4 Demand Revenue	(b) Ameren Proposed DS-4 Revenue Percent	(c) = (b) x (c) Total Allocation of DS4 Reactive Demand Revenue ¹
37 Secondary & Primary Voltage	\$4,012,562	76%	\$243,045
38 High Voltage	\$1,296,043	24%	\$78,503
39 Total	\$5,308,605	100%	\$321,548

Note 1. Total DS-4 Reactive Demand Revenue = \$0.29/kVar x 1,108,788 kVar (see Ameren Exhibit 16.14E, page 6 of 6.)