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

RECEIVED

APR 23 2010

**PUBLIC SERVICE
COMMISSION**

CASE NO. 2009-00548

**APPLICATION OF
KENTUCKY UTILITIES COMPANY
FOR AN ADJUSTMENT OF BASE RATES**

**DIRECT TESTIMONY OF
DENNIS W. GOINS
ON BEHALF OF KENTUCKY INDUSTRIAL
UTILITY CUSTOMERS, INC.**

April 22, 2010

TABLE OF CONTENTS

	Page
INTRODUCTION AND QUALIFICATIONS.....	1
CONCLUSIONS.....	4
RECOMMENDATIONS.....	5
BACKGROUND.....	6
KU'S CURTAILABLE RATES.....	16
RIDERS CSR10 AND CSR30.....	24
EXHIBITS	
APPENDIX	

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

APPLICATION OF KENTUCKY
UTILITIES COMPANY FOR AN
ADJUSTMENT OF BASE RATES

§
§
§

CASE No. 2009-00548

**DIRECT TESTIMONY OF
DENNIS W. GOINS
ON BEHALF OF
KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.**

INTRODUCTION AND QUALIFICATIONS

1

2 **Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS**
3 **ADDRESS.**

4 **A.** My name is Dennis W. Goins. I operate Potomac Management Group, an
5 economics and management consulting firm. My business address is 5801
6 Westchester Street, Alexandria, Virginia 22310.

7 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND**
8 **PROFESSIONAL BACKGROUND.**

9 **A.** I received a Ph.D. degree in economics and a Master of Economics degree
10 from North Carolina State University. I also earned a B.A. degree with
11 honors in economics from Wake Forest University. Following graduate
12 school I worked as a staff economist at the North Carolina Utilities
13 Commission (NCUC). During my tenure at the NCUC, I testified in
14 numerous cases involving electric, gas, and telephone utilities on such
15 issues as cost of service, rate design, intercorporate transactions, and load

1 forecasting. While at the NCUC, I also served as a member of the
2 Ratemaking Task Force in the national Electric Utility Rate Design Study
3 sponsored by the Electric Power Research Institute (EPRI) and the
4 National Association of Regulatory Utility Commissioners (NARUC).

5 For the past 32 years I have worked as an economic and management
6 consultant to firms and organizations in the private and public sectors. My
7 assignments focus primarily on market structure, policy, planning, and
8 pricing issues involving firms that operate in energy markets. For example,
9 I have conducted detailed analyses of product pricing, cost of service, rate
10 design, and interutility planning, operations, and pricing; prepared
11 analyses related to utility mergers, transmission access and pricing, and the
12 emergence of competitive markets; evaluated and developed regulatory
13 incentive mechanisms applicable to utility operations; and assisted clients
14 in analyzing and negotiating interchange agreements and power and fuel
15 supply contracts. I have also assisted clients on electric power market
16 restructuring issues in Arkansas, New Jersey, New York, South Carolina,
17 Texas, and Virginia.

18 I have submitted testimony and affidavits and provided technical
19 assistance in more than 100 proceedings before state and federal agencies
20 as an expert in competitive market issues, regulatory policy, utility
21 planning and operating practices, cost of service, and rate design. These
22 agencies include the Federal Energy Regulatory Commission (FERC), the
23 Government Accountability Office, the First Judicial District Court of
24 Montana, the Circuit Court of Kanawha County, West Virginia, and
25 regulatory agencies in Alabama, Arizona, Arkansas, Colorado, Florida,
26 Georgia, Idaho, Illinois, Indiana, Kentucky, Louisiana, Maine, Maryland,
27 Massachusetts, Minnesota, Mississippi, New Jersey, New York, North
28 Carolina, Ohio, Oklahoma, South Carolina, Texas, Utah, Vermont,
29 Virginia, West Virginia, and the District of Columbia. Additional details

1 of my educational and professional background are presented in the
2 Appendix.

3 **Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS**
4 **PROCEEDING?**

5 **A.** I am appearing on behalf of the Kentucky Industrial Utility Customers,
6 Inc. (KIUC). One of the KIUC members is served under curtailable
7 service Rider CSR3 by Kentucky Utilities Company (KU).

8 **Q. WHAT ASSIGNMENT WERE YOU GIVEN WHEN YOU WERE**
9 **RETAINED?**

10 **A.** I was asked to undertake two primary tasks:

- 11 1. Review KU's proposed revisions to its curtailable/interruptible
12 service.¹
- 13 2. Identify any major deficiencies in KU's curtailable service rate
14 proposals, and recommend necessary changes.

15 **Q. WHAT INFORMATION DID YOU REVIEW IN CONDUCTING**
16 **YOUR EVALUATION?**

17 **A.** I reviewed KU's filing, testimony, exhibits, and responses to requests for
18 information.² I also reviewed testimony and Commission orders in prior
19 KU rate and integrated resource planning (IRP) cases. Finally, I reviewed
20 information found on web sites operated by KU's parent company, E.ON
21 U.S., FERC, and the Commission.

¹ KU uses *curtailable* in designating its current and proposed rate options for nonfirm service for large commercial and industrial customers. Curtailable or interruptible load is generally associated with a customer's agreement either to reduce load to zero or no more than the customer's firm contract demand, or to provide a contractually stated reduction in demand when requested by the host utility. In my testimony, I use the terms *curtailable* and *interruptible* interchangeably except when referring to specific KU nonfirm rate options that are designated *curtailable*.

² I have included selected relevant responses related to KU's curtailable rates in Exhibit DWG-1.

1 **CONCLUSIONS**

2 **Q. WHAT CONCLUSIONS HAVE YOU REACHED?**

3 **A.** On the basis of my review and evaluation, I have concluded the following:

- 4 1. KU currently offers three curtailable rate options—Riders CSR1,
5 CSR2, and CSR3—under which customers receive an
6 administratively set credit for their curtailable load measured
7 during specified periods.³ These riders are differentiated by the
8 length of notice a customer receives before a curtailment begins,
9 maximum annual hours of curtailment permitted, types of
10 curtailment (physical or economic buy-through),⁴ and level of the
11 interruptible demand charge credit.
- 12 2. In this case, KU has proposed replacing Riders CSR1, CSR2, and
13 CSR3 with Rider CSR—a major change that KU did not review in
14 advance with current interruptible customers. Rider CSR retains
15 the credit in Rider CSR1, increases the hours of curtailment under
16 each existing rider, more than doubles the hours of curtailment
17 under Riders CSR1 and CSR3—the only curtailable riders with
18 customers, and subjects customers to both physical and economic
19 buy-through curtailments. Rider CSR also changes the way a
20 customer’s monthly curtailable demand is calculated, and modifies
21 how buy-through energy is priced, moving from a market-based
22 pricing approach to a formula rate linked to a fixed heat rate and a
23 daily natural gas price index.
- 24 3. KU’s proposed Rider CSR curtailable credits and total hours of
25 curtailments are inconsistent with provisions in the current

³ KU’s affiliated operating company—Louisville Gas and Electric Company (LG&E)—offers the same three curtailable rate options.

⁴ During a physical curtailment, a customer does not have the option to buy curtailable energy during the curtailment at a market- or formula-based price. In contrast, a rider with a buy-through option allows a customer either to buy curtailable energy during the curtailment at a market- or formula-based price, or to reduce load to or below the customer’s firm contract demand.

1 curtailable riders. Consider existing Rider CSR2—which has the
2 highest current curtailable credit and requires customers to accept
3 the highest number of curtailable hours (425). KU wants to
4 increase curtailable hours under Rider CSR to 500 hours annually,
5 yet pay a smaller credit than customers can currently get under
6 Rider CSR2. Similarly, KU now wants to subject CSR1 customers
7 to 300 additional hours of curtailment—at least 100 hours of which
8 may be physical curtailment with no buy-through—while paying
9 them the same CSR1 credit they receive now.

- 10 4. KU's proposed Rider CSR is an attempt to make one size
11 curtailable service that fits all customers. Most effective
12 interruptible rate programs with which I am familiar not only try to
13 maximize the capacity savings and reliability enhancements from
14 interruptible load, but also attempt to encourage customer
15 participation by designing options that recognize customers'
16 operating and safety concerns. For example, some Rider CRS1
17 customers that have tailored their operations to comply with 20-
18 minutes notice curtailments may be unable to interrupt with only
19 10-minutes notice. KU's proposed Rider CSR ignores this
20 potential customer constraint, and could result in valuable
21 interruptible load leaving KU's system.

22 RECOMMENDATIONS

23 Q. WHAT DO YOU RECOMMEND ON THE BASIS OF THESE 24 CONCLUSIONS?

25 A. I recommend that the Commission:

- 26 1. Reject KU's proposal to replace Riders CSR1, CSR2, and CSR3
27 with Rider CSR. The proposed rider is too restrictive, provides
28 under-stated curtailable credits, is unlikely to attract new

1 customers, and could result in current interruptible load leaving the
2 KU system.

3 2. Consolidate KU's current curtailable rate options into two new
4 riders with minimum curtailment notices set at 10-minutes (Rider
5 CSR10) and 30 minutes (Rider CSR30). These new options
6 incorporate several elements from KU's proposed Rider CSR.
7 However, unlike Rider CSR, Riders CSR10 and CSR30 customers,
8 but also increase the curtailable credits they receive. I discuss
9 Riders CSR10 and CSR30 in detail later in my testimony.
10 However, key elements of the proposed riders should be noted.
11 Specifically, they:

12 ■ Increase maximum curtailment hours (relative to current
13 riders) to 350 hours, of which 100 hours may be physical
14 curtailment and 250 hours may be buy-through curtailment. In
15 contrast, the current Rider CSR1 has a maximum of 200 hours
16 of curtailment with no physical curtailment,⁵ while Rider
17 CSR3 has a maximum of 100 hours of physical curtailment
18 with no buy-through.

19 ■ Increase credits to \$5.40-\$5.50 per kW-month for CSR10
20 customers and \$5.20-\$5.30 per kW-month for CSR30
21 customers.

22 ■ Require KU to give a good faith estimate of a curtailment's
23 estimated duration when KU issues a curtailment notice.

24 ■ Eliminate take-or-pay billing for buy-through energy blocks,
25 and instead charge customers only for buy-through energy they
26 actually use during a buy-through curtailment.

⁵ Although Riders CSR1 and CSR2 have buy-through options, customers have no guarantee that buy-through energy will be available during a curtailment. If market-based buy-through energy is not available to supply a customer's curtailable load, then the customer must reduce load to firm contract demand or pay a noncompliance penalty for load in excess of firm demand. In effect, if buy-through energy is not available, a buy-through curtailment becomes a physical curtailment.

1 **Q. ARE INTERRUPTIBLE SERVICE AND RATE OPTIONS**
2 **COMMON IN THE ELECTRIC UTILITY INDUSTRY?**

3 **A.** Yes. Interruptible service is and has been a common service offered by
4 most electric utilities. Federal legislation passed in 1978 (PURPA)
5 recognized the value of interruptible rates and required state regulatory
6 commissions to consider adopting them. Current federal policy continues
7 to support such rates and other demand response mechanisms. A 2006
8 report by the Brattle Group on behalf of the Edison Electric Institute
9 described interruptible service as follows:

10 Utilities traditionally have offered large commercial and industrial
11 customers such credits through interruptible service tariffs. Under
12 such tariffs, customers typically receive a credit in return for
13 agreeing to curtail all or a significant portion of their load up to
14 several times a year, at times when the utility has a system operating
15 emergency or when incremental generating costs are very high.
16 Although enrollment in these programs usually is voluntary, the
17 participant can face significant financial penalties if it fails to reduce
18 demand when directed to do so, such as paying the spot market price
19 for electricity consumed during a requested interruption period.
20 Curtailable demand provides the utility or system operator with
21 another resource to maintain system stability when resources are
22 tight and also can reduce a utility's installed capacity obligations.⁶

23 **Q. DO INTERRUPTIBLE LOADS PROVIDE TANGIBLE CAPACITY,**
24 **OPERATING, AND ECONOMIC BENEFITS?**

25 **A.** Yes. Interruptible load can and should be a significant element of any
26 electric utility's demand-response efforts. Interruptible load has long been
27 recognized as a means to avoid the cost of adding generating and
28 transmission capacity. It provides operating reliability benefits by
29 substituting, in certain cases, for such ancillary services as spinning and
30 operating reserves. Interruptible load expands the range of resources

⁶ Frank Graves, et. al., *PURPA: Making the Sequel Better than the Original* (EEI, December 2006) at 35.

1 available to meet contingencies, lowers customer costs, and can even be
2 used to mitigate wholesale price volatility and curb potential market power
3 problems. Interruptible service is also a form of insurance or safety net,
4 protecting against emergency situations if and when they occur. In
5 addition, interruptible load can create environmental benefits by avoiding
6 the impacts of constructing and operating fossil generation.

7 As I noted, interruptible load can be used in wholesale markets to
8 reduce prices and price volatility. For example, market-clearing prices fell
9 by \$100-\$200/MWh on a peak day in August 2006 in the Midwest ISO
10 when interruptible load was used in response to a call for demand
11 reductions.⁷ Similarly, KU's current Riders CSR1 and CSR2⁸ allow
12 economic interruptions with a buy-through option when called by KU.
13 These economic curtailments reduce the need to purchase power at
14 elevated prices, thereby reducing supply costs for the utility and its
15 customers. Interruptible customers typically are allowed to buy through
16 economic interruptions—but only at higher formula- or market-based
17 prices that exceed base rate prices, transferring the risk of high prices from
18 all consumers to the interruptible customer. By reducing demand during
19 high-cost periods, economic curtailments mitigate conditions that produce
20 price spikes.

21 Interruptible load also helps states to promote economic development
22 and manufacturing jobs retention. The availability of an effective
23 interruptible service option is often a key factor in determining where a
24 manufacturing facility is located, particularly if the manufacturing process
25 is energy intensive. In addition, the continuing long-term availability of a

⁷ Federal Energy Regulatory Commission Staff Report, *2007 Assessment of Demand Response and Advanced Metering* at 6-7 (September 2007).

⁸ The buy-through option is available to a CSR2 customer only if the customer has been served under Rider CSR2 for three years with no noncompliance penalties for failure to comply with a curtailment request.

1 cost-effective interruptible rate option can help keep established firms
2 competitive and growing.

3 **Q. IN YOUR OPINION, WHY DO LARGE MANUFACTURING**
4 **FIRMS GENERALLY TAKE INTERRUPTIBLE SERVICE?**

5 **A.** Firms with flexible manufacturing processes involving electricity-
6 intensive equipment—for example, kilns and arc furnaces—often find it
7 economically essential to use nonfirm electric service to control
8 production costs and maintain or improve their competitive position in
9 national and global markets. Such firms neither want nor need firm
10 service to manufacture their products. Instead, they need reasonable and
11 fairly priced interruptible rate options that provide mutual benefits to
12 them, their host utility, and firm service customers.

13 **Q. HOW SHOULD INTERRUPTIBLE SERVICE BE PRICED?**

14 **A.** Interruptible service should be priced to reflect the supplier's reduced cost
15 of providing interruptible service—often though firm service credits or
16 discounts that reflect avoided cost savings and reduced costs of service.
17 For example, the EEI report I noted earlier states:

18 At a high level, one first needs to determine the types of costs that a
19 utility could avoid as a result of customer demand reductions. Peak
20 load reductions enable a utility to avoid serving a portion of its load
21 at times when marginal energy prices are high, so they clearly enable
22 the utility to avoid energy costs (i.e., fuel and other variable
23 production costs). Moreover, peak load reductions that a utility can
24 count on in a planning sense could enable a utility to avoid building
25 or purchasing peak generating capacity, which suggests that the
26 credits could reflect the capacity cost of peaking units, such as
27 combustion turbines. Interruptible customers do not enable a utility
28 to avoid the sunk costs of any existing peaking units; they only
29 potentially enable a utility to avoid capacity costs associated with
30 prospective peaking units. Since avoidable costs are, by definition,
31 costs that have yet to be incurred, credits should be based on

1 prospective capacity costs that the utility would incur “but for” the
2 load reduction provided for by the customer with curtailable load.⁹

3 **Q. SHOULD AN INTERRUPTIBLE RATE RECOVER ANY FIXED**
4 **PRODUCTION AND TRANSMISSION COSTS?**

5 **A.** No. From a pricing standpoint, interruptible rates—although they provide
6 demand response benefits—should not be viewed as an incentive program
7 similar to typical energy efficiency and demand-side management
8 programs. Instead, interruptible rates should reflect basic cost principles.
9 Fundamental economic theory demonstrates that interruptible customers
10 do not cause the utility to incur production and bulk transmission capacity
11 costs. For example, Professor James C. Bonbright, a recognized pricing
12 authority, advocated pricing interruptible service to reflect no capacity-
13 related cost of service:

14 Interruptible service has been used by both gas and electric
15 companies for peak shaving. The costs cannot be accurately
16 determined because it is a byproduct resulting from generating and
17 bulk transmission facilities built and operated for firm service (see
18 Nissel, 1983). As a result, only the customer cost (e.g., customer-
19 connected spur lines and substations) and energy costs (e.g., fuel and
20 incremental maintenance cost) actually incurred and *no capacity*
21 *pricing cost should be included in pricing interruptible service.*

22 While some feel that it is an impropriety to treat interruptible
23 customers as if they were firm customers, they still opine that it
24 would be fair and reasonable to obtain a small contribution from
25 them for capacity costs. This is debatable.¹⁰

⁹ Graves, *op cit.* at 35. (references omitted).

¹⁰ James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, *Principles of Public Utility Rates*, Arlington, Virginia: Public Utilities Reports, Inc., 1988, at 502 (emphasis added).

1 Q. WHAT FACTOR SHOULD BE THE PRIMARY GUIDE IN
2 SETTING DEMAND CREDITS FOR KU'S CURTAILABLE
3 SERVICE OPTIONS?

4 A. In determining the capacity value of an interruptible credit, the main
5 consideration is the long-term avoided cost of peaking generation capacity.
6 Several recent analyses and studies put this cost in the range of \$75-\$136
7 per kW-year. For example, a 2006 U.S. Department of Energy report
8 stated that the avoided capacity cost of a peaking unit is approximately
9 \$75 per kW-year, or \$6.25 per kW-month.¹¹ In its RPM construct, PJM
10 uses an administratively-set *cost of new entry* (CONE) value to represent
11 the minimum capacity payment required to induce new capacity to enter
12 the market. PJM's tariff defines CONE as the nominal levelized cost of a
13 combustion turbine generating station.¹² For 2007-2011, the CONE value
14 is \$72,207 per MW-year, or \$6.02 per kW-month. For 2012-2013, PJM's
15 CONE has been set at \$112,868 per MW-year, or \$9.41 per kW-month.¹³
16 These estimates are for avoided generation units only, and do not reflect
17 additional transmission and distribution capacity cost savings that may be
18 associated with interruptible load.

¹¹ U.S. Department of Energy, *Benefits of Demand Response in Electricity Markets and Recommendations for Achieving Them* at 74 (2006). The DOE report states:

Demand response programs designed to reduce capacity needs are valued according to the marginal cost of capacity. By convention, marginal capacity is assumed to be a "peaking unit," a generator specifically added to run in relatively few hours per year to meet peak system demand. Currently, peaking units are typically natural gas turbines with annualized capital costs on the order of \$75/kilowatt-year.

¹² PJM Tariff, Attachment DD at sections 2.16 and 2.58.

¹³ *Id.* at section 5.10(a)(iv).

1 Q. ARE THE CAPACITY VALUES FROM THE DOE REPORT AND
2 PJM'S 2007-2011 CONE LIKELY UNDERSTATED?

3 A. Yes. The DOE report relies on a 2004 cost estimate, and the 2007-2011
4 CONE value was calculated in 2005. At the end of 2008, PJM filed to
5 revise its CONE at FERC. In its filing, PJM explained:

6 There is little dispute that construction costs have increased
7 substantially since 2005, when the CONE estimate now in the PJM
8 Tariff was completed. As the Commission's staff advised in a report
9 to the Commission in June 2008, "new construction is becoming
10 more expensive." Similarly, Cambridge Energy Research
11 Associates reported last year that its proprietary Power Capital Costs
12 Index "has been on an upward trend since 2000 [with] a surge that
13 began in 2005 has [pushed] costs up 76 percent in the past three
14 years." An extensive study by the Brattle Group (separate from the
15 Battle Report on RPM) also documented recent electric plant
16 increases and discussed their causes. That study shows, for
17 example, that "the cumulative increase in the installation cost of new
18 combined-cycle units [from 2000 to 2006] was almost 95 percent
19 with much of this increase occurring in 2006." Moreover, according
20 to the Handy-Whitman Index, a widely used resource that tracks
21 electric plant cost escalations, the cost of combustion turbine power
22 plants have increased by about 35 percent in the last three years.¹⁴

23 These significant increases in capacity costs are reflected in PJM's 2012-
24 2013 CONE value.

25 The Midwest Independent System Operator (MISO) has also developed
26 CONE values similar to those developed in PJM. For the 2009-2010
27 planning year, the MISO CONE was \$80,000 per MW-year (or \$6.67 per
28 kW-month).¹⁵ MISO updated its CONE for the 2010-2011 planning year,
29 increasing it to \$90,000 per MW-year (or \$7.50 per kW-month).¹⁶

¹⁴ PJM Interconnection, LLC Amendments to the PJM Open Access Transmission Tariff and the Reliability Assurance Agreement under ER09-412-000 at 8-9 (December 12, 2008) (citations omitted).

¹⁵ See MISO's response to KIUC 1-18 in Case No. 2010-00048. This data response is available at <http://psc.ky.gov/pscscf/2010%20cases/2010-00048/>.

¹⁶ Midwest Independent System Operator, annual CONE recalculation, FERC Docket No. ER08-394-023 (July 31, 2009).

1 Interruptible credits reflecting long-run avoided costs from the DOE,
2 PJM, and MISO analyses (including an 18 percent adjustment for reserves
3 and losses) are shown in Table 1 below.¹⁷

Table 1. Interruptible Capacity Credits

Source	Year of Estimate	Interruptible Credit (\$/kW-mo.)	
		Capacity	Reserve+Losses
DOE	2004	\$6.25	\$7.38
PJM	2005	\$6.02	\$7.10
PJM	2008	\$9.41	\$11.10
MISO	2008	\$6.67	\$7.87
MISO	2009	\$7.50	\$8.85

4
5 **Q. IS THE AVOIDED COST OF A PEAKING GENERATING UNIT**
6 **THE ONLY FACTOR THAT SHOULD BE CONSIDERED IN**
7 **DEVELOPING AN INTERRUPTIBLE CREDIT?**

8 **A.** No. Interruptible load helps suppliers avoid not only peaking capacity
9 costs, but also the cost of reserve capacity that would have been required if
10 the interruptible load were firm, as well as the cost of transmission losses.
11 As a result, an interruptible capacity credit should be adjusted (increased)
12 to reflect the avoided cost of reserves and losses. A reasonable rule-of-
13 thumb for making this adjustment would be to increase the estimated
14 avoided peaking capacity cost by 15-20 percent. (An 18-percent
15 adjustment is used in Table 1.)

16 Curtailable rate options that allow economic interruptions should also
17 reflect avoided energy costs. In my discussion of KU's curtailable options
18 and credits, I focus only on avoided capacity costs and do not address
19 avoided energy costs linked to economic interruptions. As a result, the

¹⁷ For example, the reserve- and loss-adjusted capacity credit for DOE shown in Table 1 is derived by multiplying the \$6.25 per kW-month capacity value by 1.18.

1 recommended credits for KU's curtailable rate options with economic
2 interruptions that I discuss later are understated.

3 **Q. SHOULD OTHER FACTORS BE TAKEN INTO ACCOUNT IN**
4 **SETTING RIDER CSR'S INTERRUPTIBLE CREDIT?**

5 **A.** Yes. In addition to avoiding generation capacity costs, interruptible load
6 can be used to:

7 ■ Avoid bulk transmission costs. (None of the estimates shown in
8 Table 1 reflects such avoided costs.)

9 ■ Promote economic development and manufacturing jobs retention.

10 As I noted earlier, competitive rate options are often key factors in
11 decisions by electricity-intensive firms to locate production
12 facilities. Cost-based interruptible service helps attract and retain
13 large, energy-intensive industrial customers that provide jobs and
14 tax revenues—a fact that should not be forgotten in structuring
15 KU's interruptible program.

16 **Q. SHOULD AN INTERRUPTIBLE CREDIT BE BASED ON SUCH**
17 **SHORT-TERM MARKET MEASURES OF CAPACITY AS THE**
18 **ANNUAL COST OF CAPACITY BID IN RTO MARKETS OR**
19 **AVAILABLE IN WHOLESALE MARKETS?**

20 **A.** No. Short-run market prices fluctuate to reflect current market conditions
21 for existing generating capacity, while long-run avoided costs reflect the
22 cost of adding new capacity to meet demand growth. Long-run—not
23 short-run—capacity costs more accurately reflect avoided cost savings
24 attributable to interruptible service. Short-run prices do not give a clear
25 signal regarding the cost of capacity to serve future peak demands. In
26 addition, basing an interruptible credit or price on short-run market prices
27 is similar to relying solely on spot market purchases to meet future energy
28 needs—both approaches increase consumer risks via unstable and

1 unpredictable prices. Moreover, interruptible rates that reflect short-term
2 price fluctuations may impede the development of robust and effective
3 retail interruptible programs.

4 Firm customers may also be negatively affected by an interruptible
5 program linked to short-run-based credits during shortage periods where
6 short-run marginal pricing can drive the value of interruptible load far
7 above long-run avoided costs. For example, relying on spot markets is
8 wonderful as long as excess supply exists and prices are low. However,
9 when generation supply becomes scarce, short-run market prices can far
10 exceed the cost of new capacity that cannot be added immediately. In my
11 opinion, a key to developing a stable and effective interruptible program is
12 to rely on curtailable credits that reflect the long-run avoided cost of
13 adding capacity—not a short-term value that reflects capacity shortages.

14 **KU'S CURTAILABLE RATES**

15 **Q. PLEASE DESCRIBE KU'S CURRENT CURTAILABLE RATES.**

16 **A.** KU currently offers three stand-alone curtailable options—Riders CSR1,
17 CSR2, and CSR3. These riders are differentiated by the length of
18 curtailment notice, maximum annual hours of curtailment permitted, types
19 of curtailment (physical or economic buy-through), and level of the
20 interruptible demand charge credit. (See Table 1 below.) Under Riders
21 CSR1 and CSR3, customers receive at least 20-minutes notice before a
22 curtailment begins. Rider CSR2 has 10-minutes notice. Both Riders
23 CSR1 and CSR2 allow buy-through in all curtailment hours, but Rider
24 CSR3 has no buy-through. Riders CSR1 and CSR2 allow KU to curtail up
25 to 200 and 425 hours, respectively, each year, while Rider CSR3 physical
26 curtailments are limited to 100 hours annually. Interruptible credits range
27 from slightly above \$3 per kW-month for Rider CSR3 to around \$5 per
28 kW-month for Riders CSR1 and CSR2. KU currently serves two

1 curtailable customers—one under Rider CSR1 and one under Rider CSR3.
 2 LG&E serves 2 customers under Rider CSR1. No customers are served
 3 under Rider CSR2.

Table 2. KU and LG&E: Current Curtailable Options

<u>Item</u>	<u>CSR1</u>	<u>CSR2</u>	<u>CSR3</u>
Notice (minutes)	20	10	20
Curtailment Hours			
Physical	0	0	100
Buy-Through	200	425	0
Total	200	425	100
Credit (\$/kW-mo)			
Primary	5.20	5.69	3.20
Transmission	5.10	5.59	3.10
Customers			
KU	1	0	1
LG&E	2	0	0

4

5 **Q. HAS KU PROPOSED MAJOR CHANGES IN ITS CURTAILABLE**
 6 **SERVICE OPTIONS?**

7 **A.** Yes. In this case, KU has proposed replacing its three existing riders with
 8 a single curtailable rate option—Rider CSR. This new rider:

- 9 ■ Retains the credits in Rider CSR1 for primary and transmission
 10 service customers. The proposed CSR credits are less than the
 11 existing CSR2 credits and more than the current CSR3 credits.
- 12 ■ Increases the hours of curtailment relative to curtailment hours
 13 under each existing rider—with the largest increases going to the
 14 only curtailable riders with customers (that is, CSR1 and CSR3).
 15 For example, the 500 hours of maximum allowable curtailment
 16 under Rider CSR represent a 150-percent increase in curtailment
 17 hours for Rider CSR1 customers (200 hours to 500 hours) and a
 18 400-percent increase for the sole CSR3 customer (100 hours to 500
 19 hours).

- 1 ■ Subjects customers to both physical and economic buy-through
- 2 curtailments. As I noted earlier, all curtailments under current
- 3 Riders CSR1 and CSR2 are buy-through curtailments, while Rider
- 4 CSR3 has only physical curtailments.
- 5 ■ Changes the way a customer’s monthly curtailable demand is
- 6 calculated. Under Rider CSR, a customer’s monthly curtailable
- 7 demand (the demand for which the customer receives a credit) will
- 8 be restricted to measurements during hours in which KU’s system
- 9 demands are expected to be highest. KU has proposed restricting
- 10 measurement of curtailable demand to the Peak and Intermediate
- 11 period proposed in its new rate schedules—that is, 10 a.m.-10 p.m.,
- 12 Monday-Friday during May-September, and 6:00 a.m.-10:00 p.m.
- 13 Monday-Friday during October-April.
- 14 ■ Modifies how buy-through energy is priced. Under the existing
- 15 curtailable riders, buy-through energy is priced to reflect market-
- 16 based prices. Under Rider CSR, the price of buy-through energy
- 17 will be determined using a formula based on an indexed cost of
- 18 natural gas and a fixed heat rate (12,000 Btu per kWh) that reflects
- 19 an assumed heat rate for single-cycle combustion turbine.

20 Some of the key features of KU’s proposed Rider CSR compared to its
 21 current curtailable riders are shown in Table 3 below.

Table 3. KU and LG&E: Current and Proposed Curtailable Options

Item	CSR1	CSR2	CSR3	CSR
Notice (minutes)	20	10	20	10
Curtailment Hours				
Physical	0	0	100	100
Buy-Through	200	425	0	400
Total	200	425	100	500
Credit (\$/kW-mo)				
Primary	5.20	5.69	3.20	5.20
Transmission	5.10	5.59	3.10	5.10

22

1 **Q. DID KU CONSULT CURRENT CURTAILABLE CUSTOMERS**
2 **BEFORE DECIDING ON THE CHANGES PROPOSED IN RIDER**
3 **CSR?**

4 **A.** No.¹⁸

5 **Q. ARE THE CURTAILABLE CREDITS REFLECTED IN KU'S**
6 **PROPOSED RIDER CSR TOO LOW?**

7 **A.** Yes. The proposed Rider CSR credits are less than the credits in the
8 current Rider CSR2, which has 75 fewer hours of maximum curtailment
9 and no hours of physical curtailment. The proposed credits are also well
10 below credits based on the long-run avoided costs analyses that I
11 summarized in Table 1 earlier. Finally, the credits are far below credits
12 indicated by my analysis of the avoided cost of a combustion turbine using
13 a standard carrying cost approach. In this analysis, I estimated the implied
14 credits for interruptible load to be \$9.11 per kW-month for transmission
15 customers and \$9.28 per kW-month for primary customers. (See Exhibit
16 DWG-2.) These estimates are in line with the avoided cost values shown
17 in Table 1.

18 **Q. WHY DID KU SET THE CSR CREDITS FAR BELOW VALUES**
19 **INDICATED BY THE LONG-RUN AVOIDED COST OF**
20 **COMBUSTION TURBINE CAPACITY?**

21 **A.** According to KU, credits in the current curtailable riders overstate the
22 value of interruptible load. Speaking about the current credits in Rider
23 CSR1, KU witness Steven Seelye states:

¹⁸ See KU's response to KIUC data request 1-17.j in Exhibit DWG-1. This response mistakenly refers to KPSC data request 2-97 in this case. The correct reference is KU's response to KPSC data request in Case No. 2009-00549. Also see KU's response in this case to KPSC data request 2-86.b in Exhibit DWG-1.

1
2
3
4
5
6
7

When the credits set forth in CSR1 were developed they were based on the estimated carrying costs associated with a combustion turbine. In today's economic environment, these credits significantly overstate the value of curtailable service. Currently, the Company can purchase capacity in the marketplace at a much lower cost than the value of the credits being provided to its curtailable customers.¹⁹

8 **Q. DO YOU AGREE WITH KU?**

9 **A.** No. As I pointed out earlier, setting administratively determined
10 curtailable credits to reflect short-run market conditions is a short-sighted
11 and improper approach that ignores the long-term commitment (either
12 contractual or operational) reflected in the demand for interruptible service
13 by many large, electricity-intensive customers. Moreover, a short-run
14 focus in setting these credits is akin to asking a utility to base its test-year
15 revenue requirement to reflect current market conditions instead of costs
16 incurred to make long-lived investments in generation, transmission, and
17 distribution plant and equipment. A utility might like that option when
18 capacity is constrained and prices are high, but would abhor it when excess
19 capacity drives market prices down temporarily.

20 **Q. DO YOU HAVE OTHER CONCERNS ABOUT THE PROPOSED**
21 **CSR CREDITS?**

22 **A.** Yes. KU is asking curtailable customers to accept more hours of
23 curtailment at a lower credit than they can currently get under Rider
24 CSR2—an outcome that is counter-intuitive at best. At a minimum, one
25 would expect the CSR credits to be higher than the current CSR2 credits
26 given that Rider CSR not only increases maximum curtailment hours, but
27 also exposes all curtailable customers to 100 hours of physical curtailment
28 without buy-through.

¹⁹ See Steven Seelye, direct testimony at 22:1-5.

1 **Q. IS KU'S PROPOSAL TO LIMIT CURTAILMENT SERVICE TO A**
2 **10-MINUTES NOTICE OPTION REASONABLE?**

3 **A.** No. A 10-minutes notice curtailable option should be available to
4 customers, but it should not be the only option that KU offers. A 10-
5 minutes notice option is more valuable than a longer notice option (60
6 minutes) since it reduces the response time for using curtailable load
7 during system emergencies. A 10-minutes notice corresponds to the
8 minimum response time required to treat interruptible load as spinning
9 reserve capacity.²⁰ However, not all customers may be able to curtail load
10 with only 10-minutes notice because of operating and safety constraints.
11 Most utilities—including KU currently—recognize and address constraints
12 facing customers by tailoring curtailable rate options with different notice
13 requirements, as well as hours and frequency of interruption. KU now
14 proposes to force all customers into a one-size-fits-all curtailable rate
15 option that may be unsuitable not only for some current curtailable
16 customers, but also for new customers that may require interruptible
17 service to locate or expand production facilities in Kentucky.

18 **Q. DO YOU OBJECT TO KU'S PROPOSAL TO CHANGE THE WAY**
19 **BUY-THROUGH ENERGY IS PRICED?**

20 **A.** I do not object at this time, although I prefer a market-based pricing
21 approach. KU's decision to price buy-through energy on the basis of a
22 fixed heat rate and an indexed natural gas price (*Gas Daily* Dominion-
23 South Point) is intended to reflect the cost of operating a combustion
24 turbine. That approach seems both intuitive and reasonable. My concern
25 is that buy-through prices linked to an indexed natural gas price and a fixed
26 heat rate may not be indicative of actual market prices for short-term
27 energy. Under KU's proposal, customers face the risk of extremely high

²⁰ See KU's response to KIUC data request 1-19 in Exhibit DWG-1.

1 buy-through prices if natural gas prices increase significantly from current
2 levels.²¹ Moreover, even though KU's buy-through pricing model might
3 produce results that tend to track short-term energy prices reasonably well
4 in many situations, multiple factors can cause short-term energy prices and
5 buy-through prices from KU's pricing model to diverge significantly. This
6 issue deserves more analysis that either KU or I have presented in this
7 case. If KU's buy-through pricing approach is approved in this case, it
8 should be further reviewed and evaluated in a future case to determine if it
9 produces reasonable and fair results.

10 **Q. HOW DOES KU CURRENTLY DETERMINE THE AMOUNT OF**
11 **ENERGY A CUSTOMER PURCHASES DURING A BUY-**
12 **THROUGH CURTAILMENT?**

13 **A.** Under Riders CSR1 and CSR2, a customer's buy-through energy during a
14 curtailment equals a take-or-pay block of power that KU agrees to
15 purchase on behalf of the customer at a stated market price to meet the
16 customer's curtailable load requirements.

17 **Q. WILL THE DETERMINATION OF BUY-THROUGH ENERGY**
18 **CHANGE UNDER RIDER CSR?**

19 **A.** Yes. Rider CSR does not link buy-through energy to take-or-pay blocks of
20 energy that KU purchases on a customer's behalf. Instead, Rider CSR sets
21 buy-through energy during a curtailment equal to the:

- 22 ■ Difference between an Option A customer's measured demand and
23 firm load during a curtailment, times the number of hours in the
24 curtailment.
- 25 ■ Curtailable load designated in an Option B customer's contract
26 times the number of hours in the curtailment.

²¹ For example, under KU's proposal, the price of buy-through energy would be \$156 per MWh at an indexed gas price of \$13 per MMBtu.

1 The buy-through pricing formula is applied to a customer's buy-through
2 energy to determine the customer's total buy-through cost.

3 **Q. DO YOU AGREE WITH KU'S RIDER CSR METHOD OF**
4 **CALCULATING BUY-THROUGH ENERGY DURING A**
5 **CURTAILMENT?**

6 **A.** No. The CSR method retains the basic take-or-pay feature for measuring
7 buy-through energy under KU's current curtailable riders by assuming the
8 customer has a 100-percent load factor curtailable load during a
9 curtailment. This approach—which forces buy-through customers to pay
10 for energy they neither want nor use—may be reasonable if KU actually
11 buys blocks of power to supply curtailable load during buy-through
12 curtailments. However, Rider CSR does not link buy-through energy to
13 off-system market purchases that actually require KU to buy a take-or-pay
14 block of energy. Instead, KU can supply the CSR buy-through energy
15 through either system supply resources, market purchases that may or may
16 not be take-or-pay purchases, or a combination of system supply and
17 market purchases. In my opinion, curtailable customers should not pay for
18 phantom kWh on a take-or-pay basis. They should be charged only for
19 buy-through energy they use during a curtailment.

20 **Q. HOW COULD A CUSTOMER'S BUY-THROUGH ENERGY BE**
21 **DETERMINED UNDER RIDER CSR WITHOUT A TAKE-OR-PAY**
22 **FEATURE?**

23 **A.** A straightforward approach for an Option A customer under Rider CSR
24 would be to set the customer's buy-through curtailment energy equal to the
25 customer's total energy use during the curtailment, less the customer's
26 firm demand times the number of hours in the curtailment. In other words,
27 instead of assuming a 100-percent load factor for the customer's

1 curtailable load, assume a 100-percent load factor for the customer's firm
2 demand during a curtailment.

3 At the current time, buy-through energy for Option B customers should
4 continue to be priced on a take-or-pay basis as KU proposes. An Option B
5 customer agrees to provide a specified amount of curtailable load when
6 requested by KU. As a result, pricing buy-through energy for Option B
7 customers could be viewed similarly to either a block energy purchase or
8 my recommended approach for handling firm demand in estimating an
9 Option A customer's buy-through energy—that is, assume the Option B
10 curtailable load has a 100-percent load factor. If this pricing approach is
11 adopted for Option B customers in this case, I recommend that it be
12 evaluated and considered again in a future KU rate case to determine if a
13 better way exists to price Option B buy-through energy.

14 **Q. WILL RIDER CSR'S AVAILABILITY BE RESTRICTED?**

15 **A.** Yes. KU has proposed restricting Rider CSR's availability to no more
16 than 200 MW of total requirements subject to curtailment. KU provides
17 no information that this limit is large enough even to accommodate current
18 CSR1 and CSR3 curtailable customers, much less new customers that
19 might want and need curtailable service. Regarding the 200-MW limit,
20 KU says the following:

21 The 200 MW limit has long term planning implications. Since
22 customers have the ability to exit the CSR, the Company must
23 consider the extended time horizon for planning and
24 constructing new generation resources. For example, a higher
25 CSR limit could pose risk if customers decided to exit
26 curtailable service, since the Company would be required to
27 provide additional supply without sufficient planning and
28 construction timelines.²²

²² See KU's response to KIUC data request 1-17.b in Exhibit DWG-1.

1 **Q. SHOULD KU BE ALLOWED TO RESTRICT RIDER CSR'S**
2 **AVAILABILITY TO 200 MW?**

3 **A.** No. The 200-MW limit appears unreasonable and not based on any
4 demonstrable risk that KU faces. For example, KU's testimony does not
5 indicate whether the 200-MW limit could even accommodate the
6 curtailable loads of current CSR1 and CSR3 customers—much less new
7 curtailable loads. Moreover, for many large customers with electricity-
8 intensive manufacturing processes, firm electric service is not an
9 economically viable alternative. Such customers are likely to remain long-
10 term curtailable customers. However, if potential switching from
11 curtailable to firm service imposes real and demonstrable planning and
12 financial risks to KU, then KU can take such steps as increasing the
13 contract term requirement for curtailable service or including contract
14 provisions that address costing and pricing issues that might arise if
15 customers switch from interruptible to firm service. Imposing an arbitrary
16 availability limit on Rider CSR service is not an optimal solution to an
17 undefined problem. Notwithstanding my concerns, if the Commission
18 decides that some limit on the availability of curtailable service is in the
19 public interest, than I recommend setting the limit initially at no less than
20 the current MW of CSR1 and CSR3 curtailable load that KU serves plus
21 an additional 100 MW. This interim compromise should address KU's
22 expressed concerns while still providing a reasonable opportunity for
23 current and future curtailable customers to find a curtailable option that
24 fits their requirements.

1 **RIDERS CSR10 AND CSR30**

2 **Q. DO YOU AGREE WITH KU'S PROPOSAL TO REPLACE RIDERS**
3 **CSR1, CSR2, AND CSR3 WITH RIDER CSR?**

4 **A.** No. The proposed Rider CSR changes are overly restrictive, too abrupt,
5 and likely to impede the continued development of curtailable resources
6 on the KU system.

7 **Q. HAVE YOU DEVELOPED RECOMMENDED ALTERNATIVES**
8 **TO RIDER CSR?**

9 **A.** Yes. I recommend consolidating KU's existing curtailable rate options
10 into two options—Rider CSR10 and Rider CSR30. Key features of the
11 new riders are as follows:

- 12 ■ Rider CSR10 has a 10-minutes notice, and Rider CSR30 has a
13 30-minutes notice.
- 14 ■ Each rider's availability is limited to the total MW of
15 curtailable requirements subject to curtailment under Riders
16 CSR1 and CSR3 as of June 30, 2010, plus an additional 100
17 MW of curtailable load subject to curtailment under combined
18 Riders CSR10 and CSR30. This provision ensures that
19 current curtailable customers can shift their curtailable
20 requirements to either Rider CSR10 or Rider CSR30, and new
21 customers can add a total of 100 MW of additional curtailable
22 load served under the new riders.
- 23 ■ Both riders increase maximum curtailment hours (relative to
24 current riders) to 350 hours, of which 100 hours may be
25 physical curtailment and 250 hours may be buy-through
26 curtailment.
- 27 ■ Rider CSR10 has credits of \$5.40 and \$5.50 per kW-month for
28 transmission and primary customers, respectively. Rider

1 CSR30 has somewhat lower credits—\$5.20 per kW-month for
2 transmission customers and \$5.30 per kW-month per kW-
3 month for primary customers.

4 ■ Both riders require KU to give a good faith estimate of a
5 curtailment’s estimated duration when KU issues a curtailment
6 notice.

7 ■ Both riders eliminate take-or-pay billing for Option A
8 customers that buy-through a curtailment, and instead charge
9 only for buy-through energy that Option A customers actually
10 use during a buy-through curtailment. Option B customers
11 will be billed for buy-through energy on a take-or-pay basis as
12 proposed by KU in Rider CSR.

13 ■ Both riders allow a customer to avoid noncompliance penalties
14 if the customer agrees to install, pay for, and cede to KU
15 control of equipment necessary for KU to disconnect (curtail)
16 all of the customer’s load in excess of firm contract demand.
17 By effectively giving KU a mechanical switch to isolate and
18 disconnect curtailable load, a customer should never be subject
19 to noncompliance penalties.

20 I present Rider CSR10 in Exhibit DWG-3 and Rider CSR30 in Exhibit
21 DWG-4.

22 **Q. HOW DO KEY PROVISIONS OF RIDERS CSR10 AND CSR30**
23 **DIFFER FROM RIDER CSR?**

24 **A.** Some of the key differences are highlighted in Table 4 below and Exhibit
25 DWG-5. In general, Riders CSR10 and CSR30 provide more flexibility
26 with respect to curtailment notice, have 150 fewer hours of total
27 curtailments permitted (although all of the riders allow 100 hours of
28 physical curtailment), and have higher credits than Rider CSR.

Table 4. KU Rider CSR vs KIUC Riders CSR10 and CSR30

<u>Item</u>	<u>CSR</u>	<u>CSR10</u>	<u>CSR30</u>
Notice (minutes)	10	10	30
Curtailement Hours			
Physical	100	100	100
Buy-Through	400	250	250
Total	500	350	350
Credit (\$/kW-mo)			
Primary	5.20	5.50	5.30
Transmission	5.10	5.40	5.20

1

2 **Q. DO BUY-THROUGH PROVISIONS IN YOUR RECOMMENDED**
 3 **RIDERS CSR10 AND CSR30 DIFFER FROM THOSE IN KU'S**
 4 **RIDER CSR?**

5 **A.** Yes. Riders CSR10 and CSR30 differ from Rider CSR with respect to the
 6 determination of buy-through energy for Option A customers. More
 7 specifically, my proposed curtailable riders define buy-through energy for
 8 Option A customers as the difference between a customer's total kWh use
 9 during a curtailment, less the product of the customer's firm demand and
 10 the number of hours in the curtailment. Earlier I discussed why this
 11 modification is necessary to ensure that Option A curtailable customers are
 12 not forced to pay for kWh they do not use. I also explained why KU's
 13 proposed method of determining buy-through kWh for Option B
 14 customers should be approved in this case.

15 **Q. SHOULD THE COMMISSION ADOPT YOUR RECOMMENDED**
 16 **RIDERS CSR10 AND CSR30 INSTEAD OF KU'S RIDER CSR?**

17 **A.** Yes. I developed Riders CSR10 and CSR30 to balance the interests of
 18 both KU and curtailable customers. In my opinion, adopting KU's Rider
 19 CSR will impede the development of curtailable load on the KU system,
 20 reduce long-term benefits to both firm and interruptible customers, and
 21 force KU to lean more heavily on supply-side resources. Riders CSR10

1 and CSR30 correct key deficiencies in Rider CSR without reducing the
2 reliability and economic benefits associated with curtailable load.

3 I recognize that the curtailable credits in my recommended Riders
4 CSR10 and CSR30 are too low, and are not very different from the CSR
5 credits that KU proposed and I criticized. Although I strongly disagree
6 with KU's focus on short-run market conditions in setting the level of
7 Rider CSR curtailable credits, I recognize that moving credits significantly
8 higher at this time to track the long-run avoided cost of combustion
9 turbine capacity may be difficult during a consolidation of KU's
10 curtailable rate options. During this consolidation and transition phase,
11 credit adjustments may have to be tempered and balanced against other
12 interrelated changes taking place (for example, changes in curtailment
13 hours, types of curtailments, and measures of curtailable demand). As a
14 result, my decision to move curtailable only slightly above those in Rider
15 CSR1 should be viewed as an interim step in moving credits steadily
16 closer to the underlying long-run value of curtailable service in future
17 cases.

18 **Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?**

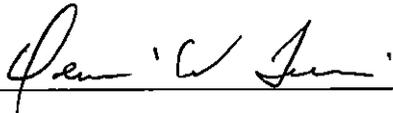
19 **A. Yes.**

AFFIDAVIT

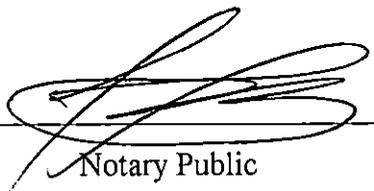
Commonwealth of Virginia)
County of Fairfax) SS

Before me this day appeared DENNIS W. GOINS of Potomac Management Group, who stated under oath that the foregoing testimony was prepared by him or under his direct supervision and control; that he has knowledge of the matters set forth in said testimony; and that such matters are true and correct to the best of his knowledge, information, and belief.

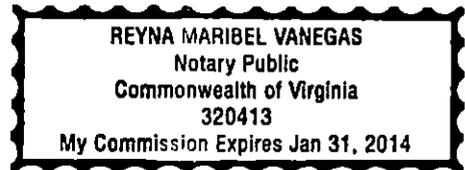
Subscribed and sworn to me this 20th day of April 2010.



Dennis W. Goins



Notary Public



My Commission Expires: Jan. 31, 2014

APPENDIX

QUALIFICATIONS OF

DENNIS W. GOINS

DENNIS W. GOINS

PRESENT POSITION

Economic Consultant, Potomac Management Group, Alexandria, VA

PREVIOUS POSITIONS

- Vice President, Hagler, Bailly & Company, Washington, DC
- Principal, Resource Consulting Group, Inc., Cambridge, MA
- Senior Associate, Resource Planning Associates, Inc., Cambridge, MA
- Economist, North Carolina Utilities Commission, Raleigh, NC

EDUCATION

College	Major	Degree
Wake Forest University	Economics	BA
North Carolina State University	Economics	ME
North Carolina State University	Economics	PhD

RELEVANT EXPERIENCE

Dr. Goins specializes in pricing, planning, and market structure issues affecting firms that buy and sell products in electricity and natural gas markets. He has extensive experience in evaluating competitive market conditions, analyzing power and fuel requirements, prices, market operations, and transactions, developing product pricing strategies, setting rates for energy-related products and services, and negotiating power supply and natural gas contracts for private and public entities. He has participated in more than 100 cases as an expert on competitive market issues, utility restructuring, power market planning and operations, utility mergers, rate design, cost of service, and management prudence before the Federal Energy Regulatory Commission, the General Accounting Office, the First Judicial District Court of Montana, the Circuit Court of Kanawha County, West Virginia, and regulatory commissions in Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Hawaii, Idaho, Illinois, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Mississippi, New Jersey, New York, North Carolina, Ohio, Oklahoma, South Carolina, Texas, Utah, Vermont, Virginia, and the District of Columbia. He has also prepared an expert report on behalf of the United States regarding pricing and contract issues in a case before the United States Court of Federal Claims.

Dennis W. Goins

PARTICIPATION IN REGULATORY, ADMINISTRATIVE, AND COURT PROCEEDINGS

1. Dominion North Carolina Power, before the North Carolina Utilities Commission, Docket No. E-22, Sub 459 (2010), on behalf of Nucor Steel-Hertford, re cost of service and retail rate design.
2. Entergy Texas, Inc., before the Public Utilities Commission of Texas, PUC Docket No. 37744 (2010), on behalf of Texas Cities, re cost of service and retail rate design.
3. Kentucky Utilities, Inc., before the Kentucky Public Service Commission, Case No. 2009-00548 (2010), on behalf of the Kentucky Industrial Utility Customers, re interruptible rates.
4. Louisville Gas and Electric Company, Inc., before the Kentucky Public Service Commission, Case No. 2009-00549 (2010), on behalf of the Kentucky Industrial Utility Customers, re interruptible rates.
5. Ohio Edison *et al.*, before the Public Utilities Commission of Ohio, Case No. 09-1948-EL-POR *et al.*, (2010), on behalf of Nucor Steel Marion, Inc., re energy efficiency and peak demand reduction portfolios.
6. Kauai Island Utility Cooperative, before the Hawaii Public Utilities Commission, Docket No. 2009-0050 (2010), on behalf of Kauai Marriott Resort & Beach Club, re retail cost allocation and rate design issues.
7. Entergy Arkansas, Inc., before the Arkansas Public Service Commission, Docket No. 09-024-U (2009), on behalf of Arkansas Electric Energy Consumers, Inc., re power plant environmental retrofit.
8. Appalachian Power Company, before the Virginia State Corporation Commission, Case No. PUE-2009-00030 (2009), on behalf of Steel Dynamics, Inc., re retail cost allocation and rate design issues.
9. Ohio Edison *et al.*, before the Public Utilities Commission of Ohio, Case No. 09-906-EL-SSO (2009), on behalf of Nucor Steel Marion, Inc., re market rate offer.
10. Dominion North Carolina Power, before the North Carolina Utilities Commission, Docket No. E-22, Sub 456 (2009), on behalf of Nucor Steel-Hertford, re fuel cost adjustment.
11. Appalachian Power Company, before the Virginia State Corporation Commission, Case No. PUE-2009-00068 (2009), on behalf of Steel Dynamics, Inc., re demand response programs.
12. Indiana Michigan Power Company, before the Indiana Utility Regulatory Commission, Cause No. 43750 (2009), on behalf of Steel Dynamics, Inc., re wind power purchased power agreement.

Dennis W. Goins

13. Entergy Arkansas, Inc., before the Arkansas Public Service Commission, Docket No. 07-085-TF (2009), on behalf of Arkansas Electric Energy Consumers, Inc., re energy efficiency cost recovery.
14. CenterPoint Energy Arkansas Gas, before the Arkansas Public Service Commission, Docket No. 07-081-TF (2009), on behalf of Arkansas Gas Consumers, Inc., re energy efficiency cost recovery.
15. South Carolina Electric & Gas Company, before the South Carolina Public Service Commission, Docket No. 2009-261-E (2009), on behalf of CMC Steel-SC, re DSM cost recovery surcharge.
16. Duke Energy Indiana, Inc., before the Indiana Utility Regulatory Commission, Cause No. 38707 FAC81 (2009), on behalf of Steel Dynamics, Inc., re fuel and purchased power cost recovery.
17. Potomac Electric Power Company, before the District of Columbia Public Service Commission, Formal Case No. 1076 (2009), on behalf of the General Services Administration, re retail cost allocation and standby rate design issues for distributed generation resources.
18. Appalachian Power Company, before the Virginia State Corporation Commission, Case No. PUE-2009-00039 (2009), on behalf of Steel Dynamics, Inc., re environmental and reliability cost recovery.
19. Indiana Michigan Power Company, before the Indiana Utility Regulatory Commission, Cause No. 38702 – FAC 63 (2009), on behalf of Steel Dynamics, Inc., re fuel and purchased power cost recovery.
20. Appalachian Power Company, before the Virginia State Corporation Commission, Case No. PUE-2009-302-00038 (2009), on behalf of Steel Dynamics, Inc., re fuel and purchased power cost recovery.
21. South Carolina Electric & Gas Company, before the South Carolina Public Service Commission, Docket No. 2008-302-E (2008), on behalf of CMC Steel-SC, re fuel and purchased power cost recovery.
22. South Carolina Electric & Gas Company, before the South Carolina Public Service Commission, Docket No. 2008-196-E (2008), on behalf of CMC Steel-SC, re base load review order for a nuclear facility.
23. Ohio Edison *et al.*, before the Public Utilities Commission of Ohio, Case No. 08-935-EL-SSO *et al.* (2008), on behalf of Nucor Steel Marion, Inc., re standard service offer via an electric security plan.
24. Ohio Edison *et al.*, before the Public Utilities Commission of Ohio, Case No. 08-936-EL-SSO (2008), on behalf of Nucor Steel Marion, Inc., re market rate offer via a competitive bidding process.

Dennis W. Goins

25. Alabama Power Company, before the Alabama Public Service Commission, Docket No. 18148 (2008), on behalf of CMC Steel Alabama, Nucor Steel Birmingham, Inc., and Nucor Steel Tuscaloosa, Inc, re energy cost recovery.
26. Entergy Texas, Inc., before the Public Utilities Commission of Texas, PUC Docket No. 35269 (2008), on behalf of Texas Cities, re jurisdictional allocation of system agreement payments.
27. Duke Energy Indiana, Inc., before the Indiana Utility Regulatory Commission, Cause No. 43374 (2008), on behalf of Nucor Steel and Steel Dynamics, Inc., re alternative regulatory plan.
28. Entergy Gulf States Inc., before the Public Utilities Commission of Texas, PUC Docket No. 34800 (2008), on behalf of Texas Cities, re affiliate transactions.
29. Commonwealth Edison Company, before the Illinois Commerce Commission, Docket No. 07-0566 (2008), on behalf of Nucor Steel Kankakee, Inc., re cost-of-service and rate design issues.
30. Ohio Edison *et al.*, before the Public Utilities Commission of Ohio, Case No. 07-0551-EL-AIR *et al.* (2008), on behalf of Nucor Steel Marion, Inc., re cost-of-service and rate design issues.
31. Appalachian Power Company dba American Electric Power, before the Public Service Commission of West Virginia, Case No. 06-0033-E-CN (2007), on behalf of Steel of West Virginia, Inc., re power plant cost recovery mechanism.
32. Oncor Electric Delivery Company and Texas Energy Future Holdings Limited Partnership, before the Public Utilities Commission of Texas, PUC Docket No. 34077 (2007), on behalf of Nucor Steel - Texas, re acquisition of TXU Corp. by Texas Energy Future Holdings Limited Partnership.
33. Arkansas Oklahoma Gas Company, before the Arkansas Public Service Commission, Docket No. 07-026-U (2007), on behalf of West Central Arkansas Gas Consumers, re gas cost-of-service and rate design issues.
34. Idaho Power Company, before the Idaho Public Utilities Commission, Case No. IPC-E-07-08 (2007), on behalf of the U.S. Department of Energy (Federal Executive Agencies), re cost-of-service and rate design issues.
35. Potomac Electric Power Company, before the District of Columbia Public Service Commission, Formal Case No. 1056 (2007), on behalf of the General Services Administration, re demand-side management and advanced metering programs.

Dennis W. Goins

36. South Carolina Electric & Gas Company, before the South Carolina Public Service Commission, Docket No. 2007-229-E (2007), on behalf of CMC Steel-SC, re cost-of-service and rate design issues.
37. Potomac Electric Power Company, before the Maryland Public Service Commission, Case No. 9092 (2007), on behalf of the General Services Administration, re retail cost allocation and standby rate design issues for distributed generation resources.
38. Potomac Electric Power Company, before the District of Columbia Public Service Commission, Formal Case No. 1053 (2007), on behalf of the General Services Administration, re retail cost allocation and standby rate design issues for distributed generation resources.
39. Entergy Gulf States Inc., before the Public Utilities Commission of Texas, PUC Docket No. 32907 (2006), on behalf of Texas Cities, re hurricane cost recovery.
40. Entergy Gulf States Inc., before the Public Utilities Commission of Texas, PUC Docket No. 32710/ SOAH Docket No. 473-06-2307 (2006), on behalf of Texas Cities, re reconciliation of fuel and purchased power costs.
41. Florida Power & Light Company, before the Florida Public Service Commission, Docket No. 060001-EI (2006), on behalf of the U.S. Air Force (Federal Executive Agencies), re fuel and purchased power cost recovery.
42. Arizona Public Service Company, before the Arizona Corporation Commission, Docket No. E-01345A-05-0816 (2006), on behalf of the U.S. Air Force (Federal Executive Agencies), re retail cost allocation and rate design issues.
43. PacifiCorp (dba Rocky Mountain Power), before the Utah Public Service Commission, Docket No. 06-035-21 (2006), on behalf of the U.S. Air Force (Federal Executive Agencies), re rate design issues.
44. South Carolina Electric & Gas Company, before the South Carolina Public Service Commission, Docket No. 2006-2-E (2006), on behalf of CMC Steel-SC, re fuel and purchased power cost recovery.
45. Entergy Gulf States Inc., before the Public Utilities Commission of Texas, PUC Docket No. 31544/ SOAH Docket No. 473-06-0092 (2006), on behalf of Texas Cities, re transition to competition rider.
46. Idaho Power Company, before the Idaho Public Utilities Commission, Case No. IPC-E-05-28 (2006), on behalf of the U.S. Department of Energy (Federal Executive Agencies), re cost-of-service and rate design issues.

Dennis W. Goins

47. Alabama Power Company, before the Alabama Public Service Commission, Docket No. 18148 (2005), on behalf of SMI Steel-Alabama, re energy cost recovery.
48. Florida Power & Light Company, before the Florida Public Service Commission, Docket No. 050001-EI (2005), on behalf of the U.S. Air Force (Federal Executive Agencies), re fuel and capacity cost recovery.
49. Entergy Gulf States Inc., before the Public Utilities Commission of Texas, PUC Docket No. 31315/ SOAH Docket No. 473-05-8446 (2005), on behalf of Texas Cities, re incremental purchased capacity cost rider.
50. Florida Power & Light Company, before the Florida Public Service Commission, Docket No. 050045-EI (2005), on behalf of the U.S. Air Force (Federal Executive Agencies), re cost-of-service and interruptible rate issues.
51. Arkansas Electric Cooperative Corporation, before the Arkansas Public Service Commission, Docket No. 05-042-U (2005), on behalf of Nucor Steel and Nucor-Yamato Steel, re power plant purchase.
52. Arkansas Electric Cooperative Corporation, before the Arkansas Public Service Commission, Docket No. 04-141-U (2005), on behalf of Nucor Steel and Nucor-Yamato Steel, re cost-of-service and rate design issues.
53. Dominion North Carolina Power, before the North Carolina Utilities Commission, Docket No. E-22, Sub 412 (2005), on behalf of Nucor Steel-Hertford, re cost-of-service and interruptible rate issues.
54. Public Service Company of Colorado, before the Colorado Public Utilities Commission, Docket No. 04S-164E (2004), on behalf of the U.S. Air Force (Federal Executive Agencies), re cost-of-service and interruptible rate issues.
55. CenterPoint Energy Houston Electric, LLC, *et al.*, before the Public Utility Commission of Texas, PUC Docket No. 29526 (2004), on behalf of the Coalition of Commercial Ratepayers, re stranded cost true-up balances.
56. PacifiCorp, before the Utah Public Service Commission, Docket No. 04-035-11 (2004), on behalf of the U.S. Air Force (United States Executive Agencies), re time-of-day rate design issues.
57. Arizona Public Service Company, before the Arizona Corporation Commission, Docket No. E-01345A-03-0347 (2004), on behalf of the U.S. Air Force (Federal Executive Agencies), re retail cost allocation and rate design issues.

Dennis W. Goins

58. Idaho Power Company, before the Idaho Public Utilities Commission, Case No. IPC-E-03-13 (2004), on behalf of the U.S. Department of Energy (Federal Executive Agencies), re retail cost allocation and rate design issues.
59. PacifiCorp, before the Utah Public Service Commission, Docket No. 03-2035-02 (2004), on behalf of the U.S. Air Force (United States Executive Agencies), re retail cost allocation and rate design issues.
60. Dominion Virginia Power, before the Virginia State Corporation Commission, Case No. PUE-2000-00285 (2003), on behalf of Chaparral (Virginia) Inc., re recovery of fuel costs.
61. Jersey Central Power & Light Company, before the New Jersey Board of Public Utilities, BPU Docket No. ER02080506, OAL Docket No. PUC-7894-02 (2002-2003), on behalf of New Jersey Commercial Users, re retail cost allocation and rate design issues.
62. Public Service Electric and Gas Company, before the New Jersey Board of Public Utilities, BPU Docket No. ER02050303, OAL Docket No. PUC-5744-02 (2002-2003), on behalf of New Jersey Commercial Users, re retail cost allocation and rate design issues.
63. South Carolina Electric & Gas Company, before the South Carolina Public Service Commission, Docket No. 2002-223-E (2002), on behalf of SMI Steel-SC, re retail cost allocation and rate design issues.
64. Montana Power Company, before the First Judicial District Court of Montana, *Great Falls Tribune et al. v. the Montana Public Service Commission*, Cause No. CDV2001-208 (2002), on behalf of a media consortium (*Great Falls Tribune, Billings Gazette, Montana Standard, Helena Independent Record, Missoulian, Big Sky Publishing, Inc. dba Bozeman Daily Chronicle, the Montana Newspaper Association, Miles City Star, Livingston Enterprise, Yellowstone Public Radio, the Associated Press, Inc., and the Montana Broadcasters Association*), re public disclosure of allegedly proprietary contract information.
65. Louisville Gas & Electric *et al.*, before the Kentucky Public Service Commission, Administrative Case No. 387 (2001), on behalf of Gallatin Steel Company, re adequacy of generation and transmission capacity in Kentucky.
66. PacifiCorp, before the Utah Public Service Commission, Docket No. 01-035-01 (2001), on behalf of Nucor Steel, re retail cost allocation and rate design issues.

Dennis W. Goins

67. TXU Electric Company, before the Public Utilities Commission of Texas, PUC Docket No. 23640/ SOAH Docket No. 473-01-1922 (2001), on behalf of Nucor Steel, re fuel cost recovery.
68. FPL Group *et al.*, before the Federal Energy Regulatory Commission, Docket No. EC01-33-000 (2001), on behalf of Arkansas Electric Cooperative Corporation, Inc., re merger-related market power issues.
69. Entergy Mississippi, Inc., *et al.*, before the Mississippi Public Service Commission, Docket No. 2000-UA-925 (2001), on behalf of Birmingham Steel-Mississippi, re appropriate regulatory conditions for merger approval.
70. TXU Electric Company, before the Public Utilities Commission of Texas, PUC Docket No. 22350/ SOAH Docket No. 473-00-1015 (2000), on behalf of Nucor Steel, re unbundled cost of service and rates.
71. PacifiCorp, before the Utah Public Service Commission, Docket No. 99-035-10 (2000), on behalf of Nucor Steel, re using system benefit charges to fund demand-side resource investments.
72. Entergy Arkansas, Inc. *et al.*, before the Arkansas Public Service Commission, Docket No. 00-190-U (2000), on behalf of Nucor-Yamato Steel and Nucor Steel-Arkansas, re the development of competitive electric power markets in Arkansas.
73. Entergy Arkansas, Inc. *et al.*, before the Arkansas Public Service Commission, Docket No. 00-048-R (2000), on behalf of Nucor-Yamato Steel and Nucor Steel-Arkansas, re generic filing requirements and guidelines for market power analyses.
74. ScottishPower and PacifiCorp, before the Utah Public Service Commission, Docket No. 98-2035-04 (1999), on behalf of Nucor Steel, re merger conditions to protect the public interest.
75. Dominion Resources, Inc. and Consolidated Natural Gas Company, before the Virginia State Corporation Commission, Case No. PUA990020 (1999), on behalf of the City of Richmond, re market power and merger conditions to protect the public interest.
76. Houston Lighting & Power Company, before the Public Utility Commission of Texas, Docket No. 18465 (1998) on behalf of the Texas Commercial Customers, re excess earnings and stranded-cost recovery and mitigation.
77. PJM Interconnection, LLC, before the Federal Energy Regulatory Commission, Docket No. ER98-1384 (1998) on behalf of Wellsboro Electric Company, re pricing low-voltage distribution services.

Dennis W. Goins

78. DQE, Inc. and Allegheny Power System, Inc., before the Federal Energy Regulatory Commission, Docket Nos. ER97-4050-000, ER97-4051-000, and EC97-46-000 (1997) on behalf of the Borough of Chambersburg, re market power in relevant markets.
79. GPU Energy, before the New Jersey Board of Public Utilities, Docket No. EO97070458 (1997) on behalf of the New Jersey Commercial Users Group, re unbundled retail rates.
80. GPU Energy, before the New Jersey Board of Public Utilities, Docket No. EO97070459 (1997) on behalf of the New Jersey Commercial Users Group, re stranded costs.
81. Public Service Electric and Gas Company, before the New Jersey Board of Public Utilities, Docket No. EO97070461 (1997) on behalf of the New Jersey Commercial Users Group, re unbundled retail rates.
82. Public Service Electric and Gas Company, before the New Jersey Board of Public Utilities, Docket No. EO97070462 (1997) on behalf of the New Jersey Commercial Users Group, re stranded costs.
83. DQE, Inc. and Allegheny Power System, Inc., before the Federal Energy Regulatory Commission, Docket Nos. ER97-4050-000, ER97-4051-000, and EC97-46-000 (1997) on behalf of the Borough of Chambersburg, Allegheny Electric Cooperative, Inc., and Selected Municipalities, re market power in relevant markets.
84. CSW Power Marketing, Inc., before the Federal Energy Regulatory Commission, Docket No. ER97-1238-000 (1997) on behalf of the Transmission Dependent Utility Systems, re market power in relevant markets.
85. Central Hudson Gas & Electric Corporation *et al.*, before the New York Public Service Commission, Case Nos. 96-E-0891, 96-E-0897, 96-E-0898, 96-E-0900, 96-E-0909 (1997), on behalf of the Retail Council of New York, re stranded-cost recovery.
86. Central Hudson Gas & Electric Corporation, supplemental testimony, before the New York Public Service Commission, Case No. 96-E-0909 (1997) on behalf of the Retail Council of New York, re stranded-cost recovery.
87. Consolidated Edison Company of New York, Inc., supplemental testimony, before the New York Public Service Commission, Case No. 96-E-0897 (1997) on behalf of the Retail Council of New York, re stranded-cost recovery.

Dennis W. Goins

88. New York State Electric & Gas Corporation, supplemental testimony, before the New York Public Service Commission, Case No. 96-E-0891 (1997) on behalf of the Retail Council of New York, re stranded-cost recovery.
89. Rochester Gas and Electric Corporation, supplemental testimony, before the New York Public Service Commission, Case No. 96-E-0898 (1997) on behalf of the Retail Council of New York, re stranded-cost recovery.
90. Texas Utilities Electric Company, before the Public Utility Commission of Texas, Docket No. 15015 (1996), on behalf of Nucor Steel-Texas, re real-time electricity pricing.
91. Central Power and Light Company, before the Public Utility Commission of Texas, Docket No. 14965 (1996), on behalf of the Texas Retailers Association, re cost of service and rate design.
92. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 95-1076-E (1996), on behalf of Nucor Steel-Darlington, re integrated resource planning.
93. Texas Utilities Electric Company, before the Public Utility Commission of Texas, Docket No. 13575 (1995), on behalf of Nucor Steel-Texas, re integrated resource planning, DSM options, and real-time pricing.
94. Arkansas Power & Light Company, *et al.*, Notice of Inquiry to Consider Section 111 of the Energy Policy Act of 1992, before the Arkansas Public Service Commission, Docket No. 94-342-U (1995), Initial Comments on behalf of Nucor-Yamato Steel Company, re integrated resource planning standards.
95. Arkansas Power & Light Company, *et al.*, Notice of Inquiry to Consider Section 111 of the Energy Policy Act of 1992, before the Arkansas Public Service Commission, Docket No. 94-342-U (1995), Reply Comments on behalf of Nucor-Yamato Steel Company, re integrated resource planning standards.
96. Arkansas Power & Light Company, *et al.*, Notice of Inquiry to Consider Section 111 of the Energy Policy Act of 1992, before the Arkansas Public Service Commission, Docket No. 94-342-U (1995), Final Comments on behalf of Nucor-Yamato Steel Company, re integrated resource planning standards.
97. South Carolina Pipeline Corporation, before the South Carolina Public Service Commission, Docket No. 94-202-G (1995), on behalf of Nucor Steel, re integrated resource planning and rate caps.

Dennis W. Goins

98. Gulf States Utilities Company, before the United States Court of Federal Claims, *Gulf States Utilities Company v. the United States*, Docket No. 91-1118C (1994, 1995), on behalf of the United States, re electricity rate and contract dispute litigation.
99. American Electric Power Corporation, before the Federal Energy Regulatory Commission, Docket No. ER93-540-000 (1994), on behalf of DC Tie, Inc., re costing and pricing electricity transmission services.
100. Texas Utilities Electric Company, before the Public Utility Commission of Texas, Docket No. 13100 (1994), on behalf of Nucor Steel-Texas, re real-time electricity pricing.
101. Carolina Power & Light Company, *et al.*, Proposed Regulation Governing the Recovery of Fuel Costs by Electric Utilities, before the South Carolina Public Service Commission, Docket No. 93-238-E (1994), on behalf of Nucor Steel-Darlington, re fuel-cost recovery.
102. Southern Natural Gas Company, before the Federal Energy Regulatory Commission, Docket No. RP93-15-000 (1993-1995), on behalf of Nucor Steel-Darlington, re costing and pricing natural gas transportation services.
103. West Penn Power Company, *et al.*, v. State Tax Department of West Virginia, *et al.*, Civil Action No. 89-C-3056 (1993), before the Circuit Court of Kanawha County, West Virginia, on behalf of the West Virginia Department of Tax and Revenue, re electricity generation tax.
104. Carolina Power & Light Company, *et al.*, Proceeding Regarding Consideration of Certain Standards Pertaining to Wholesale Power Purchases Pursuant to Section 712 of the 1992 Energy Policy Act, before the South Carolina Public Service Commission, Docket No. 92-231-E (1993), on behalf of Nucor Steel-Darlington, re Section 712 regulations.
105. Mountain Fuel Supply Company, before the Public Service Commission of Utah, Docket No. 93-057-01 (1993), on behalf of Nucor Steel-Utah, re costing and pricing retail natural gas firm, interruptible, and transportation services.
106. Texas Utilities Electric Company, before the Public Utility Commission of Texas, Docket No. 11735 (1993), on behalf of the Texas Retailers Association, re retail cost-of-service and rate design.
107. Virginia Electric and Power Company, before the Virginia State Corporation Commission, Case No. PUE920041 (1993), on behalf of Philip Morris USA, re cost of service and retail rate design.
108. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 92-209-E (1992), on behalf of Nucor Steel-Darlington.

Dennis W. Goins

109. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Rate Design (1992), on behalf of the Department of Energy, Strategic Petroleum Reserve.
110. Georgia Power Company, before the Georgia Public Service Commission, Docket Nos. 4091-U and 4146-U (1992), on behalf of Amicalola Electric Membership Corporation.
111. PacifiCorp, Inc., before the Federal Energy Regulatory Commission, Docket No. EC88-2-007 (1992), on behalf of Nucor Steel-Utah.
112. South Carolina Pipeline Corporation, before the South Carolina Public Service Commission, Docket No. 90-452-G (1991), on behalf of Nucor Steel-Darlington.
113. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 91-4-E, 1991 Fall Hearing, on behalf of Nucor Steel-Darlington.
114. Sonat, Inc., and North Carolina Natural Gas Corporation, before the North Carolina Utilities Commission, Docket No. G-21, Sub 291 (1991), on behalf of Nucor Corporation, Inc.
115. Northern States Power Company, before the Minnesota Public Utilities Commission, Docket No. E002/GR-91-001 (1991), on behalf of North Star Steel-Minnesota.
116. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase IV-Rate Design (1991), on behalf of the Department of Energy, Strategic Petroleum Reserve.
117. Houston Lighting & Power Company, before the Public Utility Commission of Texas, Docket No. 9850 (1990), on behalf of the Department of Energy, Strategic Petroleum Reserve.
118. General Services Administration, before the United States General Accounting Office, Contract Award Protest (1990), Solicitation No. GS-00P-AC87-91, Contract No. GS-00D-89-B5D-0032, on behalf of Satilla Rural Electric Membership Corporation, re cost of service and rate design.
119. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 90-4-E (1990 Fall Hearing), on behalf of Nucor Steel-Darlington, re fuel-cost recovery.
120. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase III-Rate Design (1990), on behalf of the Department of Energy, Strategic Petroleum Reserve, re cost of service and rate design.

Dennis W. Goins

121. Atlanta Gas Light Company, before the Georgia Public Service Commission, Docket No. 3923-U (1990), on behalf of Herbert G. Burris and Oglethorpe Power Corporation, re anticompetitive pricing schemes.
122. Ohio Edison Company, before the Ohio Public Utilities Commission, Case No. 89-1001-EL-AIR (1990), on behalf of North Star Steel-Ohio, re cost of service and rate design.
123. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase III-Cost of Service/Revenue Spread (1989), on behalf of the Department of Energy, Strategic Petroleum Reserve.
124. Northern States Power Company, before the Minnesota Public Utilities Commission, Docket No. E002/GR-89-865 (1989), on behalf of North Star Steel-Minnesota.
125. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase III-Rate Design (1989), on behalf of the Department of Energy, Strategic Petroleum Reserve.
126. Utah Power & Light Company, before the Utah Public Service Commission, Case No. 89-039-10 (1989), on behalf of Nucor Steel-Utah and Vulcraft, a division of Nucor Steel.
127. Soyland Power Cooperative, Inc. v. Central Illinois Public Service Company, Docket No. EL89-30-000 (1989), before the Federal Energy Regulatory Commission, on behalf of Soyland Power Cooperative, Inc., re wholesale contract pricing provisions
128. Gulf States Utilities Company, before the Public Utility Commission of Texas, Docket No. 8702 (1989), on behalf of the Department of Energy, Strategic Petroleum Reserve.
129. Houston Lighting and Power Company, before the Public Utility Commission of Texas, Docket No. 8425 (1989), on behalf of the Department of Energy, Strategic Petroleum Reserve.
130. Northern Illinois Gas Company, before the Illinois Commerce Commission, Docket No. 88-0277 (1989), on behalf of the Coalition for Fair and Equitable Transportation, re retail gas transportation rates.
131. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 79-7-E, 1988 Fall Hearing, on behalf of Nucor Steel-Darlington, re fuel-cost recovery.
132. Potomac Electric Power Company, before the District of Columbia Public Service Commission, Formal Case No. 869 (1988), on behalf of Peoples Drug Stores, Inc., re cost of service and rate design.

Dennis W. Goins

133. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 88-11-E (1988), on behalf of Nucor Steel-Darlington.
134. Northern States Power Company, before the Minnesota Public Utilities Commission, Docket No. E-002/GR-87-670 (1988), on behalf of the Metalcasters of Minnesota.
135. Ohio Edison Company, before the Ohio Public Utilities Commission, Case No. 87-689-EL-AIR (1987), on behalf of North Star Steel-Ohio.
136. Carolina Power & Light Company, before the South Carolina Public Service Commission, Docket No. 87-7-E (1987), on behalf of Nucor Steel-Darlington.
137. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-17282, Phase I (1987), on behalf of the Strategic Petroleum Reserve.
138. Gulf States Utilities Company, before the Public Utility Commission of Texas, Docket No. 7195 (1987), on behalf of the Strategic Petroleum Reserve.
139. Gulf States Utilities Company, before the Federal Energy Regulatory Commission, Docket No. ER86-558-006 (1987), on behalf of Sam Rayburn G&T Cooperative.
140. Utah Power & Light Company, before the Utah Public Service Commission, Case No. 85-035-06 (1986), on behalf of the U.S. Air Force.
141. Houston Lighting & Power Company, before the Public Utility Commission of Texas, Docket No. 6765 (1986), on behalf of the Strategic Petroleum Reserve.
142. Central Maine Power Company, before the Maine Public Utilities Commission, Docket No. 85-212 (1986), on behalf of the U.S. Air Force.
143. Gulf States Utilities Company, before the Public Utility Commission of Texas, Docket Nos. 6477 and 6525 (1985), on behalf of North Star Steel-Texas.
144. Ohio Edison Company, before the Ohio Public Utilities Commission, Docket No. 84-1359-EL-AIR (1985), on behalf of North Star Steel-Ohio.
145. Utah Power & Light Company, before the Utah Public Service Commission, Case No. 84-035-01 (1985), on behalf of the U.S. Air Force.
146. Central Vermont Public Service Corporation, before the Vermont Public Service Board, Docket No. 4782 (1984), on behalf of Central Vermont Public Service Corporation.

Dennis W. Goins

147. Gulf States Utilities Company, before the Louisiana Public Service Commission, Docket No. U-15641 (1983), on behalf of the Strategic Petroleum Reserve.
148. Southwestern Power Administration, before the Federal Energy Regulatory Commission, Rate Order SWPA-9 (1982), on behalf of the Department of Defense.
149. Public Service Company of Oklahoma, before the Federal Energy Regulatory Commission, Docket Nos. ER82-80-000 and ER82-389-000 (1982), on behalf of the Department of Defense.
150. Central Maine Power Company, before the Maine Public Utilities Commission, Docket No. 80-66 (1981), on behalf of the Commission Staff.
151. Bangor Hydro-Electric Company, before the Maine Public Utilities Commission, Docket No. 80-108 (1981), on behalf of the Commission Staff.
152. Oklahoma Gas & Electric, before the Oklahoma Corporation Commission, Docket No. 27275 (1981), on behalf of the Commission Staff.
153. Green Mountain Power, before the Vermont Public Service Board, Docket No. 4418 (1980), on behalf of the PSB Staff.
154. Williams Pipe Line, before the Federal Energy Regulatory Commission, Docket No. OR79-1 (1979), on behalf of Mapco, Inc.
155. Boston Edison Company, before the Massachusetts Department of Public Utilities, Docket No. 19494 (1978), on behalf of Boston Edison Company.
156. Duke Power Company, before the North Carolina Utilities Commission, Docket No. E-7, Sub 173, on behalf of the Commission Staff.
157. Duke Power Company, before the North Carolina Utilities Commission, Docket No. E-100, Sub 32, on behalf of the Commission Staff.
158. Virginia Electric & Power Company, before the North Carolina Utilities Commission, Docket No. E-22, Sub 203, on behalf of the Commission Staff.
159. Virginia Electric & Power Company, before the North Carolina Utilities Commission, Docket No. E-22, Sub 170, on behalf of the Commission Staff.
160. Southern Bell Telephone Company, before the North Carolina Utilities Commission, Docket No. P-5, Sub 48, on behalf of the Commission Staff.
161. Western Carolina Telephone Company, before the North Carolina Utilities Commission, Docket No. P-58, Sub 93, on behalf of the Commission Staff.

Dennis W. Goins

162. Natural Gas Ratemaking, before the North Carolina Utilities Commission, Docket No. G-100, Sub 29, on behalf of the Commission Staff.
163. General Telephone Company of the Southeast, before the North Carolina Utilities Commission, Docket No. P-19, Sub 163, on behalf of the Commission Staff.
164. Carolina Power and Light Company, before the North Carolina Utilities Commission, Docket No. E-2, Sub 264, on behalf of the Commission Staff.
165. Carolina Power and Light Company, before the North Carolina Utilities Commission, Docket No. E-2, Sub 297, on behalf of the Commission Staff.
166. Duke Power Company, *et al.*, Investigation of Peak-Load Pricing, before the North Carolina Utilities Commission, Docket No. E-100, Sub 21, on behalf of the Commission Staff.
167. Investigation of Intrastate Long Distance Rates, before the North Carolina Utilities Commission, Docket No. P-100, Sub 45, on behalf of the Commission Staff.

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

CASE NO. 2009-00548

**APPLICATION OF
KENTUCKY UTILITIES COMPANY
FOR AN ADJUSTMENT OF BASE RATES**

**EXHIBITS TO THE
DIRECT TESTIMONY OF
DENNIS W. GOINS
ON BEHALF OF KENTUCKY INDUSTRIAL
UTILITY CUSTOMERS, INC.**

April 22, 2010

EXHIBIT DWG-1

**SELECTED KU RESPONSES TO REQUESTS FOR INFORMATION
REGARDING CURTAILMENT SERVICE RATE OPTIONS**

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 1

Responding Witness: Lonnie E. Bellar/William Steven Seelye/Counsel

Q-1. Referring to the proposed Curtailable Service Rider CSR:

- a. Please provide all workpapers, studies, analyses, and documents supporting and/or underlying the development of the proposed rider.
- b. Provide all studies and/or analyses that KU conducted concerning expected customer acceptance of and willingness to receive service under the proposed rider.
- c. Identify and provide all documents provided to and correspondence with existing and potential interruptible customers related to the development, implementation, and operation of the proposed CSR rider.
- d. Identify and provide all alternatives to Rider CSR as proposed that KU considered but rejected.

- A-1.
- a. No studies were performed. The new CSR is the result of internal discussion to simplify the process for all existing participating industrials. Please see the response to AG-1 Question No. 239.
 - b. See response to (a.) above.
 - c. See the response to KPSC-2 Question No. 86.
 - d. All decisions regarding which adjustments to include in the application in this proceeding were made in consultation with legal counsel. Any response to this question necessarily requires the Company to reveal the contents of communications with counsel and the mental impressions of counsel, which information is protected from disclosure by the attorney-client privilege and the work product doctrine.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 2

Responding Witness: Robert M. Conroy

- Q-2. Referring to existing Riders CSR1, CSR2, and CSR3:
- a. For each customer (identified only by reference number) served under one of these riders, identify the applicable rider and the total MW of curtailable/interruptible load under contract.
 - b. State the number of months in which each customer in subpart (a) above has been continuously served under the existing rider or its predecessor.
 - c. For each customer identified in the subpart (a) above, provide the customer's firm contract demand.
- A-2.
- a. Please see the response to AG-1 Question No. 236, AG-1 Question No. 237 and AG-1 Question No. 238.
 - b. The customer (reference number 4) served under CSR1 has been a customer under that rider since April 1996. The customer (reference number 3) served under CSR3 has been a customer under that rider since July 2002.
 - c. See response to (a.) above.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 3

Responding Witness: Lonnie E. Bellar/William Steven Seelye

- Q-3. Referring to existing Riders CSR1, CSR2, and CSR3:
- a. For each customer (identified only by reference number) served under one of these riders, identify the date, time, and duration of each curtailment called by KU in the past 60 months?
 - b. For each curtailment referenced in the response to subpart (a) above, specify whether the curtailment was an emergency or a buy-through event, identify the MW of load curtailment requested, and identify the MW of load that failed to comply with the curtailment request.
 - c. For each buy-through curtailment identified in the response to subpart (b) above, specify whether the customer bought through the curtailment, the amount of buy-through energy purchased, the price paid for such buy-through energy, and the source (system supply or market) of the buy-through price.
- A-3.
- a. See attachment for details of curtailments for the past 5 years for both LG&E and KU.
 - b. "Emergency" does not apply to the CSRs. See attached. There were no failures to comply during the test year.
 - c. See attached. It is the operation practice to use the market as the source of buy through pricing.

Kentucky Utilities Company

Case No. 2009-00548

Detailed Curtailment Data

Reference #	Start Date/Time	Offer Price	KW Hrs Purchased	Offer Accepted	Hours	Curtailment or Buy-through	Amount Requested	Non-Compliance Amount (MW)
1	1/8/2005 9:45 AM	N/A		N/A	2.75	Curtailment	Contracted amount	
1	1/10/2005 7:00 AM	N/A		N/A	3.00	Curtailment	Contracted amount	
1	1/11/2005 7:30 AM	N/A		N/A	1.50	Curtailment	Contracted amount	
1	1/14/2005 7:30 AM	N/A		N/A	1.50	Curtailment	Contracted amount	
3	1/14/2005 7:30 AM	N/A		N/A	1.00	Curtailment	Contracted amount	
2	1/14/2005 8:00 AM	65 00	20,000 00	YES	3 00	Buy-through	Contracted amount	
2	1/14/2005 11:00 AM	55 00	20,000 00	YES	1 00	Buy-through	Contracted amount	
1	1/17/2005 8:00 AM	N/A		N/A	0 83	Curtailment	Contracted amount	
4	1/17/2005 9:00 AM	95 00	3,600 00	YES	2 00	Buy-through	Contracted amount	
4	1/17/2005 11:00 AM	85 00	3,600 00	YES	2 00	Buy-through	Contracted amount	
4	1/17/2005 1:00 PM	75 00	3,600 00	YES	4 00	Buy-through	Contracted amount	
4	1/18/2005 9:00 AM	95 00	3,600 00	YES	2 00	Buy-through	Contracted amount	
4	1/18/2005 11:00 AM	75 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
4	1/18/2005 12:00 PM	70 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
4	1/18/2005 1:00 PM	60 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
1	1/19/2005 12:15 PM	N/A		N/A	1 33	Curtailment	Contracted amount	
3	1/19/2005 12:20 PM	N/A		N/A	2 17	Curtailment	Contracted amount	
1	1/20/2005 7:35 AM	N/A		N/A	1 42	Curtailment	Contracted amount	
4	1/20/2005 9:00 AM	75 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
4	1/20/2005 10:00 AM	60 00	3,600 00	YES	2 00	Buy-through	Contracted amount	
1	1/21/2005 7:30 AM	N/A		N/A	1 33	Curtailment	Contracted amount	
1	1/22/2005 11:05 AM	N/A		N/A	1 08	Curtailment	Contracted amount	
1	1/22/2005 6:30 PM	N/A		N/A	4 33	Curtailment	Contracted amount	
1	1/23/2005 6:53 PM	N/A		N/A	3 95	Curtailment	Contracted amount	
4	1/24/2005 9:00 AM	100 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
4	1/24/2005 10:00 AM	80 00	3,600 00	YES	3 00	Buy-through	Contracted amount	
4	1/24/2005 1:00 PM	60 00	3,600 00	YES	2 00	Buy-through	Contracted amount	
4	1/27/2005 9:00 AM	75 00	3,600 00	YES	2 00	Buy-through	Contracted amount	
4	1/27/2005 11:00 AM	55 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
3	1/27/2005 6:41 PM	N/A		N/A	1 00	Curtailment	Contracted amount	
1	1/27/2005 6:50 PM	N/A		N/A	0 50	Curtailment	Contracted amount	
1	1/28/2005 7:13 AM	125 00	0 00	NO	4 45	Buy-through	Contracted amount	
3	1/28/2005 8:06 AM	N/A		N/A	3 23	Curtailment	Contracted amount	
3	1/28/2005 3:20 PM	N/A		N/A	0 67	Curtailment	Contracted amount	
1	2/2/2005 7:15 AM	N/A		N/A	2 00	Curtailment	Contracted amount	
2	2/10/2005 7:30 AM	75 00	20,000 00	YES	1 50	Buy-through	Contracted amount	
2	2/10/2005 9:00 AM	70 00	20,000 00	YES	1 00	Buy-through	Contracted amount	
4	2/10/2005 9:00 AM	70 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
2	2/10/2005 10:00 AM	55 00	20,000 00	YES	3 00	Buy-through	Contracted amount	
4	2/10/2005 10:00 AM	55 00	3,600 00	YES	3 00	Buy-through	Contracted amount	
3	2/10/2005 10:30 AM	N/A		N/A	3 53	Curtailment	Contracted amount	
1	2/10/2005 10:35 AM	N/A		N/A	1 42	Curtailment	Contracted amount	
1	2/10/2005 12:00 PM	55 00	30,000 00	YES	1 00	Buy-through	Contracted amount	
2	2/11/2005 8:00 AM	69 00	21,000 00	YES	2 00	Buy-through	Contracted amount	
4	2/11/2005 9:00 AM	69 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
3	2/14/2005 9:35 AM	N/A		N/A	5 08	Curtailment	Contracted amount	
1	2/15/2005 7:30 PM	55 00	30,000 00	YES	1 50	Buy-through	Contracted amount	
3	2/17/2005 6:50 PM	N/A		N/A	4 25	Curtailment	Contracted amount	
1	2/17/2005 7:15 PM	75 00	30,000 00	YES	3 00	Buy-through	Contracted amount	
2	2/18/2005 7:00 AM	80 00	19,000 00	YES	4 00	Buy-through	Contracted amount	
1	2/18/2005 8:00 AM	N/A		N/A	3 17	Curtailment	Contracted amount	
3	2/18/2005 8:00 AM	N/A		N/A	2 25	Curtailment	Contracted amount	
4	2/18/2005 9:00 AM	80 00	3,600 00	YES	2 00	Buy-through	Contracted amount	
3	2/18/2005 7:30 PM	N/A		N/A	2 00	Curtailment	Contracted amount	
3	2/21/2005 11:00 AM	N/A		N/A	1 00	Curtailment	Contracted amount	
1	2/23/2005 8:00 AM	55 00	30,000 00	YES	2 00	Buy-through	Contracted amount	
2	2/23/2005 8:00 AM	55 00	20,000 00	YES	2 00	Buy-through	Contracted amount	
4	2/23/2005 9:00 AM	55 00	3,600 00	YES	1 25	Buy-through	Contracted amount	
2	2/24/2005 7:00 AM	70 00	20,000 00	YES	7 00	Buy-through	Contracted amount	
1	2/24/2005 7:30 AM	70 00	30,000 00	YES	12 00	Buy-through	Contracted amount	
4	2/24/2005 9:00 AM	70 00	3,600 00	YES	8 00	Buy-through	Contracted amount	
2	2/24/2005 2:00 PM	70 00	19,000 00	YES	6 00	Buy-through	Contracted amount	
2	2/25/2005 7:00 AM	80 00	15,000 00	YES	2 00	Buy-through	Contracted amount	
2	2/25/2005 9:00 AM	60 00	15,000 00	YES	1 00	Buy-through	Contracted amount	
4	2/25/2005 9:00 AM	60 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
2	2/25/2005 10:00 AM	55 00	15,000 00	YES	1 00	Buy-through	Contracted amount	
4	2/25/2005 10:00 AM	55 00	3,600 00	YES	1 00	Buy-through	Contracted amount	
3	2/25/2005 7:21 PM	N/A		N/A	1 00	Curtailment	Contracted amount	
1	3/1/2005 8:00 AM	75 00		NO	2 00	Buy-through	Contracted amount	
2	3/1/2005 8:00 AM	75 00	10,000 00	YES	2 00	Buy-through	Contracted amount	
1	3/2/2005 7:45 AM	80 00		NO	1 25	Buy-through	Contracted amount	
2	3/2/2005 7:45 AM	80 00	19,000 00	YES	1 25	Buy-through	Contracted amount	
3	3/2/2005 7:10 PM	N/A		N/A	1 67	Curtailment	Contracted amount	
3	3/3/2005 8:00 PM	N/A		N/A	1 00	Curtailment	Contracted amount	
2	3/4/2005 7:00 AM	80 00	20,000 00	YES	4 75	Buy-through	Contracted amount	
1	3/4/2005 7:15 AM	80 00		NO	4 50	Buy-through	Contracted amount	

Kentucky Utilities Company
Case No. 2009-00548
Detailed Curtailment Data

Reference #	Start Date/Time	Offer Price	KW Hrs Purchased	Offer Accepted	Hours	Curtailment or Buy-through	Amount Requested	Non-Compliance Amount (MW)
4	3/4/2005 9:00 AM	80 00	3,600 00	YES	2.75	Buy-through	Contracted amount	
3	3/4/2005 10:05 AM	N/A		N/A	2.58	Curtailment	Contracted amount	
3	3/8/2005 6:40 PM	N/A		N/A	2.08	Curtailment	Contracted amount	
1	3/9/2005 7:15 AM	80 00		NO	1.75	Buy-through	Contracted amount	
2	3/9/2005 7:15 AM	80 00	21,000 00	YES	1.75	Buy-through	Contracted amount	
2	3/9/2005 9:00 AM	70 00	21,000 00	YES	1.00	Buy-through	Contracted amount	
3	3/9/2005 6:40 PM	N/A		N/A	2.83	Curtailment	Contracted amount	
1	3/10/2005 7:20 AM	85 00		NO	2.17	Buy-through	Contracted amount	
3	3/10/2005 2:55 PM	N/A		N/A	6 00	Curtailment	Contracted amount	
3	3/11/2005 8:55 AM	N/A		N/A	6 08	Curtailment	Contracted amount	
3	3/11/2005 8:01 PM	N/A		N/A	1.73	Curtailment	Contracted amount	
1	3/14/2005 7:15 AM	82 00		NO	3 00	Buy-through	Contracted amount	
2	3/14/2005 7:15 AM	82 00	15,000 00	YES	2.75	Buy-through	Contracted amount	
2	3/14/2005 10:00 AM	60 00	15,000 00	YES	1 00	Buy-through	Contracted amount	
3	3/16/2005 8:10 AM	N/A		N/A	6 42	Curtailment	Contracted amount	
2	3/16/2005 10:30 AM	81 00	13,000 00	YES	5 00	Buy-through	Contracted amount	
4	3/16/2005 10:30 AM	81 00	3,600 00	YES	5 00	Buy-through	Contracted amount	
3	3/16/2005 6:03 PM	N/A		N/A	2 83	Curtailment	Contracted amount	
3	3/17/2005 2:10 PM	N/A		N/A	0 83	Curtailment	Contracted amount	
1	3/18/2005 8:15 AM	81 00		NO	1 25	Buy-through	Contracted amount	
2	3/18/2005 8:15 AM	81 00	20,000 00	YES	1 25	Buy-through	Contracted amount	
1	3/21/2005 7:15 AM	81 00		NO	3.50	Buy-through	Contracted amount	
2	3/21/2005 7:15 AM	81 00	21,000 00	YES	3 50	Buy-through	Contracted amount	
3	3/21/2005 2:30 PM	N/A		N/A	0 50	Curtailment	Contracted amount	
3	3/22/2005 10:40 AM	N/A		N/A	1.42	Curtailment	Contracted amount	
1	3/24/2005 8:00 AM	67 00	30,000 00	YES	2 00	Buy-through	Contracted amount	
2	3/24/2005 8:15 AM	67 00	20,000 00	YES	1 75	Buy-through	Contracted amount	
1	3/24/2005 10:00 AM	55 00	30,000 00	YES	1 00	Buy-through	Contracted amount	
2	3/24/2005 10:00 AM	55 00	20,000 00	YES	1 00	Buy-through	Contracted amount	
3	3/25/2005 8:30 AM	N/A		N/A	0 50	Curtailment	Contracted amount	
3	3/28/2005 7:20 PM	N/A		N/A	2 00	Curtailment	Contracted amount	
3	3/29/2005 7:20 PM	N/A		N/A	1 97	Curtailment	Contracted amount	
3	3/31/2005 9:45 AM	N/A		N/A	1 00	Curtailment	Contracted amount	
4	6/6/2005 10:00 AM	80 00		NO	6 00	Buy-through	Contracted amount	
2	6/6/2005 11:00 AM	80 00	15,000 00	YES	6 00	Buy-through	Contracted amount	
4	6/10/2005 11:00 AM	133 00		NO	5 00	Buy-through	Contracted amount	
2	6/10/2005 12:00 PM	133 00	10,000 00	YES	6 00	Buy-through	Contracted amount	
2	6/22/2005 12:00 PM	127 00	22,000 00	YES	7 00	Buy-through	Contracted amount	
4	6/22/2005 12:00 PM	127 00	0 00	NO	4 00	Buy-through	Contracted amount	
2	6/23/2005 12:00 PM	127 00	19,500 00	YES	7 00	Buy-through	Contracted amount	
4	6/23/2005 12:00 PM	127 00	0 00	NO	4 00	Buy-through	Contracted amount	
2	6/24/2005 12:00 PM	129 00	21,000 00	YES	7 00	Buy-through	Contracted amount	
4	6/24/2005 12:00 PM	129 00	0 00	NO	4 00	Buy-through	Contracted amount	
1	6/27/2005 11:00 AM	126 00	1,000 00	YES	5.50	Buy-through	Contracted amount	
2	6/27/2005 12:00 PM	126 00	21,000 00	YES	4.50	Buy-through	Contracted amount	
4	6/27/2005 12:00 PM	126 00	3,100 00	YES	4 00	Buy-through	Contracted amount	
3	6/27/2005 2:00 PM	N/A		N/A	3 00	Curtailment	Contracted amount	
1	6/27/2005 4:30 PM	180 00	1,000 00	YES	2.50	Buy-through	Contracted amount	
2	6/27/2005 4:30 PM	180 00	21,000 00	YES	2 50	Buy-through	Contracted amount	
4	6/28/2005 12:00 PM	130 00	3,100 00	YES	4 00	Buy-through	Contracted amount	
1	6/28/2005 1:00 PM	130 00	30,000 00	YES	6 00	Buy-through	Contracted amount	
2	6/28/2005 1:00 PM	130 00	20,000 00	YES	6 00	Buy-through	Contracted amount	
3	6/28/2005 2:45 PM	N/A		N/A	2 00	Curtailment	Contracted amount	
1	6/29/2005 12:00 PM	158 00	28,000 00	YES	6 00	Buy-through	Contracted amount	
2	6/29/2005 12:00 PM	158 00	11,000 00	YES	3 00	Buy-through	Contracted amount	
4	6/29/2005 12:00 PM	158 00	0 00	NO	5 00	Buy-through	Contracted amount	
2	6/29/2005 3:00 PM	158 00	20,000 00	YES	3 00	Buy-through	Contracted amount	
1	6/30/2005 12:00 PM	155 00	0 00	NO	7 00	Buy-through	Contracted amount	
2	6/30/2005 12:00 PM	155 00	21,000 00	YES	7 00	Buy-through	Contracted amount	
4	6/30/2005 12:00 PM	155 00	0 00	NO	5 00	Buy-through	Contracted amount	
3	6/30/2005 2:00 PM	N/A		N/A	2 00	Curtailment	Contracted amount	
4	7/5/2005 12:00 PM	154 00	0 00	NO	4 00	Buy-through	Contracted amount	
1	7/5/2005 1:00 PM	154 00		NO	5 00	Buy-through	Contracted amount	
2	7/5/2005 1:00 PM	154 00	20,000 00	YES	5 00	Buy-through	Contracted amount	
4	7/6/2005 12:00 PM	154 00	0 00	NO	4 00	Buy-through	Contracted amount	
1	7/6/2005 1:00 PM	154 00	28,000 00	YES	5 00	Buy-through	Contracted amount	
2	7/6/2005 1:00 PM	154 00	21,500 00	YES	5 00	Buy-through	Contracted amount	
4	7/7/2005 1:00 PM	154 00	0 00	NO	3 00	Buy-through	Contracted amount	
1	7/7/2005 2:00 PM	154 00		NO	4 00	Buy-through	Contracted amount	
2	7/7/2005 2:00 PM	154 00	20,500 00	YES	4 00	Buy-through	Contracted amount	
1	7/11/2005 2:00 PM	154 00	0 00	NO	4 00	Buy-through	Contracted amount	
2	7/11/2005 2:00 PM	154 00	19,000 00	YES	4 00	Buy-through	Contracted amount	
1	7/15/2005 1:00 PM	154 00	0 00	NO	4 00	Buy-through	Contracted amount	
2	7/15/2005 1:00 PM	154 00	17,000 00	YES	4 00	Buy-through	Contracted amount	
4	7/15/2005 1:00 PM	154 00	0 00	NO	3 00	Buy-through	Contracted amount	
4	7/18/2005 12:00 PM	159 00	0 00	NO	4 00	Buy-through	Contracted amount	

Kentucky Utilities Company

Case No. 2009-00548

Detailed Curtailment Data

Reference #	Start Date/Time	Offer Price	KW Hrs Purchased	Offer Accepted	Hours	Curtailment or Buy-through	Amount Requested	Non-Compliance Amount (MW)
1	7/18/2005 1:00 PM	159 00	0 00	NO	5 00	Buy-through	Contracted amount	
2	7/18/2005 1:00 PM	159 00	18,000 00	YES	5 00	Buy-through	Contracted amount	
1	8/2/2005 1:30 PM	223 00		NO	6 00	Buy-through	Contracted amount	
1	8/3/2005 1:00 PM			NO	5 00	Buy-through	Contracted amount	
2	8/3/2005 1:00 PM		17,000 00	YES	5 00	Buy-through	Contracted amount	
4	8/3/2005 1:00 PM		0 00	NO	3 00	Buy-through	Contracted amount	
3	8/3/2005 1:30 PM	N/A		N/A	3 00	Curtailment	Contracted amount	
4	8/4/2005 12:30 PM		0 00	NO	4 00	Buy-through	Contracted amount	
1	8/4/2005 1:00 PM			NO	5 00	Buy-through	Contracted amount	
2	8/4/2005 1:00 PM		18,000 00	YES	5 00	Buy-through	Contracted amount	
4	8/11/2005 1:00 PM		0 00	NO	3.50	Buy-through	Contracted amount	
1	8/12/2005 1:00 PM		28,000 00	YES	4 00	Buy-through	Contracted amount	
2	8/12/2005 1:00 PM		20,000 00	YES	4 00	Buy-through	Contracted amount	
4	8/12/2005 1:00 PM		0 00	NO	3 50	Buy-through	Contracted amount	
3	9/12/2005 2:00 PM	N/A		N/A	3 00	Curtailment	Contracted amount	
3	9/13/2005 4:00 PM	N/A		N/A	1 00	Curtailment	Contracted amount	
3	9/14/2005 1:45 PM	N/A		N/A	2 60	Curtailment	Contracted amount	
3	9/22/2005 2:30 PM	N/A		N/A	3 25	Curtailment	Contracted amount	
3	9/23/2005 2:00 PM	N/A		N/A	2 25	Curtailment	Contracted amount	
3	10/3/2005 1:00 PM	N/A		N/A	3 00	Curtailment	Contracted amount	
3	10/4/2005 1:35 PM	N/A		N/A	3 00	Curtailment	Contracted amount	
2	11/22/2005 4:00 PM	80.00	19,000 00	YES	1 00	Buy-through	Contracted amount	
3	1/17/2006 2:00 PM	N/A		N/A	6 50	Curtailment	Contracted amount	
3	1/18/2006 8:35 AM	N/A		N/A	3 17	Curtailment	Contracted amount	
3	1/19/2006 8:30 AM	N/A		N/A	1 50	Curtailment	Contracted amount	
3	1/23/2006 7:45 PM	N/A		N/A	2 25	Curtailment	Contracted amount	
3	1/26/2006 8:05 AM	N/A		N/A	2 92	Curtailment	Contracted amount	
3	1/26/2006 7:30 PM	N/A		N/A	2 50	Curtailment	Contracted amount	
3	1/27/2006 8:00 AM	N/A		N/A	2 50	Curtailment	Contracted amount	
3	2/2/2006 7:00 PM	N/A		N/A	3 00	Curtailment	Contracted amount	
3	2/6/2006 7:00 PM	N/A		N/A	2 75	Curtailment	Contracted amount	
3	2/7/2006 8:00 AM	N/A		N/A	1 50	Curtailment	Contracted amount	
3	2/9/2006 8:00 AM	N/A		N/A	1 75	Curtailment	Contracted amount	
3	2/13/2006 8:45 AM	N/A		N/A	2 58	Curtailment	Contracted amount	
3	2/15/2006 7:00 PM	N/A		N/A	1 25	Curtailment	Contracted amount	
3	2/16/2006 7:10 PM	N/A		N/A	1 92	Curtailment	Contracted amount	
3	2/20/2006 10:35 AM	N/A		N/A	1 00	Curtailment	Contracted amount	
3	2/20/2006 7:20 PM	N/A		N/A	1 92	Curtailment	Contracted amount	
3	2/24/2006 8:20 AM	N/A		N/A	1 75	Curtailment	Contracted amount	
3	3/3/2006 7:10 AM	N/A		N/A	0 25	Curtailment	Contracted amount	
3	3/3/2006 9:30 AM	N/A		N/A	2 50	Curtailment	Contracted amount	
3	3/6/2006 8:20 AM	N/A		N/A	5 50	Curtailment	Contracted amount	
3	3/6/2006 7:35 PM	N/A		N/A	1 67	Curtailment	Contracted amount	
3	3/7/2006 7:45 PM	N/A		N/A	1 50	Curtailment	Contracted amount	
3	3/8/2006 10:20 AM	N/A		N/A	0 67	Curtailment	Contracted amount	
3	3/8/2006 7:00 PM	N/A		N/A	1 50	Curtailment	Contracted amount	
3	3/9/2006 7:00 PM	N/A		N/A	2 00	Curtailment	Contracted amount	
3	3/13/2006 1:00 PM	N/A		N/A	1 75	Curtailment	Contracted amount	
3	3/15/2006 11:30 AM	N/A		N/A	2 50	Curtailment	Contracted amount	
3	3/17/2006 11:45 AM	N/A		N/A	2 08	Curtailment	Contracted amount	
3	3/20/2006 10:15 AM	N/A		N/A	2 00	Curtailment	Contracted amount	
3	3/21/2006 8:15 AM	N/A		N/A	2 75	Curtailment	Contracted amount	
3	3/21/2006 7:30 PM	N/A		N/A	1 50	Curtailment	Contracted amount	
3	3/22/2006 7:50 PM	N/A		N/A	1 17	Curtailment	Contracted amount	
3	3/27/2006 8:15 AM	N/A		N/A	1 75	Curtailment	Contracted amount	
3	6/21/2006 3:00 PM	N/A		N/A	2 00	Curtailment	Contracted amount	
3	6/22/2006 3:00 PM	N/A		N/A	2 00	Curtailment	Contracted amount	
3	7/13/2006 1:35 PM	N/A		N/A	1 58	Curtailment	Contracted amount	
3	7/17/2006 3:20 PM	N/A		N/A	2 67	Curtailment	Contracted amount	
3	7/18/2006 3:40 PM	N/A		N/A	1 50	Curtailment	Contracted amount	
3	7/31/2006 3:00 PM	N/A		N/A	2 00	Curtailment	Contracted amount	
1	8/1/2006 1:45 PM	N/A	0 00	N/A	4 75	Curtailment	Contracted amount	
2	8/1/2006 1:45 PM	N/A	0 00	N/A	4 75	Curtailment	Contracted amount	
4	8/1/2006 1:45 PM	N/A	0 00	N/A	4 75	Curtailment	Contracted amount	
3	8/1/2006 2:05 PM	N/A		N/A	3 00	Curtailment	Contracted amount	
1	8/2/2006 12:00 PM	N/A	0 00	N/A	5 75	Curtailment	Contracted amount	
2	8/2/2006 12:00 PM	N/A	0 00	N/A	5 75	Curtailment	Contracted amount	
4	8/2/2006 12:00 PM	N/A	0 00	N/A	7 00	Curtailment	Contracted amount	
3	8/2/2006 2:00 PM	N/A		N/A	3 50	Curtailment	Contracted amount	
3	8/3/2006 2:30 PM	N/A		N/A	2 33	Curtailment	Contracted amount	
3	8/7/2006 1:30 PM	N/A		N/A	3 00	Curtailment	Contracted amount	
3	9/5/2006 10:31 AM	N/A		N/A	0 50	Curtailment	Contracted amount	
3	9/13/2006 1:00 PM	N/A		N/A	2 00	Curtailment	Contracted amount	
3	9/14/2006 1:45 PM	N/A		N/A	1 25	Curtailment	Contracted amount	
3	9/19/2006 12:11 PM	N/A		N/A	1 50	Curtailment	Contracted amount	
3	9/22/2006 7:30 PM	N/A		N/A	2 00	Curtailment	Contracted amount	

Kentucky Utilities Company

Case No. 2009-00548

Detailed Curtailment Data

Reference #	Start Date/Time	Offer Price	KW Hrs Purchased	Offer Accepted	Hours	Curtailment or Buy-through	Amount Requested	Non-Compliance Amount (MW)
3	9/25/2006 7:15 PM	N/A		N/A	1.00	Curtailment	Contracted amount	
3	9/26/2006 7:51 PM	N/A		N/A	1.15	Curtailment	Contracted amount	
3	9/27/2006 7:30 AM	N/A		N/A	0.50	Curtailment	Contracted amount	
3	10/4/2006 9:36 AM	N/A		N/A	1.23	Curtailment	Contracted amount	
3	10/17/2006 10:30 AM	N/A		N/A	0.50	Curtailment	Contracted amount	
3	10/20/2006 10:00 AM	N/A		N/A	2.00	Curtailment	Contracted amount	
3	10/23/2006 10:10 AM	N/A		N/A	4.00	Curtailment	Contracted amount	
3	10/23/2006 6:53 PM	N/A		N/A	1.45	Curtailment	Contracted amount	
3	11/2/2006 6:54 PM	N/A		N/A	3.10	Curtailment	Contracted amount	
3	11/3/2006 12:00 PM	N/A		N/A	0.50	Curtailment	Contracted amount	
3	11/9/2006 11:30 AM	N/A		N/A	0.50	Curtailment	Contracted amount	
3	11/9/2006 6:30 PM	N/A		N/A	0.50	Curtailment	Contracted amount	
3	11/10/2006 6:27 PM	N/A		N/A	1.27	Curtailment	Contracted amount	
3	11/13/2006 6:15 PM	N/A		N/A	1.00	Curtailment	Contracted amount	
3	11/15/2006 10:05 AM	N/A		N/A	0.92	Curtailment	Contracted amount	
3	11/16/2006 10:15 AM	N/A		N/A	0.50	Curtailment	Contracted amount	
3	11/16/2006 5:50 PM	N/A		N/A	1.68	Curtailment	Contracted amount	
3	11/17/2006 1:34 PM	N/A		N/A	1.27	Curtailment	Contracted amount	
3	11/17/2006 6:01 PM	N/A		N/A	0.98	Curtailment	Contracted amount	
1	11/21/2006 8:00 AM	75.00	0.00	NO	1.58	Buy-through	Contracted amount	
3	11/27/2006 5:40 PM	N/A		N/A	1.33	Curtailment	Contracted amount	
3	11/28/2006 12:25 PM	N/A		N/A	2.00	Curtailment	Contracted amount	
3	11/28/2006 8:00 PM	N/A		N/A	1.00	Curtailment	Contracted amount	
3	12/5/2006 6:00 PM	N/A		N/A	1.50	Curtailment	Contracted amount	
3	12/7/2006 6:30 PM	N/A		N/A	2.42	Curtailment	Contracted amount	
1	12/8/2006 7:32 AM	N/A	0.00	N/A	0.50	Curtailment	Contracted amount	
2	12/8/2006 7:33 AM	N/A	0.00	N/A	0.50	Curtailment	Contracted amount	
3	12/13/2006 6:15 PM	N/A		N/A	0.83	Curtailment	Contracted amount	
3	12/14/2006 6:00 PM	N/A		N/A	0.75	Curtailment	Contracted amount	
3	1/1/2007 6:00 PM	N/A		N/A	1.33	Curtailment	Contracted amount	
3	1/4/2007 5:30 PM	N/A		N/A	2.50	Curtailment	Contracted amount	
3	1/16/2007 8:30 AM	N/A		N/A	0.83	Curtailment	Contracted amount	
3	1/16/2007 6:55 PM	N/A		N/A	0.83	Curtailment	Contracted amount	
3	1/17/2007 6:00 PM	N/A		N/A	1.50	Curtailment	Contracted amount	
3	1/18/2007 6:15 PM	N/A		N/A	0.75	Curtailment	Contracted amount	
3	1/22/2007 5:45 PM	N/A		N/A	3.75	Curtailment	Contracted amount	
3	1/24/2007 11:20 AM	N/A		N/A	0.67	Curtailment	Contracted amount	
3	1/26/2007 8:25 AM	N/A		N/A	1.17	Curtailment	Contracted amount	
3	1/31/2007 9:15 AM	N/A		N/A	1.50	Curtailment	Contracted amount	
3	2/5/2007 6:41 PM	N/A		N/A	1.00	Curtailment	Contracted amount	
3	2/8/2007 8:25 PM	N/A		N/A	1.17	Curtailment	Contracted amount	
3	2/9/2007 6:45 PM	N/A		N/A	1.25	Curtailment	Contracted amount	
3	2/14/2007 6:10 PM	N/A		N/A	2.33	Curtailment	Contracted amount	
1	2/15/2007 1:00 PM	118.00	1,000.00	YES	6.00	Buy-through	Contracted amount	
4	2/15/2007 1:00 PM	118.00	0.00	NO	4.00	Buy-through	Contracted amount	
1	2/15/2007 7:00 PM	118.00	10,000.00	YES	4.00	Buy-through	Contracted amount	
3	2/22/2007 7:06 PM	N/A		N/A	1.98	Curtailment	Contracted amount	
3	2/27/2007 9:00 AM	N/A		N/A	0.50	Curtailment	Contracted amount	
3	2/28/2007 11:00 AM	N/A		N/A	0.50	Curtailment	Contracted amount	
3	3/1/2007 9:00 AM	N/A		N/A	1.00	Curtailment	Contracted amount	
3	3/12/2007 7:10 PM	N/A		N/A	1.00	Curtailment	Contracted amount	
3	3/13/2007 7:30 PM	N/A		N/A	1.00	Curtailment	Contracted amount	
3	3/16/2007 7:30 PM	N/A		N/A	1.00	Curtailment	Contracted amount	
3	3/20/2007 9:02 AM	N/A		N/A	1.05	Curtailment	Contracted amount	
3	3/21/2007 7:52 PM	N/A		N/A	1.47	Curtailment	Contracted amount	
3	3/22/2007 7:32 PM	N/A		N/A	0.97	Curtailment	Contracted amount	
3	3/23/2007 9:55 AM	N/A		N/A	3.58	Curtailment	Contracted amount	
1	3/27/2007 8:00 AM	56.00	30,000.00	YES	3.00	Buy-through	Contracted amount	
2	3/27/2007 8:00 AM	57.00	5,000.00	YES	3.00	Buy-through	Contracted amount	
3	3/28/2007 9:30 AM	N/A		N/A	1.25	Curtailment	Contracted amount	
3	4/16/2007 8:04 PM	N/A		N/A	0.43	Curtailment	Contracted amount	
3	4/30/2007 3:40 PM	N/A		N/A	0.67	Curtailment	Contracted amount	
1	5/10/2007 1:00 PM	105.00	1,000.00	YES	8.00	Buy-through	Contracted amount	
2	5/10/2007 1:00 PM	105.00	20,000.00	YES	8.00	Buy-through	Contracted amount	
4	5/10/2007 1:00 PM	105.00	0.00	NO	8.00	Buy-through	Contracted amount	
3	7/3/2007 1:25 PM	N/A		N/A	4.58	Curtailment	Contracted amount	
1	7/6/2007 11:00 AM	85.00	1,000.00	YES	7.00	Buy-through	Contracted amount	
2	7/6/2007 11:00 AM	85.00	21,000.00	YES	7.00	Buy-through	Contracted amount	
3	7/6/2007 12:40 PM	N/A		N/A	0.58	Curtailment	Contracted amount	
1	7/9/2007 10:00 AM	125.00	1,000.00	YES	9.00	Buy-through	Contracted amount	
2	7/9/2007 10:00 AM	125.00	19,000.00	YES	1.00	Buy-through	Contracted amount	
4	7/9/2007 10:00 AM	140.00	0.00	NO	5.00	Buy-through	Contracted amount	
2	7/9/2007 11:00 AM	125.00	21,000.00	YES	8.00	Buy-through	Contracted amount	
3	7/9/2007 3:15 PM	N/A		N/A	2.75	Curtailment	Contracted amount	
1	7/10/2007 10:00 AM	112.00	1,000.00	YES	9.00	Buy-through	Contracted amount	
2	7/10/2007 10:00 AM	112.00	21,000.00	YES	9.00	Buy-through	Contracted amount	

Kentucky Utilities Company
Case No. 2009-00548
Detailed Curtailment Data

Reference #	Start Date/Time	Offer Price	KW Hrs Purchased	Offer Accepted	Hours Curtailment or Buy-through	Amount Requested	Non-Compliance Amount (\$MW)
4	7/10/2007 10:00 AM	93 00	0 00	NO	5 00 Buy-through	Contracted amount	
1	7/17/2007 1:00 PM	80 00	32,000 00	YES	6 00 Buy-through	Contracted amount	
2	7/17/2007 1:00 PM	80 00	20,000 00	YES	6 00 Buy-through	Contracted amount	
1	7/19/2007 10:00 AM	95 00	1,000 00	YES	7 00 Buy-through	Contracted amount	
2	7/19/2007 10:00 AM	95 00	20,000 00	YES	3 00 Buy-through	Contracted amount	
4	7/19/2007 10:00 AM	95 00	0 00	NO	5 00 Buy-through	Contracted amount	
2	7/19/2007 1:00 PM	95 00	14,000 00	YES	1 67 Buy-through	Contracted amount	
2	7/19/2007 2:40 PM	95 00	20,000 00	YES	2 33 Buy-through	Contracted amount	
3	8/3/2007 8:10 PM	N/A		N/A	0 83 Curtailment	Contracted amount	
4	8/6/2007 12:00 PM	107 00	0 00	NO	3 00 Buy-through	Contracted amount	
1	8/6/2007 12:20 PM	N/A	0 00	N/A	4 67 Curtailment	Contracted amount	
2	8/6/2007 12:20 PM	N/A	0 00	N/A	4 67 Curtailment	Contracted amount	
1	8/7/2007 12:00 PM	142 00	1,000 00	YES	6 00 Buy-through	Contracted amount	
2	8/7/2007 12:00 PM	142 00	21,000 00	YES	6 00 Buy-through	Contracted amount	
4	8/7/2007 12:00 PM	142 00	0 00	NO	3 00 Buy-through	Contracted amount	
1	8/8/2007 12:00 PM	130 00	1,000 00	YES	6 00 Buy-through	Contracted amount	
2	8/8/2007 12:00 PM	130 00	21,000 00	YES	6 00 Buy-through	Contracted amount	
4	8/8/2007 12:00 PM	130 00	0 00	NO	3 00 Buy-through	Contracted amount	
1	8/9/2007 12:00 PM	163 00	0 00	NO	6 00 Buy-through	Contracted amount	
2	8/9/2007 12:00 PM	163 00	21,000 00	YES	6 00 Buy-through	Contracted amount	
4	8/9/2007 12:00 PM	163 00	0 00	NO	3 00 Buy-through	Contracted amount	
1	8/10/2007 12:00 PM	102 00	0 00	NO	6 00 Buy-through	Contracted amount	
2	8/10/2007 12:00 PM	102 00	21,000 00	YES	6 00 Buy-through	Contracted amount	
4	8/10/2007 12:00 PM	102 00	0 00	NO	3 00 Buy-through	Contracted amount	
1	8/13/2007 12:00 PM	115 00	1,000 00	YES	2 00 Buy-through	Contracted amount	
2	8/13/2007 12:00 PM	115 00	21,000 00	YES	6 00 Buy-through	Contracted amount	
4	8/13/2007 12:00 PM	115 00	0 00	NO	3 00 Buy-through	Contracted amount	
1	8/13/2007 2:00 PM	115 00	1,000 00	YES	4 00 Buy-through	Contracted amount	
1	8/14/2007 11:00 AM	90 00	0 00	NO	9 00 Buy-through	Contracted amount	
2	8/14/2007 11:00 AM	90 00	21,000 00	YES	9 00 Buy-through	Contracted amount	
4	8/14/2007 11:00 AM	97 00	0 00	NO	4 00 Buy-through	Contracted amount	
1	8/15/2007 12:15 PM	N/A	0 00	N/A	6 08 Curtailment	Contracted amount	
2	8/15/2007 12:15 PM	N/A	0 00	N/A	6 08 Curtailment	Contracted amount	
3	8/15/2007 12:15 PM	N/A		N/A	6 33 Curtailment	Contracted amount	
4	8/15/2007 12:15 PM	N/A	0 00	N/A	2 75 Curtailment	Contracted amount	
1	8/16/2007 12:00 PM	107 00	0 00	NO	6 75 Buy-through	Contracted amount	
2	8/16/2007 12:00 PM	107 00	15,000 00	YES	6 00 Buy-through	Contracted amount	
4	8/16/2007 12:00 PM	107 00	0 00	NO	3 00 Buy-through	Contracted amount	
3	8/16/2007 5:32 PM	N/A		N/A	1 22 Curtailment	Contracted amount	
1	8/22/2007 2:00 PM	110 00	0 00	NO	5 00 Buy-through	Contracted amount	
2	8/22/2007 2:00 PM	110 00	13,000 00	YES	1 00 Buy-through	Contracted amount	
2	8/22/2007 3:00 PM	105 00	14,000 00	YES	1 00 Buy-through	Contracted amount	
2	8/22/2007 4:00 PM	102 00	14,000 00	YES	1 00 Buy-through	Contracted amount	
2	8/22/2007 5:00 PM	115 00	11,000 00	YES	1 00 Buy-through	Contracted amount	
2	8/22/2007 6:00 PM	110 00	11,000 00	YES	1 00 Buy-through	Contracted amount	
4	8/23/2007 11:00 AM	130 00	0 00	NO	9 00 Buy-through	Contracted amount	
1	8/23/2007 12:00 PM	130 00	0 00	NO	8 00 Buy-through	Contracted amount	
2	8/23/2007 12:00 PM	130 00	14,000 00	YES	8 00 Buy-through	Contracted amount	
1	8/24/2007 12:00 PM	100 00	0 00	NO	6 00 Buy-through	Contracted amount	
2	8/24/2007 12:00 PM	100 00	18,000 00	YES	6 00 Buy-through	Contracted amount	
4	8/24/2007 12:00 PM	100 00	0 00	NO	5 00 Buy-through	Contracted amount	
1	10/8/2007 1:40 PM	N/A	0 00	N/A	1 17 Curtailment	Contracted amount	
2	10/8/2007 1:40 PM	N/A	0 00	N/A	1 17 Curtailment	Contracted amount	
3	10/11/2007 6:54 PM	N/A		N/A	1 67 Curtailment	Contracted amount	
3	10/15/2007 6:20 PM	N/A		N/A	1 33 Curtailment	Contracted amount	
3	10/19/2007 6:40 PM	N/A		N/A	1 08 Curtailment	Contracted amount	
3	10/22/2007 11:30 AM	N/A		N/A	1 17 Curtailment	Contracted amount	
3	10/24/2007 3:30 PM	N/A		N/A	1 42 Curtailment	Contracted amount	
3	11/16/2007 7:15 PM	N/A		N/A	1 75 Curtailment	Contracted amount	
3	11/21/2007 10:30 AM	N/A		N/A	1 00 Curtailment	Contracted amount	
3	11/27/2007 6:10 PM	N/A		N/A	1 83 Curtailment	Contracted amount	
3	11/28/2007 7:05 PM	N/A		N/A	0 67 Curtailment	Contracted amount	
3	11/29/2007 6:50 PM	N/A		N/A	0 67 Curtailment	Contracted amount	
3	12/11/2007 6:20 PM	N/A		N/A	0 67 Curtailment	Contracted amount	
3	12/14/2007 5:45 PM	N/A		N/A	0 75 Curtailment	Contracted amount	
3	1/10/2008 11:35 AM	N/A		N/A	1 67 Curtailment	Contracted amount	
3	1/15/2008 6:20 PM	N/A		N/A	0 83 Curtailment	Contracted amount	
3	1/23/2008 5:30 PM	N/A		N/A	1 00 Curtailment	Contracted amount	
3	2/4/2008 10:52 AM	N/A		N/A	1 00 Curtailment	Contracted amount	
3	2/6/2008 6:36 PM	N/A		N/A	0 57 Curtailment	Contracted amount	
3	2/8/2008 2:40 PM	N/A		N/A	1 00 Curtailment	Contracted amount	
3	2/27/2008 6:00 PM	N/A		N/A	2 00 Curtailment	Contracted amount	
3	3/17/2008 7:15 PM	N/A		N/A	0 75 Curtailment	Contracted amount	
3	3/19/2008 8:09 PM	N/A		N/A	1 52 Curtailment	Contracted amount	
3	3/20/2008 7:48 PM	N/A		N/A	0 70 Curtailment	Contracted amount	
3	3/26/2008 8:00 AM	N/A		N/A	4 50 Curtailment	Contracted amount	

Kentucky Utilities Company
Case No. 2009-00548
Detailed Curtailment Data

Reference #	Start Date/Time	Offer Price	KW Hrs Purchased	Offer Accepted	Hours	Curtailment or Buy-through	Amount Requested	Non-Compliance Amount (MW)
3	3/26/2008 2:10 PM	N/A		N/A	3	25 Curtailment	Contracted amount	
3	3/28/2008 7:42 PM	N/A		N/A	1	50 Curtailment	Contracted amount	
3	3/31/2008 7:00 PM	N/A		N/A	2	00 Curtailment	Contracted amount	
3	4/4/2008 8:47 PM	N/A		N/A	0	63 Curtailment	Contracted amount	
3	5/6/2008 8:20 PM	N/A		N/A	1	00 Curtailment	Contracted amount	
4	6/9/2008 12:00 PM	160 00	0 00	NO	6	00 Buy-through	Contracted amount	
1	6/9/2008 12:00 PM	N/A	0 00	N/A	6	00 Curtailment	Contracted amount	
2	6/9/2008 12:00 PM	N/A	0 00	N/A	6	00 Curtailment	Contracted amount	
3	6/11/2008 4:15 PM	N/A		N/A	1	50 Curtailment	Contracted amount	
3	7/21/2008 11:30 AM	N/A		N/A	1	50 Curtailment	Contracted amount	
3	7/22/2008 12:32 PM	N/A		N/A	1	50 Curtailment	Contracted amount	
3	7/29/2008 11:10 AM	N/A		N/A	1	33 Curtailment	Contracted amount	
1	7/29/2008 12:00 PM	150 00	1,000 00	YES	5	00 Buy-through	Contracted amount	
2	7/29/2008 12:00 PM	150 00	20,000 00	YES	5	00 Buy-through	Contracted amount	
4	7/29/2008 12:00 PM	150 00	3,000 00	YES	5	00 Buy-through	Contracted amount	
1	8/1/2008 11:00 AM	135 00	1,000 00	YES	2	00 Buy-through	Contracted amount	
2	8/1/2008 11:00 AM	135 00	20,000 00	YES	2	00 Buy-through	Contracted amount	
4	8/1/2008 11:00 AM	135 00	3,000 00	YES	2	00 Buy-through	Contracted amount	
1	8/1/2008 1:20 PM	N/A	0 00	N/A	0	67 Curtailment	Contracted amount	
2	8/1/2008 1:20 PM	N/A	0 00	N/A	0	67 Curtailment	Contracted amount	
4	8/1/2008 1:20 PM	N/A	0 00	N/A	4	67 Curtailment	Contracted amount	
1	8/1/2008 2:00 PM	160 00	1,000 00	YES	4	00 Buy-through	Contracted amount	
2	8/1/2008 2:00 PM	160 00	20,000 00	YES	4	00 Buy-through	Contracted amount	
1	8/4/2008 12:00 PM	115 00	1,000 00	YES	8	00 Buy-through	Contracted amount	
2	8/4/2008 12:00 PM	115 00	20,000 00	YES	8	00 Buy-through	Contracted amount	
4	8/4/2008 12:00 PM	115 00	3,000 00	YES	8	00 Buy-through	Contracted amount	
1	8/5/2008 11:00 AM	120 00	26,000 00	YES	8	00 Buy-through	Contracted amount	
2	8/5/2008 11:00 AM	120 00	21,000 00	YES	8	00 Buy-through	Contracted amount	
4	8/5/2008 11:00 AM	120 00	3,000 00	YES	8	00 Buy-through	Contracted amount	
1	8/6/2008 10:00 AM	115 00	1,000 00	YES	6	00 Buy-through	Contracted amount	
2	8/6/2008 10:00 AM	115 00	16,000 00	YES	6	00 Buy-through	Contracted amount	
3	8/6/2008 1:35 PM	N/A		N/A	0	75 Curtailment	Contracted amount	
1	8/7/2008 10:00 AM	119 00	1,000 00	YES	6	00 Buy-through	Contracted amount	
2	8/7/2008 10:00 AM	119 00	20,000 00	YES	6	00 Buy-through	Contracted amount	
1	8/7/2008 11:00 AM	119 00	25,000 00	YES	5	00 Buy-through	Contracted amount	
1	8/20/2008 12:00 PM	78 00	26,000 00	YES	7	00 Buy-through	Contracted amount	
2	8/20/2008 12:00 PM	78 00	12,000 00	YES	7	00 Buy-through	Contracted amount	
4	8/20/2008 12:00 PM	78 00	3,000 00	YES	7	00 Buy-through	Contracted amount	
1	8/21/2008 11:00 AM	79 50	1,000 00	YES	7	00 Buy-through	Contracted amount	
2	8/21/2008 11:00 AM	79 50	18,000 00	YES	7	00 Buy-through	Contracted amount	
4	8/21/2008 11:00 AM	79 50	3,000 00	YES	7	00 Buy-through	Contracted amount	
1	9/2/2008 12:00 PM	120 00	26,000 00	YES	8	00 Buy-through	Contracted amount	
2	9/2/2008 12:00 PM	120 00	20,000 00	YES	8	00 Buy-through	Contracted amount	
4	9/2/2008 12:00 PM	120 00	0 00	NO	8	00 Buy-through	Contracted amount	
3	9/2/2008 2:50 PM	N/A		N/A	1	00 Curtailment	Contracted amount	
1	9/3/2008 12:00 PM	92 00	1,000 00	YES	8	00 Buy-through	Contracted amount	
2	9/3/2008 12:00 PM	92 00	21,000 00	YES	8	00 Buy-through	Contracted amount	
4	9/3/2008 12:00 PM	92 00	0 00	NO	8	00 Buy-through	Contracted amount	
3	9/3/2008 2:40 PM	N/A		N/A	1	00 Curtailment	Contracted amount	
3	9/4/2008 7:17 PM	N/A		N/A	1	22 Curtailment	Contracted amount	
3	9/11/2008 11:40 AM	N/A		N/A	1	17 Curtailment	Contracted amount	
3	9/19/2008 12:45 PM	N/A		N/A	4	75 Curtailment	Contracted amount	
3	9/23/2008 7:45 PM	N/A		N/A	1	08 Curtailment	Contracted amount	
3	10/8/2008 9:25 AM	N/A		N/A	1	08 Curtailment	Contracted amount	
3	10/10/2008 6:55 PM	N/A		N/A	1	00 Curtailment	Contracted amount	
3	10/13/2008 6:55 PM	N/A		N/A	1	00 Curtailment	Contracted amount	
3	10/15/2008 2:15 PM	N/A		N/A	1	75 Curtailment	Contracted amount	
3	11/19/2008 5:30 PM	N/A		N/A	4	00 Curtailment	Contracted amount	
3	1/7/2009 5:42 PM	N/A		N/A	1	30 Curtailment	Contracted amount	
3	1/8/2009 8:10 AM	N/A		N/A	1	67 Curtailment	Contracted amount	
3	1/9/2009 8:00 AM	N/A		N/A	1	00 Curtailment	Contracted amount	
3	1/12/2009 8:00 AM	N/A		N/A	0	60 Curtailment	Contracted amount	
3	1/13/2009 5:40 PM	N/A		N/A	1	42 Curtailment	Contracted amount	
1	1/15/2009 7:00 AM	70 00	30,000 00	YES	14	00 Buy-through	Contracted amount	
4	1/15/2009 7:00 AM	70 00	0 00	NO	14	00 Buy-through	Contracted amount	
3	1/15/2009 11:59 AM	N/A		N/A	2	52 Curtailment	Contracted amount	
1	1/16/2009 7:00 AM	70 00	30,000 00	YES	14	00 Buy-through	Contracted amount	
4	1/16/2009 7:00 AM	70 00	0 00	NO	14	00 Buy-through	Contracted amount	
3	1/22/2009 8:10 AM	N/A		N/A	1	58 Curtailment	Contracted amount	
3	1/23/2009 6:00 PM	N/A		N/A	1	25 Curtailment	Contracted amount	
3	2/4/2009 6:00 PM	N/A		N/A	4	00 Curtailment	Contracted amount	
3	2/16/2009 6:50 PM	N/A		N/A	1	00 Curtailment	Contracted amount	
3	2/17/2009 8:00 AM	N/A		N/A	2	15 Curtailment	Contracted amount	
3	3/2/2009 8:00 AM	N/A		N/A	5	83 Curtailment	Contracted amount	
3	3/2/2009 5:30 PM	N/A		N/A	3	00 Curtailment	Contracted amount	
3	3/3/2009 8:00 AM	N/A		N/A	5	00 Curtailment	Contracted amount	

Kentucky Utilities Company
 Case No. 2009-00548
 Detailed Curtailment Data

Reference #	Start Date/Time	Offer Price	KW Hrs Purchased	Offer Accepted	Hours	Curtailment or Buy-through	Amount Requested	Non-Compliance Amount (\$/MWh)
3	3/11/2009 8:25 PM	N/A		N/A	1.17	Curtailment	Contracted amount	
3	3/12/2009 5:10 PM	N/A		N/A	3.08	Curtailment	Contracted amount	
3	3/19/2009 4:41 PM	N/A		N/A	0.50	Curtailment	Contracted amount	
1	6/2/2009 1:00 PM	44.00	20,000.00	YES	4.00	Buy-through	Contracted amount	
2	6/2/2009 1:00 PM	44.00	0.00	NO	4.00	Buy-through	Contracted amount	
4	6/2/2009 1:00 PM	44.00	0.00	NO	4.00	Buy-through	Contracted amount	
3	6/2/2009 1:20 PM	N/A		N/A	1.70	Curtailment	Contracted amount	
3	6/9/2009 1:40 PM	N/A		N/A	5.67	Curtailment	Contracted amount	
3	6/12/2009 2:15 PM	N/A		N/A	2.70	Curtailment	Contracted amount	
3	6/15/2009 12:00 PM	N/A		N/A	5.87	Curtailment	Contracted amount	
3	6/16/2009 12:35 PM	N/A		N/A	1.92	Curtailment	Contracted amount	
1	6/17/2009 1:00 PM	47.00	29,000.00	YES	4.00	Buy-through	Contracted amount	
4	6/17/2009 1:00 PM	0.00	0.00	NO	4.00	Buy-through	Contracted amount	
1	6/23/2009 1:00 PM	62.00	28,000.00	YES	4.33	Buy-through	Contracted amount	
4	6/23/2009 1:00 PM	62.00	0.00	NO	5.00	Buy-through	Contracted amount	
1	6/24/2009 1:00 PM	68.00	0.00	NO	5.00	Buy-through	Contracted amount	
4	6/24/2009 1:00 PM	68.00	0.00	NO	5.00	Buy-through	Contracted amount	
1	6/25/2009 1:00 PM	62.00	28,000.00	YES	5.00	Buy-through	Contracted amount	
4	6/25/2009 1:00 PM	62.00	0.00	NO	5.00	Buy-through	Contracted amount	
3	6/30/2009 3:15 PM	N/A		N/A	2.75	Curtailment	Contracted amount	
3	6/30/2009 7:00 PM	N/A		N/A	0.75	Curtailment	Contracted amount	
3	7/8/2009 11:41 AM	N/A		N/A	2.32	Curtailment	Contracted amount	
3	7/10/2009 3:30 PM	N/A		N/A	3.08	Curtailment	Contracted amount	
3	7/16/2009 3:50 PM	N/A		N/A	2.67	Curtailment	Contracted amount	
3	7/20/2009 6:15 PM	N/A		N/A	1.50	Curtailment	Contracted amount	
3	7/23/2009 3:00 PM	N/A		N/A	3.00	Curtailment	Contracted amount	
3	7/24/2009 2:00 PM	N/A		N/A	1.50	Curtailment	Contracted amount	
3	8/3/2009 4:58 PM	N/A		N/A	1.62	Curtailment	Contracted amount	
3	8/7/2009 1:35 PM	N/A		N/A	1.42	Curtailment	Contracted amount	
3	8/10/2009 12:42 PM	N/A		N/A	1.63	Curtailment	Contracted amount	
1	8/10/2009 1:00 PM	52.00	30,000.00	YES	1.00	Buy-through	Contracted amount	
1	8/10/2009 2:00 PM	N/A	0.00	N/A	1.00	Curtailment	Contracted amount	
1	8/11/2009 11:00 AM	37.50	30,000.00	YES	2.50	Buy-through	Contracted amount	
3	8/11/2009 12:45 PM	N/A		N/A	3.00	Curtailment	Contracted amount	
3	8/11/2009 1:30 PM	N/A	0.00	N/A	3.00	Curtailment	Contracted amount	
3	8/11/2009 6:30 PM	N/A		N/A	2.50	Curtailment	Contracted amount	
1	8/12/2009 11:00 AM	36.50	30,000.00	YES	6.00	Buy-through	Contracted amount	
3	8/12/2009 2:02 PM	N/A		N/A	5.55	Curtailment	Contracted amount	
1	8/13/2009 1:00 PM	36.00	30,000.00	YES	1.00	Buy-through	Contracted amount	
3	8/13/2009 1:55 PM	N/A		N/A	5.58	Curtailment	Contracted amount	
1	8/13/2009 2:00 PM	44.00	30,000.00	YES	3.00	Buy-through	Contracted amount	
1	8/17/2009 10:00 AM	53.00	0.00	NO	1.00	Buy-through	Contracted amount	
4	8/17/2009 10:00 AM	53.00	0.00	NO	8.00	Buy-through	Contracted amount	
1	8/17/2009 11:00 AM	53.00	1,000.00	YES	7.00	Buy-through	Contracted amount	
3	8/17/2009 3:20 PM	N/A		N/A	0.67	Curtailment	Contracted amount	
3	8/18/2009 1:00 PM	N/A		N/A	2.00	Curtailment	Contracted amount	
1	8/26/2009 1:00 PM	N/A	0.00	N/A	1.00	Curtailment	Contracted amount	
1	8/26/2009 2:00 PM	40.00	30,000.00	YES	4.00	Buy-through	Contracted amount	
1	8/27/2009 11:00 AM	38.00	30,000.00	YES	7.00	Buy-through	Contracted amount	
2	8/27/2009 11:00 AM	38.00	18,000.00	YES	7.00	Buy-through	Contracted amount	
3	9/14/2009 3:10 PM	N/A		N/A	2.33	Curtailment	Contracted amount	
1	11/4/2009 7:17 AM	N/A	0.00	N/A	0.72	Curtailment	Contracted amount	
3	11/5/2009 6:32 PM	N/A		N/A	0.67	Curtailment	Contracted amount	
3	11/18/2009 8:35 PM	N/A		N/A	1.00	Curtailment	Contracted amount	
3	12/10/2009 6:48 PM	N/A		N/A	2.42	Curtailment	Contracted amount	
1	12/11/2009 6:45 AM	N/A	0.00	N/A	3.00	Curtailment	Contracted amount	
1	12/11/2009 9:45 AM	58.00	28,000.00	YES	1.25	Buy-through	Contracted amount	
1	12/11/2009 11:00 AM	65.00	28,000.00	YES	1.00	Buy-through	Contracted amount	
1	12/11/2009 12:00 PM	65.00	28,000.00	YES	1.00	Buy-through	Contracted amount	
1	12/11/2009 1:00 PM	58.00	28,000.00	YES	1.00	Buy-through	Contracted amount	
1	12/11/2009 2:00 PM	46.00	28,000.00	YES	1.00	Buy-through	Contracted amount	
1	12/11/2009 3:00 PM	65.00	28,000.00	YES	4.00	Buy-through	Contracted amount	
3	12/15/2009 7:00 PM	N/A		N/A	1.75	Curtailment	Contracted amount	
1	12/16/2009 6:22 AM	N/A	0.00	N/A	2.38	Curtailment	Contracted amount	
1	12/16/2009 8:45 AM	70.00	1,000.00	YES	0.25	Buy-through	Contracted amount	
1	12/16/2009 9:00 AM	68.00	1,000.00	YES	1.00	Buy-through	Contracted amount	
1	12/16/2009 10:00 AM	57.00	1,000.00	YES	1.00	Buy-through	Contracted amount	
1	12/16/2009 11:00 AM	52.00	1,000.00	YES	1.00	Buy-through	Contracted amount	
1	12/16/2009 12:00 PM	48.00	28,000.00	YES	1.00	Buy-through	Contracted amount	
1	12/17/2009 6:10 AM	68.00	28,000.00	YES	4.83	Buy-through	Contracted amount	
3	12/17/2009 8:00 AM	N/A		N/A	0.83	Curtailment	Contracted amount	
1	12/17/2009 11:00 AM	50.00	28,000.00	YES	1.00	Buy-through	Contracted amount	
1	1/4/2010 7:00 AM	140.00	0.00	NO	5.50	Buy-through	Contracted amount	
2	1/4/2010 7:00 AM	140.00	0.00	NO	5.50	Buy-through	Contracted amount	
1	1/4/2010 12:30 PM	60.00	28,000.00	YES	3.50	Buy-through	Contracted amount	
2	1/4/2010 12:30 PM	60.00	6,000.00	YES	3.50	Buy-through	Contracted amount	

Kentucky Utilities Company
Case No. 2009-00548
Detailed Curtailment Data

Reference #	Start Date/Time	Offer Price	KW Hrs Purchased	Offer Accepted	Hours Curtailment or Buy-through	Amount Requested	Non-Compliance Amount (MW)
1	1/4/2010 4:00 PM	90 00	20,000 00	YES	5 00 Buy-through	Contracted amount	
2	1/4/2010 4:00 PM	90 00	12,000 00	YES	5 00 Buy-through	Contracted amount	
3	1/4/2010 6:15 PM	N/A		N/A	0 75 Curtailment	Contracted amount	
2	1/5/2010 5:21 AM	N/A	0 00	N/A	2 65 Curtailment	Contracted amount	
1	1/5/2010 5:24 AM	N/A	0 00	N/A	2 60 Curtailment	Contracted amount	
1	1/5/2010 8:00 AM	76 00	28,000 00	YES	11 00 Buy-through	Contracted amount	
2	1/5/2010 8:00 AM	76 00	17,000 00	YES	11 00 Buy-through	Contracted amount	
4	1/5/2010 8:00 AM	76 00	0 00	NO	4 00 Buy-through	Contracted amount	
1	1/6/2010 6:15 AM	N/A	0 00	N/A	0 75 Curtailment	Contracted amount	
2	1/6/2010 6:15 AM	N/A	0 00	N/A	0 75 Curtailment	Contracted amount	
1	1/6/2010 7:00 AM	78 00	28,000 00	YES	5 00 Buy-through	Contracted amount	
2	1/6/2010 7:00 AM	78 00	17,000 00	YES	5 00 Buy-through	Contracted amount	
4	1/6/2010 7:00 AM	78 00	0 00	NO	5 00 Buy-through	Contracted amount	
3	1/6/2010 9:05 AM	N/A		N/A	1 00 Curtailment	Contracted amount	
1	1/6/2010 12:00 PM	62 00	28,000 00	YES	4 00 Buy-through	Contracted amount	
2	1/6/2010 12:00 PM	62 00	17,000 00	YES	4 00 Buy-through	Contracted amount	
1	1/6/2010 4:00 PM	77 00	28,000 00	YES	4 00 Buy-through	Contracted amount	
2	1/6/2010 4:00 PM	77 00	17,000 00	YES	4 00 Buy-through	Contracted amount	
1	1/7/2010 6:00 AM	65 00	1,000 00	YES	1 00 Buy-through	Contracted amount	
2	1/7/2010 6:00 AM	65 00	17,000 00	YES	1 00 Buy-through	Contracted amount	
2	1/7/2010 7:00 AM	70 00	17,000 00	YES	4 00 Buy-through	Contracted amount	
1	1/7/2010 10:00 AM	70 00	28,000 00	YES	1 00 Buy-through	Contracted amount	
1	1/7/2010 11:00 AM	65 00	28,000 00	YES	1 00 Buy-through	Contracted amount	
2	1/7/2010 11:00 AM	65 00	17,000 00	YES	1 00 Buy-through	Contracted amount	
1	1/8/2010 6:00 AM	87 00	28,000 00	YES	14 00 Buy-through	Contracted amount	
2	1/8/2010 6:00 AM	87 00	17,000 00	YES	14 00 Buy-through	Contracted amount	
4	1/8/2010 6:00 AM	87 00	0 00	NO	10 00 Buy-through	Contracted amount	
1	1/11/2010 6:00 AM	N/A	0 00	N/A	4 00 Curtailment	Contracted amount	
2	1/11/2010 6:00 AM	N/A	0 00	N/A	4 00 Curtailment	Contracted amount	
4	1/11/2010 7:00 AM	N/A	0 00	N/A	9 00 Curtailment	Contracted amount	
1	1/11/2010 10:00 AM	86 00	28,000 00	YES	2 00 Buy-through	Contracted amount	
2	1/11/2010 10:00 AM	86 00	17,000 00	YES	2 00 Buy-through	Contracted amount	
1	1/11/2010 12:00 PM	N/A	0 00	N/A	3 50 Curtailment	Contracted amount	
2	1/11/2010 12:00 PM	N/A	0 00	N/A	3 50 Curtailment	Contracted amount	
1	1/12/2010 6:00 AM	N/A	0 00	N/A	2 00 Curtailment	Contracted amount	
2	1/12/2010 6:00 AM	N/A	0 00	N/A	2 00 Curtailment	Contracted amount	
1	1/12/2010 8:00 AM	85 00	1,000 00	YES	4 00 Buy-through	Contracted amount	
2	1/12/2010 8:00 AM	85 00	17,000 00	YES	4 00 Buy-through	Contracted amount	
4	1/12/2010 8:00 AM	85 00	0 00	NO	4 00 Buy-through	Contracted amount	
1	1/13/2010 7:00 AM	70 00	28,000 00	YES	4 00 Buy-through	Contracted amount	
2	1/13/2010 7:00 AM	70 00	10,000 00	YES	4 00 Buy-through	Contracted amount	
4	1/13/2010 7:00 AM	70 00	0 00	NO	4 00 Buy-through	Contracted amount	
2	1/14/2010 6:30 AM	N/A	0 00	N/A	2 50 Curtailment	Contracted amount	
2	1/14/2010 9:00 AM	56 00	17,000 00	YES	2 00 Buy-through	Contracted amount	
1	1/27/2010 7:30 AM	N/A	0 00	N/A	0 50 Curtailment	Contracted amount	
2	1/27/2010 7:30 AM	N/A	0 00	N/A	0 50 Curtailment	Contracted amount	
1	1/27/2010 8:00 AM	54 00	28,000 00	YES	1 00 Buy-through	Contracted amount	
2	1/27/2010 8:00 AM	54 00	15,000 00	YES	1 00 Buy-through	Contracted amount	
1	1/27/2010 9:00 AM	58 00	28,000 00	YES	1 00 Buy-through	Contracted amount	
2	1/27/2010 9:00 AM	58 00	18,000 00	YES	1 00 Buy-through	Contracted amount	
1	1/27/2010 10:00 AM	45 00	28,000 00	YES	1 00 Buy-through	Contracted amount	
2	1/27/2010 10:00 AM	45 00	18,000 00	YES	1 00 Buy-through	Contracted amount	
3	1/28/2010 6:45 PM	N/A		N/A	0 83 Curtailment	Contracted amount	
1	1/29/2010 6:15 AM	48 00	28,000 00	YES	0 75 Buy-through	Contracted amount	
2	1/29/2010 6:15 AM	48 00	17,000 00	YES	0 75 Buy-through	Contracted amount	
1	1/29/2010 7:00 AM	63 00	28,000 00	YES	1 00 Buy-through	Contracted amount	
2	1/29/2010 7:00 AM	63 00	17,000 00	YES	1 00 Buy-through	Contracted amount	
1	1/29/2010 8:00 AM	65 00	28,000 00	YES	1 00 Buy-through	Contracted amount	
2	1/29/2010 8:00 AM	65 00	17,000 00	YES	1 00 Buy-through	Contracted amount	
1	1/29/2010 9:00 AM	48 00	28,000 00	YES	5 00 Buy-through	Contracted amount	
2	1/29/2010 9:00 AM	48 00	17,000 00	YES	5 00 Buy-through	Contracted amount	
1	1/29/2010 3:00 PM	70 00	28,000 00	YES	5 00 Buy-through	Contracted amount	
2	1/29/2010 3:00 PM	70 00	17,000 00	YES	5 00 Buy-through	Contracted amount	
1	2/1/2010 6:00 AM	60 00	32,000 00	YES	1 00 Buy-through	Contracted amount	
2	2/1/2010 6:00 AM	60 00	17,000 00	YES	1 00 Buy-through	Contracted amount	
1	2/1/2010 7:00 AM	62 00	32,000 00	YES	1 00 Buy-through	Contracted amount	
2	2/1/2010 7:00 AM	62 00	17,000 00	YES	1 00 Buy-through	Contracted amount	
1	2/1/2010 8:00 AM	59 00	32,000 00	YES	1 00 Buy-through	Contracted amount	
2	2/1/2010 8:00 AM	59 00	17,000 00	YES	1 00 Buy-through	Contracted amount	
1	2/1/2010 9:00 AM	58 00	32,000 00	YES	1 00 Buy-through	Contracted amount	
2	2/1/2010 9:00 AM	58 00	17,000 00	YES	1 00 Buy-through	Contracted amount	
1	2/1/2010 10:00 AM	52 00	32,000 00	YES	1 00 Buy-through	Contracted amount	
2	2/1/2010 10:00 AM	52 00	17,000 00	YES	1 00 Buy-through	Contracted amount	
3	2/15/2010 10:15 AM	N/A		N/A	2 00 Curtailment	Contracted amount	
3	2/16/2010 5:35 PM	N/A		N/A	3 92 Curtailment	Contracted amount	
3	2/17/2010 6:50 PM	N/A		N/A	1 17 Curtailment	Contracted amount	

Kentucky Utilities Company
 Case No. 2009-00548
 Detailed Curtailment Data

<i>Reference #</i>	<i>Start Date/Time</i>	<i>Offer Price</i>	<i>KW Hrs Purchased</i>	<i>Offer Accepted</i>	<i>Hours Curtailment or Buy-through</i>	<i>Amount Requested</i>	<i>Non-Compliance Amount (MW)</i>
3	2/18/2010 10:10 AM	N/A		N/A	1.42 Curtailment	Contracted amount	
3	2/23/2010 10:20 AM	N/A		N/A	3.67 Curtailment	Contracted amount	

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 4

Responding Witness: Robert M. Conroy

- Q-4. Referring to Rider CSR2, please explain why (in KU's opinion) no customers are currently served under the rider. Provide all workpapers, studies, analyses, and documents supporting and/or underlying the response.
-
- A-4. KU does not know why customers choose CSR service and can only speculate that industrial customers find more value in firm service relative to their production schedules.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 5

Responding Witness: Charles R. Schram/ William Steven Seelye

Q-5. Please identify all reports, studies, and/or analyses conducted by on behalf of KU or its parent company in the past 5 years related in total or in part to retail interruptible or curtailable electric service in Kentucky.

A-5. No such studies have been conducted.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 6

Responding Witness: Charles R. Schram

Q-6. Please explain in detail how KU (acting alone or in conjunction with affiliates) treats interruptible/curtailable load in:

- a. Developing its long-run load forecast?
- b. Determining its long-run need for future supply-side resources?
- c. Determining its need for operating reserve capacity?
- d. Providing ancillary services?

- A-6.
- a. In developing its long-run load forecast, KU assumes that loads for its interruptible/curtailable customers will be curtailed in hours with the highest demands (peak hours). For example, if KU is permitted to curtail a customer 200 hours per year, it assumes that customer's load will be curtailed in the top 200 hours (based on demand).
 - b. KU utilizes its long-run load forecast to determine its long-run need for future supply-side resources. Therefore, interruptible/curtailable customers are assumed to be curtailed during the hours with the highest demands.
 - c. KU does not consider interruptible/curtailable loads in determining its need for operating reserve capacity because there is no guarantee that interruptible/curtailable customers will be operating at the times when operating reserves are needed.
 - d. See response to (c.) above. Due to the uncertainty in interruptible/curtailable loads, they are not considered in providing ancillary services.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 7

Responding Witness: Lonnie E. Bellar/Charles R. Schram

- Q-7. Identify all reserve sharing and/or coordination arrangements that KU has with other utility systems or organizations, and provide a current copy of all agreements related to such arrangements.
-
- A-7. The documents responsive to the question are being provided under seal pursuant to a petition for confidential treatment.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 8

Responding Witness: Robert M. Conroy

Q-8. Please explain in detail how KU treats curtailment buy-through revenues in setting base rates and/or modifying its Fuel Adjustment Clause.

~~A-8. KU reduces purchase power expense and kWh by the amount of buy-through power to ensure that retail customers' FAC reflects only those power purchases used to supply native load consumption not served by buy through energy.~~

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 9

Responding Witness: William Steven Seelye

Q-9. Please identify and explain in detail how KU treats test-year curtailment buy-through revenues in the electric cost-of-service study filed in this case.

A-9. In the cost of service study, curtailment buy through revenues are included in Sales to Ultimate Consumers shown on page 245 of Seelye Exhibit 20.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 10

Responding Witness: William Steven Seelye

Q-10. Please identify and explain in detail how KU treats test-year curtailment credits paid to CSR1 and CSR3 customers in the electric cost-of-service study filed in this case.

A-10. Test year curtailment credits paid to CSR1 and CSR3 customers are included in Sales to Ultimate Consumers shown on page 24 of Seelye Exhibit 20. Specifically, the revenues are credited to Power Service Primary or Industrial Service as applicable.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 11

Responding Witness: Robert M. Conroy

Q-11. Please identify and describe in detail the conditions and circumstances under which KU can issue a curtailment request under:

a. Existing Riders CSR1, CSR2, and CSR3?

b. Proposed Rider CSR.

A-11. a. Curtailment requests under CSRs are issued at LG&E/KU's sole discretion for reliability and/or economic reasons.

b. See response to part a.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 12

Responding Witness: Charles R. Schram

Q-12. Please provide KU's current estimated cost in 2010 dollars of an installed combustion turbine. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this estimate.

A-12. The Company's current estimate of the installed cost of a combustion turbine would incorporate two perspectives:

First, regarding the likely 'new order' cost, in preparation for the Companies' 2008 Integrated Resource Plan ("IRP"), consultants Cummins and Barnard were commissioned to provide estimated capital costs for a range of generation technologies. Their estimated overnight construction cost for a ~155 MW (net summer rating) combustion turbine was \$680/kW in \$2007 terms – equivalent to around \$730/kW in \$2010. A copy of the 2008 IRP is provided in response to Question No. 16.

Second, given current conditions in the power market, the Company would expect the prices of existing CT assets to be significantly below the cost of new construction. For example, amongst asset sales transactions reported within the last year, Oglethorpe Power Corporation acquired around 850 MW of combustion turbine capacity in Georgia at just over \$400/kW (the 360 MW Hartwell Energy Facility, purchased from an investor group, and the 495 MW Heard County Facility, purchased from Dynegy.)

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 13

Responding Witness: Charles R. Schram/ William Steven Seelye

Q-13. Please provide a levelized fixed charge rate for a new combustion turbine using KU's cost of capital and tax rates. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.

A-13. See attached.

IN-SERVICE COST 100.00 COST OF REMOVAL 0.00
 BOOK LIFE (YRS) 30 TAX LIFE (YRS) 15
 CONSTRUCTION YEARS (10 MAX) 3 CAPITAL ESC RATE (%) 1.22
 ANNUAL EXPEND (%) 28 61 11 0 0 0 0 0 0 0
 ELIGIBLE FOR CWIP 92.08 GENERATION PROJECT? (Y OR N) Y

AFUDC DATA (%) RATIO COST
 EQUITY 52.99 10.63
 DEBT 47.01 4.64

FINANCIAL DATA (%) RATIO COST
 PREFERRED STOCK 0.00 0.00
 COMMON STOCK 52.99 10.63
 DEBT 47.01 4.64
 WEIGHTED AVERAGE COST OF CAPITAL 7.81

TAX RATES (%)
 INCOME 38.90 GROSS RECEIPTS 00.00
 AD-VALOREM 0.15 CAPITALIZED INT 4.64

INSURANCE RATE (%) 0.138

TAX DEPRECIATION METHOD -3- DEC BAL RATE -1.50-
 1 = STRAIGHT LINE
 2 = DECLINING BALANCE
 3 = DECLINING SWITCH TO STRAIGHT LINE
 4 = SUM OF YEARS DIGITS
 5 = SUM OF YEARS DIGITS SWITCH TO STRAIGHT LINE
 6 = ACCRELATED COST RECOVERY SYSTEM
 7 = SINKING FUND

CONSTRUCTION PERIOD

YR	CONST BAL	AFUDC DEBT	ACCUM EQTY	ACCUM AFUDC	CAP INT	CONST RATE BASE	ACCUM TAX		EQTY RETN	DEBT RETN	TAX PAID	REV REQ	DISC RATE	ACCUM FV OF	
							DEFER	DEFER						REV REQ	REV REQ
1	27.72	0.02	0.06	0.09	0.64	25.75	-0.24	-0.24	1.45	0.56	1.21	2.98	1.162	3.47	3.47
2	88.84	0.10	0.27	0.46	3.38	82.97	-1.02	-1.26	4.67	1.81	4.21	9.67	1.078	10.43	13.90
3	100.00	0.09	0.23	0.78	5.65	94.03	-0.85	-2.11	2.65	1.03	2.71	5.54	1.000	5.54	19.44

IN-SERVICE PERIOD

YR	INVEST	UNRCVD INV		TAX DEPR TYPE	UNRCVD INV		TAX DEPR	TAX DEFR	ACUM TAX DEFR	EQTY RETN	DEBT RETN	TAX PAID	AD TAX	INS COST	REV REQ	DISC RATE	ACCUM PV OF		PROJ TO DATE
		BOOK	DEPR		BOOK	DEPR											REV REQ	REV REQ	
1	100.78	100.78	1.68	2	105.65	5.28	1.41	-0.71	2.81	1.09	0.39	0.38	0.37	7.52	1.000	7.52	26.96	26.96	
2	0.00	99.10	3.36	2	100.36	10.04	2.60	1.90	5.29	2.05	0.77	0.15	0.14	14.36	0.928	13.32	40.27	20.89	
3	0.00	95.74	3.36	2	90.33	9.03	2.21	4.11	4.97	1.93	0.96	0.14	0.14	13.72	0.860	11.80	52.08	18.68	
4	0.00	92.38	3.36	2	81.29	8.13	1.86	5.97	4.68	1.81	1.13	0.14	0.14	13.12	0.798	10.47	62.54	17.44	
5	0.00	89.02	3.36	2	73.17	7.32	1.55	7.52	4.40	1.70	1.27	0.13	0.14	12.55	0.740	9.29	71.83	16.61	
6	0.00	85.66	3.36	2	65.85	6.58	1.26	8.78	4.14	1.60	1.39	0.13	0.14	12.02	0.686	8.25	80.08	15.98	
7	0.00	82.30	3.36	1	59.26	6.24	1.13	9.91	3.89	1.51	1.36	0.12	0.14	11.50	0.637	7.32	87.41	15.47	
8	0.00	78.94	3.36	1	53.03	6.24	1.13	11.04	3.64	1.41	1.20	0.12	0.14	10.99	0.591	6.49	93.90	15.05	
9	0.00	75.59	3.36	1	46.79	6.24	1.13	12.16	3.38	1.31	1.04	0.11	0.14	10.47	0.548	5.74	99.63	14.68	

Attachment to KU AG Q13.txt																		
10	C.CO	72.23	3.36	1	40.55	6.24	1.13	13.29	3.13	1.21	0.88	0.11	0.14	9.95	0.508	5.06	104.69	14.35
11	0.00	68.87	3.36	1	34.31	6.24	1.13	14.42	2.88	1.11	0.72	0.10	0.14	9.44	0.471	4.45	109.14	14.05
12	0.00	65.51	3.36	1	28.07	6.24	1.13	15.55	2.62	1.02	0.56	0.10	0.14	8.92	0.437	3.90	113.04	13.78
13	0.00	62.15	3.36	1	21.83	6.24	1.13	16.67	2.37	0.92	0.40	0.09	0.14	8.40	0.405	3.41	116.45	13.53
14	0.00	58.79	3.36	1	15.60	6.24	1.13	17.80	2.12	0.82	0.23	0.09	0.14	7.89	0.376	2.97	119.41	13.29
15	0.00	55.43	3.36	1	9.36	6.24	1.13	18.93	1.87	0.72	0.07	0.08	0.14	7.37	0.349	2.57	121.98	13.07
16	0.00	52.07	3.36	1	3.12	3.12	-0.09	18.84	1.68	0.65	1.17	0.08	0.14	6.99	0.323	2.26	124.24	12.87
17	0.00	48.71	3.36	0	0.00	0.00	-1.30	17.54	1.57	0.61	2.31	0.07	0.14	6.75	0.300	2.03	126.27	12.68
18	0.00	45.35	3.36	0	0.00	0.00	-1.30	16.24	1.45	0.56	2.23	0.07	0.14	6.51	0.278	1.81	128.08	12.51
19	0.00	41.99	3.36	0	0.00	0.00	-1.30	14.94	1.33	0.52	2.16	0.06	0.14	6.27	0.258	1.62	129.70	12.36
20	0.00	38.63	3.36	0	0.00	0.00	-1.30	13.64	1.22	0.47	2.09	0.06	0.14	6.03	0.239	1.44	131.15	12.22
21	0.00	35.27	3.36	0	0.00	0.00	-1.30	12.34	1.10	0.43	2.01	0.05	0.14	5.79	0.222	1.29	132.44	12.09
22	0.00	31.91	3.36	0	0.00	0.00	-1.30	11.05	0.99	0.38	1.94	0.05	0.14	5.55	0.206	1.14	133.58	11.97
23	0.00	28.55	3.36	0	0.00	0.00	-1.30	9.75	0.87	0.34	1.87	0.04	0.14	5.31	0.191	1.02	134.59	11.86
24	0.00	25.20	3.36	0	0.00	0.00	-1.30	8.45	0.75	0.29	1.79	0.04	0.14	5.07	0.177	0.90	135.49	11.75
25	0.00	21.84	3.36	0	0.00	0.00	-1.30	7.15	0.64	0.25	1.72	0.03	0.14	4.83	0.164	0.79	136.29	11.65
26	0.00	18.48	3.36	0	0.00	0.00	-1.30	5.85	0.52	0.20	1.64	0.03	0.14	4.59	0.152	0.70	136.99	11.56
27	0.00	15.12	3.36	0	0.00	0.00	-1.30	4.55	0.41	0.16	1.57	0.02	0.14	4.36	0.141	0.62	137.60	11.48
28	0.00	11.76	3.36	0	0.00	0.00	-1.30	3.25	0.29	0.11	1.50	0.02	0.14	4.12	0.131	0.54	138.14	11.40
29	0.00	8.40	3.36	0	0.00	0.00	-1.30	1.95	0.17	0.07	1.42	0.01	0.14	3.88	0.122	0.47	138.62	11.32
30	0.00	5.04	3.36	0	0.00	0.00	-1.31	0.64	0.06	0.02	1.34	0.01	0.14	3.62	0.113	0.41	139.02	11.25
31	0.00	1.68	1.68	0	0.00	0.00	-0.64	0.00	-0.00	-0.00	0.66	0.00	0.07	1.77	0.105	0.19	139.21	11.17
30 Yr Fcr = 11.27																		

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 14

Responding Witness: Charles R. Schram

Q-14. Please provide the estimated fixed O&M for a new combustion turbine in 2010 dollars. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.

A-14. In preparation for the Companies' 2008 Integrated Resource Plan ("IRP"), consultants Cummins and Barnard were commissioned to provide capital and operating cost estimates for a range of generation technologies. Their estimate of the fixed O&M cost for a new 155 MW combustion turbine was \$12/kW-year in \$2007 terms – equivalent to around \$13/kW-year in \$2010 terms. A copy of the 2008 IRP is provided in response to Question No. 16.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 15

Responding Witness: Charles R. Schram

Q-15. Please provide KU's required reserve margin for capacity planning. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.

A-15. The KU/LG&E planning reserve margin is outlined in the 2008 Integrated Resource Plan ("IRP"). A copy of the 2008 IRP is provided in response to Question No. 16.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 16

Responding Witness: Lonnie E. Bellar/Charles R. Schram

Q-16. Please provide a copy of KU's most recent integrated resource plan.

A-16. The most recent LG&E and KU Integrated Resource Plan was filed in Case No. 2008-00148. ~~The filing is included on the attached CD in the folder titled~~
Question No. 16.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 17

Responding Witness: Lonnie E. Bellar/ William Steven Seelye

Q-17. Referring to the direct testimony of KU witness Seelye at 21:15 – 24:19:

-
- a. Explain in detail the rationale underlying KU's decision to consolidate Riders CSR1, CSR2, and CSR3.
 - b. Explain in detail the rationale for the 200 MW total requirements limit in the Availability of Service section of Rider CSR.
 - c. Explain in detail whether (and if so, why) KU would object to counting each called curtailment as a minimum 4-hour curtailment, even if canceled before the end of the 4-hour period.
 - d. Explain in detail the rationale underlying the decision to split the 500 hours of total available curtailment into 100 hours of physical curtailment and 400 hours of curtailment with a buy-through option (buy-through curtailment). Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.
 - e. Provide all workpapers, studies, analyses, and documents supporting and/or underlying KU's decision to price buy-through power using an automatic, formula-based mechanism.
 - f. Identify all other utilities known to KU that have a formula-based pricing mechanism for buy-through power.
 - g. Explain in detail why KU did not propose pricing buy-through power on the basis of market prices.
 - h. Provide all workpapers, studies, analyses, and documents supporting and/or underlying the heat rate reflected in the proposed buy-through formula.
 - i. Provide all workpapers, studies, analyses, and documents supporting and/or underlying the proposed 10-minutes notice in Rider CSR.

- j. Provide all documents relating to any customer comments and/or feedback that KU received regarding the proposed 10-minutes notice prior to KU's deciding to include this notice provision in Rider CSR.
 - k. Describe in detail conditions that will trigger KU's decision to call a buy-through curtailment.
 - l. Describe in detail conditions that will trigger KU's decision to call a physical curtailment.
- A-17. a. The Company is proposing to consolidate CSR1, CSR2, and CSR3 in order to offer a single curtailable service rider whose terms and conditions more accurately match the operating characteristics of a new combustion turbine which is assumed to be avoided by curtailable service. The three riders with widely varying parameters cannot individually meet that goal.
-
- b. The 200 MW limit has long term planning implications. Since customers have the ability to exit the CSR, the Company must consider the extended time horizon for planning and constructing generation resources. For example, a higher CSR limit could pose a risk if customers decided to exit curtailable service, since the Company would be required to provide additional supply without sufficient planning and construction timelines.
 - c. KU would object to counting each curtailment as a minimum 4-hour curtailment, even if canceled before the end of the 4-hour period, because the need to curtail does not always last for 4 hours. If 4 hours is counted for each curtailment then value is being removed from other customers as explained in the answer to KIUC 1-11.
 - d. There was no detailed analysis. The new CSR is the result of internal discussion to simplify the process for all existing participating industrials. The 100 hours of curtailment requests may be issued to ensure adequate reserve supply for reliable operations during peak conditions, (to avoid the need to buy power or build future generation). The 400 hours of curtailment requests with buy through gives the customer the opportunity to buy through at current gas prices and CT heat rates, the value of which is included in the monthly FAC thus lowering the cost of energy to all customers. If the customer elects not to buy through then excess supply above reserves is available to make off system sales, (the profit of which is included in the revenue requirements of LG&E/KU in rate making).
 - e. There are no work papers. The business reasons for this approach were ease of implementation for the companies and to provide price transparency for the customer.

- f. KU has not researched what other utilities offer for curtailable service.
 - g. See answer to "e" above.
 - h. While no studies were performed, the heat rate in the proposed buy through formula corresponds to the heat rate of several of the Companies' combustion turbines.
 - i. There are no workpapers. The 10-minute notice corresponds to the start-up capability for a quick start combustion turbine.
 - j. Please see the response to PSC-2 Question No. 97.
 - k. Curtailment requests under CSRs are issued at KU's sole discretion for reliability and/or economic reasons.
-
- l. See answer "k" above.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 18

Responding Witness: Charles R. Schram

Q-18. If KU were able to interrupt a CSR customer's load instantaneously, would that customer's curtailable load be more valuable to KU than load that is curtailable only with a longer notice? Please explain the response in detail.

A-18. In today's electric industry, there is no quantifiable benefit for having less than a 10-minute curtailment notice.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 19

Responding Witness: William Steven Seelye

Q-19. Referring to witness Seelye's statement regarding why Rider CSR's 10-minute notice is consistent with the requirement for using capacity as spinning reserves (direct at 24:1-4):

- a. Explain in detail what is meant by this testimony.
- b. Define *spinning reserves*, describe and discuss how KU's spinning reserves requirement is determined, and describe whether and how KU could use 10-minute (or less) curtailable load to meet its spinning reserve requirement?

A-19. a. NERC Standards require an electric system that loses supply to recover in 15 minutes. For a resource to be of any value in the management of generation resource loss recovery it must respond in the 15 minute period. It normally takes the system operational personnel 3 to 5 minutes to evaluate and execute a mitigation plan. Therefore a resource must be fully deployed in 10 minutes.

- b. The NERC definition of Spinning Reserves is: "Unloaded generation that is synchronized and ready to serve additional demand." Spinning reserve is part of contingency reserves. Contingency reserves are used to comply with NERC Disturbance Control Standards. NERC does not define a specific amount of spinning reserve required in contingency reserves. The required amount of contingency reserves and the amount of spinning reserves are defined in the CRSG documents provided under question KIUC 1-7.

To be clear, KU can only use 10 minute curtailable load if it is certain that such load will be available to be curtailed during some future loss of supply. Due to the lack of certainty of curtailable load being available at some future time it cannot be used for contingency reserves. Although a 10-minute notice of curtailment is important to the Company in the management of generation resource loss recovery, curtailable power is not of equal value to a quick-start combustion turbine in terms of meeting contingency reserve requirements.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 1, 2010**

Question No. 20

Responding Witness: Lonnie E. Bellar/Charles R. Schram/ William Steven Seelye

Q-20. Referring to existing Riders CSR1, CSR2, and CSR3:

-
- a. Does KU only provide buy-through power under Riders CSR1 and CSR2 though market purchases?
 - b. Explain in detail how KU makes market purchases for buy-through power (including descriptions of products purchased), and whether such purchases are only available in take-or-pay blocks.
 - c. If the answer to subpart (a) above is no, identify the other source(s) of energy used to supply buy-through power and explain in detail how KU prices such energy and conveys these prices to customers.
 - d. If KU supplies energy to meet buy-through loads from system generating resources, explain in detail why energy from system resources should be priced on a take-or-pay basis.
 - e. Explain in detail how KU notifies a customer about a buy-through curtailment and the price of energy for buy-through.
 - f. Is the buy-through price quoted to a customer at the time of a curtailment notice the final price that the customer is charged for any buy-through power purchased? If the answer is anything but an unequivocal yes, please explain how the final purchase price is determined and when that price is conveyed to the curtailment customer.
 - g. Provide all workpapers, studies, analyses, and documents supporting and/or underlying the \$16 per kW Non-Compliance Charge.

A-20. a. Yes for CSR1. There are no customers under CSR2.

b. Buy throughs are provided by buying the exact amount required for the

customer for the expected period of curtailment. This is accomplished in a fixed odd lot purchase. While the purchases that the Company makes to supply buy-through power are technically not take or pay, once the customer elects to buy through, the Company *commits* to a purchase on behalf of the customer and the customer has to take or pay for the power purchased. This ensures that other customers do not have to bear the cost of purchase power not taken by the curtailed customer.

- c. Not applicable.
- d. KU does not supply energy to meet buy through loads from system generating resources.
- e. System operation personnel survey the market for the best price for an expected odd lot volume of energy and also checks for transmission availability. Next system operation personnel contact the customer by phone at least 20 minutes in advance of the curtailment to inform the customer of the start time of the curtailment and to inquire if the customer wishes to buy through if power and transmission is available. Next the customer needs to immediately inform system operation personnel if they wish to buy through. Any delay in a decision by the customer could result in the power and transmission not being available minutes later.
- f. No. The process is described in answer "e" above. On a few occasions, it should be noted that after the customer agrees to a buy through and then system operation personnel execute the purchase of an odd lot of power with a supplier the price may have lowered. In such cases the lower price is used to bill the customer for the buy through. If the price at the time of execution of a purchase from a supplier is higher, the higher price is communicated back to the customer and the customer must state agreement promptly if they wish for the system operation personnel to execute the purchase.
- g. The \$16 per kW Non-Compliance Charge was introduced in the proposed CSR rates filed in Case No. 2003-00434 and reflected approximately 4 months of the \$4.19/kW primary voltage credit proposed in that proceeding. See page 45 of Mr. Seelye's direct testimony in Case No. 2003-00434. Although the Company is not proposing to increase the Non-Compliance Charge in this proceeding, 4 months of the \$5.20/kW primary voltage credit would result in a Non-Compliance Charge of approximately \$21.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Second Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 26, 2010**

Question No. 1

Responding Witness: William Steven Seelye

- Q-1. Referring to KU's response to Staff Data Request 2-86a:
- a. Please provide all workpapers, studies, analyses, and documents supporting and/or underlying the estimated test-year bill impacts for the Arc Furnace CSR3 customer.
 - b. ~~Please provide all workpapers, studies, analyses, and documents supporting and/or underlying the estimated test-year bill impacts for the scrap metal company CSR1 customer.~~
- A-1. The workpapers supporting the test-year bill impacts for the CSR customers were included in the folder titled Question No. 250 on the CD provided in response to AG 1-250.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Second Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 26, 2010**

Question No. 2

Responding Witness: Lonnie E. Bellar/Counsel

Q-2. Referring to KU's response to KIUC Data Request 1-1d, please note that the request only addresses alternatives that were considered but rejected—not the basis for KU's decision to reject any alternative that was not included in its application. Therefore, please provide the requested information.

A-2. As previously stated in response to KIUC Data Request 1-1(d), any response to this question necessarily requires the Company to reveal the contents of its communications with counsel and the mental impressions of counsel, which information is protected from disclosure by the attorney-client privilege and work product doctrine.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Second Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 26, 2010**

Question No. 3

Responding Witness: Lonnie E. Bellar/William Steven Seelye

- Q-3. Referring to KU's response to KIUC Data Request 1-3:
- a. Please provide the information requested in KIUC Data Request 1-3b for each physical curtailment.
 - b. Please provide the information provided in response to KIUC Data Request 1-3c in native format (preferably Excel).
-
- A-3. a. The contract with the customer under the CSR is for a "firm" demand level and not a curtailable amount. When a curtailment is requested, the request is for the customer to curtail its load down to the contract firm amount. Therefore, the "MW of load curtailment requested" for each physical curtailment is not known and could not be provided as requested. Only under a "buy-through" curtailment is the amount the customer desires to purchase known. That information was provided in the attachment to the response.
- b. An electronic version of the attachment to the response to KIUC 1-3 is included on the CD in the file folder titled Question No. 3.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Second Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 26, 2010**

Question No. 4

Responding Witness: Lonnie E. Bellar

- Q-4. Referring to KU's response to KIUC Data Request 1-4, please explain in detail why KU has not attempted to learn from customers why they have not taken service under Rider CSR2.
- A-4. The parameters of Rider CSR2 are the result of a settlement agreement from the Company's 2008 rate case and reflect the input of the consumer representatives who participated in that case. This rate schedule has been effective since February 6, 2009 or slightly more than a year. During this time, the customers who are eligible for this rider have experienced significant challenges from the changes in the economy. Company account representatives routinely meet with these customers to review their energy requirements and expected operations, and the various rate schedules applicable. To the extent that customers inquire about service under Rider CSR2 or it appears to be a viable option, the Company discusses pros and cons of taking service under this rider with the customer.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Second Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated March 26, 2010**

Question No. 5

Responding Witness: Charles R. Schram

- Q-5. Referring to KU's response to KIUC Data Request 1-12, please provide all workpapers, studies, analyses, and documents supporting and/or underlying the statement regarding Oglethorpe Power Corporation's purchase of CT capacity.
- A-5. See attached.
-

Kentucky Utilities Company
Case No. 2009-00548
Supporting Data for CT Capacity Purchases

Announce Date	Plant Name	Owner	Ultimate Parent Corporation	Fuel Type	Generation Technology	Year First Unit in Service	Current Operating Capacity (MW)	Total Dead-Weighted Nameplate Capacity (MW)	State	NERC Region Code	Buyer Name	Seller Name	Completed Transaction Value (\$000)	Announced Deal Transaction Value Nameplate Cap. (\$/MW)	Deal Summary
7/24/2009	Harwell Energy Facility	Harwell Energy Ltd. Partnership	Oglethorpe Power Corporation	Gas	Combustion Turbine	1994	300	350	GA	SERC	Oglethorpe Power Corporation	Investor group	148,500	413	Tucker, Ga.-based Oglethorpe Power Corp. has acquired Harwell, Ga.-based Harwell Energy Limited Partnership from an investor group, consisting of London-based International Power PLC, Irving, Texas-based Natural Gas Partners LLC and Paul Prager, a private investor. Harwell owns a 260 MW peaking power plant, located in Hart County, Georgia.
2/25/2009	Hawk Road Energy Facility	Heard County Power, LLC	Oglethorpe Power Corporation	Gas	Combustion Turbine	2001	566	495	GA	SERC	Oglethorpe Power Corporation	Dynegy Inc.	203,100	410	Tucker, Ga.-based Oglethorpe Power Corp. has acquired Heard County power facility from a subsidiary of Houston-based Dynegy Inc. Heard County is a 495 MW natural gas-fired peaking facility, located in Heard County, Ga.

Source: SNL Financial

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Second Data Request of Commission Staff
Dated March 1, 2010**

Question No. 71

Responding Witness: Robert M. Conroy/ William Steven Seelye

Q-71. Refer to the Conroy Testimony at page 15. Starting at line 7, Mr. Conroy states that the rate Fluctuating Load Service will be based on a five-minute demand billing interval. Explain the reason for this change and the effect it will have on current customers.

A-71. The only customer that takes service under Fluctuating Load Service is a large arc furnace ("Arc Furnace"), which is the largest customer on either KU or LG&E's system. As explained on page 24-26 of Mr. Seelye's direct testimony, Rate FLS is available to large loads that fluctuate significantly within short periods of time. The Company is proposing that Rate FLS be based on a five-minute billing interval in order to encourage the Arc Furnace and any customers that might take service under this rate schedule in the future to manage the fluctuating nature of their loads. Because of the highly volatile nature of the load and the short duration of the spikes, a normal 15-minute billing interval does not adequately reflect the magnitude of the load.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Second Data Request of Commission Staff
Dated March 1, 2010**

Question No. 86

Responding Witness: Lonnie E. Bellar/William Steven Seelye

Q-86. Refer to pages 20 and 21 of the Seelye Testimony in which he discusses the proposed changes to the curtailable service riders. Mr. Seelye states that KU has one customer taking service under CSR1 and another taking service under CSR3.

-
- a. Provide the resultant effect of these changes on the two customers' bills.
 - b. State whether KU has discussed the proposed changes with those customers. If so, provide the customers' responses.

A-86. a. The effect of the proposed tariff changes will depend heavily on customer decisions under the proposed CSR tariff. For example, the effect of adopting the proposed CSR tariff will depend on whether a customer taking service under CSR chooses to curtail its load or to utilize the buy-through option when a non-physical curtailment is requested by the Company. If the customer chooses the buy-through option then the price that the customer pays for power will be determined in accordance with the automatic buy-through price formula set forth in the tariff.

Assuming that the customers will choose to curtail service rather than utilize the buy-through option, the following are the test-year impacts on the two customers' bills.

- (1) For the large Arc Furnace, which currently takes service under CSR3, the change will result in an annual reduction in its bill of \$1,757,507.
 - (2) For a scrap metal company, which currently takes service under CSR1, the change will result in an annual increase in its bill of \$1,857.
- b. KU did not discuss with customers the proposed changes to the curtailable service riders prior to the filing of the Application. The Company routinely has discussions about service, billing, tariffs and other topics related to providing service to their facilities. Since the filing of the Application, discussions about various aspects of the filing as it relates to service to the customer's facilities have occurred.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Attorney General's Initial Requests for Information
Dated March 1, 2010**

Question No. 235

Responding Witness: William Steven Seelye

- Q-235. Please explain how interruptible (curtailment riders: CSR1, CSR2, and CSR3) customers' demands and energy usage are reflected in the KU class cost of service study.
- A-235. Curtailable customers' actual energy usages were used to develop the energy allocation factors. The customers' CP demands are adjusted to reflect levels that would have occurred had the customers not been curtailed, as applicable.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Attorney General's Initial Requests for Information
Dated March 1, 2010**

Question No. 236

Responding Witness: Robert M. Conroy/William Steven Seelye

Q-236. With regard to KU's current Curtailment Service Rider 1 ("CSR1"), please provide the following amounts by rate schedule, separated between Primary and Transmission, for each month of the test year:

- (a) number of customers;
- (b) total firm contract demand;
- (c) total contract curtailment load;
- (d) total billing demand;
- (e) total demand credits;
- (f) total non-compliance charges by month; and,
- (g) listing of date, time, duration, and estimated MW curtailment.

Please provide in hard copy as well as in Microsoft readable electronic format (preferably Microsoft Excel).

- A-236. a-f. See attached. Also see attached CD, in folder titled Question No. 236 for the Microsoft Excel version of the attachment.
- g. See attached.

Kentucky Utilities Company
Case No. 2009-00548
Curtailment Service Rider 1 (CSR1) - Primary
For the Test Year Ending October 31, 2009

	Number of Customers	Total Firm Contract Demand (kW)	Total Contract Curtailment Load (kW)	Total Billing Demand (kW)	Total Demand Credits (\$)	Total Non- Compliance Charges (\$)
	(a)	(b)	(c)	(d)	(e)	(f)
Nov-08	1	200	0	2,530	\$ (7,456.32)	\$ -
Dec-08	1	200	0	2,920	\$ (8,701.96)	\$ -
Jan-09	1	200	0	2,651	\$ (7,843.20)	\$ -
Feb-09	1	200	0	2,925	\$ (13,000.24)	\$ -
Mar-09	1	200	0	2,825	\$ (13,651.56)	\$ -
Apr-09	1	200	0	2,752	\$ (13,269.36)	\$ -
May-09	1	200	0	2,323	\$ (13,269.36)	\$ -
Jun-09	1	200	0	2,223	\$ (10,521.68)	\$ -
Jul-09	1	200	0	2,369	\$ (11,277.76)	\$ -
Aug-09	1	200	0	2,344	\$ (11,150.36)	\$ -
Sep-09	1	200	0	2,344	\$ (11,097.84)	\$ -
Oct-09	1	200	0	2,362	\$ (11,240.32)	\$ -

Kentucky Utilities Company
Case No. 2009-00548
Curtailment Service Rider 1 (CSR1) - Primary
For the Test Year Ending October 31, 2009

Start Date	Start Time	End Date	End Time	Duration in Hours	Estimated MW Curtailment
1/15/2009	7:00:00 AM	1/15/2009	9:00:00 PM	14.0	
1/16/2009	7:00:00 AM	1/16/2009	9:00:00 PM	14.0	
6/2/2009	1:00:00 PM	6/2/2009	5:00:00 PM	4.0	
6/17/2009	1:00:00 PM	6/17/2009	5:00:00 PM	4.0	
6/23/2009	1:00:00 PM	6/23/2009	6:00:00 PM	5.0	
6/24/2009	1:00:00 PM	6/24/2009	6:00:00 PM	5.0	
6/25/2006	1:00:00 PM	6/25/2006	6:00:00 PM	5.0	
8/17/2009	10:00:00 AM	8/17/2009	6:00:00 PM	8.0	

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Attorney General's Initial Requests for Information
Dated March 1, 2010**

Question No. 237

Responding Witness: Robert M. Conroy/William Steven Seelye

Q-237. With regard to KU's current Curtailment Service Rider 2 ("CSR2"), please provide the following amounts by rate schedule, separated between Primary and Transmission, for each month of the test year:

- (a) number of customers;
- (b) total firm contract demand;
- (c) total contract curtailment load;
- (d) total billing demand;
- (e) total demand credits;
- (f) total non-compliance charges by month; and,
- (g) listing of date, time, duration, and estimated MW curtailment.

Please provide in hard copy as well as in Microsoft readable electronic format (preferably Microsoft Excel).

A-237. The Company did not have any customers subject to the Curtailable Service Rider 2 within the test year.

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Attorney General's Initial Requests for Information
Dated March 1, 2010**

Question No. 238

Responding Witness: Robert M. Conroy/William Steven Seelye

Q-238. With regard to KU's current Curtailment Service Rider 3 ("CSR3"), please provide the following amounts by rate schedule, separated between Primary and Transmission, for each month of the test year:

- (a) number of customers;
- (b) total firm contract demand;
- (c) total contract curtailment load;
- (d) total billing demand;
- (e) total demand credits;
- (f) total non-compliance charges; and,
- (g) listing of date, time, duration, and estimated MW curtailment.

Please provide in hard copy as well as in Microsoft readable electronic format (preferably Microsoft Excel).

- A-238. a-f. See attached. Also see attached CD, in folder titled Question No. 238 for the Microsoft Excel version of the attachment.
- g. See attached.

Kentucky Utilities Company
Case No. 2009-00548
Curtailement Service Rider 3 (CSR3) - Transmission
For the Test Year Ending October 31, 2009

	Number of Customers	Total Firm Contract Demand (kW)	Total Contract Curtailement Load (kW)	Total Off- Peak Billing Demand ¹	Total Peak Billing Demand ²	Total Demand Credits (\$)	Total Non- Compliance Charges (\$)
	(a)	(b)	(c)	(d)	(d)	(e)	(f)
Nov-08	1	4,000	0	140,224	71,945	\$ 422,295.64	\$ -
Dec-08	1	4,000	0	146,382	72,771	\$ 441,383.89	\$ -
Jan-09	1	4,000	0	148,676	72,355	\$ 448,496.53	\$ -
Feb-09	1	4,000	0	147,212	90,000	\$ 443,955.96	\$ -
Mar-09	1	4,000	0	166,713	90,000	\$ 504,410.61	\$ -
Apr-09	1	4,000	0	167,281	90,000	\$ 506,171.72	\$ -
May-09	1	4,000	0	170,719	90,000	\$ 516,829.83	\$ -
Jun-09	1	4,000	0	148,685	90,000	\$ 448,523.81	\$ -
Jul-09	1	4,000	0	150,149	90,000	\$ 453,060.97	\$ -
Aug-09	1	4,000	0	150,517	90,000	\$ 454,204.10	\$ -
Sep-09	1	4,000	0	149,285	90,000	\$ 450,382.38	\$ -
Oct-09	1	4,000	0	145,599	90,000	\$ 438,956.06	\$ -

¹ Off-Peak Billing Demand is in kW for the months of November and December 2008, and January 2009.
The rest of the months billing demand is in kVa

² Peak Billing Demand is in kW for the months of November and December 2008, and January 2009.
The rest of the months billing demand is in kVa

Kentucky Utilities Company
Case No. 2009-00548
Curtailment Service Rider 3 (CSR3) - Transmission
For the Test Year Ending October 31, 2009

Start Date	Start Time	End Date	End Time	Duration in Hours	Estimated MW Curtailment
11/19/2008	5:30:00 PM	11/19/2008	9:30:00 PM	4.00	
1/7/2009	5:42:00 PM	1/7/2009	7:00:00 PM	1.30	
1/8/2009	8:10:00 AM	1/8/2009	9:50:00 AM	1.67	
1/9/2009	8:00:00 AM	1/9/2009	9:00:00 AM	1.00	
1/12/2009	8:00:00 AM	1/12/2009	8:36:00 AM	0.60	
1/13/2009	5:40:00 PM	1/13/2009	7:05:00 PM	1.42	
1/15/2009	11:59:00 AM	1/15/2009	2:30:00 PM	2.52	
1/22/2009	8:10:00 AM	1/22/2009	9:45:00 AM	1.58	
1/23/2009	6:00:00 PM	1/23/2009	7:15:00 PM	1.25	
2/4/2009	6:00:00 PM	2/4/2009	10:00:00 PM	4.00	
2/16/2009	6:50:00 PM	2/16/2009	7:50:00 PM	1.00	
2/17/2009	8:00:00 AM	2/17/2009	10:09:00 AM	2.15	
3/2/2009	8:00:00 AM	3/2/2009	1:50:00 PM	5.83	
3/2/2009	5:30:00 PM	3/2/2009	8:30:00 PM	3.00	
3/3/2009	8:00:00 AM	3/3/2009	1:00:00 PM	5.00	
3/11/2009	8:25:00 PM	3/11/2009	9:35:00 PM	1.17	
3/12/2009	5:10:00 PM	3/12/2009	8:15:00 PM	3.08	
5/19/2009	4:41:00 PM	5/19/2009	5:11:00 PM	0.50	
6/2/2009	1:20:00 PM	6/2/2009	3:02:00 PM	1.70	
6/9/2009	1:40:00 PM	6/9/2009	7:20:00 PM	5.67	
6/12/2009	2:15:00 PM	6/12/2009	4:57:00 PM	2.70	
6/15/2009	12:00:00 PM	6/15/2009	5:52:00 PM	5.87	
6/16/2009	12:23:00 PM	6/16/2009	2:30:00 PM	1.92	
6/30/2009	3:15:00 PM	6/30/2009	6:00:00 PM	2.75	
6/30/2009	7:00:00 PM	6/30/2009	7:45:00 PM	0.75	
7/8/2009	11:41:00 AM	7/8/2009	2:00:00 PM	2.32	
7/10/2009	3:30:00 PM	7/10/2009	6:35:00 PM	3.08	
7/16/2009	3:50:00 PM	7/16/2009	6:30:00 PM	2.67	
7/20/2009	6:15:00 PM	7/20/2009	7:45:00 PM	1.50	
7/23/2009	3:00:00 PM	7/23/2009	6:00:00 PM	3.00	
7/24/2009	2:00:00 PM	7/24/2009	3:30:00 PM	1.50	
8/5/2009	4:58:00 PM	8/5/2009	6:35:00 PM	1.62	
8/7/2009	1:35:00 PM	8/7/2009	3:00:00 PM	1.42	
8/10/2009	12:42:00 PM	8/10/2009	2:20:00 PM	1.63	
8/11/2009	12:24:00 PM	8/11/2009	3:45:00 PM	3.00	
8/11/2009	6:30:00 PM	8/11/2009	9:00:00 PM	2.50	
8/12/2009	2:02:00 PM	8/12/2009	7:35:00 PM	5.55	
8/13/2009	1:55:00 PM	8/13/2009	7:30:00 PM	5.58	
8/17/2009	3:20:00 PM	8/17/2009	4:00:00 PM	0.67	
8/18/2009	1:00:00 PM	8/18/2009	3:00:00 PM	2.00	
9/14/2009	3:10:00 PM	9/14/2009	5:30:00 PM	2.33	

KENTUCKY UTILITIES COMPANY

CASE NO. 2009-00548

**Response to Attorney General's Initial Requests for Information
Dated March 1, 2010**

Question No. 239

Responding Witness: William Steven Seelye

- Q-239. With regard to KU's proposed Curtailable Service Rider ("CSR") referenced at Pages 20-23 of Mr. Seelye's direct testimony, please provide all workpapers, spreadsheets, source documents, assumptions, etc. utilized to develop the CSR provisions (curtailable hours, buy-through rates, etc.) being proposed in this case. Please provide the response in hard copy as well as in Microsoft readable electronic format as applicable (preferably Microsoft Excel).
- A-239. There are no workpapers used to develop the CSR provisions.

EXHIBIT DWG-2

CSR CREDIT: CT FIXED-CHARGE METHOD

CSR Credit: CT Fixed-Charge Method

CT Avoided Capital Cost (1)	\$730.00	per kW
Levelized Fixed Charge Rate (2)	<u>11.04%</u>	
Annual Fixed Charge	\$80.59	per kW
Fixed O&M (3)	<u>\$13.00</u>	per kW
Subtotal	\$93.59	per kW
Reserve Margin Adjustment (4)	<u>1.14</u>	
Annual Avoided CT Cost	<u><u>\$106.69</u></u>	per kW

	<u>Transmission</u>	<u>Primary</u>
Annual Avoided CT Cost	\$106.69	\$106.69
Loss Adjustment (5)	1.0244	1.0442
Loss-Adjusted Avoided CT Cost	<u>\$109.30</u>	<u>\$111.41</u>
Implied Credit (\$/kW)	<u><u>\$9.11</u></u>	<u><u>\$9.28</u></u>

Sources:

- (1) KU Response to KIUC 1-12.
- (2) KU Response to KIUC 1-13.
- (3) KU Response to KIUC 1-14.
- (4) KU/LGE 2008 IRP at Vol. 1, 5-34.
- (5) Data supplied by KIUC witness Stephen Baron.

EXHIBIT DWG-3

KIUC PROPOSED RIDER CSR10

KENTUCKY UTILITIES

STANDARD RATE RIDER CSR10 – CURTAILABLE SERVICE RIDER

APPLICABLE

In all territories served.

AVAILABILITY OF SERVICE

This rider shall be available to customers served under applicable power schedules that contract for not less than 1,000 kilowatts individually and up to an aggregate of total curtailable requirements served under a Company curtailable rate option as of June 1, 2010, plus 100 additional megawatts of total requirements subject to curtailment under Riders CSR10 and CSR30 combined, such curtailment to be implemented upon notification by the Company.

CONTRACT OPTION

Customer may, at Customer's option, contract with Company to curtail service upon notification by Company. Requests for curtailment shall not exceed three-hundred and fifty (350) hours per year. No single request for curtailment shall be for less than thirty (30) minutes or for more than fourteen (14) hours per calendar day, with no more than two (2) requests for curtailment per calendar day within these parameters. A curtailment is a continuous event with a start and stop time that may have both physical and buy-through options within the interval between the start and stop time. Company may request or cancel a curtailment at any time during any hour of the year, but shall give no less than ten (10) minutes notice when either requesting or canceling a curtailment. At the time of issuing a curtailment request, Company will give customer a good-faith estimate regarding the expected duration of the curtailment, and the likelihood of requiring both physical and buy-through options during the curtailment.

Company may request at its sole discretion up to 100 hours of physical curtailment per year during a system emergency without a buy-through option. For purposes of this rider, a system emergency is defined as an event in which continued service by the Company to Rider CSR10 customers would threaten reliability of service to the Company's firm service retail customers.

Company may also request at its sole discretion up to 250 hours of curtailment per year with a buy-through option, whereby Customer may choose either to curtail service in accordance with this Rider or to purchase its curtailable requirements by paying the Automatic Buy-Through Price, as set forth below, for all kilowatt hours of curtailable requirements.

KENTUCKY UTILITIES

STANDARD RATE RIDER CSR10 – CURTAILABLE SERVICE RIDER

Curtable Load and compliance with a request for curtailment shall be measured in one of the following ways:

Option A. Customer may contract for a given amount of firm demand measured on a 15-minute demand basis. During a request for physical curtailment, Customer shall reduce demand to the firm demand designated in the Customer's contract. During a curtailment request with a buy-through option, the Automatic Buy-Through Price, as applicable, shall apply to the Customer's total kilowatt-hour usage during the Curtailment, less the product of the Customer's firm contract demand times the number of hours in the curtailment. The Customer's maximum 15-minute measured demand in excess of firm load during each requested physical curtailment shall equal the Customer's Noncompliance Demand.

Option B. Customer may contract for a given amount of Designated Curtable Load. A customer electing this option agrees to reduce its demand during a physical curtailment (no buy-through option available) called by the Company to a level equal to the maximum 15-minute demand immediately prior to the physical curtailment, less the Customer's Designated Curtable Load. During a curtailment with a buy-through option, the Automatic Buy-Through Price shall apply to the Designated Curtable Load times the number of hours in the curtailment. The Customer's Noncompliance Demand for each requested physical curtailment shall equal the positive value determined by first subtracting Customer's Designated Curtable Load from the Customer's maximum 15-minute demand immediately preceding the curtailment, and then subtracting this difference from the Customer's maximum demand during the curtailment.

RATE

The following monthly billing credits and charge will be applicable.

Transmission Voltage Service	\$ 5.40 per kW Curtable Billing Demand
Primary Voltage Service	\$ 5.50 per kW Curtable Billing Demand
Noncompliance Charge	\$16.00 per kW Noncompliance Demand.

KENTUCKY UTILITIES

STANDARD RATE RIDER CSR10 – CURTAILABLE SERVICE RIDER

RATE (CONTINUED)

A Customer's failure to comply with a curtailment request may result in termination of service under this rider. Customer will be charged for each kilowatt of Noncompliance Demand.

A customer may avoid Noncompliance Charges if the Customer arranges, at its expense, to install and pay for the maintenance of all equipments necessary to cede mechanical control of the Customer's connected Curtailable Load to the Company.

CURTAILABLE BILLING DEMAND

Curtailable Billing Demand (CBD) A shall be determined as follows for a customer served under Option A or Option B.

Option A. CBD shall be the difference between the Customer's maximum measured 15-minute demand during the billing period and the Customer's firm contract demand. CBD measurements are limited to the hours of 10:00 A.M.-10:00 P.M., Monday-Friday during May-September, and 6:00 A.M.-10:00 P.M., Monday-Friday during October-April.

Option B. CBD shall be the Customer's Designated Curtailable Load.

AUTOMATIC BUY-THROUGH PRICE

The Automatic Buy-Through Price (ABTP) per kWh shall be determined daily in accordance with the following formula:

$$ABTP = NGP \times 0.012000 \text{ MMBtu/kWh}$$

NGP is the mid-point price for natural gas (\$/MMBtu) posted for the day in *Gas Daily* for Dominion-South Point, and will be used for the electrical day from 12 midnight to midnight. The posted price for Monday or the day after a holiday shall be considered the posted price for Saturday, Sunday, and the holiday.

CONTRACT TERM

The minimum original contract period shall be one (1) year, renewable annually until terminated by giving at least six (6) months prior written notice. Company may require a longer term contract if in the Company's sole

KENTUCKY UTILITIES

STANDARD RATE RIDER CSR10 – CURTAILABLE SERVICE RIDER

discretion, a longer term is necessary due to the size of the Customer's load or other relevant conditions.

TERMS AND CONDITIONS

Except as specified above, all other provisions of the power rate to which this schedule is a rider shall apply.

EXHIBIT DWG-4

KIUC PROPOSED RIDER CSR30

KENTUCKY UTILITIES

STANDARD RATE RIDER CSR30 – CURTAILABLE SERVICE RIDER

APPLICABLE

In all territories served.

AVAILABILITY OF SERVICE

This rider shall be available to customers served under applicable power schedules that contract for not less than 1,000 kilowatts individually and up to an aggregate of total curtailable requirements served under a Company curtailable rate option as of June 1, 2010, plus 100 additional megawatts of total requirements subject to curtailment under Riders CSR10 and CSR30 combined, such curtailment to be implemented upon notification by the Company.

CONTRACT OPTION

Customer may, at Customer's option, contract with Company to curtail service upon notification by Company. Requests for curtailment shall not exceed three-hundred and fifty (350) hours per year. No single request for curtailment shall be for less than thirty (30) minutes or for more than fourteen (14) hours per calendar day, with no more than two (2) requests for curtailment per calendar day within these parameters. A curtailment is a continuous event with a start and stop time that may have both physical and buy-through options within the interval between the start and stop time. Company may request or cancel a curtailment at any time during any hour of the year, but shall give no less than thirty (30) minutes notice when either requesting or canceling a curtailment. At the time of issuing a curtailment request, Company will give customer a good-faith estimate regarding the expected duration of the curtailment, and the likelihood of requiring both physical and buy-through options during the curtailment.

Company may request at its sole discretion up to 100 hours of physical curtailment per year during a system emergency without a buy-through option. For purposes of this rider, a system emergency is defined as an event in which continued service by the Company to Rider CSR10 customers would threaten reliability of service to the Company's firm service retail customers.

Company may also request at its sole discretion up to 250 hours of curtailment per year with a buy-through option, whereby Customer may choose either to curtail service in accordance with this Rider or to purchase its curtailable requirements by paying the Automatic Buy-Through Price, as set forth below, for all kilowatt hours of curtailable requirements.

KENTUCKY UTILITIES

STANDARD RATE RIDER CSR30 – CURTAILABLE SERVICE RIDER

Curtailable Load and compliance with a request for curtailment shall be measured in one of the following ways:

Option A. Customer may contract for a given amount of firm demand measured on a 15-minute demand basis. During a request for physical curtailment, Customer shall reduce demand to the firm demand designated in the Customer's contract. During a curtailment request with a buy-through option, the Automatic Buy-Through Price, as applicable, shall apply to the Customer's total kilowatt-hour usage during the Curtailment, less the product of the Customer's firm contract demand times the number of hours in the curtailment. The Customer's maximum 15-minute measured demand in excess of firm load during each requested physical curtailment shall equal the Customer's Noncompliance Demand.

Option B. Customer may contract for a given amount of Designated Curtailable Load. A customer electing this option agrees to reduce its demand during a physical curtailment (no buy-through option available) called by the Company to a level equal to the maximum 15-minute demand immediately prior to the physical curtailment, less the Customer's Designated Curtailable Load. During a curtailment with a buy-through option, the Automatic Buy-Through Price shall apply to the Designated Curtailable Load times the number of hours in the curtailment. The Customer's Noncompliance Demand for each requested physical curtailment shall equal the positive value determined by first subtracting Customer's Designated Curtailable Load from the Customer's maximum 15-minute demand immediately preceding the curtailment, and then subtracting this difference from the Customer's maximum demand during the curtailment.

RATE

The following monthly billing credits and charge will be applicable.

Transmission Voltage Service	\$ 5.20 per kW Curtailable Billing Demand
Primary Voltage Service	\$ 5.30 per kW Curtailable Billing Demand
Noncompliance Charge	\$16.00 per kW Noncompliance Demand.

KENTUCKY UTILITIES

STANDARD RATE RIDER CSR30 – CURTAILABLE SERVICE RIDER

RATE (CONTINUED)

A Customer's failure to comply with a curtailment request may result in termination of service under this rider. Customer will be charged for each kilowatt of Noncompliance Demand.

A customer may avoid Noncompliance Charges if the Customer arranges, at its expense, to install and pay for the maintenance of all equipments necessary to cede mechanical control of the Customer's connected Curtailable Load to the Company.

CURTAILABLE BILLING DEMAND

Curtailable Billing Demand (CBD) A shall be determined as follows for a customer served under Option A or Option B.

Option A. CBD shall be the difference between the Customer's maximum measured 15-minute demand during the billing period and the Customer's firm contract demand. CBD measurements are limited to the hours of 10:00 A.M.-10:00 P.M., Monday-Friday during May-September, and 6:00 A.M.-10:00 P.M., Monday-Friday during October-April.

Option B. CBD shall be the Customer's Designated Curtailable Load.

AUTOMATIC BUY-THROUGH PRICE

The Automatic Buy-Through Price (ABTP) per kWh shall be determined daily in accordance with the following formula:

$$\text{ABTP} = \text{NGP} \times 0.012000 \text{ MMBtu/kWh}$$

NGP is the mid-point price for natural gas (\$/MMBtu) posted for the day in *Gas Daily* for Dominion-South Point, and will be used for the electrical day from 12 midnight to midnight. The posted price for Monday or the day after a holiday shall be considered the posted price for Saturday, Sunday, and the holiday.

CONTRACT TERM

The minimum original contract period shall be one (1) year, renewable annually until terminated by giving at least six (6) months prior written notice. Company may require a longer term contract if in the Company's sole

KENTUCKY UTILITIES

STANDARD RATE RIDER CSR30 – CURTAILABLE SERVICE RIDER

discretion, a longer term is necessary due to the size of the Customer's load or other relevant conditions.

TERMS AND CONDITIONS

Except as specified above, all other provisions of the power rate to which this schedule is a rider shall apply.

EXHIBIT DWG-5

KEY DIFFERENCES: KU AND KIUC CURTAILABLE RATE PROPOSALS

Key Differences: KU and KIUC Curtailable Rate Proposals

Element	KU CSR	KIUC	
		CSR10	CSR30
1. Availability (total MW)	200	**	**
2. Notice (minutes)	10	10	30
3. Curtailment Hours			
Physical	100	100	100
Buy-Through	400	250	350
4. Buy-Through kWh			
Option A	(Max kW during curtailment - firm kW) x curtailment hrs.	Total kWh during curtailment - (firm kW x curtailment hrs)	Total kWh during curtailment - (firm kW x curtailment hrs)
Option B	Designated Curtailable Load x curtailment hrs.	Same	Same
5. Curtailment Credit			
Primary (\$/kW)	\$5.20	\$5.50	\$5.30
Transmission (\$/kW)	\$5.10	\$5.40	\$5.20
** Aggregate of total curtailable load served under Riders CSR1 and CSR3 as of June 1, 2010, plus an additional 100 MW of curtailable load served under Riders CSR10 and CSR30 combined.			