

East Kentucky Power Cooperative, Inc.

P.S.C. KY NO. 34

CANCELS P.S.C. KY NO. 33

EAST KENTUCKY POWER COOPERATIVE, INC.

OF

WINCHESTER, KENTUCKY

RATES, RULES, AND REGULATIONS FOR FURNISHING

WHOLESALE POWER SERVICE

AT

VARIOUS LOCATIONS TO

RURAL ELECTRIC COOPERATIVE MEMBERS

THROUGHOUT KENTUCKY

FILED WITH THE PUBLIC SERVICE COMMISSION
OF KENTUCKY

ISSUED JANUARY 14, 2011

EFFECTIVE FOR SERVICE RENDERED
ON AND AFTER JANUARY 14, 2011

ISSUED BY EAST KENTUCKY POWER COOPERATIVE, INC.

BY *Anthony S. Campbell*

Anthony S. Campbell
President and Chief Executive Officer

KENTUCKY
PUBLIC SERVICE COMMISSION

JEFF R. DEROUEN
EXECUTIVE DIRECTOR

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

1/14/2011

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

For All Counties Served
P.S.C. No. 34
First Revised Sheet No. 1
Canceling P.S.C. No. 34
Original Sheet No. 1

EAST KENTUCKY POWER COOPERATIVE, INC.

Wholesale Power Rate Schedule

Applicability

Applicable to all sections of this rate schedule and this rate schedule shall apply to each East Kentucky Power Cooperative, Inc. (hereinafter referred to as "EKPC" or the "Cooperative") load center separately.

Load Center Charges - Monthly

A. Metering Point Charge

1. Applicable to each metering point and to each substation
2. Charge: \$144.00 (I)

B. Substation Charge

1. Applicable to each substation based on its size:
2. Charges:

1,000 - 2,999 kVa substation	\$1,088.00	(I)
3,000 - 7,499 kVa substation	\$2,737.00	(I)
7,500 - 14,999 kVa substation	\$3,292.00	(I)
15,000 and over kVa substation	\$5,310.00	(I)

Minimum Monthly Charge

The minimum monthly charge shall be equal to the Load Center Charges plus the minimum monthly charges for Section B and Section C. Load Center Charges cover metering point and substation charge.

DATE OF ISSUE January 14, 2011 DATE EFFECTIVE: Service rendered on and after January 14, 2011

ISSUED BY Anthony S Campbell TITLE President & Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in
Case No. 2010-00167 Dated January 14, 2011

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 1/14/2011 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Fuel Adjustment

1. The fuel clause shall provide for periodic adjustment per kWh of sales when the unit cost of fuel [F(m) / S(m)] is above or below the base unit cost of \$.03014 per kWh (R) [F(b) / S(b)]. The current monthly charges shall be increased or decreased by the product of the kWh furnished during the current month and the fuel adjustment rate for the preceding month where the fuel adjustment rate is defined below:

$$\text{Fuel Adjustment Rate} = \frac{F(m)}{S(m)} - \frac{F(b)}{S(b)}$$

Where F is the expense of fossil fuel in the base (b) and current (m) periods; and S is sales in the base (b) and current (m) periods, all defined below:

2. Fuel cost (F) shall be the most recent actual monthly cost of:
- (a) Fossil fuel consumed in the utility's own plants, and the utility's share of fossil and nuclear fuel consumed in jointly owned or leased plants, plus the cost of fuel which would have been used in plants suffering forced generation and/or transmission outages, but less the cost of fuel related to substitute generation, plus
 - (b) The actual identifiable fossil and nuclear fuel costs associated with energy purchased for reasons other than identified in paragraph (c) below, but excluding the cost of fuel related to purchases to substitute the forced outages, plus
 - (c) The net energy cost of energy purchases, exclusive of capacity or demand charges (irrespective of the designation assigned to such transaction) when such energy is purchased on an economic dispatch basis. Included therein may be such costs as the charges for economy energy purchases and the charges as a result of scheduled outages, also such kinds of energy being purchased by the buyer to substitute for its own higher cost energy; and less

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JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH
<i>Brent Kirtley</i> 2011
EFFECTIVE 6/1/2011
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

DATE OF ISSUE June 8, 2011 DATE EFFECTIVE: Service rendered on *Brent Kirtley* 2011

ISSUED BY *Anthony J. Campbell* TITLE President & Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2010-00491 Dated May 31, 2011

EAST KENTUCKY POWER COOPERATIVE, INC.

Fuel Adjustment (con't.)

- (d) The cost of fossil fuel recovered through inter-system sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis.
- (e) All fuel costs shall be based on weighted average inventory costing.
- 3. Forced outages are all non-scheduled losses of generation or transmission which require (purchase of) substitute power for a continuous period in excess of six (6) hours. Where forced outages are not as a result of faulty equipment, faulty manufacture, faulty design, faulty installations, faulty operation, or faulty maintenance, but are Acts of God, riot, insurrection or acts of public enemy, the utility may, upon proper showing, with the approval of the Commission, include the fuel cost of substitute energy in the adjustment.
- 4. Sales (S) shall be kWh sold, excluding inter-system sales. Where for any reason, billed system sales cannot be coordinated with fuel costs for the billing period, sales may be equated to the sum of (i) generation, (ii) purchases, (iii) interchange in, less (iv) energy associated with pumped storage operations, less (v) inter-system sales referred to in subsection (2)(d) above, less (vi) total system losses. Utility-used energy shall not be excluded in the determination of sales (S).
- 5. The cost of fossil fuel shall include no items other than the invoice price of fuel less any cash or other discounts. The invoice price of fuel includes the cost of the fuel itself and necessary charges for transportation of the fuel from the point of acquisition to the unloading point, as listed in Account 151 of the FERC Uniform System of Accounts for Public Utilities and Licenses.

DATE OF ISSUE July 24, 2009 DATE EFFECTIVE: Service rendered on and after August 6, 2009

ISSUED BY *Anthony S. Campbell* TITLE President & Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in SECTION 9 (1)
Case No. 2008-00519 Dated July 15, 2009

**PUBLIC SERVICE COMMISSION
OF KENTUCKY**
EFFECTIVE
PURSUANT TO 807 KAR 5:011
By *J. D. Brown*
Executive Director

For All Counties Served
P.S.C. No. 34
Original Sheet No. 4
Canceling P.S.C. No. 33
Original Sheet No. 4

EAST KENTUCKY POWER COOPERATIVE, INC.

Power Factor Adjustment

The member cooperative agrees to maintain a unity power factor as nearly as practicable at each load center at the time of the monthly peak demand for the load center. When the power factor is determined to be less than 90%, the monthly billing demand at the load center will be adjusted by multiplying the actual monthly billing demand by 90% and dividing this product by the actual power factor at the time of the monthly peak demand for the load center. For new load centers, the power factor penalty will not be applicable for the month of energization or the succeeding six (6) months. The demand rate applicable for power factor penalty billing is the lowest firm demand rate in Section A, B, C, E, or G.

Energy Curtailment and Outage Restoration Priorities

These tariffs are subject to the Energy Curtailment and Outage Restoration Priorities provisions of Administrative Case No. 353 of the Kentucky Public Service Commission. East Kentucky Power Cooperative's energy curtailment and restoration procedures are contained in Appendix I to these tariffs title Emergency Electric Procedures, East Kentucky Power Cooperative, Inc.; prepared April 1, 1994; revised February 17, 1995.

East Kentucky Power Cooperative will adhere to the curtailment of service requirements as set forth below and contained in Kentucky Revised Statutes (KRS) Section 278.214.

Curtailment of service by utility or generation and transmission cooperative. When a utility or generation and transmission cooperative engaged in the transmission of electricity experiences on its transmission facilities an emergency or other event that necessitates a curtailment or interruption of service, the utility or generation and transmission cooperative shall not curtail or interrupt retail electric service within its certified territory, or curtail or interrupt wholesale electric energy furnished to a member distribution cooperative for retail electric service within the cooperative's certified territory, except for customers who have agreed to receive interruptible service, until after service has been interrupted to all other customers whose interruption may relieve the emergency or other event.

DATE OF ISSUE July 24, 2009 DATE EFFECTIVE: Service rendered on and after August 1, 2009

ISSUED BY Anthony S. Langhelt TITLE President & Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of F
Case No. 2008-00519 Dated July 15, 2009

PUBLIC SERVICE COMMISSION
OF KENTUCKY

EFFECTIVE
8/1/2009

PURSUANT TO 807 KAR 5-011
SECTION 9 (1)

By [Signature]
Executive Director

Section A

Availability

Available to all cooperative associations which are or shall be members of EKPC. The electric power and energy furnished hereunder shall be separately metered for each point of delivery.

Applicability

Applicable to all power usage at the load center not subject to the provisions of Sections B, C, and E of this tariff.

Monthly Rate - Per Load Center

Demand Charge per kW of billing demand	\$ 9.98
Energy Charge per kWh	\$.042882

Billing Demand

The billing demand (kilowatt demand) is based on EKPC's system peak demand (coincident peak) which is the highest average rate at which energy is used during any fifteen minute interval in the below-listed hours for each month and adjusted for power factor as provided herein:

<u>Months</u>	<u>Hours Applicable for Demand Billing - EPT</u>
October through April	7:00 a.m. to 12:00 noon 5:00 p.m. to 10:00 p.m.
May through September	10:00 a.m. to 10:00 p.m.

(T)

Billing demand applicable to this section is equal to the load center's contribution to EKPC's system peak demand minus the actual demands of Section B, Section C, and Section E participants coincident with EKPC's system peak demand.

Billing Energy

Billing energy applicable to this section is equal to the total energy provided at the load center minus the actual energy provided to Section B, Section C, and Section E participants.

DATE OF ISSUE January 22, 2013
Month / Date / Year

DATE EFFECTIVE Service rendered on and after March 10, 2013
Month / Date / Year

ISSUED BY *Anthony S. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

KENTUCKY PUBLIC SERVICE COMMISSION	
JEFF R. DEROUEN EXECUTIVE DIRECTOR	
TARIFF BRANCH	
<i>Brent Kirtley</i>	
EFFECTIVE	
3/10/2013	
PURSUANT TO 807 KAR 5:011 SECTION 9 (f)	

FOR ALL COUNTIES SERVED
P.S.C. NO. 34
FIRST REVISED SHEET NO. 6
CANCELLING PSC KY. NO. 34
ORIGINAL SHEET NO. 6

EAST KENTUCKY POWER COOPERATIVE, INC.

[SHEET CANCELLED]

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DATE OF ISSUE January 22, 2013
Month / Date / Year

DATE EFFECTIVE Service rendered on and after March 10, 2013
Month / Date / Year

ISSUED BY *Anthony S. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

3/10/2013

PURSUANT TO 807 KAR 5:011 SECTION 9.4(1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section B

Availability

Available to all cooperative associations which are or shall be members of EKPC and which execute EKPC approved contracts with the ultimate consumers. The electric power and energy furnished hereunder shall be separately metered for each point of delivery.

Applicability

Applicable to cooperative associations and ultimate consumers willing to contract for demands of 500 kW or greater and a monthly minimum energy usage equal to or greater than 400 hours per kW of contract demand. Wholesale monthly minimum demand shall be agreed between the cooperative association and EKPC.

Monthly Rate

Demand Charge per kW of Minimum Demand	\$7.17
Demand Charge per kW of Billing Demand in Excess of Minimum Demand	\$9.98
Energy Charge per kWh	\$.042882

Billing Demand

The billing demand (kilowatt demand) shall be the minimum demand plus any excess demand. Excess demand occurs when the ultimate consumer's highest demand during the current month, coincident with EKPC's system peak (coincident peak), exceeds the minimum demand. EKPC's system peak demand is the highest average rate at which energy is used during any fifteen minute interval in the below listed hours for each month and adjusted for power factor as provided herein:

<u>Months</u>	<u>Hours Applicable for Demand Billing - EPT</u>
October through April	7:00 a.m. to 12:00 noon 5:00 p.m. to 10:00 p.m.
May through September	10:00 a.m. to 10:00 p.m.

(T)

Minimum Monthly Charge

The minimum monthly charge shall not be less than the sum of (a) and (b) below:

- (a) The product of the minimum demand multiplied by the demand charge, plus
- (b) The product of the minimum demand multiplied by 400 hours and the energy charge per kWh minus the fuel base per kWh.

DATE OF ISSUE January 22, 2013
Month / Date / Year

DATE EFFECTIVE Service rendered on and after March 10, 2013
Month / Date / Year

ISSUED BY *Anthony S. Clappell*
(Signature of Officer)

TITLE President and Chief Executive Officer

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 3/10/2013 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

FOR ALL COUNTIES SERVED
P.S.C. NO. 34
FIRST REVISED SHEET NO. 8
CANCELLING PSC KY. NO. 34
ORIGINAL SHEET NO. 8

EAST KENTUCKY POWER COOPERATIVE, INC.

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Month / Date / Year

DATE EFFECTIVE Service rendered on and after March 10, 2013
Month / Date / Year

ISSUED BY *Anthony J. Langsett*
(Signature of Officer)

TITLE President and Chief Executive Officer

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

3/10/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

Section C

Availability

Available to all cooperative associations which are or shall be members of EKPC and which execute EKPC approved contracts with the ultimate consumers. The electric power and energy furnished hereunder shall be separately metered for each point of delivery.

Applicability

Applicable to cooperative associations and ultimate consumers willing to contract for demand of 500 kW or greater and a monthly energy usage equal to or greater than 400 hours per kW of billing demand.

Monthly Rate

Demand Charge per kW of Billing Demand	\$7.17
Energy Charge per kWh	\$.042882

Billing Demand

The kilowatt demand shall be the greater of (a) or (b) listed below:

- (a) The contract demand
- (b) The ultimate consumer's highest demand during the current month or preceding eleven months coincident with EKPC's system peak demand. EKPC's system peak demand is the highest average rate at which energy is used during any fifteen minute interval in the below listed hours for each month and adjusted for power factor as provided herein:

<u>Months</u>	<u>Hours Applicable for Demand Billing - EPT</u>
October through April	7:00 a.m. to 12:00 noon 5:00 p.m. to 10:00 p.m.
May through September	10:00 a.m. to 10:00 p.m.

(T)

Minimum Monthly Charge

The minimum monthly charge shall not be less than the sum of (a) and (b) below:

- (a) The product of the billing demand multiplied by the demand charge, plus
- (b) The product of the billing demand multiplied by 400 hours and the energy charge per kWh minus the fuel base per kWh.

DATE OF ISSUE January 22, 2013
Month / Date / Year

DATE EFFECTIVE Service rendered on and after March 10, 2013
Month / Date / Year

ISSUED BY *Anthony S. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE
3/10/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (f)

EAST KENTUCKY POWER COOPERATIVE, INC.

FOR ALL COUNTIES SERVED
P.S.C. NO. 34
FIRST REVISED SHEET NO. 10
CANCELLING PSC KY. NO. 34
ORIGINAL SHEET NO. 10

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Month / Date / Year

DATE EFFECTIVE Service rendered on and after March 10, 2013
Month / Date / Year

ISSUED BY *Anthony Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

3/10/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section D
Interruptible Service

Standard Rider

This Interruptible Rate is a rider to Rate Sections A, B, C, E, and G.

Applicable

In all territory served by EKPC.

Availability of Service

This schedule shall be made available at any load center, to any member cooperative where an ultimate "Customer" will contract for an interruptible demand of not less than 250 kW and not more than 20,000 kW, subject to a maximum number of hours of interruption per year and a notice period as listed below. Note that hours of interruption per year or annual hours of interruption refer to the 12-month period ended May 31.

Monthly Rate

A monthly demand credit per kW is based on the following matrix:

<u>Notice Minutes</u>	<u>Annual Hours of Interruption</u>		
	<u>200</u>	<u>300</u>	<u>400</u>
30	\$4.20	\$4.90	\$5.60

(T)

Determination of Measured Load - Billing Demand

The billing demand (kilowatt demand) is based on EKPC's system peak demand (coincident peak) which is the highest average rate at which energy is used during any fifteen minute interval in the below listed hours for each month and adjusted for power factor as provided herein:

<u>Months</u>	<u>Hours Applicable for Demand Billing – EPT</u>
November through April	6:00 a.m. to 9:00 p.m.
May through October	10:00 a.m. to 10:00 p.m.

(T)



DATE OF ISSUE June 23, 2015
Month / Date / Year
DATE EFFECTIVE Service rendered on and after August 1, 2015
Month / Date / Year
ISSUED BY *Don Means*
(Signature of Officer)
TITLE Executive VP and Chief Operating Officer

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE
8/1/2015
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section D (con't.)

The interruptible billing demand shall be equal to the amount by which the monthly billing demand exceeds the minimum billing demand as specified in the contract.

Conditions of Service for Customer Contract

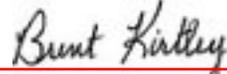
1. The customer will, upon notification by the Cooperative, reduce his load being supplied by the Cooperative to the contract capacity level specified by the contract.
2. The Cooperative will endeavor to provide the Customer as much advance notice as possible of the interruption of service. However, the Customer shall interrupt service within the notice period as contracted.
3. Service will be furnished under the Cooperatives "General Rules and Regulations" or "Terms and Conditions" except as set out herein and/or provisions agreed to by written contract.
4. No responsibility of any kind shall attach to the Cooperative for, or on account of, any loss or damage caused by, or resulting from, any interruption or curtailment of this service.
5. The Customer shall own, operate, and maintain all necessary equipment for receiving electric energy and all telemetering and communications equipment, within the Customer's premises, required for interruptible service.
6. The minimum original contract period shall be one year and thereafter until terminated by giving at least sixty days previous written notice. The Cooperative may require a contract be executed for a longer initial term when deemed necessary by the size of the load and other conditions.
7. The Fuel Adjustment Clause, as specified in the General Wholesale Power Rate Schedule, is applicable.

Calculation of Monthly Bill

The monthly bill is calculated on the following basis:

- A. Sum of metering point charge and substation charge, plus
- B. Minimum billing demand in kW multiplied by the firm capacity rate, plus
- C. Interruptible billing demand in kW multiplied by interruptible rate, plus
- D. Energy usage in kWh multiplied by the energy rate.

DATE OF ISSUE _____ June 23, 2015 _____
Month / Date / Year
DATE EFFECTIVE _____ Service rendered on and after August 1, 2015 _____
Month / Date / Year
ISSUED BY _____  _____
(Signature of Officer)
TITLE _____ Executive VP and Chief Operating Officer _____

**KENTUCKY
PUBLIC SERVICE COMMISSION**
**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**
TARIFF BRANCH

EFFECTIVE
8/1/2015
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section D (con't.)

Number and Duration of Interruptions

- A. There shall be no more than two (2) interruptions during any 24 hour calendar day. No interruption shall last more than twelve hours
- B. Interruptions may occur between 6:00 a.m. and 9:00 p.m. EPT during the months of November through April and between 10:00 a.m. and 10:00 p.m. EPT during the months of May through October.
- C. The maximum number of annual hours of interruption shall be in accordance with the customer contracted level of interruptible service.

Charge for Failure to Interrupt

If Customer fails to interrupt load as requested by the Cooperative, the Cooperative shall bill the uninterrupted load at a rate equal to five (5) times the applicable firm power demand charge for that billing month. Uninterrupted load is equal to actual load during requested interruption minus firm load.

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DATE OF ISSUE _____ June 23, 2015 _____
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DATE EFFECTIVE _____ Service rendered on and after August 1, 2015 _____
Month / Date / Year
ISSUED BY _____ *Don Moran* _____
(Signature of Officer)
TITLE _____ Executive VP and Chief Operating Officer _____

**KENTUCKY
PUBLIC SERVICE COMMISSION**
**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**
TARIFF BRANCH
Brent Kirtley
EFFECTIVE
8/1/2015
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

FOR ALL COUNTIES SERVED
P.S.C. NO. 34
FIRST REVISED SHEET NO.14
CANCELLING PSC KY. NO. 34
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[SHEET CANCELLED]

[RESERVED FOR FUTURE USE]

DATE OF ISSUE January 22, 2013
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DATE EFFECTIVE Service rendered on and after June 1, 2013
Month / Date / Year
ISSUED BY *Anthony A. Campbell*
(Signature of Officer)
TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky
in Case No. 2013-00046 dated May 29, 2013.

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

6/1/2013

PURSUANT TO 807 KAR 5.011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section E

Availability

Available to all cooperative associations which are or shall be members of EKPC. The electric power and energy furnished hereunder shall be separately metered for each point of delivery.

Applicability

Applicable to all power usage at the load center not subject to the provisions of Section A, Section B, Section C, or Section G of this tariff.

Monthly Rate - Per Load Center

A cooperative association may select either Option 1 or Option 2 of this section of the tariff to apply to all load centers. The cooperative association must remain on a selected option for at least one (1) year and may change options, no more often than every twelve (12) months, after giving a minimum notice of two (2) months.

	<u>Option 1</u>	<u>Option 2</u>
Demand Charge per kW of Billing Demand	\$7.99	\$6.02
Energy Charge per kWh		
On-Peak kWh	\$.045132	\$.053279
Off-Peak kWh	\$.044554	\$.044554

On-peak and off-peak hours are provided below:

<u>Months</u>	<u>On-Peak Hours - EPT</u>	<u>Off-Peak Hours – EPT</u>
October through April	7:00 a.m. to 12:00 noon 5:00 p.m. to 10:00 p.m.	12:00 noon to 5:00 p.m. 10:00 p.m. to 7:00 a.m.
May through September	10:00 a.m. to 10:00 p.m.	10:00 p.m. to 10:00 a.m.

(T)

DATE OF ISSUE January 22, 2013
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ISSUED BY *Anthony J Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE
3/10/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section E (con't.)

Billing Demand

The billing demand (kilowatt demand) is based on EKPC's system peak demand (coincident peak) which is the highest average rate at which energy is used during any fifteen minute interval in the below listed hours for each month and adjusted for power factor as provided herein:

<u>Months</u>	<u>Hours Applicable for Demand Billing – EPT</u>
October through April	7:00 a.m. to 12:00 noon 5:00 p.m. to 10:00 p.m.
May through September	10:00 a.m. to 10:00 p.m.

(T)

Billing demand applicable to this section is equal to the load center's contribution to EKPC's system peak demand minus the actual demands of Section A, Section B, and Section C participants coincident with EKPC's system peak demand.

Billing Energy

Billing energy applicable to this section is equal to the total energy provided at the load center minus the actual energy provided to Section A, Section B, and Section C participants.

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ISSUED BY *Anthony S. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 3/10/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

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(D)

DATE OF ISSUE January 22, 2013
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ISSUED BY *Anthony S. Campbell*
(Signature of Officer)
TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky
in Case No. 2013-00046 dated May 29, 2013.

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

6/1/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

(D)

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ISSUED BY *Anthony S. Campbell*
(Signature of Officer)
TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky
in Case No. 2013-00046 dated May 29, 2013.

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/1/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

FOR ALL COUNTIES SERVED
P.S.C. NO. 34
FIRST REVISED SHEET NO. 17.2
CANCELLING PSC KY. NO. 34
ORIGINAL SHEET NO. 17.2

[SHEET CANCELLED]

[RESERVED FOR FUTURE USE]

(D)

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(Signature of Officer)
TITLE President and Chief Executive Officer

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**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

6/1/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

FOR ALL COUNTIES SERVED
P.S.C. NO. 34
FIRST REVISED SHEET NO. 17.3
CANCELLING PSC KY. NO. 34
ORIGINAL SHEET NO. 17.3

EAST KENTUCKY POWER COOPERATIVE, INC.

[SHEET CANCELLED]

[RESERVED FOR FUTURE USE]

DATE OF ISSUE January 22, 2013
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(Signature of Officer)
TITLE President and Chief Executive Officer

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**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

6/1/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section G

SPECIAL ELECTRIC CONTRACT RATE

Character of Service

Three-phase 60 Hertz alternating current as specified in the Agreement for Purchased Power.

Monthly Rate

Demand Charge per Billing kW	\$6.98
Energy Charge per ALL kWh	\$.040847

Determination of Billing Demand

The kilowatt demand shall be the greater of (a) or (b) listed below:

- (a) The contract demand
- (b) The ultimate consumer's highest demand during the current month or preceding eleven months coincident with EKPC's system peak demand. EKPC's system peak demand is the highest average rate at which energy is used during any fifteen minute interval in the below listed hours for each month and adjusted for power factor as provided herein:

<u>Months</u>	<u>Hours Applicable for Demand Billing – EPT</u>
October through April	7:00 a.m. to 12:00 noon 5:00 p.m. to 10:00 p.m.
May through September	10:00 a.m. to 10:00 p.m.

(T)

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(Signature of Officer)

TITLE President and Chief Executive Officer

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 3/10/2013
PURSUANT TO 807 KAR 5:011 SECTION 9(1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section G (con't.)

Minimum Monthly Charge

The minimum monthly charge shall not be less than the sum of (a), (b), and (c) below:

- (a) The metering and substation charge, plus
- (b) The product of the billing demand multiplied by the demand charge, plus
- (c) The result of: (Energy Rate minus EKPC's base fuel component in the Energy Rate) times Billing Demand times 400 hours.

Power Factor Adjustment

Refer to EKPC General Wholesale Power Tariffs Power Factor Adjustment, Original Sheet 4.

Fuel Adjustment Clause

Refer to EKPC General Wholesale Power Tariffs Fuel Adjustment, Original Sheets 2-4.

DATE OF ISSUE January 22, 2013
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TITLE President and Chief Executive Officer

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 3/10/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section H

Wholesale Renewable Energy Program

STANDARD RIDER

This Renewable Energy Program is a rider to Rate Sections A, B, C, E and G. The purpose of this program is to provide East Kentucky Power Cooperative, Inc. ("EKPC") Member Cooperatives with a source of renewable energy or renewable energy attributes for resale to their retail customers.

APPLICABLE

In all territory served by EKPC.

DEFINITIONS

- a) Renewable energy is that electricity which is generated from renewable sources including but not limited to: solar, wind, hydroelectric, geothermal, landfill gas, biomass, biodiesel used to generate electricity, agricultural crops or waste, all animal and organic waste, all energy crops and other renewable resources deemed to be Green-e certified.
- b) A Renewable Energy Certificate ("REC") is the tradable renewable energy attribute which represents the commodity formed by unbundling the environmental-benefit attributes of a unit of renewable energy from the underlying electricity. One REC is equivalent to the environmental-benefits attributes of one MWh of renewable energy.

AVAILABILITY OF SERVICE

Member Cooperatives may participate in the program by contributing monthly as much as they like in \$2.50 increments (e.g. \$2.50, \$5.00, \$7.50, or more per month). Funds provided by Member Cooperatives are not refundable.

DATE OF ISSUE July, 16, 2014
Month / Date / Year

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Month / Date / Year

ISSUED BY *Anthony J. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 8/18/2014
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

T

EAST KENTUCKY POWER COOPERATIVE, INC.

Section H (con't.)

ELIGIBILITY

All EKPC Member Cooperatives are eligible for this rider. The Member Cooperative will indicate the amount of voluntary Renewable Energy Program Contributions that the Member Cooperative intends to purchase monthly. All Member Cooperatives will have executed a Renewable Energy Program Agreement with the participating retail customer.

MONTHLY PROGRAM CONTRIBUTION

Renewable Energy Program Contributions: The monthly Renewable Energy Program Contributions by the Member Cooperative is the total monthly voluntary contribution by the Member Cooperative's participating retail customers in any \$2.50 increments for the type of renewable energy resources (Landfill Gas, Solar, Wind, Hydroelectric) chosen by the participating retail customer. EKPC will generate, purchase renewable energy, or purchase RECs equal to the monthly sum of Renewable Energy Program Contributions for each renewable energy resource type minus \$0.25 per increment retained to help offset administrative and advertising costs. For Renewable Energy Program Contributions assigned by the retail customer for renewable energy resources that EKPC does not own, EKPC will purchase the appropriate type of RECs equaling the total contribution amount and will retire the associated RECs. For Renewable Energy Programs Contributions assigned by the retail customer for renewable energy resources that EKPC owns and operates, EKPC will allocate the appropriate generation (kwhs) and costs to the assigned renewable energy program contribution and retire the associated RECs.

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DATE OF ISSUE July, 16, 2014
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ISSUED BY *Anthony S. Campbell*
(Signature of Officer)
TITLE President and Chief Executive Officer

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 8/18/2014
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

Section H (con't.)

BILLING AND MINIMUM CHARGE

EKPC will bill the Member Cooperative at the rate of \$2.50 per increment. The sum of the Renewable Energy Program contributions from each renewable energy resource type pledged under this tariff shall constitute the total amount that the Member Cooperative may be billed during a normal billing period. Existing Wholesale Renewable Energy Program ("Envirowatts") retail participants will be billed at the existing retail rate from their Member Cooperative.

TERMS OF SERVICE AND PAYMENT

This schedule shall be subject to all other terms of service and payment of the wholesale power tariff.

FUEL ADJUSTMENT CLAUSE

The fuel adjustment clause is not applicable to the Renewable Energy Program contributions.

ENVIRONMENTAL SURCHARGE

The environmental surcharge is not applicable to the Renewable Energy Program contributions.

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ISSUED BY *Anthony S. Campbell*
(Signature of Officer)
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KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 8/18/2014
<small>PURSUANT TO 807 KAR 5:011 SECTION 9 (1)</small>

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM -2

Touchstone Energy Home

Purpose

In an effort to improve new residential home energy performance, East Kentucky Power Cooperative, Inc. (EKPC) has designed the Touchstone Energy Home Program. This program provides guidance during the building process to guarantee a home that is $\geq 15-20\%$ more efficient than the Kentucky standard built home. The standard built new home in rural Kentucky typically receives a 100 on the Home Energy Rating System ("HERS") Index. A HERS Index Score of 100 means the home is built to only moderate levels of efficiency- generally the 2004 International Energy Conservation Code ("IECC").

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Availability

This program is available in all service territories served by EKPC.

Eligibility

To qualify as a Touchstone Energy Home under EKPC's program, the participating single-family home must be located in the service territory of a participating Member System Cooperative and must meet the program guidelines following one of the three available paths of approval. Multi-family dwellings pre-approved by EKPC may be eligible.

(N)

Prescriptive Path:

- Home must meet each efficiency value as prescribed by EKPC.
- Home must receive pre-drywall inspection and complete EKPC's pre-drywall checklist.
- Home must receive a final inspection, pass a whole house air leakage test (< 7 air changes per hour @50 pascals), and duct leakage test ($< 10\%$ of the fan's rated capacity).
- Primary source of heat must be an Air Source Heat Pump ≥ 14 Seasonal Energy Efficiency Ratio ("SEER")/8.2 Heating Seasonal Performance Factor ("HSPF") or Geothermal
- Water Heater must be an electric storage tank water heater that is $\geq .90$ Energy Factor (EF)

Performance Path Level #1:

- Home must receive a HERS Index score between 80-85 (15-20% more efficient than the KY standard built home)
- Home must receive pre-drywall inspection and complete EKPC's pre-drywall checklist
- Home must receive a final inspection, pass a whole house air leakage test (< 7 air changes per hour @50 pascals), and duct leakage test ($< 10\%$ of the fan's rated capacity).
- Primary source of heat must be an Air Source Heat Pump ≥ 13 SEER/7.5 HSPF or Geothermal
- Home must pass 2009 IECC performance path.
- Water Heater must be an electric storage tank water heater that is $\geq .90$ (EF)

Performance Path Level #2:

- Home must receive a HERS Index score of ≤ 79 (At least 21% more efficient than the KY standard built home)
- Home must receive pre-drywall inspection and complete EKPC's pre-drywall checklist.
- Home must receive a final inspection, pass a whole house air leakage test (< 7 air changes per hour @50 pascals), and duct leakage test ($< 10\%$ of the fan's rated capacity).
- Primary source of heat must be an Air Source Heat Pump ≥ 13 SEER/7.5 HSPF or Geothermal
- Home must pass 2009 IECC performance path.
- Water Heater must be an electric storage tank water heater that is $\geq .90$ (EF)

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH
DATE EFFECTIVE: Service rendered <i>Brent Kirtley</i> January 1, 2013.
TITLE <i>Pres / CEO</i> EFFECTIVE 1/1/2013
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ISSUED BY *Anthony Stangor*

TITLE *Pres / CEO*

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. _____ Dated _____

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM -2 (continued)

Touchstone Energy Home

Payments

EKPC will provide the payments outlined below to the Member System Cooperative to cover administrative cost, net lost revenue, and the recommended incentive to the retail member. Lost revenue calculations may fluctuate based on current electric rates.

(N)

<u>Program Path</u>	<u>Payment to Member System</u>
Prescriptive Path	\$1,400
Performance Path Level #1	\$760
Performance Path Level #2	\$1,400

Term

The program is an ongoing program.

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

DATE OF ISSUE: November 30, 2012 DATE EFFECTIVE: Service rendered *Brent Kirtley* January 1, 2013.

ISSUED BY *Anthony S. Langford* TITLE Pres./CEO EFFECTIVE **1/1/2013**

Issued by authority of an Order of the Public Service Commission of Kentucky in
Case No. _____ Dated _____

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

RATE ES – ENVIRONMENTAL SURCHARGE

APPLICABILITY

Applicable to all sections of this rate schedule and this rate schedule shall apply to each Member System.

AVAILABILITY

This rate schedule shall apply to EKPC rate sections A, B, C, E, and G and all special contracts with rates subject to adjustment upon the approval of the Commission.

RATE

The Environmental Surcharge shall provide for monthly adjustments based on a percent of revenues equal to the difference between the environmental compliance costs in the base period and in the current period based on the following formula:

$$CESF = E(m) / R(m)$$

$$MESF = CESF - BESF$$

MESF = Monthly Environmental Surcharge Factor
CESF = Current Environmental Surcharge Factor
BESF = Base Environmental Surcharge Factor of 0%

where E(m) is the total of each approved environmental compliance plan revenue requirement of environmental costs for the current expense month and R(m) is the revenue for the current expense month as expressed below.

Definitions

$$(1) E(m) = [(RB/12)(RORB) + OE - BAS + (Over)Under Recovery$$

where:

(a) RB is the Environmental Compliance Rate Base, defined as electric plant in service for applicable environmental projects adjusted for accumulated depreciation, CWIP, cash working capital, spare parts and limestone inventory, emission allowance inventory;

(b) RORB is the Rate of Return on the Environmental Compliance Rate Base, designated as the average cost of debt for environmental compliance plan projects approved by the Commission plus application of a times-interest-earned ratio of 1.50;

(T)

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(Signature of Officer)
TITLE President and Chief Executive Officer

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KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH
<i>Brent Kirtley</i>
EFFECTIVE 8/2/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

FOR ALL COUNTIES SERVED
P.S.C. NO. 34
THIRD REVISED SHEET NO. 25
CANCELING PSC KY. NO. 34
SECOND REVISED SHEET NO. 25

RATE ES – ENVIRONMENTAL SURCHARGE (cont'd)

(c) OE is the Monthly Pollution Control Operating Expenses, defined as the average of the twelve month operating and maintenance expense; depreciation expense, property taxes, insurance expense, emission allowance expense, and consulting fees.;

(d) BAS is the net proceeds from By-Products and Emission Allowance Sales, and;

(e) (Over) or Under recovery amount resulting from the amortization of amounts determined by the Commission during six-month and two-year reviews and the one-month "true-up" adjustment.

(2) Total E(m) is multiplied by the Member System Allocation Ratio to arrive at Net E(m). The Member System Allocation Ratio is based on the ratio of the 12-month total revenue from sales to Member Systems to which the Surcharge will be applied, ending with the current expense month, divided by the 12-month total revenue from sales to Member Systems and off-system sales.

(3) The revenue R(m) is the average monthly revenue, including base revenues and automatic adjustment clause revenues less Environmental Cost Recovery Surcharge revenues, for EKPC for the twelve months ending with the current expense month.

(4) The current expense month (m) shall be the second month preceding the month in which the Environmental Surcharge is billed.

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DATE EFFECTIVE August 2, 2013
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(Signature of Officer)
TITLE President and Chief Executive Officer

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**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

8/2/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM – 3(a)

Direct Load Control Program – Residential

Purpose

The Direct Load Control Program will encourage the reduction in growth of peak demand, enabling the Company to utilize its system more efficiently, manage market purchases, and defer the construction of new generation.

Availability

The Direct Load Control Program is available to residential customers in the service territories of East Kentucky Power Cooperative, Inc.'s ("EKPC") Member Systems and will include the control of water heaters, air conditioners and heat pumps, and pool pumps.

Availability may be denied where, in the judgment of the Member System, installation of the load control equipment is impractical.

Eligibility

To qualify for this Program, the participant must be located in the service territory of a participating Member System and have:

- 40-gallon (minimum) electric water heating units, and/or
- Central air conditioning or heat pump units, and/or
- Pool pumps.

The above appliances may be electrically cycled or interrupted in accordance with the rules of this Tariff.

The participant may either own or rent the residence where the qualifying appliances are located. The residence may be either a single-family structure or a multi-family apartment facility.

The participant is responsible for obtaining the permission of the owner of the rented residence to participate in the load control program. The Member System may require that a rental property agreement be executed between the Member System and the owner of the rented residence.

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**KENTUCKY
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**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

6/1/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM – 3(a) (con't.)

Program Incentives

EKPC and participating Member Systems will provide an incentive to the participants in this program for the following appliances.

Water Heaters. EKPC will reimburse the participating Member System \$10.00 per water heater annually. The participating Member System, in turn, will credit the residential power bill of the participant \$10.00 per water heater per year. The participant will receive this credit regardless of whether the water heater is actually controlled.

Air Conditioners and Heat Pumps. EKPC and participating Member Systems will provide an incentive to the participants in this program. The participant may select one of two alternatives. The participant will receive one of these incentives regardless of whether the air conditioner or heat pump is actually controlled during any program month.

Alternative One. EKPC will reimburse the participating Member System \$20.00 annually per air conditioner or heat pump (\$5 per summer months, June, July, August, and September). The participating Member System will, in turn, credit the residential power bill of the participant \$20.00 per air conditioner (\$5 per summer months, June, July, August, and September.)

Alternative Two. When technically feasible, EKPC will provide and install at no cost one or more digital thermostats as needed for control purposes. After the initial selection of one of the alternatives, the participant may change to the other alternative subject to the following conditions:

- From bill credits to digital thermostats – The change in alternative will be permitted in any month except for the summer months of June through September. In addition, the participant will pay 50 percent of the installed cost of each digital thermostat.
- From digital thermostats to bill credits – The change in alternative will be permitted in any month except for the summer months of June through September. In addition, the participant will either reimburse EKPC, through the Member System, an amount equal to 50 percent of the original installed cost of each digital thermostat that was initially installed if the participant keeps the thermostat or pay 50 percent of the cost to remove each digital thermostat that was initially installed.
- Only one change in incentive alternatives will be permitted during a 12 month period.

Pool Pumps. EKPC will reimburse the participating Member System \$20.00 per pool pump annually (\$5.00 per summer month, June, July, August and September). The participating Member System, in turn, will credit the residential power bill of the participant \$20.00 per pool (\$5.00 per summer month, June, July, August and September). The participant will receive this credit regardless of whether the pool pump is actually controlled.

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KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/1/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM – 3(a) (con't.)

If the appliances noted above are controlled or interrupted during the time of EKPC's monthly billing peak, no additional monetary adjustments will be made. If the appliances noted above are not controlled or interrupted during the time of EKPC's monthly billing peak, then EKPC will credit the Member System's bill by an amount which represents the savings that would have occurred had the control or interruption been made.

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When the qualifying appliances are located in rental residences, program incentives will be paid to the participant, regardless of whether the participant owns or rents the residence where the qualifying appliances are located. Nothing contained in this Tariff will prohibit a further disposition of the program incentive between the participant and the owner of a rented residence.

Program Special Incentives

EKPC and participating Member Systems will provide a special incentive up to \$25.00 for new participants that install a load control switch on qualifying electric water heaters, air conditioners and heat pumps, and or pool pumps. This one time incentive will be in the form of a bill credit on the electric bill following the switch installation.

Time Periods for Direct Load Control Program

Water Heaters. A load control switch will be placed on the water heater and may be electrically interrupted for a maximum time period of six hours during the May through September months indicated below and for a maximum time period of four hours during the October through April months indicated below.

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EKPC will cycle the water heaters only during the hours listed below.

<u>Months</u>	<u>Hours Applicable for Demand Billing – EPT</u>
October through April	6:00 a.m. to 12:00 noon 4:00 p.m. to 10:00 p.m.
May through September	10:00 a.m. to 10:00 p.m.

(T)

Air Conditioners and Heat Pumps. A load control device (switch or thermostat) will be placed on each central air conditioning unit or heat pump that will allow the operating characteristics of the unit to be modified to reduce demand on the system. Communication to the load control device will be accomplished via AMR or AMI.

EKPC will control the air conditioning units and heat pumps only during its summer on-peak billing hours listed below.

<u>Months</u>	<u>Hours Applicable for Demand Billing – EPT</u>
May through September	10:00 a.m. to 10:00 p.m.

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**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE
6/1/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM - 3(a) (con't.)

Pool Pumps. A load control switch will be placed on the pool pump and may be controlled for a six hour curtailment during on peak days May through September. In addition, there may be a 50 percent cycling for the ensuing 2 hour recovery period to prevent creating a new peak.

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Terms and Conditions

1. Prior to the installation of load control devices, the Member Systems may inspect the participant's electrical equipment to insure good repair and working condition, but the Member Systems shall not be responsible for the repair or maintenance of the electrical equipment.
2. EKPC, on behalf of the Member Systems, will install, own, and maintain the load management devices controlling the participant's air conditioner, heat pump, or water heater. The participant must allow the Member System, or their representative, reasonable access to install, maintain, inspect, test and remove load control devices. Inability of the Member System to gain access to the load management device to perform any of the above activities for a period exceeding 30 days may, at the Member System's option, result in discontinuance of credits under this tariff until such time as the Member System is able to gain the required access.
3. Participants in the Pilot program from Big Sandy RECC and Blue Grass Energy will have the opportunity to participate in this program. Equipment already installed on the premises may be used as part of this program.
4. Participants may join the program at any time during the year. Participants with water heaters and/or pool pumps will receive the first annual incentive within 12 months after the installation of the load control device. Participants with air conditioning or heat pump units who join during the months of June through September can select an incentive alternative as described in this Tariff. If the bill credit incentive is selected, bill credits will not begin until after the installation of the load control device and continue for the months remaining in the June to September time period for that year.
5. If a participant decides to withdraw from the program or change incentive alternatives, the Member Systems will endeavor to implement the change as soon as possible.
6. If a participant decides to withdraw from the program, the participant may not apply to rejoin the program for a period of 6 months. Returning participants for air conditioning and heat pump units will be required to initially select the bill credit alternative, but may change alternatives later as described in this Tariff.

DATE OF ISSUE _____ January 22, 2013
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DATE EFFECTIVE _____ Service rendered on and after June 1, 2013
Month / Date / Year
ISSUED BY _____ *Anthony D. Campbell*
(Signature of Officer)
TITLE _____ President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky
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**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE

6/1/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM – 3(b)

Direct Load Control Program – Commercial

Purpose

The Direct Load Control Program will encourage the reduction in growth of peak demand, enabling the Company to utilize its system more efficiently, manage market purchases, and defer the construction of new generation.

Availability

The Direct Load Control Program is available to commercial customers in the service territories of EKPC's Member Systems and will include the control of air conditioners and water heaters.

Availability may be denied where, in the judgment of the Member System, installation of the load control equipment is impractical.

Eligibility

To qualify for this Program, the participant must be located in the service territory of a participating Member System and have a central air conditioning unit and/or a 40-gallon (minimum) electric water heating unit. The appliance may be electrically cycled or interrupted in accordance with the rules of this Tariff.

The participant is responsible for obtaining the permission of the commercial property owner to participate in the load control program. The Member System may require that a rental property agreement be executed between the Member System and the owner of the rented commercial property.

Program Incentives

EKPC and participating Member Systems will provide an incentive to the participants in this program for the following appliances.

DATE OF ISSUE January 22, 2013
Month / Date / Year
DATE EFFECTIVE Service rendered on and after June 1, 2013
Month / Date / Year
ISSUED BY *Anthony D. Campbell*
(Signature of Officer)
TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky
in Case No. 2013-00046 dated May 29, 2013.

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/1/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM – 3(b) (con't.)

Air Conditioners. The incentive will be based on the tonnage of the air conditioning unit. Units up to and including five tons will receive a monthly credit of \$5.00 per unit. Units over five tons will receive an additional monthly credit of \$1.00 per ton per unit. EKPC will reimburse the participating Member System at the applicable incentive credit during the months of June through September. The participating Member System will, in turn, credit the commercial power bill of the participant at the applicable incentive credit during the months of June through September. The participant will receive the incentive regardless of whether the air conditioner is actually controlled during any program month.

Water Heaters. EKPC will reimburse the participating Member System \$10.00 per water heater annually. The participating Member System, in turn, will credit the commercial power bill of the participant \$10.00 per water heater per year. The participant will receive this credit regardless of whether the water heater is actually controlled.

Time Period for Direct Load Control Program

Air Conditioners. A load control device will be placed on each central air conditioning unit that will allow the operating characteristics of the unit to be modified to reduce demand on the system. Communication to the load control device will be accomplished via AMR or AMI.

EKPC will control the air conditioning units only during its summer on-peak billing hours listed below:

<u>Months</u>	<u>Hours Applicable for Demand Billing - EPT</u>
May through September	10:00 a.m. to 10:00 p.m.

Water Heaters. A load control switch will be placed on the water heater and may be electrically interrupted for a maximum time period of six hours during the May through September months indicated below and for a maximum time period of four hours during the October through April months indicated below.

If the appliances noted above are controlled or interrupted during the time of EKPC's monthly billing peak, no additional monetary adjustments will be made. If the appliances noted above are not controlled or interrupted during the time of EKPC's monthly billing peak, then EKPC will credit the Member System's bill by an amount which represents the savings that would have occurred had the control or interruption been made.

DATE OF ISSUE January 22, 2013
Month / Date / Year
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**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE
6/1/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

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EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM – 3(b) (con't.)

EKPC will cycle the water heaters only during the hours listed below.

<u>Months</u>	<u>Hours Applicable for Demand Billing - EPT</u>
October through April	6:00 a.m. to 12:00 noon
	4:00 p.m. to 10:00 p.m.
May through September	10:00 a.m. to 10:00 p.m.

(T)

Terms and Conditions

1. Prior to the installation of load control devices, the Member Systems may inspect the participant's electrical equipment to insure good repair and working condition, but the Member Systems shall not be responsible for the repair or maintenance of the electrical equipment.
2. EKPC, on behalf of the Member Systems, will install, own, and maintain the load management devices controlling the participant's air conditioner unit or water heater. The participant must allow the Member System, or their representative, reasonable access to install, maintain, inspect, test and remove load control devices. Inability of the Member System to gain access to the load management device to perform any of the above activities for a period exceeding 30 days may, at the Member System's option, result in discontinuance of credits under this tariff until such time as the Member System is able to gain the required access.
3. Participants may join the program at any time during the year. Participants with air conditioning who join during the months of June through September will receive bill credits beginning after the installation of the load control device and continuing for the months remaining in the June to September time period for that year. Participants with water heaters will receive the first annual incentive within 12 months after the installation of the load control device.
4. If a participant decides to withdraw from the program, the Member Systems will endeavor to implement the withdrawal as soon as possible. If a participant decides to withdraw from the program, the participant may not apply to rejoin the program for a period of 6 months.

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KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/1/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

Section DSM - 4

Button-Up Weatherization Program

Purpose

The Button-Up Weatherization Program offers an incentive for reducing the heat loss of a home. The retail member may qualify for this incentive by improving insulation, installing higher efficiency windows and doors, or by reducing the air leakage of their home.

Availability

This program is available in all service territories served by East Kentucky Power Cooperative, Inc. ("EKPC"). (T)
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Eligibility

This program is targeted at older single-family, multi-family or manufactured dwellings. Eligibility requirements are:

- Home must be 2 years old or older to qualify for the incentive.
- Primary source of heat must be electricity.
- Eligible dwellings may qualify for one of four levels: (T)

Button Up Level I (T)

The insulation portion of the Button Up incentive will promote the reduction of energy usage on the part of the retail member by providing an incentive of \$40 per one thousand British thermal unit per hour (Btuh) reduced, up to \$520, resulting from improved insulation or installing higher efficiency windows or doors. Heat loss calculation of Btuh reduced will be made by using either the Manual J 8th Edition or through other methods approved by EKPC. Heat loss calculations in Btuh are based on the winter design temperature. In order to compensate for lost revenue, the Member System Cooperative will receive \$30 per thousand Btuh reduced for a total payment of \$70 per thousand Btuh reduced (\$40 per thousand Btuh to the retail member and \$30 per thousand Btuh to the Member System Cooperative). (T)
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KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH
DATE EFFECTIVE: <u>Service rendered</u> <u>January 1, 2013.</u> ISSUED BY <u>Anthony Slapshel</u> TITLE <u>Pres. CEO</u> <u>Brent Kirtley</u>
EFFECTIVE 1/1/2013
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

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TITLE Pres. CEO Brent Kirtley

Issued by authority of an Order of the Public Service Commission of Kentucky in
Case No. _____ Dated _____

Section DSM – 4 (continued)

Button Up Level I w/ Air Sealing

(T)

The air sealing portion of the Button Up incentive will promote the reduction of energy usage through air sealing on the part of retail members. Typical air sealing could include caulking, improved weather stripping, sealing attic accesses, etc. To receive this incentive either an EKPC approved contractor or Member System Cooperative representative must perform a “pre” and “post” blower door test to measure actual Btuh reduced. This portion of the incentive will also pay a total payment of \$70 per thousand Btuh reduced and increases the Button Up Level I maximum incentive to \$750 (\$40 per thousand Btuh to the retail member and \$30 per thousand Btuh to the Member System Cooperative).

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Button Up Level II

(N)

The Button Up Level II portion of this incentive will promote energy conservation through a whole house approach. This level of incentive is targeted at retail members experiencing high energy bills as a result of excessive heat loss from multiple causes. The incentive promotes the Member to address all of the problems in their home at one time. Retail members who reduce their home’s energy needs by 26,500 Btuh, are eligible for the full Button Up Level I Air Seal incentive plus an additional \$310 for a total of \$1,060. To receive this incentive either an EKPC approved contractor or Member System Cooperative representative must perform a “pre” and “post” inspection/blower door and duct leakage test of the home to measure actual Btuh reduced. Each home must meet minimum requirements as determined by EKPC.

Button Up Level III

The Button Up Level III portion of this incentive will promote energy conservation through a whole house approach. This level of incentive is targeted at retail members experiencing extremely high energy bills as a result of excessive heat loss from multiple causes. The incentive promotes the member to address all of the problems in their home at one time. Retail members who reduce their home’s energy needs by 34,250 Btuh, are eligible for the full Button Up Level I Air Seal incentive plus an additional \$620 for a total of \$1,370. To receive this incentive either an EKPC approved contractor or Member System Cooperative representative must perform a “pre” and “post” inspection/blower door and duct leakage test of the home to measure actual Btuh reduced. Each home must meet minimum requirements as determined by EKPC.

Button Up Level I Payment

(T)

EKPC will provide a payment of up to \$1,040 to the Member System Cooperative to cover administrative costs, net lost revenue, and the incentive to the retail member as noted in the Eligibility Section. A blower door test is not required to receive this incentive up to the maximum payment noted herein.

(T)

**KENTUCKY
PUBLIC SERVICE COMMISSION**
JEFF R. DEROUEN
EXECUTIVE DIRECTOR

TARIFF BRANCH

Brent Kirtley
EFFECTIVE
1/1/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

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ISSUED BY Anthony Campbell TITLE Pres./CEO

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. _____ Dated _____

Section DSM – 4 (continued)

Button Up Level I with Air Sealing Payment

(T)

EKPC will provide a payment of up to \$1,545 to the Member System Cooperative to cover administrative costs, net lost revenue, and the incentive to the retail member as noted in the Eligibility Section. To qualify for the increased maximum payment as noted herein, a blower door test is required.

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Button Up Level II Payment

(N)

EKPC will provide a payment of up to \$2,085 to the Member System Cooperative to cover administrative costs, net lost revenue, and the incentive to the retail member as noted in the Eligibility Section. To qualify for the increased maximum payment as noted herein, a blower door test is required.

Button Up Level III Payment

EKPC will provide a payment of up to \$2,625 to the Member System Cooperative to cover administrative costs, net lost revenue, and the incentive to the retail member as noted in the Eligibility Section. To qualify for the increased maximum payment as noted herein, a blower door test is required.

Term

The program is an ongoing program.

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

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DATE EFFECTIVE: Service rendered on and after January 1, 2013.

ISSUED BY *Anthony J. Campbell*

TITLE *Pres. VED Brent Kirtley*

EFFECTIVE

Issued by authority of an Order of the Public Service Commission of Kentucky in
Case No. _____ Dated _____

1/1/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

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[SHEET CANCELLED]

[RESERVED FOR FUTURE USE]

DATE OF ISSUE July, 22, 2014
Month / Date / Year

DATE EFFECTIVE Service Rendered on or after August 25, 2014
Month / Date / Year

ISSUED BY *Anthony Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 8/25/2014
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM -4b

Heat Pump Retrofit Program

Purpose

The Heat Pump Retrofit Program provides incentives for residential customers to replace their existing resistance heat source with a high efficiency heat pump.

Availability

This program is available in all service territories served by East Kentucky Power Cooperative, Inc., ("EKPC").

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Eligibility

This program is targeted to retail members who currently heat their home with a resistance heat source; this program is targeted to site built homes, manufactured homes, and multi-family dwellings. Eligibility requirements are:

(T)
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- Incentive only applies when homeowner's primary source of heat is an electric resistance heat furnace, ceiling cable heat, or baseboard heat.
- Existing heat source must be at least 2 years old.
- New manufactured homes are eligible for the incentive.
- Air-Conditioning, Heating, and Refrigeration Institute ("AHRI") ratings may range as follows: Seasonal Energy Efficiency Ratio ("SEER") minimum 13; Heating Seasonal Performance Factor ("HSPF") minimum 7.5.

(N)
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Payments

- Homeowners replacing their existing resistance heat source with a heat pump will qualify for the following incentive based on the AHRI Rating:

<u>AHRI RATING</u>	<u>PAYMENT TO MEMBER SYSTEM</u>
13 SEER 7.5 HSPF	\$1,664
14 SEER 8.0 HSPF	\$1,945
≥15 SEER ≥8.5 HSPF	\$2,241

EKPC will provide the payments outlined above to the Member System Cooperative for administrative costs, lost revenue, and the recommended incentive to the retail customer. Lost revenue calculations may fluctuate based on current rates.

Term

The program is an ongoing program.

DATE OF ISSUE: November 30, 2012

DATE EFFECTIVE: Service rendered o Bunt Kirtley 1, 2013.

ISSUED BY Anthony S. Campbell

TITLE Pres./CEO

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. _____ Dated _____

**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

EFFECTIVE
1/1/2013

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

Section DSM – 4c

(N)

HVAC Duct Sealing Program

Purpose

The HVAC Duct Sealing Program offers blower door tests to evaluate and identify costly duct leaks and an incentive to seal leaking ductwork either with traditional mastic sealers or with the *Aeroseal* duct-sealing program. Duct losses are to be reduced to 10% or less, and duct loss measurement requires the use of a blower door test and the blower door subtraction method and/or duct blaster.

Availability

This program is available in all service territories served by EKPC.

Eligibility

This program is targeted to single-family homes using electric furnaces or electric heat pumps. Eligibility requirements are:

- Limited to homes that have centrally ducted heating systems in unconditioned areas, using only electricity as a fuel source.
- Duct system must be 2 years old or older.
- Initial duct leakage must test greater than 10% of the fan's rated capacity.
- Contractor or Co-op Representative are required to conduct a "pre" and "post" blower door test to verify reductions. Only contractors trained or approved by EKPC may be used.
- Duct leakage per system must be reduced to below 10% of the fan's rated capacity (assuming 400cfm per ton, ex. 2 ton system= 800 cfm, thus duct leakage must be reduced to 80cfm or less). If duct system cannot be reduced to 10% of fan's rated capacity, contractor is expected to provide a detailed justification.
- All joints in the duct system must be sealed with foil tape and mastic. Foil tape alone does not qualify as properly sealing the duct system.
- For homes that have two separately ducted heat systems, each system will qualify independently for the incentive.

Transfer Payment

EKPC will provide a transfer payment of up to \$500 to the Member System Cooperative to cover administrative costs, lost revenue, and the \$250 recommended incentive to the retail customer. Lost revenue calculations may fluctuate based on current rates.

Term

The program is an ongoing program.

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH
<i>Brent Kirtley</i> 12.
EFFECTIVE 5/31/2012
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

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ISSUED BY *Dr. Min G. A.S. Campbell* TITLE President & Chief Executive Officer

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Case No. _____ Dated _____

For All Counties Served
P.S.C. No. 34
First Revised Sheet No. 28
Canceling PSC No. 34
Original Sheet No. 28

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM-5

Commercial & Industrial Advanced Lighting Program

(N)

Purpose

The Commercial & Industrial Advanced Lighting Program is an energy efficiency program that encourages commercial and industrial customers to install high efficiency lamps and ballasts in their facilities.

Availability

This program is available to commercial and industrial facilities located in all service territory served by EKPC.

Eligibility

To qualify for the Commercial & Industrial Advanced Lighting Program the customer must be on a retail commercial or industrial rate. The business must have been in operations for at least two years prior to January 1, 2011, and be current on its power bill payment to the Member System. No empty buildings, inactive warehouses, or inactive storage areas shall qualify. The business must be open or have its normal lighting load on for at least 50 hours per week. Retrofits of parking lot lighting, provided on photocell control, are eligible.

Rebate

EKPC and its Member Systems will provide an incentive to the customer of \$213 for each kW of lighting load reduction for businesses open 50 hours a week or more. EKPC will reimburse the Member System an additional \$320 for each kW of lighting load reduction, which is to compensate for lost revenue. For commercial customers, rebates are limited to \$15,000 per upgrade (total of both customer and distribution system rebates) for any facility. For industrial customers, rebates are limited to \$30,000 per upgrade (total of both customer and distribution system rebates) for any facility.

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ISSUED BY Anthony J. Campbell TITLE President & Chief Executive Officer
Issued by authority of an Order of the Public Service Commission of Kentucky in
Case No. 2011-00148 Dated September 30, 2011

KENTUCKY
PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN
EXECUTIVE DIRECTOR
TARIEFF BRANCH
Brent Kirtley
EFFECTIVE
9/30/2011
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM-5 (cont.)

(N)

Term

The Commercial & Industrial Advanced Lighting Program is an ongoing program.

Verification Procedure

Qualifying lighting must be identified or documented by EKPC or Member System staff prior to retrofitting. After the customer completes the retrofit, EKPC or Member System staff must verify the installed lighting retrofit. Demand and energy savings will be calculated based on lighting information gathered during the visits. EKPC will utilize the manufacturer's lighting fixture specifications and known measurements to calculate the savings; rebates under this tariff will be paid after these verification procedures are complete.

DATE OF ISSUE October 4, 2011 DATE EFFECTIVE: Service rendered on and after September 30, 2011

ISSUED BY *Anthony D Campbell* TITLE President & Chief Executive Officer

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Case No. 2011-00148 Dated September 30, 2011

KENTUCKY
PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH
<i>Brent Kirtley</i>
EFFECTIVE
9/30/2011
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM-6

(N)

Industrial Compressed Air Program

Purpose

The Industrial Advanced Compressed Air Program is a program designed to reduce electricity consumption through a comprehensive approach to efficient production and delivery of compressed air in industrial facilities. The program includes (1) training of plant staff; (2) a detailed system assessment of the plant's compressed air system including written findings and recommendations; and (3) incentives for capital-intensive improvements.

Availability

This program is available to commercial and industrial facilities using electric compressed air applications located in all service territory served by EKPC.

Eligibility

To qualify for the Industrial Compressed Air Program, the customer must be on a retail industrial rate and must be a manufacturing operation with a compressed air system that is turned on during all the operating hours of the facility. The business must have been in operations for at least two years prior to January 1, 2011, and be current on its power bill payment to the Member System.

Rebate

If the customer reduces at least 60% of the compressed air leaks (CFMs), EKPC will reimburse through the Member System to the customer the cost of the original compressed air leakage audit up to \$5,000. The combination of the Member System lost revenue payment and the reimbursement of the compressed air leakage audit costs are limited to \$15,000 for any facility.

DATE OF ISSUE October 4, 2011 DATE EFFECTIVE: Service rendered on and after September 30, 2011
ISSUED BY *Anthony S. Campbell* TITLE President & Chief Executive Officer
Issued by authority of an Order of the Public Service Commission of Kentucky in TRIP BRANCH
Case No. 2011-00148 Dated September 30, 2011

PUBLIC SERVICE COMMISSION
JEFF R. DEBOER
EXECUTIVE DIRECTOR
TRIP BRANCH
Brent Kirtley
EFFECTIVE
9/30/2011
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section DSM-6 (con't)

Term

(N)

The Industrial Compressed Air Program is an ongoing program.

Verification Procedures

Determination of the amount of leakage reduction:

1. The leakage reduction will be determined by the measured reduction in compressed air leakage.
2. An ultrasonic compressed air leakage audit shall be performed and the results of this audit provided to the customer and EKPC. The report will contain an estimate of the amount of excess load in kW that the leaks are causing. The report will include a detail of leaks detected. The detail of leaks and the excess kW load will be based on the criteria for leak reporting.
3. Upon completion of repairs to the system, a follow-up ultrasonic compressed air leakage audit will be conducted for the documented leaks to measure the difference in the kW leakage load. The follow-up audit report will show the net kW leakage saved and results provided to the customer and EKPC. A lost revenue reimbursement will be paid to the Member System based on the difference in the kW leakage load and the cost of the original air-leakage audit will be reimbursed to the customer if a 60% reduction in CFMs air leakage is achieved.

Criteria for leak reporting:

1. The criteria for reporting leaks shall be at the discretion of the auditor. At a minimum the report must detail the leak location, decibels measured, CFM of air leakage, and kW leakage load for each leak and summed for the facility.
2. The basic rule is that leaks that do not exceed 30 decibels in ultrasonic noise will not be reported or counted in the leakage kW load.
3. Exceptions to the 30 decibels rule are as follows:
 - a. In a quiet environment with a minimal amount of compressed air, the minimum will drop to between 15 to 20 decibels.
 - b. In a high noise environment, especially with robotic welding, the minimum will be raised to 40 to 50 decibels.
 - c. Distance is also a factor. A 25 decibel leak in a trunk pipe in a 20-foot ceiling, in a noisy environment, will be documented and added to the leakage kW according to the distance.

DATE OF ISSUE October 4, 2011 DATE EFFECTIVE: Service rendered on and after September 30, 2011

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Case No. 2011-00148 Dated September 30, 2011

KENTUCKY
PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN
EXECUTIVE DIRECTOR
TARIFF BRANCH
Burt Kirtley
EFFECTIVE
9/30/2011
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

Section DSM - 7

ENERGY STAR® Manufactured Home Program

Purpose

East Kentucky Power Cooperative's ("EKPC") ENERGY STAR® Manufactured Home Program ("ESMH") is designed to ensure that end-use cooperative members ("end-use members") of EKPC's owner-member cooperatives ("owner-members") purchase an energy efficient manufactured home. EKPC will accomplish this by providing manufactured home producers with an incentive to manufacture and install new ENERGY STAR® certified manufactured homes.

Availability

This program is available to all EKPC's owner-members on whose system an ENERGY STAR® certified manufactured home is installed.

Eligibility

To be eligible for this ESMH incentive, new manufactured homes must meet the following criteria:

- United States Environmental Protection Agency ("EPA") and Systems Building Research Alliance ("SBRA") guidelines as an ENERGY STAR® Manufactured Home.
- Primary source of heat must be a heat pump 13 SEER & 7.5 HSPF or higher as required by SBRA.
- Home must be all electric.
- Home must be installed by the manufacturer on lines served by one of EKPC's 16 owner-members.

Payments

After new home installation and after SBRA certifies the new home as an ENERGY STAR® manufactured home, EKPC will tender a \$1,750 incentive payment to the manufactured home producer. The incentive covers the cost of upgrading the home from the standard United States Department of Housing and Urban Development (HUD) construction requirements to the SBRA and EPA ENERGY STAR® manufactured home construction requirements. EKPC will also pay SBRA an administrative fee. EKPC will pay \$2,400 to the owner-member on whose system the manufactured home is located to cover administrative costs and lost revenue.

Term

This program is an ongoing program.

DATE OF ISSUE September 11, 2014
Month / Date / Year

DATE EFFECTIVE Service Rendered on or after January 6, 2015
Month / Date / Year

ISSUED BY *Anthony J. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2014-00359 dated January 6, 2015.

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 1/6/2015 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

(N)



(N)

Section DSM - 8
Appliance Recycling Program

Purpose

The Appliance Recycling Program offers an incentive for the removal and recycling of old energy-inefficient refrigerators and freezers resulting in lower energy consumption at the participating residences.

Availability

This program is available in all territories served by owner-members of East Kentucky Power Cooperative ("EKPC").

Eligibility

This program is targeted to existing single-family, multi-family, and manufactured homes that currently have old energy-inefficient refrigerators or freezers. The residential end-use cooperative member ("end-use member") may be eligible for this incentive by offering an existing refrigerator or freezer, subject to detailed eligibility requirements, to be picked-up and recycled. Eligibility requirements are:

- Must be a residential end-use member of an EKPC owner-member cooperative
- End-use member must own the appliance(s) being turned in for recycling.
- End-use member must be eligible for the incentive – maximum 2 qualifying units per metered account per calendar year.
- Appliance must be between 7.75 and 30 cubic feet.
- Appliance must be plugged in, operational, working and cooling when collection team arrives.
- Appliance must be empty and have a clear path for removal.
- Appliance must be picked up from the service address on the end-use member's billing account.

Eligibility requirements are available from the participating EKPC owner-member and on the owner-member's website.

Landlord/Tenant Relationships

Notwithstanding the forgoing, a landlord who owns a qualifying appliance that is used by a tenant who is an end-use member of an EKPC owner-member shall also be eligible to participate in the ARP program regardless of whether said landlord is also an end-use member of an EKPC owner-member. A landlord may be eligible for a maximum of 2 incentives per metered tenant end-user's account per calendar year.

Payments

EKPC will pay the owner-member the sum of \$140 for each qualifying appliance, to be split as follows: \$50.00 as reimbursement of the incentive (rebate) per qualifying appliance and \$90.00 as a transfer payment to the owner-member to cover lost revenue.

Term

The program is an ongoing program.

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Month / Date / Year

ISSUED BY *Anthony J. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2014-00363 dated December 16, 2014.

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 11/4/2014 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)



Section DSM – 9
ENERGY STAR® Appliances Program

(N)

Purpose

The ENERGY STAR® Appliances Program offers an incentive (rebate) for reducing the energy consumed by household appliances. The end-use cooperative member (“end-use member”) may qualify for this incentive by purchasing an ENERGY STAR® qualifying appliance type listed in this tariff.

Availability

This program is available in all service territories of the owner-member cooperatives (“owner-members”) of EKPC.

Eligibility

This program is targeted to new single or multi-family homes, existing single or multi-family homes or manufactured homes purchasing ENERGY STAR® appliances. Eligibility requirements are detailed below and are available at each participating owner-member’s office and on the owner-member’s website.

- Product must be certified by EPA as an ENERGY STAR® Appliance. Eligible models can be found on www.ENERGYSTAR.GOV.
- Product must be purchased after November 3, 2014.
- Rebate application must be completed and original receipt or copy must be provided for verification.
- Receipt must include the following information:
 - Retailer’s Name
 - Itemized listing of product(s), including description(s), manufacturer(s), model number(s) or other identifying information. The receipt information must match the product information from the rebate application.
 - Purchase price and proof that full payment was made
 - Purchase date and date of delivery or installment (if installed by a contractor)
 - For new construction, an owner-member energy advisor (“energy advisor”) may enter the rebate application on behalf of the end-use member. For an application entered by the energy advisor, the application must be accompanied by a picture of the appliance model number and serial number. Rebate applications for new constructions, without a receipt, will only be accepted through an energy advisor.

DATE OF ISSUE October 3, 2014
Month / Date / Year

DATE EFFECTIVE Service Rendered on or after November 4, 2014
Month / Date / Year

ISSUED BY *Anthony J. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2014-00363 dated December 16, 2014.

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 11/4/2014 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)



Section DSM – 9 continued

(N)

Refrigerators & Freezers

- Refrigerators must be greater than 7.75 cubic feet in capacity.
- End-use members may apply for one ENERGY STAR® certified refrigerator and one ENERGY STAR® certified freezer rebate per calendar year per member metered account. A maximum of two rebates within this appliance category (Refrigerators and Freezers) will be allowed per metered account.

Dishwashers

- End-use members may apply for one ENERGY STAR® certified dishwasher rebate per premise/location calendar year. A maximum of two rebates within this appliance category (Dishwashers) will be allowed per premise/location.

Clothes Washers

- End-use members may apply for one ENERGY STAR® certified clothes washer rebate per calendar year per metered account. A maximum of two rebates within this appliance category (Clothes Washers) will be allowed per metered account.

Heat Pump Water Heaters

- End-use members may apply for two ENERGY STAR® certified heat pump water heater rebates per calendar year per premise/location. A maximum of four rebates within this appliance category (Heat Pump Water Heaters) will be allowed per premise/location.

Air Conditioners and Heat Pumps

- Rebate application must be completed, signed and returned with an original or copy of the receipt and the AHRI certificate obtained from the HVAC installer.
 - AHRI certificate must list model numbers for the condenser unit (outside unit) and evaporator coil (indoor unit).
- End-use members may apply for up to three ENERGY STAR® certified heat pump or air conditioner rebates per calendar year per premise/location. A maximum of six (6) rebates within this appliance category (Air Conditioners and Heat Pumps) will be allowed per premise/location.

Landlord/Tenant Relationships:

Notwithstanding the forgoing, a landlord who rents to a tenant who is an end-use member of an EKPC owner-member shall also be eligible to participate in the ESAP program regardless of whether said landlord is also an end-use member of an EKPC owner-member. A landlord may be eligible for the same number of incentives per calendar year as a metered tenant end-use member.

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TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 11/4/2014 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)



Section DSM – 9 continued

Payments

Residential end-use members will receive an incentive from their owner-member for installing ENERGY STAR® certified appliances, while owner-members will receive a transfer payment from EKPC to cover the rebate to end-use members and any lost revenue as a result of implementing the program:

Appliance	Rebate to End-Use Member	EKPC Payment to Owner-Member
Refrigerator	\$100	\$115.00
Freezer	\$50	\$60.00
Dishwasher	\$50	\$60.00
Clothes Washer	\$75	\$130.00
Heat Pump Water Heater	\$300	\$685.00
Air Source Heat Pump	\$300	\$675.00
Air Conditioner (Central)	\$300	\$400.00

Term

The program is an ongoing program.

(N)



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**KENTUCKY
PUBLIC SERVICE COMMISSION**

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EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE
11/4/2014

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

Section DSM - 10

Community Assistance Resources for Energy Savings Program

Purpose

East Kentucky Power Cooperative's ("EKPC") Community Assistance Resources for Energy Savings ("CARES") program provides an incentive to enhance the weatherization and energy efficiency services provided to the retail members ("end-use member") of the 16 Member Systems ("owner-members") of EKPC by the Kentucky Community Action Agency ("CAA") network of not-for-profit community action agencies. EKPC will provide an incentive through the owner-member cooperative to the CAA on behalf of the end-use member. EKPC's program has two primary objectives. First, EKPC's incentive will enable the CAA to accomplish additional energy efficiency improvements in each home. Second, the additional incentive from EKPC will assist the CAA in weatherizing more homes.

Availability

This U.S. Department of Energy's Weatherization Assistance Program is available to end-use members who qualify for weatherization and energy efficiency services through their local CAA in all service territories served by one of EKPC's 16 owner-member cooperatives.

Eligibility

HOMEOWNER QUALIFICATIONS

- A participant must be an end-use member of one of EKPC's 16 owner-members.
- A participant must qualify for weatherization and energy efficiency services according to the guidelines of the Weatherization Assistance Program administered by the local CAA. Household income cannot exceed the designated poverty guidelines administered by the CAA.
- A participant must dwell in either a Heat Pump-Eligible Home or a Heat Pump-Ineligible Home. For purposes of this tariff:

A Heat Pump-Eligible Home is a single family or multi-family individually metered residential dwelling that utilizes electricity as the primary source of heat or that switches from wood as its primary source of heat to an electric furnace; and

A Heat Pump-Ineligible Home is a single family or multi-family individually metered residential dwelling (that does not utilize electricity as the primary source of heat but cools the home with central or window unit air conditioners. Each Heat Pump-ineligible home must also have an electric water heater and use an average of 500 kWh monthly from November to March.

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KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/3/2015 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

N



Section DSM - 10

Community Assistance Resources for Energy Savings Program (continued)

Payments

HEAT PUMP - ELIGIBLE HOMES

EKPC will reimburse the owner-member for rebates paid to a CAA at the rates detailed below. The maximum incentive possible per household is \$2,000, which can be reached by using any combination of the following improvements not to exceed their individual maximums:

- **HEAT PUMP:**
Upgrading from low-efficiency electric heat source to a heat pump will be reimbursed at a rate of 100% of the total incremental cost (material + labor) up to a maximum of \$2,000 per household. Incremental cost is the additional cost of upgrading from a low-efficiency electric heat source to a heat pump above and beyond any costs associated with the electric furnace. The existing heat source must be electric (or switching from wood to electric) to qualify.
- **WEATHERIZATION IMPROVEMENTS:**
Any of the following weatherization improvements made to the home will be reimbursed at a rate of 50% of a CAAs' cost (material + labor), up to a maximum of \$1,000:
 - Insulation
 - Air sealing
 - Duct sealing, insulating, and repair
 - Water heater blanket

Health and safety measures completed at the home do not qualify for the incentive and documentation required from a CAA must adhere to the program guidelines. Quality assurance sampling will be conducted by the owner-member at a rate of 10%.



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Month / Date / Year

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Month / Date / Year

ISSUED BY *Anthony S. Campbell*
(Signature of Official)

TITLE President and Chief Executive Officer

KENTUCKY
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JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH
<i>Brent Kirtley</i>
EFFECTIVE
6/3/2015
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

Section DSM - 10

Community Assistance Resources for Energy Savings Program (continued)

HEAT PUMP - INELIGIBLE HOMES

EKPC will reimburse a CAAs' energy efficiency efforts through the owner-member at the rates detailed below. The maximum incentive possible per household is \$750, which can be reached by using any combination of the following improvements not to exceed the maximum:

- WEATHERIZATION IMPROVEMENTS:
 - Any of the following weatherization improvements made to the home will be reimbursed at a rate of 25% of a CAAs' cost (material + labor) up to a maximum of \$750:
 - Insulation
 - Air sealing
 - Duct sealing, insulating, and repair
 - Water heater blanket

Health and safety measures completed at the home do not qualify for the incentive and documentation required from a CAA must adhere to the program guidelines. Quality assurance sampling will be conducted by the owner-member at a rate of 10%.

LOST REVENUE AND ADMINISTRATIVE COSTS

The owner-member cooperative will receive a transfer payment of \$600 to cover lost revenue and \$100 to cover its administrative cost.

Term

The program is an ongoing program.



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Month / Date / Year

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TITLE President and Chief Executive Officer

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<i>Brent Kirtley</i>
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6/3/2015
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EAST KENTUCKY POWER COOPERATIVE, INC.

PAGE - 1
INVOICE DATE:

EAST KENTUCKY POWER COOPERATIVE
P.O. BOX 707 WINCHESTER, KENTUCKY 40391

WHOLESALE POWER INVOICE
SUBSTATION DETAIL CHARGES (T)
MONTH, 20XX

SUBSTATION	RATE SCH	BILLING NOTES	BILLING DEMAND	ENERGY METERING POINT	CHARGE	SUBSTATION CHARGE	FUEL ADJUSTMENT	SURCHARGE	TOTAL (T)
									(T)
**									
CO-OP TOTALS									
GREEN POWER									
**									
TOTAL AMOUNT DUE									(T)

NORMALLY DUE IN USABLE FUNDS BY THE 21ST OF THE MONTH.

DATE OF ISSUE July 24, 2009 DATE EFFECTIVE: Service rendered on and after August 1, 2009

ISSUED BY Anthony Campbell TITLE Pre ve Officer

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Case No. _____ Dated _____

PUBLIC SERVICE COMMISSION OF KENTUCKY
EFFECTIVE 8/1/2009
SECTION 9 (1)
Jeff Brown
Executive Director

EAST KENTUCKY POWER COOPERATIVE, INC.

PAGE - 2
INVOICE DATE:

CO-OP NAME (T) EAST KENTUCKY POWER COOPERATIVE
TENNESSEE GAS PIPELINE (T) P.O. BOX 707 WINCHESTER, KENTUCKY 40391

WHOLESALE POWER INVOICE
SUBSTATION DETAIL CHARGES
MONTH, 20XX

RATE	BILLING	BILLING	DEMAND	ENERGY	DUMP ENERGY	EXCESS ENERGY	ENERGY	ADDER	SURCHARGE	TOTAL
SCH	NOTES	KWH	CHARGE	CHARGE	CHARGE	CHARGE	CHARGE	CHARGE	CHARGE	CHARGES
										(T)

CO-OP TOTALS (T)

CO-OP AMOUNT DUE (T)

NORMALLY DUE IN USABLE FUNDS BY THE 21ST OF THE MONTH

DATE OF ISSUE July 24, 2009 DATE EFFECTIVE: Service rendered on and after August 1, 2009
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8/1/2009
SECTION 9 (1)
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By Jeff Oberen
Executive Director

EAST KENTUCKY POWER COOPERATIVE, INC.

OWEN-GALLATIN (T) EAST KENTUCKY POWER COOPERATIVE
P.O. BOX 707 WINCHESTER, KENTUCKY 40391
PAGE - 3
INVOICE DATE:

WHOLESALE POWER INVOICE EKPC INTERRUPT HOURS: (T)
CO-OP TOTAL CHARGES FAC: XXX
SURCHARGE: XXX

MONTH, 20XX

On-Peak KW	Off-Peak KW	Energy KWH	ENERGY CHARGE	LOAD FOLLOWING	FUEL JUSTMENT	TOTAL CHARGES
M1 - 345 kV	XXX,XXX	XX,XXX,XXX				
M2 - 345 kV	XXX,XXX	XX,XXX,XXX				
M4 - 138 kV	XX,XXX	XX,XXX,XXX				

CO-OP TOTALS

CO-OP AMOUNT DUE

NORMALLY DUE IN USABLE FUNDS BY THE 21ST OF THE MONTH

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8/1/2009**

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SECTION 9 (1)

By [Signature]
Executive Director

EAST KENTUCKY POWER COOPERATIVE, INC.

KW-SCH. A \$X.XX EAST KENTUCKY POWER COOPERATIVE, INC. PAGE -4
KW-SCH. B CONTRACT \$X.XX P.O. BOX 707 WINCHESTER, KENTUCKY 40391 KWH-SCH. B&C \$X.XXXXXX (T)
EXCESS CONTRACT \$X.XX STATISTICS FOR THE MONTH OF KWH-SCH. E ON-PEAK \$X.XXXXXX
KW-SCH. C \$X.XX KWH-SCH. E OFF-PEAK \$X.XXXXXX
KW-SCH. E \$X.XX KWH-SCH. E2 ON-PEAK \$X.XXXXXX
KW-SCH. E2 \$X.XX KWH-SCH. E2 OFF-PEAK \$X.XXXXXX
KW-SCH. CM \$X.XX FUEL RATE \$X.XXXXXX
KVA 1000 - 2999 \$XXXX SURCHARGE RATE X.XXX%

SUBSTATION	KVA	RATING	KW/KWH	SCH	CONSTANT RATE	NON-CP	BILLING	CP	TOD	NON-CP	CONTRACT	BILLING	ACTUAL	MINIMUM
													KWH	
													KW	
SCHEDULE A STATISTIC TOTALS														
SCHEDULE B STATISTIC TOTALS														
SCHEDULE C STATISTIC TOTALS (INCLUDES SCHEDULE G)														
SCHEDULE E STATISTIC TOTALS ON-PEAK														
SCHEDULE E STATISTIC TOTALS OFF-PEAK														
GRAND TOTALS														

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EFFECTIVE
8/1/2009
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SECTION 9 (1)

For All Counties Served
P.S.C. No. 34
Original Sheet No. 33
Canceling P.S. C. No. 33
Original Sheet No. 33

EAST KENTUCKY POWER COOPERATIVE, INC.

EAST KENTUCKY POWER COOPERATIVE
P.O. BOX 707, WINCHESTER, KENTUCKY 40391

Fleming Mason RECC
P.O. Drawer 328
Flemingsburg, Kentucky
41041

STEAM INVOICE
INLAND CONTAINER STATISTICS
DATE

AVERAGE HEAT RATE	BILLING DEMAND/MMBTU	TOD DEMAND/MMBTU	BILLING ENERGY/MMBTU	(T)
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Executive Director

PUBLIC SERVICE COMMISSION
OF KENTUCKY
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8/1/2009

SECTION 9 (1)

Executive Director

EAST KENTUCKY POWER COOPERATIVE, INC.

DEMAND/MMBTU \$XXX.XXX (T)
ENERGY/MMBTU \$X.XXX
FUEL ADJ./MMBTU \$X.XXX
MINIMUM BILL \$XXX,XXX
FUEL ADJ./KWH \$.XXXX
SURCHARGE \$.XXXX

EAST KENTUCKY POWER COOPERATIVE
P.O. BOX 707, WINCHESTER, KENTUCKY 40391

Fleming Mason RECC
P.O. Drawer 328
Flemingsburg, Kentucky 41041

STEAM INVOICE
INLAND CONTAINER DETAIL CHARGES
DATE

STEAM ADJ. FACTOR	BILL NOTES	BILLING DEMAND/MMBTU	BILLING ENERGY/MMBTU	DEMAND CHARGE	ENERGY CHARGE	FUEL ADJUSTMENT	SURCHARGE	TOTAL CHARGE

NORMALLY DUE IN USABLE FUNDS BY THE 21ST OF THE MONTH.

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EAST KENTUCKY POWER COOPERATIVE, INC.

EKPC Emergency Electric Procedures

EKPC’s Emergency Electric Procedures are based on the following NERC Emergency Operations Standards:

- EOP-001 Emergency Operations Planning
- EOP-002 Capacity and Energy Emergencies
- EOP-003 Load Shedding Plans
- EOP-005 System Restoration Plans

Definitions

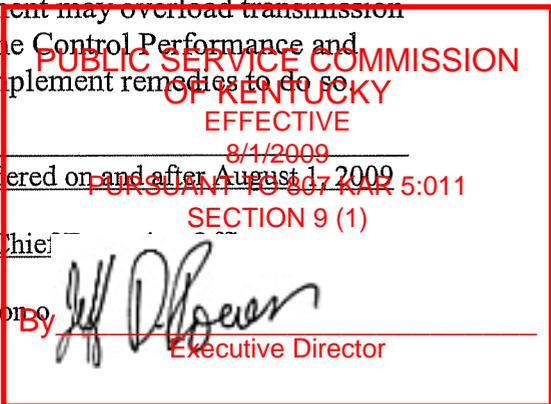
Transmission Operator (and Balancing Authority) - EKPC
Reliability Coordinator - TVA
Regional Reliability Organization – SERC

Overview

The Balancing Authority and the Reliability Coordinator have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its respective area and to exercise specific authority to alleviate capacity and energy emergencies. The Balancing Authority will implement its capacity and energy emergency plan, when required and as appropriate, to reduce risks to the interconnected system. The Balancing Authority experiencing an operating capacity or energy emergency will communicate its current and future system conditions to the Reliability Coordinator and neighboring Balancing Authorities.

When the Balancing Authority anticipates an operating capacity or energy emergency it will perform all actions necessary including bringing on all available generation, postponing equipment maintenance, scheduling interchange purchases in advance, and being prepared to reduce firm load. If the Balancing Authority is deficient it will only use the assistance provided by the Interconnection’s frequency bias for the time needed to implement corrective actions.

The Balancing Authority will not unilaterally adjust generation in an attempt to return Interconnection frequency to normal beyond that supplied through frequency bias action and Interchange Schedule changes. Such unilateral adjustment may overload transmission facilities. If the Balancing Authority cannot comply with the Control Performance and Disturbance Control Standards, then it will immediately implement remedies to do so.



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EAST KENTUCKY POWER COOPERATIVE, INC.

A Reliability Coordinator that has any Balancing Authority within its Reliability Coordinator Area experiencing a potential or actual Energy Emergency will initiate an Energy Emergency Alert as detailed in EOP-002-0 "Energy Emergency Alert Levels." The Reliability Coordinator will act to mitigate the emergency condition, including a request for emergency assistance if required.

Measures

The Transmission Operator (and Balancing Authority) has emergency plans and self-assessments available for review by the Regional Reliability Organization. The Regional Reliability Organization reviews and evaluates emergency plans every three years to ensure that the plans are complete and may elect to request self-certification of the Transmission Operator and Balancing Authority in years that the full review is not done.

Each Reliability Coordinator and Balancing Authority has and provides upon request evidence that includes job descriptions, signed agreements, authority letter signed by an appropriate officer of the company, or other equivalent evidence that confirms that it meets NERC requirements.

If the Reliability Coordinator or Balancing Authority implements its Capacity and Energy Emergency plan, that entity has and provides upon request evidence that includes operator logs, voice recordings or transcripts of voice recordings, electronic communications, computer printouts or other equivalent evidence that will be used to determine if the actions it took to relieve emergency conditions were in conformance with its Capacity and Energy Emergency Plan.

Insufficient Generating Capacity

The steps for mitigation of operating emergencies for insufficient generating capacity are:

1. Load all available generating capacity
2. Deploy all available operating reserve
3. Interrupt interruptible load and exports
4. Request emergency assistance from other Balancing Authorities
5. Declare an Energy Emergency through the Reliability Coordinator
6. Reduce load through procedures such as public appeals, voltage reductions, or curtailment of interruptible loads and firm loads

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8/1/2009
PURSUANT TO 807 KAR 5:011
SECTION 9 (1)

By *J. D. Brown*
Executive Director

EAST KENTUCKY POWER COOPERATIVE, INC.

Once the Balancing Authority has exhausted these steps or if these steps cannot be completed in sufficient time to resolve the emergency condition, the Balancing Authority shall:

1. Manually shed firm load without delay to return its ACE to zero
2. Request the Reliability Coordinator to declare an Energy Emergency Alert

All Emergency Electric Procedures consider:

1. Communication protocol
2. Controlling actions
3. Coordination with adjacent Transmission Operators and Balancing Authorities
4. Staffing levels

Elements addressed in Insufficient Generating Capacity Emergency Electric Procedures are:

1. Fuel supply and inventory - recognition of reasonable delays or problems in the delivery or production of fuel
2. Fuel switching - for units for which fuel supply shortages may occur
3. Environmental constraints - seek removal of environmental constraints for generating units
4. System energy use - reduction of the system's own energy use
5. Public appeals - through all media for voluntary load reductions and energy conservation
6. Load management - implementation of load management and voltage reductions
7. Optimize fuel supply - operation of generating sources to optimize the availability
8. Appeals to customers to use alternate fuels - appeals to large industrial and commercial customers to reduce non-essential energy use and maximize the use of customer-owned generation that rely on fuels other than the one in short supply
9. Interruptible loads - interrupt customer load to reduce capacity requirements or to conserve the fuel in short supply
10. Maximizing generator output and availability - operation of all generating sources to maximize output and availability
11. Notification of IPPs - cogeneration and other power producers, to maximize output and availability
12. Requests of government - to implement programs to achieve energy reductions
13. Load curtailment - mandatory load curtailment plan to use as a last resort
14. Notification of government agencies - as the various steps of the emergency plan are implemented

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8/1/2009
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SECTION 9 (1)**

[Signature]
Executive Director

EAST KENTUCKY POWER COOPERATIVE, INC.

15. Notifications to operating entities - as steps in emergency plan are implemented

Transmission System Operating Emergencies

The Transmission Operator (and Balancing Authority) develops, maintains, and implements a set of plans to mitigate operating emergencies. These plans are coordinated with other Transmission Operators, Balancing Authorities, and the Reliability Coordinator. Balancing Authorities have operating agreements with adjacent and remote Balancing Authorities that contain provisions for emergency assistance.

The Transmission Operator has an emergency load reduction plan for all identified Interconnection Reliability Operating Limits (IROLs). The plan includes the details on how the Transmission Operator will implement load reduction in sufficient amount and time to mitigate the IROL violation before system separation or collapse occurs. The Transmission Operator and Balancing Authority emergency plans include:

1. Communications protocols to be used during emergencies
2. A list of controlling actions to resolve the emergency
3. Load reduction, in sufficient quantity and within established timelines
4. Tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities
5. Staffing levels for the emergency

The Transmission Operator (and Balancing Authority) annually reviews and updates each emergency plan and provides a copy of its updated emergency plans to the Reliability Coordinator and to neighboring Transmission Operators and Balancing Authorities.

The Transmission Operator (and Balancing Authority) coordinates its emergency plans with other Transmission Operators and Balancing Authorities as appropriate. This coordination includes the following steps:

1. Establish and maintain reliable communications between interconnected systems
2. Arrange new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used
3. Coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply
4. Arrange deliveries of electrical energy or fuel from remote systems through normal operating channels

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Case No. _____ Dated _____

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OF KENTUCKY
EFFECTIVE

8/1/2009

SECTION 9 (1)

By *J. D. Brown*
Executive Director

EAST KENTUCKY POWER COOPERATIVE, INC.

Load shedding

After taking all other remedial steps, the Transmission Operator and Balancing Authority, operating with insufficient generation or transmission capacity, will shed customer load rather than risk an uncontrolled failure of components or cascading outages of the Interconnection. Coordination of load shedding would take place between the Transmission Operator (and Balancing Authority) and other interconnected Transmission Operators and Balancing Authorities. Implementation of manual load shedding takes into consideration frequency, rate of frequency decay, voltage level, rate of voltage decay, and power flow levels. The Transmission Operator (and Balancing Authority) would implement load shedding in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.

After the Transmission Operator (and Balancing Authority) separates from the Interconnection, if there is insufficient generating capacity to restore system frequency following automatic underfrequency load shedding, the Transmission Operator (and Balancing Authority) would shed additional load. The Transmission Operator (and Balancing Authority) coordinates automatic load shedding throughout its area with underfrequency isolation of generating units, tripping of shunt capacitors, and other automatic actions that occur under abnormal frequency, voltage, or power flow conditions. Each Transmission Operator and/or Balancing Authority has plans for operator-controlled manual load shedding to respond to real-time emergencies.

System restoration

The Transmission Operator has a restoration plan to reestablish its electric system in a stable and orderly manner in the event of a partial or total shutdown of its system including necessary operating instructions and procedures to cover emergency conditions and the loss of vital telecommunications channels.

The Transmission Operator reviews and updates its restoration plan annually and whenever it makes changes in the power system network, and corrects deficiencies found during the simulated restoration exercises. The Transmission Operator coordinates its restoration plans with the Generator Owners and Balancing Authorities within its area, its Reliability Coordinator, and neighboring Transmission Operators and Balancing Authorities.

The Transmission Operator (and Balancing Authority) periodically tests its telecommunication facilities needed to implement the restoration plan and trains its

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PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

8/1/2009
PURSUANT TO 807 KAR 5:011

SECTION 9 (1)

By *J. D. Brown*
Executive Director

EAST KENTUCKY POWER COOPERATIVE, INC.

operating personnel in the implementation of the restoration plan. This training includes simulated exercises and verification of the restoration procedure by actual testing and simulation.

During system restoration, affected Transmission Operators and Balancing Authorities work in conjunction with their Reliability Coordinator(s) to determine the extent and condition of the isolated area(s). The affected Transmission Operators and Balancing Authorities take the necessary actions to restore Bulk Electric System frequency to normal, including adjusting generation, placing additional generators on line, or load shedding.

The affected Balancing Authorities, working with their Reliability Coordinator(s), immediately review the Interchange Schedules between those Balancing Authority Areas or fragments of those Balancing Authority Areas within the separated area and make adjustments as needed to facilitate the restoration. The affected Balancing Authorities make all attempts to maintain the adjusted Interchange Schedules, whether generation control is manual or automatic. The affected Transmission Operators may resynchronize the isolated area(s) with the surrounding area(s) when the following conditions are met:

1. Voltage, frequency, and phase angle permit
2. The size of the area being reconnected and the capacity of the transmission lines effecting the reconnection and the number of synchronizing points across the system are considered adequate
3. Reliability Coordinator(s) and adjacent areas are notified and Reliability Coordinator approval is given
4. If required, load is shed in neighboring areas to permit successful interconnected system restoration

DATE OF ISSUE July 24, 2009 DATE EFFECTIVE: Service rendered on and after August 1, 2009
 ISSUED BY *Anthony Stanghell* TITLE: President & Chief Executive Officer
 Issued by authority of an Order of the Public Service Commission of Kentucky
 Case No. _____ Dated _____

**PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE
8/1/2009
PURSUANT TO 807 KAR 5:011
SECTION 9 (1)**

[Signature]
Executive Director

EAST KENTUCKY POWER COOPERATIVE, INC.

Section EDR

Economic Development Rider

N

Applicability

The EDR is available in all service territories served by EKPC's Member Systems.

Availability

Available as a rider to qualifying non-residential customers of participating Member Systems who will be served or are being served under EKPC's Sections B, C, E, and G to encourage Economic Development as defined herein. Service under the EDR is conditional on approval of a special contract between EKPC, the participating Member System, and the qualifying non-residential customer for such economic development rate service filed with and approved by the Kentucky Public Service Commission ("Commission").

Economic Development

Service under EDR is available to:

- 1) New customers contracting for a minimum average monthly billing load of 500 kW over a 12 month period. If the new customer is locating in a Kentucky county that is identified by the Commonwealth of Kentucky as an "Enhanced Incentive County", then the minimum average monthly billing load will be 250 kW over a 12 month period.
- 2) Existing customers contracting for a minimum average monthly billing load increase of 500 kW over a 12 month period above their Economic Development Base Load ("ED Base Load"). If the existing customer is located in a Kentucky county that is identified by the Commonwealth of Kentucky as an "Enhanced Incentive County", then the minimum average monthly billing load increase will be 250 kW over a 12 month period. The ED Base load will be determined as follows:
 - a. The existing customer's ED Base Load will be determined by averaging the customer's previous three years' monthly billing loads. EKPC, the Member System, and the existing customer must agree upon the ED Base Load, and any adjustments to the ED Base Load must be mutually agreed to by the parties.
 - b. The ED Base Load shall be an explicit term of the special contract submitted to the Commission for approval before the customer can take service under the EDR. Once the ED Base Load's value is established, it will not be subject to variation or eligible for service under the EDR.
 - c. These provisions are not intended to reduce or diminish in any way EDR service already being provided to all or a portion of a customer's ED Base Load. Such EDR service would continue under the terms of the applicable special contract already existing between EKPC, the Member System, and the customer concerning the affected portion of the customer's ED Base Load.

DATE OF ISSUE July 1, 2014
Month / Date / Year

DATE EFFECTIVE Service rendered on and after June 20, 2014
Month / Date / Year

ISSUED BY *Anthony S. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2014-00034 dated June 20, 2014.

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/20/2014 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section EDR (con't.)

- 3) A new or existing customer eligible for a minimum average monthly billing load between 250 kW and 500 kW may require a customer-specific meter installation. The cost of the customer-specific meter installation shall be recovered from the customer.
- 4) The new customer or existing customer must agree to maintain a minimum load factor of 60 percent during the majority of the months in the discount period, subject to the following parameters:
 - a. During the first 12 months of the discount period the 60 percent minimum load factor requirement will be waived.
 - b. During the remaining months of the discount period, the load factor will be determined each month. The new or existing customer may fail to achieve the 60 percent minimum load factor for no more than 1/6th of the remaining months of the discount period.
 - c. Failure to maintain the 60 percent minimum load factor in any month beyond the period described in part 4(b) above will result in the suspension of the discount to the Total Demand Charge for that month. The discount to the Total Demand Charge will resume in the month the 60 percent minimum load factor is achieved; however the discount will resume at the discount rate applicable to the month of the discount period.
- 5) A customer desiring service under the EDR must submit an application for service that includes:
 - a. A description of the new load to be served;
 - b. The number of new employees, if any, the customer anticipates employing associated with the new load; and
 - c. The capital investment the customer anticipates making associated with the EDR load.
- 6) Any EDR customer-specific fixed costs shall be recovered over the life of the special contract.
- 7) For purposes of this tariff, a new customer is defined as one who becomes a customer of the Member System on or after January 1, 2013.

N



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(Signature of Officer)
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KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/20/2014
PURSUANT TO 807 KAR 6:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section EDR (con't.)

Rate

The rate available under the EDR shall be in the form of a discount to the Total Demand Charge applicable to the customer. The Total Demand Charge is the sum of all demand charges, including any credits provided under any other demand-related rider, before the EDR discounts as described below are applied. A customer taking service under the EDR shall be served according to all of the rates, terms, and conditions of the normally applicable rate schedule subject to the following discount options:

Discount Period	3 years	4 years	5 years
Required Minimum Contract Term	6 years	8 years	10 years
Discount to Total Demand Charge:			
First 12 consecutive monthly billings	30%	40%	50%
Next 12 consecutive monthly billings	20%	30%	40%
Next 12 consecutive monthly billings	10%	20%	30%
Next 12 consecutive monthly billings	0%	10%	20%
Next 12 consecutive monthly billings	0%	0%	10%

Terms and Conditions

- 1) EKPC and the Member System will only offer an EDR during either periods of excess capacity or the additional capacity needs have been secured, or are capable of being economically secured, through a market purchase agreement. If additional capacity has been secured through a market purchase, the customer will be responsible for the costs of the market purchase agreement. Upon submission of each EDR special contract, EKPC will demonstrate that the load expected to be served during each year of the contract period will not cause them to fall below a reserve margin that is considered essential for system reliability.
- 2) Service shall be furnished under the applicable standard rate schedule and this rider, filed as a special contract with the Commission, for a fixed term of at least two times the discount period and for such time thereafter under the terms stated in the applicable standard rate schedule. The discount period shall not be less than 3 years and not exceed 5 years. A greater term of contract or termination notice may be required because of conditions associated with a customer's requirements for service. Service shall be continued under the conditions provided for under the applicable standard rate schedule to which this rider is attached after the original term of the contract.

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ISSUED BY *Anthony Campbell*
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**KENTUCKY
PUBLIC SERVICE COMMISSION**

**JEFF R. DEROUEN
EXECUTIVE DIRECTOR**

TARIFF BRANCH

Brent Kirtley

EFFECTIVE
6/20/2014

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

Section EDR (con't.)

- 3) The customer may request an EDR effective initial billing date that is no later than 12 months after the date on which EKPC and the Member System initiates service to the customer.
- 4) The EDR is not available to a new customer which results solely from a change in ownership of an existing establishment. However, if a change in ownership occurs after the customer enters into an EDR special contract, the successor customer may be allowed to fulfill the balance of the EDR special contract.
- 5) EKPC and the Member System may offer differing terms, as appropriate, under the special contract to which this rider is a part depending on the circumstances associated with providing service to a particular customer, subject to approval by the Commission.



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ISSUED BY *Anthony S. Campbell*
(Signature of Office)
TITLE President and Chief Executive Officer

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KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/20/2014
PURSUANT TO 807 KAR 5:011 SECTION 9(1)

RATES SCHEDULE CS

COMMUNITY SOLAR POWER GENERATION

APPLICABLE

In all territory served by EKPC.

AVAILABILITY OF SERVICE

Community Solar Power is available to EKPC's Member Cooperatives (for the benefit of their end-use members ("Customers")) on a voluntary basis, upon request, and on a first-come, first-served basis up to a cumulative capacity of 8.5 MW.

PARTICIPATION

Each Member Cooperative participating in this program shall facilitate its Customer's entry into a twenty-five (25) year Community Solar Farm Solar Panel License Agreement ("License Agreement") for a percentage of a solar generating facility owned by EKPC. Each such Member Cooperative shall pay to EKPC a license fee to be collected from each participating Customer upon the Customer's entry into a License Agreement for a portion of the capacity of the solar generating facility. The license fee shall equal the net present value of the capital and financing costs of each participating Customer's percentage of the solar generating facility.

A Customer may offset up to one hundred percent (100%) of his or her energy consumption based on the average annual consumption of electricity from the previous three (3) years. If the previous three (3) year consumption data is not available, the data that is available will be used to determine the maximum number of solar panels the Customer will initially be able to license.

(N)



DATE OF ISSUE 11 / 22 / 16
Month / Date / Year
DATE EFFECTIVE on or after 11 / 22 / 16
Month / Date / Year
ISSUED BY *Anthony J. Campbell*
(Signature of Officer)
TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2016-00269 dated November 22, 2016..

KENTUCKY PUBLIC SERVICE COMMISSION	
Talina R. Mathews EXECUTIVE DIRECTOR <i>Talina R. Mathews</i>	
EFFECTIVE 11/22/2016 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)	

RATES SCHEDULE CS (continued)

METERING

EKPC shall provide metering services, without any cost to the Member Cooperative or Customer for metering equipment, through a standard kilowatt-hour metering system that will be located at the point of delivery of electricity generated by the solar generation facility. This provision does not relieve a Member Cooperative of its responsibility to pay other metering costs included in EKPC's approved base rates. For purposes of determining the amount of energy generated by the participating Member Cooperative's Customer's licensed percentage of the solar generation facility, EKPC shall multiply the total energy output of the solar generation facility, by each participating Member Cooperative's Customer's proportional licensed interest in the solar generation facility.

PANEL PRODUCTION CREDITS

Member Cooperatives will be credited monthly by EKPC for the electric power produced by solar panels licensed by the participating Customer at the rate defined by PJM Interconnection, LLC as the value of the locational marginal price for energy at the EKPC Office Substation node during each hour of the day. Member Cooperatives shall also be entitled to receive the value of capacity payments received by EKPC for the portion of the community solar farm licensed to each participating Customer that is a Member of the Member Cooperative.

A Customer will elect to have EKPC either retire or sell Solar Renewable Energy Credits and any other environmental attributes ("SRECs") associated with energy generated by the solar generation facility. If elected, EKPC will monetize any SRECs and will issue a corresponding credit to the participating Member Cooperative for the proceeds of such sale, which the Member Cooperative will include as a credit on the participating Customer's electric bill. The proceeds of all SRECs disposed of by EKPC will accumulate over a calendar year and will be credited to the Member Cooperative in equal installments over a twelve (12) month period beginning on April 1st of the following year, along with interest on the proceeds accrued at the rate set forth by the Commission for customer deposits.

(N) ↓

DATE OF ISSUE 11 / 22 / 16
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ISSUED BY *Anthony S Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2016-00269 dated November 22, 2016.

KENTUCKY PUBLIC SERVICE COMMISSION
Talina R. Mathews EXECUTIVE DIRECTOR <i>Talina R. Mathews</i>
EFFECTIVE 11/22/2016 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

RATES SCHEDULE CS (continued)

Costs for operating, maintaining, insuring and paying taxes on the solar generating facility will be determined in aggregate on an annual basis and netted against the Panel Production Credit as set forth below. In the event that any significant investment (i.e. replacement of an inverter) occurs during the term of a License Agreement, the cost of the investment will be amortized over the remaining term of the License Agreement.

The net amount of the Panel Production Credit will be determined by taking the sum of the capacity credit, energy credit and SREC credit (if applicable) and subtracting from said sum the operation and maintenance expense.

At no time shall EKPC be required to convert any Panel Production Credit to cash. Any excess Panel Production Credit can be carried forward by the Member Cooperative to offset a later billed amount.

FUEL ADJUSTMENT CLAUSE

The fuel adjustment clause is not applicable to the Community Solar Power Generation program.

ENVIRONMENTAL SURCHARGE

The environmental surcharge is not applicable to the Community Solar Power Generation program.

TRANSFER/TERMINATION

If the participating Customer moves to a new location within Member Cooperative's service territory the credit may be transferred to the new location. If the Customer moves to a new location outside the Member Cooperative's service territory or his or her membership in the Member Cooperative is terminated for any reason, the Customer may transfer the license and credits to another Customer within Member Cooperative's service territory within sixty (60) days following the termination of membership or service. If the license is not transferred within sixty (60) days, the license shall be terminated and the Member Cooperative may license the Customer's panel(s) to another customer. If, however, the Customer owes an outstanding

(N)

DATE OF ISSUE 11 / 22 / 16
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(Signature of Officer)

TITLE President and Chief Executive Officer

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KENTUCKY PUBLIC SERVICE COMMISSION	
Talina R. Mathews EXECUTIVE DIRECTOR <i>Talina R. Mathews</i>	
EFFECTIVE 11/22/2016 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)	

RATES SCHEDULE CS (continued)

balance to the Member Cooperative at the time of termination of membership or service, the Member Cooperative may continue to accrue the Panel Production Credit to reduce and eliminate the outstanding balance prior to making any designated transfer of the license to a different service address or customer. The Customer is responsible for informing Member Cooperative of any changes in the service location for which the credits are to be associated.

APPLICATON AND APPROVAL PROCESS

To facilitate participation by Member Cooperatives, EKPC will send a notice of the opportunity to enter into a License Agreement for a portion of each solar generation facility to each of its Member Cooperatives on or after the effective date of this tariff. A Member Cooperative may thereafter assist its end-use members with the process for entering into the license agreement for a portion of the capacity of the solar generation facility on a first-come, first-served basis until the entire capacity of the solar generation facility is fully licensed. A Customer's license of a solar panel shall be effective upon receipt of the signed License Agreement and license fee by the Member Cooperative. Any Member Cooperative that was unable to participate in the licensing of the initial solar generation facility shall be given a preference to participate in the licensing of any additional solar generation facilities.

(N)



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ISSUED BY *Anthony S. Campbell*
(Signature of Officer)

TITLE President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2016-00269 dated November 22, 2016.

KENTUCKY PUBLIC SERVICE COMMISSION	
Talina R. Mathews EXECUTIVE DIRECTOR <i>Talina R. Mathews</i>	
EFFECTIVE 11/22/2016 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)	

P.S.C. KY NO. 8

CANCELS P.S.C. KY NO. 7

EAST KENTUCKY POWER COOPERATIVE, INC.
OF
WINCHESTER, KENTUCKY

RATES, RULES, AND REGULATIONS FOR PURCHASING
ELECTRIC POWER AND ENERGY
AT
VARIOUS LOCATIONS THROUGHOUT KENTUCKY
FROM
QUALIFIED COGENERATION AND
SMALL POWER PRODUCTION FACILITIES

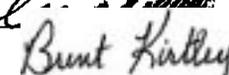
FILED WITH THE PUBLIC SERVICE COMMISSION
OF KENTUCKY

ISSUED March 31, 2014

EFFECTIVE June 1, 2014

ISSUED BY EAST KENTUCKY POWER COOPERATIVE, INC.

BY

Anthony S. Campbell
President and Chief Executive Officer

KENTUCKY
PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN
EXECUTIVE DIRECTOR

TARIFF BRANCH

EFFECTIVE
6/1/2014

PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

COGENERATION AND SMALL POWER PRODUCTION
POWER PURCHASE RATE SCHEDULE OVER 100 kW

AVAILABILITY

Available only to qualified cogeneration or small power production facilities with a design capacity of over 100 kW which have executed a contract with East Kentucky Power Cooperative and one of EKPC's member distribution systems for the purchase of electric power by East Kentucky Power Cooperative.

RATES

The rates set forth below shall be used as the basis for negotiating a final purchase rate with qualifying facilities pursuant to Section 7 of 807 KAR 5:054.

1. Capacity

- a. \$1.89 per kW per year is applicable if cogenerator or small power producer is dispatched by East Kentucky Power Cooperative. (R)
- b. \$0.00022 per kWh is applicable if cogenerator or small power producer is not dispatched by East Kentucky Power Cooperative. (R)

2. Energy – A base payment per kWh is listed below for a time-differentiated basis or a non-time differentiated basis for the specified years.

a. Time Differentiated Rates:

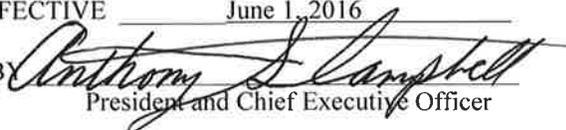
Year	Winter		Summer		
	On-Peak	Off-Peak	On-Peak	Off-Peak	
2016	\$0.04028*	\$0.03241	\$0.03904	\$0.02793*	(R)* (I)
2017	\$0.04126*	\$0.03320	\$0.03984	\$0.02851*	(R)* (I)
2018	\$0.04158*	\$0.03343	\$0.04111*	\$0.02951	(R)* (I)
2019	\$0.04198	\$0.03372*	\$0.04201*	\$0.03006	(I) (R)*
2020	\$0.04271	\$0.03439	\$0.04265	\$0.03050	(N)

b. Non-Time Differentiated Rates:

Year	2016	2017	2018	2019	2020^	
Rate	\$0.03477	\$0.03556	\$0.03619	\$0.03669	\$0.03732^	(N)^

DATE OF ISSUE March 31, 2016

DATE EFFECTIVE June 1, 2016

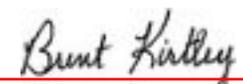
ISSUED BY 
President and Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2008-00128 Dated August 20, 2008

KENTUCKY
PUBLIC SERVICE COMMISSION

Aaron D. Greenwell
ACTING EXECUTIVE DIRECTOR

TARIFF BRANCH



EFFECTIVE
6/1/2016
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

The on-peak and off-peak energy rates are applicable during the hours listed below for each season:

Winter (October - April)

On-Peak 7:00 a.m. - 12:00 noon
5:00 p.m. - 10:00 p.m.

Off-Peak 12:00 noon - 5:00 p.m.
10:00 p.m. - 7:00 a.m.

Summer (May - September)

On-Peak 10:00 a.m. - 10:00 p.m.

Off-Peak 10:00 p.m. - 10:00 a.m.

TERMS AND CONDITIONS

1. All power from a Qualifying Facility (QF) will be sold only to East Kentucky Power Cooperative.
2. Seller must provide good quality electric power within a reasonable range of voltage, frequency, flicker, harmonic currents, and power factor.
3. Qualifying Facility (QF) shall provide reasonable protection for EKPC and the member cooperative's system.
4. Qualifying Facility (QF) shall design, construct, install, own, operate, and maintain the Qualifying Facility in accordance with all applicable codes, laws, regulations, and generally accepted utility practices.
5. Qualifying Facility shall reimburse EKPC and its member cooperative for all costs incurred as a result of interconnecting with the QF, including operation, maintenance, administration, and billing.

DATE OF ISSUE March 31, 2014

DATE EFFECTIVE June 1, 2014

ISSUED BY *Anthony S. Campbell*
President & Chief Executive Officer

Issued by authority of an Order of the Public Service Commission of Kentucky in Case No. 2008-00128 Dated August 20, 2008

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/1/2014 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

6. Qualifying Facility shall obtain insurance in the following minimum amounts for each occurrence:
 - a. Public Liability for Bodily Injury - \$1,000,000.00
 - b. Property Damage - \$500,000.00
7. Initial contract term shall be for a minimum of five years.
8. Qualifying Facilities proposing to supply as available (non-firm) electric power shall not be entitled to a capacity payment.
9. Qualifying cogeneration and small power production facilities must meet the definition set forth in 807 KAR 5:054 to be eligible for this tariff.
10. Updated rates will be filed with the Public Service Commission of Kentucky by March 31 of each year.

DATE OF ISSUE March 31, 2014

DATE EFFECTIVE June 1, 2014

ISSUED BY *Anthony S. Campbell*
President & Chief Executive Officer

Issued by authority of an Order of the Public Service Commission
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JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/1/2014 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

COGENERATION AND SMALL POWER PRODUCTION
POWER PURCHASE RATE SCHEDULE
LESS THAN 100 kW

AVAILABILITY

Available only to qualified cogeneration or small power production facilities with a design capacity of less than 100 kW which have executed a contract with East Kentucky Power Cooperative and one of EKPC's member distribution systems for the purchase of electric power by East Kentucky Power Cooperative.

RATES

1. Capacity

- a. \$1.89 per kW per year is applicable if cogenerator or small power producer is dispatched by East Kentucky Power Cooperative. (R)
- b. \$0.00022 per kWh is applicable if cogenerator or small power producer is not dispatched by East Kentucky Power Cooperative. (R)

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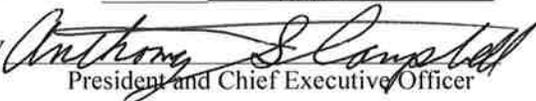
Year	Winter		Summer		
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2016	\$0.04028*	\$0.03241	\$0.03904	\$0.02793*	(R)* (I)
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2020	\$0.04271	\$0.03439	\$0.04265	\$0.03050	(N)

b. Non-Time Differentiated Rates:

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Rate	\$0.03477	\$0.03556	\$0.03619	\$0.03669	\$0.03732^	(N)^

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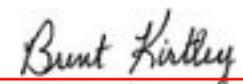
ISSUED BY 
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KENTUCKY
PUBLIC SERVICE COMMISSION

Aaron D. Greenwell
ACTING EXECUTIVE DIRECTOR

TARIFF BRANCH



EFFECTIVE
6/1/2016
PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

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4. Qualifying Facility (QF) shall design, construct, install, own, operate, and maintain the Qualifying Facility in accordance with all applicable codes, laws, regulations, and generally accepted utility practices.
5. Qualifying Facility shall reimburse EKPC and its member cooperative for all costs incurred as a result of interconnecting with the QF, including operation, maintenance, administration, and billing.

DATE OF ISSUE March 31, 2014

DATE EFFECTIVE June 1, 2014

ISSUED BY *Anthony J. Campbell*
President & Chief Executive Officer

Issued by authority of an Order of the Public Service Commission
of Kentucky in Case No. 2008-00128 Dated August 20, 2008

KENTUCKY PUBLIC SERVICE COMMISSION
JEFF R. DEROUEN EXECUTIVE DIRECTOR
TARIFF BRANCH <i>Brent Kirtley</i>
EFFECTIVE 6/1/2014 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EAST KENTUCKY POWER COOPERATIVE, INC.

6. Qualifying Facility shall obtain insurance in the following minimum amounts for each occurrence:
 - a. Public Liability for Bodily Injury - \$1,000,000.00
 - b. Property Damage - \$500,000.00
7. Initial contract term shall be for a minimum of five years.
8. Qualifying Facilities proposing to supply as available (non-firm) electric power shall not be entitled to a capacity payment.
9. Qualifying cogeneration and small power production facilities must meet the definition set forth in 807 KAR 5:054 to be eligible for this tariff.
10. Updated rates will be filed with the Public Service Commission of Kentucky by March 31 of each year.

DATE OF ISSUE March 31, 2014

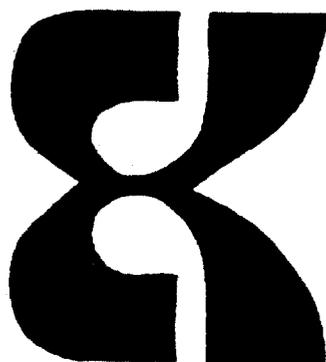
DATE EFFECTIVE June 1, 2014

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EFFECTIVE 6/1/2014 PURSUANT TO 807 KAR 5:011 SECTION 9 (1)

EMERGENCY ELECTRIC PROCEDURES



East Kentucky Power Cooperative, Inc.

PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

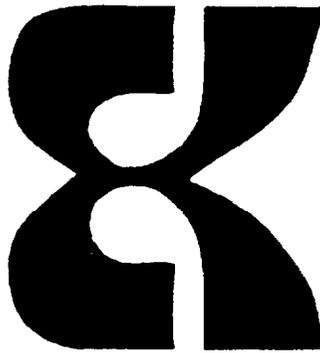
MAR 01 1996

PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: *Jonathan C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

Prepared April 1, 1994
Revised: Feb. 17, 1995

EMERGENCY ELECTRIC PROCEDURES



East Kentucky Power Cooperative, Inc.

PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

MAR 01 1996

PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: *Jonathan C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

Prepared April 1, 1994
Revised: Feb. 17, 1995

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 - Alert Level 1 -- EEP3
 - Alert Level 2 -- EEP4
 - Alert Level 3 -- EEP5
- V. LOAD REDUCTION PROCEDURE -- EEP6

APPENDIX

REFERENCE DOCUMENTS:

- EKPC Contact List
- Commonwealth of Kentucky - Emergency Operations Plan, Annex P
- ECAR Guide No. 1 - Emergency Electric Procedures
 - Appendix A - Determination of Days' Coal Supply and Optimum Fuel Conservation Dispatch
 - Appendix B - ECAR Communication Procedures
- ECAR Guide No. 3 - Emergency Procedures During Declining System Frequency
 - Appendix I - Isolation of Generating Units

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MAR 01 1996

PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: *Robert C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

INTRODUCTION

A vital part of East Kentucky Power's mission is to provide reliable electric service to its 18 member distribution cooperatives. These Emergency Electric Procedures were developed to help EKPC meet this objective. They take into account EKPC's role as the power supplier to the 18 member systems and the member systems' role as the power supplier to the end-of-the-line customer. Contact with and service to the member systems' customers is the responsibility of the respective member cooperatives. This dictates that any need for curtailment or conservation efforts required of the distribution customers must be made known to them through, or with the approval of, the respective member systems.

It is recognized that emergency procedures are a guide for action in response to situations for which assumptions have been made. As such, the actual emergency situation experienced will not be exactly like the one planned for, therefore, the plan should be viewed as flexible and the users given the authority to adjust the procedures to the specific emergency being experienced. The steps to be taken under each emergency procedure are listed in the order of priority. Those individuals with the responsibility of carrying out these steps may stop the further execution of the listed steps when, in their judgement, the emergency is alleviated.

These procedures are based on the premise that all industrial and large commercial customers will have a load reduction plan which will be placed into effect when directed to do so by or with the approval of the respective member systems.

East Kentucky Power and the regulatory environment under which it operates is constantly changing. Thus, the emergency procedures should be periodically adjusted for these changes. The Electric Operations Division Director has overall responsibility for these procedures and future revisions.

These procedures were developed by the Emergency Electric Procedures Task Force

Paul Atchison, Chairman
Electric Operations Division Director

Wes Moody, Secretary
Technical Services Manager

George Carruba
System Planning Manager

Jim Shipp
Production Engineering Manager

Randy Dials
Fuel Manager

Jerry Schureman
Member & Corp. Communications Manager

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PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)
BY: Jordan C. Reed
FOR THE PUBLIC SERVICE COMMISSION

April 1, 1994

Anticipated Capacity Shortage

PUBLIC SERVICE COMMISSION
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MAR 01 1996

PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: *Justin C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

ANTICIPATED CAPACITY SHORTAGE

Objective:

To reduce megawatt demand over the time period during which a capacity shortage is anticipated.

Criteria:

A capacity shortage can be anticipated when:

- EKPC available capacity and outside sources of generation are less than the forecasted load demand due to power plant equipment problems, transmission limitations, local coal problems, or environmental constraints. It is assumed that EKPC has already exhausted all efforts to purchase power, at the best available price, from other suppliers.
- If the anticipated capacity shortage is the result of an anticipated regional coal shortage which could occur in the event of widespread transportation problems or a general strike in the coal mines, Coal Shortage procedures (EEP3,4,5) are to be used.

Procedure:

The procedure for responding to an anticipated capacity shortage is divided into two parts, *planning* for and trying to avoid the capacity shortage and *action* taken when a capacity shortage is actually being experienced.

Planning:

1. If tie-line limits are preventing energy transfers to the EKPC system, work with interconnected companies to determine temperature specific tie-line limits during the anticipated shortage period. PUBLIC SERVICE COMMISSION OF KENTUCKY EFFECTIVE
2. Bring all EKPC coal-fired generation on-line in anticipation of need. MAR 01 1996
3. Bring all EKPC combustion turbines on line and run at minimum levels until needed. PURSUANT TO 807 KAR 5.011, SECTION 9 (1)
4. Coordinate with other companies to cut our sales when we are experiencing a capacity shortage. BY: Jordan C. Neal PUBLIC SERVICE COMMISSION
5. The Electric Operations (EO) Division Director initiates the Load Reduction Alert by contacting the Marketing and Communications (M&C) Division Director and advising him of the anticipated capacity shortage.
6. The EO Division Director notifies the member system managers of EKPC's intent to interrupt service to loads with interruptible rates. Information as to when and how long service will be interrupted, and the expected duration (hours, days) of the capacity shortage should be given to the member system managers.

7. The EO Division Director coordinates with other Kentucky electric utilities in planning the announcement of a request for a general voluntary load reduction.
8. The Environmental Affairs Manager requests the Kentucky Public Service Commission (PSC) and the U.S. Environmental Protection Agency (EPA) to lift all environmental restrictions in order to operate generating units as efficiently as possible.

Action List:

The following action list will be implemented in the order given until the capacity shortage is corrected.

1. Initiate direct load control to reduce consumer load.
2. Interrupt service to loads with interruptible rates.
3. The EO Division Director advises the M&C Division Director to initiate EKPC's Load Reduction Procedure.
4. The Production Division Director orders the shutdown of scrubbers if permitted by law. Buy emission allowances to maintain environmental compliance.
5. If time and system conditions permit, coordinate with neighboring companies to initiate system wide voltage reduction. Voltage schedules at the generating plants shall be as coordinated with neighboring utilities.
6. If time and system conditions permit, ask member systems to initiate voltage reduction by using the substation voltage regulators.
7. The EO Division Director advises the M&C Division Director of the need for media appeal for a general voluntary load reduction.
8. The M&C Division Director coordinates EKPC's request for a general voluntary load reduction with the member system managers and the media.
9. The EO Division Director requests the President and CEO, in coordination with other Kentucky electric utilities, to contact the PSC and request the Governor's action of declaring a statewide Energy Emergency in order that mandatory load reduction can be initiated.
10. The EO Division Director requests the M&C Division Director to contact the member system managers and ask them to initiate mandatory load reduction. Up to twenty percent load reduction, in five percent steps, will be called for.

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SECTION 9 (1)
BY: Jonathan C. Neal
FOR THE PUBLIC SERVICE COMMISSION

When it appears that a request for a general voluntary load reduction request is imminent, the following steps are to be taken:

11. The Risk and Loss Coordinator advises the Kentucky Public Service Commission (PSC) of the situation.
12. The EO Division Director advises ECAR of the situation.

Contacts/Reporting:

- EKPC President and CEO
- Electric Operations Division Director
- Marketing and Communications Division Director
- Production Division Director
- Risk and Loss Coordinator
- Kentucky Public Service Commission
- U.S. Environmental Protection Agency
- Other Kentucky Electric Utilities
- ECAR
- Governor's Office
- Member System Managers
- The Media

Reference Documents:

- Load Reduction Procedure
- Commonwealth of Kentucky - Emergency Operations Plan, Section O
- ECAR Guide No. 1 - Emergency Electric Procedures

Revised Feb. 17, 1995

Reviewed by: Paul Atkinson

July 1, 1994

PUBLIC SERVICE COMMISSION
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PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)

BY: Jordan C. Neal
FOR THE PUBLIC SERVICE COMMISSION

Sudden or Unanticipated Capacity Shortage

PUBLIC SERVICE COMMISSION
OF KENTUCKY
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PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: *Jonathan C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

SUDDEN OR UNANTICIPATED CAPACITY SHORTAGE

Objective:

To reduce megawatt demand over the time period during which a capacity shortage is experienced and to arrest frequency decay.

Criteria:

A sudden or unanticipated capacity shortage exists when either of the following occurs:

- There is a system disturbance which isolates all or part of the EKPC system from other electric systems to which it is normally interconnected and EKPC loses outside generation sources on which it is depending to meet its load.

or

- EKPC is still interconnected with other electric systems but the system frequency decays to 59.9 Hertz or less.

Procedure:

1. Place all on-line generating units on manual control and take them to their maximum megawatt output.
2. Bring all quick start generation on-line. This includes the Laurel hydro unit and the combustion turbines. Combustion turbines are to be started using the Emergency Start sequence.
3. Initiate direct load control to reduce consumer load demand.
4. Interrupt service to loads with interruptible rates. The EO Division Director notifies the member system managers of EKPC's actions. Information as to when and how long service will be interrupted, and the expected duration (hours, days) of the capacity shortage should be given to the member system managers.
5. The Electric Operations (EO) Division Director initiates the **Load Reduction Alert** by advising the Marketing and Communications (M&C) Division Director of the capacity shortage and advises the M&C Division Director to initiate EKPC's **Load Reduction Procedure**.

It is recognized that the power system conditions can change so quickly it will not be possible to take manual action to stop or arrest the changes. Steps 6 through 13 fall into this category. They are listed here in the event there is time to initiate manual action before automatic, underfrequency load shedding begins.

6. The Production Division Director orders the shutdown of scrubbers if permitted by law. Buy emission allowances to maintain environmental compliance.

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PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)
BY: Jordan C. Neal
FOR THE PUBLIC SERVICE COMMISSION

7. Coordinate with neighboring companies to initiate system wide voltage reduction. Voltage schedules at the generating plants shall be as coordinated with neighboring utilities.
 8. Ask member systems to initiate voltage reduction by using the substation voltage regulators.
 9. The EO Division Director advises the M&C Division Director of the need for media appeal for a general voluntary load reduction.
 10. The M&C Division Director, in coordination with other Kentucky electric utilities to the extent possible, notifies the member system managers and the media of EKPC's request for a general voluntary load reduction.
 11. The EO Division Director requests the President and CEO, in coordination with other Kentucky electric utilities, to contact the PSC and request they have the Governor's office declare a statewide Energy Emergency in order that mandatory load reduction can be initiated.
 12. The EO Division Director requests the M&C Division Director to contact the member system managers and ask them to initiate mandatory load reduction. Up to twenty percent load reduction, in five percent steps, will be called for.
-
13. Automatic load shedding will begin when the frequency decays to 59.5 Hz. Approximately 5% of the EKPC load will be shed at 59.5 Hz, another 5% at 59.3 Hz, another 5% at 59.1 Hz, another 5% at 58.9 Hz, and another 5% at 58.7 Hz.
 14. If frequency is still decaying after automatic load shedding has occurred, and EKPC generation is deficient for its load, the System Operator shall initiate additional load shedding by opening breakers on the transmission system.
 15. If frequency decays to 58.2 Hz at the generating plants the Unit Operators are under instructions to isolate the plant from the system. This action is preplanned and does not require additional authorization.
 16. If the EKPC system or a part of it has separated from other electric systems, begin system restoration when the isolated system frequency is within synchronizing range.
 17. The Risk and Loss Coordinator advises the Kentucky Public Service Commission (PSC) of the situation.

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18. The EO Division Director advises ECAR of the situation.
19. The M&C Division Director will handle all media inquiries. Direct all media inquiries to the M&C Division Director.

Contacts/Reporting:

- EKPC President and CEO
- Electric Operations Division Director
- Marketing and Communications Division Director
- Production Division Director
- Risk and Loss Coordinator
- Kentucky Public Service Commission
- Other Kentucky Electric Utilities
- ECAR
- Governor's Office
- Member System Managers
- The Media

Reference Documents:

- ECAR Guide No. 1 - Emergency Electric Procedures
- ECAR Guide No. 3 - Emergency Procedures During Declining System Frequency

Revised 2/17/95

Reviewed by:

Paul Atchison
July 1, 1994

PUBLIC SERVICE COMMISSION
OF KENTUCKY
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MAR 01 1996

PURSUANT TO 807 KAR 5.011,
SECTION 9(1)

BY: Quentin C. Neal
FOR THE PUBLIC SERVICE COMMISSION

Coal Shortage

PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

MAR 01 1996

PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)

BY: *Jordan C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

COAL SHORTAGE

Situation and Assumptions:

East Kentucky Power's primary fuel in its electric generating stations is coal. Plans for handling a fuel shortage are restricted to a coal shortage. A regional shortage of coal can be caused by either wide-spread transportation problems or a coal miners' strike. Thirty days prior to an impending coal supply emergency such as an expected strike, EKPC will report its coal supplies to the Kentucky Public Service Commission. EKPC will inventory its coal piles to confirm the recoverable quantity of the coal in storage. If there has been a physical inventory of the stockpile in the past twelve months, the perpetual inventory record can be used for reporting purposes. The days burn in storage will be determined and computed daily in accordance with procedures as detailed below

Coal Supply Computation:

EKPC will estimate its coal supply by dividing the recoverable stockpile balance by the projected average daily burn.

The recoverable stockpile will be determined by using the perpetual inventory records to calculate the system stockpile and then subtracting 31,000 tons of estimated unrecoverable coal. The projected burn for the next 30 days will be divided by 30 to arrive at an average daily burn.

Coal Shortage Alert:

Coal shortages will be classified according to three levels of alert:

Alert Level 1 - Less than 21 days of coal and it is expected that the coal supply will continue to decline

Alert Level 2 - Less than 14 days and it is expected that the coal supply will continue to decline.

Alert Level 3 - Less than 7 days and it is expected that the coal supply will continue to decline.

The purpose of the procedures for a coal shortage is to reduce energy consumption and conserve coal over the period for which coal supplies drop below established levels. MAR 01 1996

The Fuel Manager has the responsibility of monitoring and reporting coal supplies.

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SECTION 9 (1)
BY: Jordan C. Neal
FOR THE PUBLIC SERVICE COMMISSION

COAL SHORTAGE -- ALERT LEVEL 1

Objective:

To reduce energy consumption and conserve coal over the period for which coal supplies drop below established levels.

Criteria:

There is a coal shortage due to widespread transportation problems or a general strike in the coal mines or other situations that keep coal from being delivered. Average maximum burn coal supply is less than 21 days and it is expected that the coal supply will continue to decline.

Procedure:

1. Take as much diversity power as allowed by contract or agreement.
2. Change the dispatch of all generating units to a coal conservation mode.
3. Discontinue all short-term, non-firm energy sales. Make emergency sales only to utilities agreeing to pay back the energy within 12 days.
4. a.) Use as much non-coal fired generation as possible.
b.) Substitute oil for coal as much as possible.
5. Purchase as much energy as necessary from outside generation.
6. The Risk and Loss Coordinator advises the Kentucky Public Service Commission (PSC) of the situation.
7. The EO Division Director advises ECAR of the situation.

Contacts/Reporting:

- EKPC President and CEO
- Production Division Director
- Electric Operations Division Director
- Fuel Manager
- Environmental Affairs Manager
- Generating Plant Managers
- Marketing and Communications Division Director
- Member System Managers
- Kentucky Public Service Commission
- ECAR

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PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: Jordan C. Neal
FOR THE PUBLIC SERVICE COMMISSION

Reference Documents:

- ECAR Guide No. 1 - Emergency Electric Procedures
- Load Reduction Procedure

Revised _____

Reviewed by: Paul C. Atkinson
July 1, 1994

PUBLIC SERVICE COMMISSION
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MAR 01 1996

PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: Jonathan C. Neal
FOR THE PUBLIC SERVICE COMMISSION

COAL SHORTAGE – ALERT LEVEL 2

Objective:

To reduce energy consumption and conserve coal over the period for which coal supplies drop below established levels.

Criteria:

There is a coal shortage due to widespread transportation problems or a general strike in the coal mines or other situations that keep coal from being delivered. All sources from which to purchase power have been exhausted. Average maximum burn coal supply is less than 14 days and it is expected that the coal supply will continue to decline.

Procedures:

1. Discontinue all but diversity and emergency energy sales to other utilities. Cut diversity sales as much as allowed by contract and agreement. Make emergency sales only to utilities agreeing to pay back the energy within 7 days.
2. The Environmental Affairs Manager shall request the Kentucky Public Service Commission (PSC) and the U.S. Environmental Protection Agency (EPA) to lift all environmental restrictions in order to operate generating units as coal efficient as possible.
5. The Production Division Director shall order the shutdown of scrubbers if permitted by law. Buy emission allowances to maintain environmental compliance.
6. The Electric Operations (EO) Division Director initiates the Load Reduction Alert by contacting the Marketing and Communications Division Director and advising him of the anticipated coal shortage.
7. The Marketing and Communications (M&C) Division Director puts into effect EKPC's Load Reduction Procedure.
8. The EO Division Director notifies the member system managers of EKPC's intent to interrupt service to loads with interruptible rates. Information as to when and how long service will be interrupted, and the expected duration (hours, days) of the capacity shortage should be given to the member system managers.
9. If system conditions permit, coordinate with neighboring companies to initiate system wide voltage reduction. Voltage schedules at the generating plants shall be coordinated with neighboring utilities.
10. If system conditions permit, ask member systems to initiate voltage reduction by using the substation voltage regulators.

PUBLIC SERVICE COMMISSION
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SECTION 9 (1)
Jonathan C. Neal
FOR THE PUBLIC SERVICE COMMISSION

EEP4

April 1, 1994

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11. The EO Division Director coordinates with other Kentucky electric utilities in planning the announcement of a request for a general voluntary load reduction.
12. The EO Division Director notifies the M&C Division Director of the need for media appeal for a general voluntary load reduction.
13. The M&C Division Director coordinates EKPC's request for a general voluntary load reduction with the member system managers and the media.
14. The EO Division Director requests the President and CEO, in coordination with other Kentucky electric utilities to the extent possible, to contact the PSC and request they have the Governor's office declare a statewide Energy Emergency.

Contacts/Reporting:

- EKPC President and CEO
- Production Division Director
- Electric Operations Division Director
- Generating Plant Managers
- Fuel Manager
- Environmental Affairs Manager
- Marketing and Communications Division Director
- Member System Managers
- Kentucky Public Service Commission
- ECAR
- U.S. Environmental Protection Agency
- Other Kentucky Electric Utilities
- Governor's Office
- The Media

Reference Documents:

- ECAR Guide No. 1 - Emergency Electric Procedures

PUBLIC SERVICE COMMISSION
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PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: Anderson C. Neal
FOR THE PUBLIC SERVICE COMMISSION

Revised _____

Reviewed by:

Paul C. Atkinson
July 1, 1994

COAL SHORTAGE -- ALERT LEVEL 3

Objective:

To reduce energy consumption and conserve coal over the period for which coal supplies drop below established levels.

Criteria:

There is a coal shortage due to widespread transportation problems or a general strike in the coal mines or other situations that keep coal from being delivered. Average maximum burn coal supply is less than 7 days and it is expected that the coal supply will continue to decline.

Procedures:

1. Discontinue all emergency sales to other utilities.
2. The Electric Operations (EO) Division Director asks the Marketing and Communications (M&C) Division Director to coordinate with other Kentucky electric utilities and request the member system managers to initiate mandatory load reduction. Up to twenty percent load reduction, in five percent steps, will be called for.

Contacts/Reporting:

- EKPC President and CEO
- Electric Operations Division Director
- Marketing and Communications Division Director
- Member System Managers
- Kentucky Public Service Commission
- ECAR
- U.S. Environmental Protection Agency
- Other Kentucky Electric Utilities
- Governor's Office
- The Media

Reference Documents:

- ECAR Guide No. 1 - Emergency Electric Procedures, Appendix A

PUBLIC SERVICE COMMISSION
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PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)

Revised 2/17/95

Reviewed by:

Paul Otteman BY: *Jordan C. Neal*
July 1, 1994 FOR THE PUBLIC SERVICE COMMISSION

Load Reduction Procedure

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MAR 01 1996

PURSUANT TO 807 KAR 5011,
SECTION 9 (1)

BY: *Justine C. Neel*
FOR THE PUBLIC SERVICE COMMISSION

LOAD REDUCTION PROCEDURE

Objective:

To reduce megawatt demand at EKPC facilities over the time period during which a capacity shortage is anticipated.

Criteria:

This procedure is implemented when an *Load Reduction Alert* is issued. The Electric Operations (EO) Division Director has the responsibility of issuing a Load Reduction Alert.

Procedure:

1. The Marketing and Communications (M&C) Division Director receives notice from the Electric Operations Division Director of a capacity shortage.
2. The M&C Division alerts employees to the need for internal load reduction.
3. Each Division Director is responsible for seeing that their employees are participating in achieving the largest load reduction possible while still maintaining the service of the facility and not unduly jeopardizing safety.
4. Examples of load reduction are:
 - turning off all but a minimum of indoor and outdoor lighting
 - turning off microcomputers, printers, copiers and other office equipment except as they are being used
 - in the winter, setting thermostats to 68 degrees, and in the summer to 76 degrees
 - turning off auxiliary equipment at generating plants except as needed to maintain safety and reliability

Contacts/Reporting:

- Electric Operations Division Director
- Marketing and Communications Division Director
- All Division Directors

Revised _____

Reviewed by:

Paul C. Atchison
July 1, 1994

PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

MAR 01 1996

PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: *James C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

APPENDIX

PUBLIC SERVICE COMMISSION
OF KENTUCKY
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PURSUANT TO 807 KAR 5.011,
SECTION 9(1)

BY: *Robert C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

Commonwealth of Kentucky
Emergency Electric Procedures
Annex P

PUBLIC SERVICE COMMISSION
OF KENTUCKY
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PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)

BY: *Jonathan C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

APPENDIX P-1
ENERGY ORGANIZATION

Kentucky Department of Mines and Minerals (606) 254-0367
Ironworks Pike
Lexington, Kentucky 40501 FAX (606) 255-4457

Public Service Commission (502) 564-3940
Schenkel Lane
Frankfort, Kentucky 40601 FAX (502) 564-7279

Kentucky Petroleum Council (502) 875-3742
403 State National Bank Building
Frankfort, Kentucky 40601 FAX (502) 875-1171

Kentucky Coal Association (606) 233-4743
340 South Broadway
Lexington, Kentucky 40504 FAX (606) 233-4745

ECAR East Central Electric Reliability Coop (216) 456-2488
P. O. Box 102
Canton, Ohio 44701 FAX (216) 456-3648

Kentucky Division of Energy (502) 564-7192
Natural Resources and Environmental
Protection Cabinet
691 Teton Trail
Frankfort, Kentucky 40601 FAX (502) 564-7484

Governor's Office of Coal and (606) 252-5535
Energy Policy
Spindletop Research Park
Ironworks Pike
Lexington, Kentucky 40501 FAX (606) 255-4457

Kentucky Petroleum Marketers Association (502) 875-3758
622 Shelby St.
Frankfort, Kentucky 40601 FAX (502) 875-4515

Kentucky Propane Gas Association (502) 875-2686
Kings Daughters Drive
Frankfort, Kentucky 40601 FAX (502) 227-7004

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PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: Jordan C. Neal
FOR THE PUBLIC SERVICE COMMISSION

APPENDIX P-2
SUMMARY OF MOTOR FUEL CONTROL AND DISTRIBUTION OPTIONS

ALTERNATIVE	CONCEPT	PRINCIPAL ADVANTAGES	PRINCIPAL DISADVANTAGES	SUMMARY
<p>FUEL RATIONING</p> <ul style="list-style-type: none"> • Coupons • Odd/Even • Purchase Limits • Minimum Sales Levels 	<p>Control fuel sales at retail level through a variety of strategies:</p> <ul style="list-style-type: none"> • Sales coupons must be presented when purchasing gasoline. • Sales to cars with odd (even) license plates are permitted only on odd (even)-numbered days; unrestricted purchases permitted in risk area on third day of evacuation. • No single purchase shall exceed a pre-specified amount (for instance, 10 gallons) • Purchases permitted only if gas in tank is below a pre-specified level (i.e., half full). 	<p>Permits selective control & conservation of fuel supply; coupons serve as sales record & may substitute for payment in case of critical workers.</p> <p>Smooths peak evacuation flow & limits gas lines.</p> <p>Permits more equitable distribution under shortage conditions.</p> <p>Shortens lines by preventing "topping-off"; limits inventory in gasoline tanks.</p>	<p>Administrative headaches</p> <p>Might be perceived as inequitable; could limit draining of risk area gas inventories over three-day period.</p> <p>Prevents draining of risk area inventories</p> <p>Potentially frustrating if limit is low; ineffectual if limit is not high.</p>	<p>Strict rationing may be necessary if out-of-control. Such controls will almost certainly be needed following an attack, however.</p> <p>Possibly useful as a means of spreading departure times, if carefully coordinated with other scheduling techniques</p> <p>Possibly useful in host area; should not be applied in risk area.</p> <p>Of limited importance; if used, different limits should be established in host & risk areas (i.e., half tank in host area, 3/4 tank in risk area).</p>
<p>DISTRIBUTION SYSTEM ADJUSTMENTS</p> <ul style="list-style-type: none"> • Redirect Flow From Risk to Host Area Terminals & Stations • Bypass Risk Area Terminals 	<p>Redirect fuel supplies to host area bulk storage facilities & gasoline stations</p> <ul style="list-style-type: none"> • Take supplies directly from pipeline terminals & refiners to all host area facilities & gas stations. • Intercept pipeline flows before risk area terminals are reached. 	<p>Cuts fuel where needed with minimum disruption of existing network; maintains vulnerability of secondary inventories.</p> <p>Minimizes risk area exposure of distributors; could improve distribution efficiency.</p>	<p>Increased risk area exposure for distributors.</p> <p>Disrupts normal flow patterns.</p>	<p>Redirection of supplies in secondary distribution must be accomplished. The exact means will depend on state, regional & local circumstances.</p>

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 FOR THE PUBLIC SERVICE COMMISSION

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FOR THE PUBLIC SERVICE COMMISSION

ALTERNATIVE	CONCEPT	PRINCIPAL ADVANTAGES	PRINCIPAL DISADVANTAGES	SUMMARY
<p><u>PERMIT INTEGRATION</u></p> <ul style="list-style-type: none"> • Permit inter-company transfers 	<p>Speed distribution & simplify redirection procedures by permitting coaling of product:</p> <ul style="list-style-type: none"> • Drop brand distinctions & allow retail stations to accept deliveries from any producer. 	<p>Increases flexibility in developing reallocation schemes.</p>	<p>Potential abuse; possible regulatory limitations; additional administrative headaches.</p>	<p>Should be encouraged where consistent with state-level redistribution plans. Any regulatory barriers to this practice should be lifted, but cost firms prefer to maintain integrity of their systems and this should not greatly inhibit flow.</p>
<ul style="list-style-type: none"> • Eliminate Product Distinctions 	<ul style="list-style-type: none"> • Drop product separation & permit intermingling of regular, unleaded & premium products. 	<p>Simplifies and speeds distribution somewhat.</p>	<p>Reduced engine performance.</p>	<p>Probably unnecessary; permit only if distribution system bottlenecks develop.</p>
<ul style="list-style-type: none"> • Eliminate Restrictions on Use of Leaded Gasoline <p><u>CONSERVATION MEASURES</u></p> <ul style="list-style-type: none"> • Limit Use of Relocated Vehicles • Use Buses Whenever Possible 	<ul style="list-style-type: none"> • Allow leaded gas to be used in all autos. • Introduce various fuel conservation measures: <ul style="list-style-type: none"> • Impound risk area autos once host area is reached or institute temporary pass system. • Use buses extensively in critical worker commute & host area transportation. 	<ul style="list-style-type: none"> • Ensures that late-model cars will be able to refuel along evacuation route. • Significant fuel conservation potential; simplifies security procedures. • Fuel conservation. 	<ul style="list-style-type: none"> • If permitted over extended period, damage to catalytic converter will result. • Perceived infringement of personal liberties. • Worker commute will require additional organization and scheduling. 	<p>Permit during three-day relocation period.</p> <p>Has been recommended for public safety purposes & should also result in significant fuel savings.</p> <p>Use buses whenever possible, both in commuting critical workers & in providing host area transportation.</p>

ANNEX P
ENERGY SUPPLY

I. SITUATION AND ASSUMPTIONS

- A. Severe weather conditions, such as blizzards, ice storms, heat waves or tornadoes may cause shortages in energy supplies by disrupting transportation services, interfering with delivery through transmission lines, or by forcing higher than normal usage of energy for heating or cooling.
- B. Various technological, man-made, or natural incidents, including terrorism, employee strikes, or international conflict could cause curtailment of energy supplies.
- C. The relocation of the U.S. population from risk areas to host areas, in the event of Crisis Relocation, will necessitate a reallocation within the energy distribution system.
- D. A major attack on the United States could seriously cripple Kentucky by making energy resources extremely scarce. Rationing to conserve Kentucky's energy resource would have to be undertaken immediately.
- E. The involvement of the U.S. in a major conventional war would cause the reallocation of energy resources forcing rationing or voluntary curtailment of their use.
- F. The only energy resources Kentucky is self sufficient in are coal and electricity, all other energy sources must be imported to some extent.
- G. Depending on the situation, national or state wide rationing, or conservation, may be imposed; this could cause activation of Annex O Economic Stabilization and Resource Management. In order to activate Annex O, new federal legislation would have to be enacted.

II. MISSION

The purpose of this annex is to provide for the organization, coordination, and direction of all energy resources within the state for use during an emergency. This is done by defining and establishing responsibility and authority in energy matters at the various levels within the state.

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III. DIRECTION AND CONTROL

- A. The Division of Energy, Department for Natural Resources, Natural Resources and Environmental Protection Cabinet (NREPC), in coordination with utilities under the jurisdiction of the Public Service Commission will control, direct and coordinate all energy needs and establish orderly procedures for furnishing emergency preparedness requirements to energy representatives. This will be done by issuing regulations under the authority of KRS 39.400 and KRS 39.409.
- B. The energy industry will form a composite organization of adequate size, with a qualified and competent staff, to direct the emergency preparedness operations of their respective industries.
- C. Each industry, commercial establishment, and warehouse facility will conduct its own operation under guidance issued by the NREPC.
- D. If the federal control of energy sources is established by the federal government, Kentucky will put into effect its Emergency Resource Management Plan. (See Annex O).

IV. CONCEPT OF OPERATIONS

A. State Government

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- 1. The Natural Resources and Environmental Protection Cabinet (NREPC) is assigned the responsibility of operating the State Energy Resource Management Board that directs, controls, coordinates and establishes operating procedures for the energy organization at all levels. In carrying out this plan, the board will be assisted by the Public Service Commission and the Department of Mines and Minerals.
- 2. The Secretary of NREPC will be director of the State Energy Resource Management Board. The board will advise the director of problems and recommend procedures.
- 3. The Energy Resource Management Board will consist of a Chairman and five members. The Director of the Board will serve as chairman. Other members will represent solid fuels, petroleum, natural gas, electric power and supporting resources.
- 4. The Energy Resource Management Board will have three advisory committees. These will be:

- a. **Petroleum Products Committee.** It will be chaired by the Secretary of the NREPC or assistant, and have representatives of the petroleum industry.
 - b. **Gas and Electrical Service Committee.** It will be chaired by the Chairman of the Public Service Commission and have representatives of the gas and electrical industry.
 - c. **Coal Products Committee.** It will be chaired by the Commissioner of Mines and Minerals and have representatives of the coal industry.
5. **Plans for individual emergency energy supplies** will be developed as follows but will be coordinated with NREPC.

a. **Petroleum Products**

The responsibility for the allocation of petroleum products in an emergency is vested in the Kentucky NREPC by state statute.

b. **Gas and Electricity**

1) The responsibility for the allocation of gas and electricity for jurisdictional utilities is vested in the Public Service Commission by statute.

2) The Public Service Commission will develop a natural gas and electrical allocation plan for jurisdictional utilities.

c. **Coal**

The responsibility for the management of a coal shortfall is vested in NREPC, Division of Energy by statute. Common procedure is for Public Protection and Regulation Cabinet, Department of Mines and Minerals and the NREPC to coordinate the allocation. The development of these allocation plans will be the responsibility of the NREPC.

6. **LP gas is not regulated by any state agency.** The state can only make suggestions and put into place a set-aside program for direct use.

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supplies to be made available for critical facilities or hardship needs.

B. Local Government

1. County governments are responsible for the coordination of all energy resources within their respective areas, as directed by the NREPC.
2. Each County Judge/Executive will appoint an Energy Resource Coordinator to cooperate with the state board.

C. Industry

The energy industries are responsible for operating their systems and facilities to provide the maximum possible service within their capabilities, and fulfill essential needs as specified by appropriate governmental authorities. This includes responsibility for management, continuity, personnel and facility protection, conservation of supplies, restoration of damaged lines and terminals, and the expansion or improvement of systems as practical and as necessitated under emergency conditions. In order to carry out these responsibilities, it will be necessary to organize and operate a composite headquarters. This will consist of the state/industry/transportation organization of petroleum, gas, coal and electrical sections. Operational control of the energy industries will remain, at all times, with the responsible officials of the industry.

D. In the event of an energy shortage, the following general steps can be taken by the Commonwealth, as appropriate.

1. Minimize transportation impediments.
 - a. Request the assistance of local and state agencies in road clearing activities during periods of snow and ice (including clearing private driveways if necessary for delivery of fuel supplies).
 - b. Request through transportation companies involved or appropriate federal agencies the priority movement of petroleum products, coal, or other fuels on rail and waterways.
 - c. Work with appropriate state and federal

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agencies to remove restrictions on highway transportation (e.g., weight limits, drivers hours, route restrictions, etc.) which may be removed without causing safety or other problems.

- d. Assist suppliers and consumers in locating transportation for petroleum products, coal, or other fuels.
 - 2. Request all County Judge/Executives, and Mayors to develop local programs designed for energy conservation, particularly in the commercial sector. Urge energy savings goals of 40 percent and 20 percent depending on the relationship to meeting "essential human needs."
 - 3. Request that state and other offices be closed one day per week by extending the normal working day the other four days.
 - 4. Request the Cabinet for Human Resources ensure that claims and benefits for unemployed workers are taken and promptly processed.
 - 5. Meet with representatives of suppliers of affected energy sources to fully assess the problem.
 - 6. In a strike situation, utilize state police and national guard to escort trucks carrying fuel supplies.
- E. The following actions may be taken with regard to specific energy sources.

1. Propane and Petroleum Products

- a. Request U. S. Department of Energy to require regional shifts of petroleum products into Kentucky.
- b. Request consumers of propane and petroleum products to maximize conservation efforts during shortage period.
- c. Initiate reduction measures for state government facilities.
- d. Promote substitution of other fuels where feasible. Aid in securing variances to air pollution regulations so facilities which are equipped to burn coal may do so.

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- e. Request implementation of special relief measures, as appropriate from the federal government.
- f. Interact with U.S. Department of Energy on emergency demand constraint measures which may be implemented. Considerations may include:
 - 1) gasoline rationing.
 - 2) mandatory boiler efficiency standards.
 - 3) mandatory reduction of parking spaces.
 - 4) mandatory temperature settings.

2. Natural Gas

- a. Request the general public to maximize conservation efforts (requests for conservation to be intensified as shortage increases).
- b. Initiate demand constraint measures at state government facilities.
- c. Promote the use of alternate fuels where feasible.
 - 1) Aid in securing variances to air pollution regulations so facilities which are equipped to use coal may do so.
 - 2) Switch to petroleum products or propane.
 - 3) Assist gas utilities to get propane for peak shaving plants.
- d. Request the implementation of special relief measures as appropriate from federal government.
- e. Implement a natural gas pooling operation where feasible.
- f. Interact with U. S. Department of Energy on emergency demand constraint measures which may be implemented. Considerations may include:
 - 1) gas rationing.

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- 2) mandatory boiler efficiency standards.
- 3) mandatory temperature settings.

3. Coal

- a. Voluntary cooperation of suppliers to resolve problems.
- b. Request coal users to maximize conservation efforts.
- c. Initiate demand restraint measures at state government facilities.
- d. If necessary, utilize coal from state owned stockpiles for essential needs.
- e. Request the implementation of special relief measures as appropriate from federal government (e.g., mandatory coal allocation program, Taft-Hartley Act).
- f. Promote the use of alternate fuels where feasible.
- g. Aid in securing temporary variances to air pollution regulations for facilities which are unable to obtain sufficient quantities of compliance coal.
- h. Interact with U. S. Department of Energy on emergency demand constraint measures which may be implemented. Considerations may include:
 - 1) coal rationing.
 - 2) mandatory boiler efficiency standards.
 - 3) mandatory temperature settings.

4. Electricity

- a. Request users to maximize conservation efforts in coordination with utilities emergency plans.
- b. Initiate demand restraint measures at state government facilities in response to emergency measures initiated by utilities.
- c. Promote the transfer of electricity to shortage areas.

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- d. Request the implementation of special relief measures as appropriate from state and federal utility commissions (e.g., mandatory purchases and sales of power at specified stockpile levels).
- e. Deal with essential needs as appropriate.
- f. The Public Service Commission has the authority for approving electricity curtailment plans for jurisdictional utilities.
- g. Interact with U. S. Department of Energy on emergency demand constraint measures which may be implemented. Considerations may include:
 - 1) electricity rationing.
 - 2) mandatory boiler efficiency standards.
 - 3) mandatory temperature settings.

F. Operational Phases

1. Preparedness Phase

- a. Develop standard operating procedures.
- b. Develop a system of determining energy resources available after an incident.
- c. Ensure that necessary forms are available in the event of an emergency.
- d. Ensure that all personnel concerned are familiar with their responsibilities.
- e. Take part in tests and exercises as required by state authorities.
- f. Upon instructions from KyDES Executive Director or representative shift to Response Phase.

2. Response Phase

a. Increased Readiness Period

- 1) Complete all steps not completed under Preparedness Phase.

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- 2) Inform energy industry personnel to prepare for implementation of this annex.
- 3) Prepare to maintain control of supply and procurement of energy resources.

b. Emergency Operation Period

- 1) Natural, man-made and technical disasters
 - a) Complete all steps not completed under Preparedness Phase.
 - b) Commence life saving and damage limiting operations.
 - c) Issue fuel rationing orders if necessary.
 - d) Advise the Governor on current and continuing functions, problems, and activities in the energy area.
 - e) Assist the Governor in carrying out the policies, plans, and instructions pertaining to energy resources.
 - f) Advise Governor on state energy resource needs.
 - g) Maintain current information on the availability of energy resources within the state.
 - h) Approve request for energy resources based on current policies.
 - i) Issue authorization for necessary use of energy resources to essential users.
 - j) Determine the best utilization of available energy resources supply.
 - k) Keep records on workers made available, work undertaken, and hours worked.
 - l) Upon instructions from KyDES Executive Director or representative

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shift to Recovery Phase.

2) Nuclear Conventional War

a) Relocation Period

- (1) Complete all steps not completed under Preparedness Phase or Increased Readiness Period.
- (2) Commence operations (See Natural Disaster Energy Operation Period).
- (3) Inform energy industry personnel that rationing may be put into effect.
- (4) Issue fuel rationing orders if necessary.
- (5) Upon instructions from KyDES Executive Director or representative shift to Attack Period or Recovery Phase.

b) Attack Period

- (1) Provide fuel for the operation of community fallout shelters if so instructed.
- (2) Take shelter. During this phase, action will be limited to in shelter activities unless otherwise directed by the state DES Coordinator.
- (3) Upon instructions from KyDES Executive Director or representative shift to Recovery Phase.

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BY: William S. Neal
FOR THE PRESIDENT OF COMMISSION

- a. Carry out operations as directed by EOC to save lives and property.
- b. Revert to Increased Period or Preparedness Phase upon direction of the EOC.
- c. Advise the Governor on current and continuing functions, problems, and activities in the energy area.

- d. Assist the Governor in carrying out the policies, plans, and instructions pertaining to energy resources.
- e. Advise Governor on state energy resource needs.
- f. Maintain current information on the availability of energy resources within its jurisdiction.
- g. Approve request for energy resources based on current policies.
- h. Issue authorization for necessary use of energy resources to essential users.
- i. Determine the best utilization of available energy resources supply.
- j. Upon completion of the operation survey organization for cost of preparing for and conducting the operation.
- k. Critique operation for updating plan and standard operating procedures.
- l. Upon instructions from KyDES Executive Director or representative shift to Preparedness, or Increased Readiness or Recovery Phase.
- m. Remember cleanup and restoration of property often continues long after emergency personnel have returned to normal operations.

G. Increased Readiness Levels will be initiated by KyDES based on information furnished by FEMA. The required actions are explained in Annex D of this plan.

H. Reports concerning the availability and need of all types of energy in the state will be made to KyDES in conformity with Annex U.

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V. ADMINISTRATIVE SUPPORT

A. The Energy Management Board will request additional administration support state government and energy industry.

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FOR THE PUBLIC SERVICE COMMISSION

B. Augmentation and Training of emergency organization will be carried out as set forth in FEMA CPG 1-7 -

"Guide for Increasing Local Government Civil
Defense Readiness During Period of International
Crisis."

VI. GUIDANCE PUBLICATIONS

- A. Civil Defense and Emergency Planning for the
Petroleum and Gas Industries, FEMA Publication
- B. Prototype Plans for Production and Maintenance of
Electric Power FEMA CPG 2-8.6

VII. APPENDIX

- P-1 Energy Organization
- P-2 Summary of Motor Fuel Control and Distribution
Options

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BY: *Jonathan S. Neal*
FOR THE PUBLIC SERVICE COMMISSION

ECAR Guide No. 1

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BY: *Jordan C. Neel*
FOR THE PUBLIC SERVICE COMMISSION

ECAR GUIDE NO. 1
EMERGENCY ELECTRIC PROCEDURES

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BY: Jordan C. Neal
FOR THE PUBLIC SERVICE COMMISSION

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ECAR GUIDE NO. 1
EMERGENCY ELECTRIC PROCEDURES

I. GENERAL

It is recognized that in the event there are shortages or disruptions in electric supply, each ECAR company should have an emergency procedures plan to implement, as may be necessary, to restore and maintain service to the extent possible under the circumstances. These procedures will vary to some degree between companies to cover local conditions and individual system characteristics. The purpose of this Guide is to provide an outline which the ECAR systems can use to develop specific procedures to deal with various types of electric emergencies.

Industrial and large commercial customers are expected to develop internal load curtailment procedures if requested to do so by their serving utility and place in effect such procedures when requested to do so by the serving utility or when ordered to do so by the Governor or other authorized regulatory body.

To assure equitable treatment of customers served directly or indirectly by a utility, its wholesale customers (purchasers for resale) are expected to follow the practices and procedures outlined in this Guide when called upon to do so by the appropriate regulatory body.

Electrical emergencies can be of varying duration and causes, as such, they generally require different emergency procedures to be placed in effect. Such emergencies or supply deficiencies can be short-term or long-term, anticipated or unanticipated.

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Essential health and safety customers will be given special consideration as might be mandated by the State Utility Commission or other duly constituted authority having jurisdiction. Such customers should install emergency generation equipment if continuity of service is essential. In the case of customers supplied from two utility sources, only one source will be given special consideration. Other customers, who in their opinion have critical equipment, should install emergency battery or portable generating equipment.

Electric utilities shall promptly advise the State Utility Commission and other appropriate authorities having jurisdiction within the systems' service area of the nature, time, and duration of all implemented emergency conditions and procedures which affect normal service to customers. It is expected that commissions may order the implementation of additional procedures or the termination of the procedures previously employed when circumstances so require.

As may be appropriate in accordance with the nature of the occurring or anticipated emergency, the following procedures will be initiated by each system.¹

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BY: *William J. Neal*
FOR THE PUBLIC SERVICE COMMISSION

¹A "system" is defined as the control area of a utility. The "control" area is defined as: "The area of operation of an electric utility irrespective of political boundaries to which a common generation control scheme is applied."

II. SHORT-TERM CAPACITY SHORTAGES

A. Short-Term Capacity Shortages Following System Separation

In the event of a sudden transmission separation which isolates all or parts of a system or systems from the interconnection and results in the area so isolated being deficient in generation, only unloaded capacity on line (spinning reserves), and/or load shedding by underfrequency relays will be effective in arresting the frequency decline.

If the generation deficiency is of such magnitude that the rate of frequency decay is too large for the on-line spinning reserve to be effective, automatic underfrequency load shedding will occur. The underfrequency load shedding schedule within the ECAR area, as set forth in ECAR Document No. 3 is as follows:

<u>STEP</u>	<u>FREQ-HZ</u>	<u>% LOAD SHED</u>
1	59.5	5.0
2	59.3	5.0
3	59.1	5.0
4	58.9	5.0
5	58.7	5.0

If the spinning reserve of one or more of the load shedding steps in combination with the spinning reserve is successful in arresting the frequency decline, one or more of the following steps will be taken, as appropriate, to return the isolated area frequency to within synchronizing range of the interconnected network.

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- o Service will be interrupted to controlled service loads and to loads served under interruptible tariffs.
- o Distribution voltage may be reduced, if applicable, but not more than five percent.
- o Manual load shedding of firm customers' loads will be instituted.

Once the frequency of the isolated area is returned to synchronizing range of the interconnected network, system restoration will proceed as outlined in Section III-C, Coordinated System Restoration-General Principles.

B. Short-Term Capacity Shortages—No System Separation

In the event of an unanticipated widespread deficiency of generation, the system frequency of the entire interconnection can be expected to slowly decline until a balance of load and generation is reached at a subnormal frequency or automatic underfrequency load shedding occurs. If possible, the frequency decline should be arrested to prevent the operation of the automatic underfrequency load shedding as shedding load in areas that are not deficient can cause transmission to overload. The systems in ECAR should provide in their Emergency Procedures, the actions to be taken during such an event. These procedures should include the action to be taken when the system itself is experiencing a capacity deficiency or when its neighboring systems are experiencing capacity deficiencies. In either case,

the subject of the action should be to restore the system frequency to normal and return all interchange to schedule.

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Action to be considered.

1. To restore the balance between load and generation if the control area is deficient
 - o Load all available generation resources.
 - o Enter into emergency purchases to the extent that generation resources are available and tie line loading will allow.
 - o Interrupt service to controlled service loads and to loads served under interruptible tariffs and if applicable reduce voltage.
 - o Interrupt service to firm customers.

2. To assist another control area that is experiencing a capacity deficiency.
 - o Provide additional assistance by scheduling emergency sales to the deficient system(s) to the extent that generation resources can be made available and tie line loading will allow.
 - o Interrupt service to controlled service load and to loads served under interruptible tariffs, and if applicable reduce voltage to increase emergency sales if the deficient system has taken similar emergency action.

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C. Anticipated or Predictable Short-Term Capacity Shortages

In the event an emergency condition of short-term duration is anticipated or predicted which cannot be relieved by sources of generation within or outside the utility's service area, the following steps will be taken at the appropriate time and in the order appropriate to the situation:

1. The internal demand of generating plants and other facilities owned by the utility will be reduced to the maximum extent possible consistent with the maintenance of service.
2. During the hours of maximum system demand, available load management procedures will be implemented to controlled service loads and to loads rendered service under interruptible rates in accordance with approved tariffs.
3. If provisions are available to do so, reduce voltage, taking into consideration its effectiveness as a load relief measure and the effect on customer's equipment and service.
4. Voluntary load reductions will be requested of large commercial and industrial customers by procedures established in their respective curtailment plans.
5. Voluntary curtailment of all customers will be requested through appropriate media appeals.
6. Mandatory load curtailment steps will be implemented only on the order of the Governor or other duly constituted authority. The serving utility in executing these actions under said order, is relieved of any liability as to their consequences to life, health, or property.

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- o Interruption of selected distribution circuits during the period(s) of maximum system demand while minimizing, to the extent practicable, interruption to facilities which are essential services.
- o Mandatory load curtailment of large commercial and industrial customers by procedures established in their respective curtailment plans.

III. COORDINATED SYSTEM RESTORATION

If a portion of the ECAR region experiences a wide-spread area outage or becomes separated from the interconnected system, previously agreed upon practices and procedures for system restoration common to all systems will be executed as soon as practicable.

Since the affected area may include part or all of one or more systems and the systems may have different characteristics, a detailed plan cannot be prepared which would be applicable to all. The principles here stated provide the basis for each ECAR system's plan consistent with its own individual needs and characteristics. These plans are to be periodically reviewed to assure their inter-system compatibility.

Three situations can be postulated which will require the invoking of the restoration procedures. They are:

1. The complete blackout of an area due to that area's separation from the interconnection and no generation operating within the area previous to the separation;
2. The complete blackout of an area caused by the area's separation from the interconnection and a accompanying loss of

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BY: Jordan C. Neel
FOR THE PUBLIC SERVICE COMMISSION

the generation operating within the area prior to the separation;

3. The separation of an area from the interconnection and a deficiency of generation within area following the separation. Load and generation are brought into balance by the operation of load shedding relays, but the frequency of the area is above or below that of the interconnection.

Each of the three situations stated above requires separate consideration. The principles for restoration on which the ECAR systems have based their detailed plans are as follows:

GENERAL PRINCIPLES

Following an area separation, which may include all or parts of several systems, an immediate assessment of the status of the generation, transmission, and subtransmission facilities in the area should be made, and coordinated procedures to restore the area agreed upon by the affected systems. Every effort should be made to determine the originating cause of the disturbance so as to assure that the remaining network will not be jeopardized when restoration is attempted.

A. Area Isolated, Black and no Generation Operating Within the Area

Prior to the Occurrence

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EFFECTIVE items to be coordinated are:

MAR 01 1996 Sectionalize the subtransmission system within the area into

manageable sizes.

PURSUANT TO 807 KAR 5.011,
SECTION 9 (1)

BY: James C. Neal Restore the higher voltage transmission systems as voltage
FOR THE PUBLIC SERVICE COMMISSION conditions permit and loading conditions require.

- o Using the subtransmission as required, begin to reconnect radial load fanning out from areas contiguous to the black-out area.
- o continue adding load as conditions allow. After each block of load is restored, make an assessment of the situation in and adjacent to the affected area, so as to determine the loading patterns and voltage conditions within the network.
- o At no time allow the amount of load restored to be larger than the spinning reserve capability of the system or systems from which the area is being energized.

B. An Area Isolated, Black and All Generation Operating Within the Area Prior to the Occurrence Lost as a Result of the Separation.

Items to be coordinated are:

- o Determine if any of the generation lost can be recovered in time to assist restoring the area. If a cranking source is available at a power plant(s), it should, by prearranged procedures, be placed in service and made available to restart lost generation at the plant. The plant(s) should be brought up to synchronizing speed, and if at all possible, restore local loads.
- o If local cranking sources are not available at a plant(s), prearranged transmission paths should be made available as quickly as possible to allow the plants to be restarted and synchronized to the main interconnected system. It should be recognized when planning remote startup transmission paths that due to abnormal voltage and reactive conditions that can exist, the relays protecting the busbars may not function properly.

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- o As the plants are synchronized, they should be brought to the maximum output available as quickly as possible, subject to transmission capacity and stability constraints so as to provide reserve tie capacity for the reconnection of load within the area.
- o As the plants are loaded, area restoration should continue, using the procedures stated in Section A, above. Precautions should be taken to prohibit the uncontrolled automatic closing of transmission circuits by automatic synchronizing devices.

C. The Separation of an Area From the Interconnection With Some or All of the Generation Remaining and the Area Not Completely Blacked Out. Underfrequency Load Shedding has Occurred.

This will probably be the most difficult situation with which to cope if it occurs on a large scale, due to the almost infinite combinations of circumstances that can exist. However, in most cases, the following procedures can be followed.

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BY: James C. Hill
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The first step of area restoration is to be directed toward restoring frequency and resynchronizing the isolated area to the interconnected system. It is probable that the generation and transmission facilities in the isolated area will be heavily stressed. An uncoordinated attempt by systems in the area to restore frequency and/or load can result in additional cascading operations and other separation; therefore, prior to taking any individual actions, an immediate assessment of the status of generation and transmission facilities in the isolated area should be made, and procedures agreed upon by the affected systems.

The transmission network within the area should be kept intact as long as possible, dependent upon the emergency overload capabilities of the facilities. However, if frequency has declined and remains below 58.5 Hz and additional manual load shedding has not proven successful, controlled separation within the isolated area may be considered.

Items to be coordinated are:

- o Transmission lines within the isolated area which have tripped during the disturbance should be left open until they can be closed with assurance that such closure will not jeopardize transmission and generation facilities that have remained in service.
- o Synchronization of the isolated area with the interconnected network is to be done as soon as possible in order that the interconnected systems may help support the restoration of any load shed within the area during the occurrence. Synchronization should be done on a controlled and coordinated basis after an assessment of transmission and generation capabilities is made.
- o In order to prevent premature uncontrolled automatic reclosure of individual interconnections, provisions must be provided to prevent the operation of automatic synchronizing relays.
- o Priority is to be given to providing generating plants start-up power if a plant can be brought up in time to be of assistance to the area.
- o Restoration of load that has been shed is to begin only after adequate spinning reserve has been established with PUBLIC SERVICE COMMISSION

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BY: Anderson C. Neal

affected area. Full coordination between the systems involved should be maintained throughout the restoration process to prevent adding load faster than generation and transmission capability permits.

IV. LONG-TERM CAPACITY AND FUEL SHORTAGES

The following actions shall be implemented until it is determined that any or all actions may be terminated. The public shall be immediately advised through appropriate media sources of the implementations of these procedures.

It must be recognized that these procedures will only permit an electric utility and its customers to cope with long-term shortages and are not solutions to the basic problems.

A. Long-Term Capacity Shortages

If an emergency situation of long-term duration arises out of a capacity shortage which cannot be relieved by sources of generation within or outside of the utility's control area the following actions shall be taken in the appropriate order as required:

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1. Curtail use of non-essential energy on premises controlled by the utility.

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2. If provisions are available to do so, reduce voltage, taking into consideration its effectiveness as a load relief measure and the effect of customer's equipment and service.

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3. During the hours of maximum system demand initiate voluntary energy curtailment by all customers by:

- a. Direct contact with industrial and large commercial customers requesting them to implement their electric load curtailment plan.
 - b. Requesting through mass communication media, voluntary curtailment by all other customers of a minimum of ten percent of their electric use.
4. Mandatory load curtailment steps will be implemented only on the order of the Governor or other duly constituted authority. The serving utility in executing these actions under said order, is relieved of any liability as to their consequences to life, health, or property.
- a. Implement procedures to curtail the electric demand of other non-residential customers to the levels and times specified by the utility. Upon prior arrangement and mutual agreement with the serving utility, customers may effect their electric demand reduction on a corporate basis within an individual utility's service area.
 - b. Implement procedures to curtail further the demand on customers covered in (a) above to load levels and at the time specified by the utility.
 - c. Interrupt selected distribution circuits during the period(s) of maximum system demand on a rotational basis in accordance with specified load reduction amounts, while minimizing, to the extent practicable, interruption to facilities which are essential services.

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B. Fuel Shortages

In the event of an emergency fuel shortage, such as that which could result from a general coal miners' strike, each system will, two months prior to the expected strike date, report its fuel supplies to the ECAR office based on an established fuel reporting program.

Within thirty (30) days prior to expiration of the coal miners' contract or other impending fuel supply emergency, the utility shall physically inventory its coal piles and confirm the recoverable quantity and quality of the coal in storage. The days' burn in storage will be determined and computed weekly in accordance with the procedures detailed in Appendix A, Determination of Days' Coal Supply and Optimum Fuel Conservation Dispatch.

If a strike occurs and there is no indication of an immediate settlement, each system will initiate its established program for conservation of coal. Such programs will be carried out in the appropriate sequence of steps listed below except where such actions are not applicable.

1. Company Load Reduction and Fuel Optimization

PUBLIC SERVICE COMMISSION OF KENTUCKY EFFECTIVE Curtail all non-essential uses of electrical energy at company-owned facilities.

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BY: Arthur C. Neal
FOR THE PUBLIC SERVICE COMMISSION

b. Discontinue all non-firm sales to utility systems not participating in this or a similar plan except where the dropping of regular customers or serious equipment overload would result or where the transaction is part of a multiparty energy transfer arrangement.

- c. Implement fuel conservation dispatch so as to optimize the generation of electricity from the quantity of fuel available.

2. Appeals to Public

- a. Make public appeals to all wholesale and retail customers to reduce further their consumption of electricity. Notify industrial customers and customers who use electricity to process food or raw materials of potential mandatory curtailments.
- b. Request the reduction of all outdoor lighting to the minimum level necessary for life and property protection, the elimination of all advertisement lighting except for a single luminaire to indicate commercial facilities open after dark, and the reduction by a specified percentage of the number of elevators and escalators in use.

3. Operational Procedures

- a. Make maximum purchases of energy from any sources, consistent with prudent system operation.
- b. If provisions are available to do so, reduce voltage, taking into consideration its effectiveness as a load relief measure and the effect on customer's equipment and service.
- c. Request authorization from the proper authorities to curtail use of air pollution control facilities.

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- d. Request authorization from the proper authorities to burn non-conforming coal to order to maximize use of the remaining stockpile.
- e. Request industry to utilize industrial-owned generating equipment to supplement utility generation to the maximum extent possible.
- f. Where plant design permits and when such supplemental fuels are available, fire oil, or natural gas in lieu of coal.
- g. To the extent legal obligations permit, curtail to minimum possible levels all firm sales to utilities not participating in this plan or a comparable plan.

4. Mandatory Curtailment

Mandatory curtailment steps will be implemented only on the order of the Governor or other duly constituted authority. The serving utility in executing these actions under said order, is relieved of any liability as to their consequences to life, health, or property.

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- a. All the previously implemented actions shall be continued.
- b. Residential customers shall reduce their load by a specified percentage and preferably to a level which is just sufficient to meet only their essential needs.
- c. All industrial and commercial customers shall implement procedures for curtailment to a stated percentage of the

customers' corresponding month's use in the previous year. Such usage will be corrected to reflect any abnormalities in the prior year's usage; i.e., strikes, maintenance outages, etc. Facilities whose function is to provide life-support, national, state, or local security, or essential public service, should strive to meet the curtailment level indicated, but shall not be required to do so.

5. Additional Mandatory Curtailments

All industrial and commercial customers shall reduce consumption to levels adjudged appropriate under the circumstances by the serving system, but not less than those required for the protection of human life and safety and protection of physical plant facilities, whichever is greater. Facilities whose functions are to provide life-support, national, state, or local security, or essential public services should strive to meet the curtailment level ordered, but are not required to do so.

6. Curtailment to Minimum Survival Level

- a. Curtail all industrial and commercial customers to levels not less than those required for protection of human life and safety or protection of physical plant facilities.
- b. As a last resort, implement manual load shedding procedures as necessary to preserve the integrity of the electrical system.

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APPENDIX A

DETERMINATION OF DAYS' COAL SUPPLY
AND
OPTIMUM FUEL CONSERVATION DISPATCH

The procedure described herein will be used to project the days' coal supply remaining for a system or group of systems and to determine the dispatch required to obtain the maximum days' burn from that supply when the supply falls below a predetermined value.

Data Required

1. All long-term unit deratings and partial outages
2. The weighted average net heat rate (BTU/KWH) of the units within each plant (Weighted by unit capability)
3. The recoverable inventory of coal in storage at each plant (TONS)
4. The heat value (BTU/lb) of the coal in storage at each plant
5. The system's projected average daily coal-fired generation requirements for the coming 60 days (MWH/DAY)
6. Additional output obtainable at each plant by the firing of supplemental fuel; i.e., oil, natural gas, propane

Algorithm Used

1. A burn factor (TON/MWH) is calculated for each plant based on the weighted average heat rate of the plant and the heat value of the coal in storage.

$$\text{TON/MWH} = \frac{\text{BTU/KWH}}{\text{BTU/lb} \times 2}$$

2. The maximum 24 hour MWH output of each plant is calculated considering long-term deratings and partial outages

$$\text{MAX MWH/DAY} = (\text{PLANT CAP-DERATE}) \times 24$$

3. The MWH/DAY output obtainable from the coal in storage at each plant is calculated for 10 days, 15 days, and so on to 75 days. If supplemental fuel output is available, it is to be included.

$$\text{MAX MWH/DAY} = \frac{\text{TONS IN STORAGE}}{(\text{TONS/MWH}) \times \text{DAYS}} + \text{SUPP. MWH/DAY}$$

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4. After each calculation of MWH/DAY is made, the value is compared to the MAX MWH/DAY. If the value calculated is greater, the MWH/DAY for that number of days is set equal to the MAX MWH/DAY.
5. The MWH/DAY obtainable for 10 days from each of the system's plants is summed, then from each of the plants for 15 days, 20 days, and so on. The value of each summation is the MWH/DAY output of the systems' coal-fired generation obtainable for that number of days.
6. The system's projected daily average coal-fired generation requirement in MWH/DAY is obtained by estimating the system's total MWH internal load requirement, minus firm purchase, plus firm sales, minus generation from non-critical fueled units and dividing the value obtained by the number of days over which the estimate was made.

$$\text{MWH/DAY} = \frac{\text{LOAD} + \text{SALES} - \text{PURCHASE} - \text{NON-CRITICAL FUEL}}{\text{DAYS}}$$

7. The MWH/DAY generation requirement determined in Step 6 is then compared to the total system MWH/DAY obtainable for specified days as determined in Step 5. The days remaining coal supply are the days at which the MWH/DAY generation requirement equals the MWH/DAY obtainable. If the indicated days remaining supply differs significantly from the number of days used to obtain the average MWH/DAY in Step 6, Step 6 should be repeated.

To realize the days remaining coal supply determined in Step 7, a system's generating plants must be dispatched such that each plant's daily net energy output (MWH/DAY) when averaged over a calendar week approximately equals the MWH/DAY obtainable from that plant for the number of days determined to be the system's days coal supply. How such a dispatch is affected is best determined by each system.

Jointly owned plants will be treated on a pro rata basis. Each participant will report his share of the plant's total capacity and fuel supply as if it were at a separate location. The average MWH/DAY output requirement and days remaining coal supply of each participant's share will be determined separately.

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Example:

As an example, consider a 1400 MW installed capacity hypothetical system. The system's projected average internal energy requirements are 26,400 MWH/DAY. External firm sales obligations are 1,200 MWH/DAY. The system has four generating plants, one of which is a 500 MW nuclear capable of sustained operation of 90 percent capacity factor. The three coal plants have the capability rating, coal inventory, and heat rate shown below. No condition deratings are considered. The coal in storage at all three plants is assumed to have a heat value of 11,000 BTU/lb.

COAL FIRED PLANTS

<u>PLANT</u>	<u>MW NET CAPABILITY</u>	<u>MAX MWH/DAY</u>	<u>TONS IN STORAGE</u>	<u>HEAT RATE BTU/KWH</u>
1	500	12,000	200,000	9,500
2	300	7,200	75,000	10,000
3	100	2,400	30,000	10,500

From the above data, the MWH/DAY output of each plant is calculated for 5-day increments of days fuel supply remaining and totaled for the system.

MWH/DAY FOR DAYS REMAINING

<u>PLANT</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>	<u>50</u>
1	12,000	12,000	12,000	11,579	10,292	9,263
2	6,600	5,500	4,714	4,125	3,667	3,300
3	2,400	2,095	1,796	1,571	1,397	1,257
TOTAL	21,000	19,595	18,510	17,275	15,356	13,820

The energy requirement on the coal-fired plants is:

System internal energy requirement	26,400 MWH/DAY
Firm sale obligation	1,200 MWH/DAY
Nuclear unit output (500 x 24 x .9)	-10,800 MWH/DAY
Coal-fired output required	<u>16,800 MWH/DAY</u>

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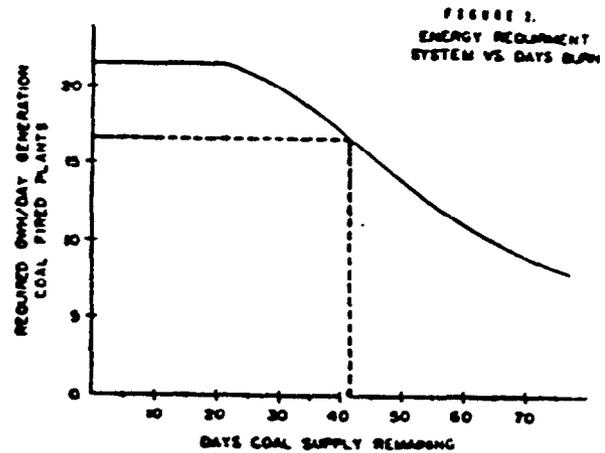
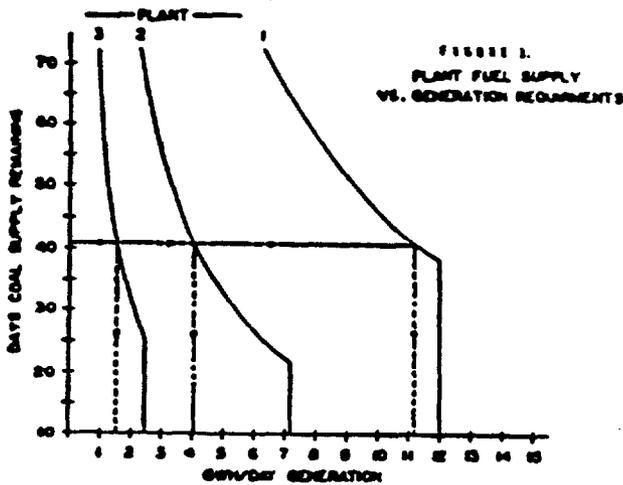
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FOR THE PUBLIC SERVICE COMMISSION

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The coal-fired energy requirement lies between 17,275 MWH/DAY for 40 days and 15,356 MWH/DAY for 45 days. By interpolation the value for 16,800 MWH/DAY is found to be 41 days. To satisfy the loading criteria, each plant's average daily output should be:

Plant 1	11,250 MWH/DAY	- 93% CAPACITY FACTOR
Plant 2	4,025 MWH/DAY	- 56% CAPACITY FACTOR
Plant 3	1,525 MWH/DAY	- 64% CAPACITY FACTOR

Figures 1 and 2 graphically display the calculation.



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BY: *Charles P. Neal*
FOR THE PUBLIC SERVICE COMMISSION

May 1, 1980
Revised November 6, 1986

APPENDIX B

"ECAR COMMUNICATION PROCEDURES"

In addition to the extensive intersystem communication facilities within the ECAR region, to further augment the reliability of the area, two regional communication facilities are provided. One is a computer controlled data system with terminals in each of the power control centers of the bulk power members of ECAR. The second is a direct-dial private line telephone system with terminals in six control centers designated as Area Coordinators within the region, the ECAR "Hotline" (FIG 1).

In addition to the regional facilities, a terminal of the NERC telephone system is installed in the AEP Control Center. The other six terminations of the NERC "Hotline" appear in one of the control centers in each of the six other reliability regions within the Eastern Interconnection.

The primary purpose of the data network is to exchange status reports of system conditions and to keep the ECAR systems and their neighbors informed of abnormal or unusual situations. It is also used for data collection and the transmission of daily operating reports and administrative messages.

The ECAR Hotline is intended to aid in emergency or near-emergency situations, which cannot be solved by contiguous interconnected system communications.

NERC Operating Guides have been considered in formulating these ECAR Communication Network procedures. These procedures supersede the ones dated 5/10/77.

I. Data Network

Each system is expected to broadcast appropriate information over the network on any situation that occurs which could conceivably jeopardize system reliability such as:

- A. Forced outages of major generating units (over 200 MW) and transmission (345 kV and higher) will be reported as soon as practical after their occurrence.
- B. The outage of transformers that materially affect the flow patterns or voltage control of the bulk power transmission network.
- C. Any acts or threats of sabotage, vandalism, or para-military action in anyway related to utility facilities.

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- D. Each system will report emergency measures taken such as voltage reduction, load curtailment, or media appeal.

Items of general concern appearing on the ORNS teletype (Operating Representatives of Northeast Systems) will be retransmitted over the ECAR network by AEP. MAIN Reliability Council presently transmits their information directly over the ECAR network.

Daily operating reports as agreed to by the ECAR companies are transmitted over the network. Specific procedures for these reports are issued separately.

II. Area Telephone Network ("HOTLINE")

Any system having an emergency or near-emergency requirement which cannot be met by its contiguous interconnected neighbors will contact his Area Coordinator who then will seek assistance from the ECAR companies via the ECAR "Hotline."

If required, AEP will seek assistance from other Reliability Areas via the NERC "Hotline." Also as appropriate, AEP will seek assistance from ECAR companies for other Reliability Area companies.

The Area Coordinators will locate the ECAR "Hotline" phones such that the System Coordinator can answer it, with the control room dispatchers answering it in his absence.

III. Periodic Testing

To assure operation during emergency conditions, the ECAR Communication Network will be periodically tested as follows:

- A. The ECAR "Hotline" telephone network will be tested on a weekly basis. AEP will initiate an "ALL CALL" and will verify that all parties receive the call. AEP will request a different Area Coordinator each week to call each of the other Area Coordinators individually. This will check all aspects of the telephone network.

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- B. The entire ECAR communication network will be tested on a monthly basis. The test will be initiated by the ECAR office over the ECAR data network. The message will include the test date and time. Each System Coordinator will respond by contacting their Area Coordinator. The Area Coordinators will record the time of each system's response and forward this information to the ECAR office via the "Hotline." The Area Coordinators with no System Coordinator responsibility shall also respond to the ECAR office. The ECAR office will acknowledge receipt via the data network.

August 6, 1987

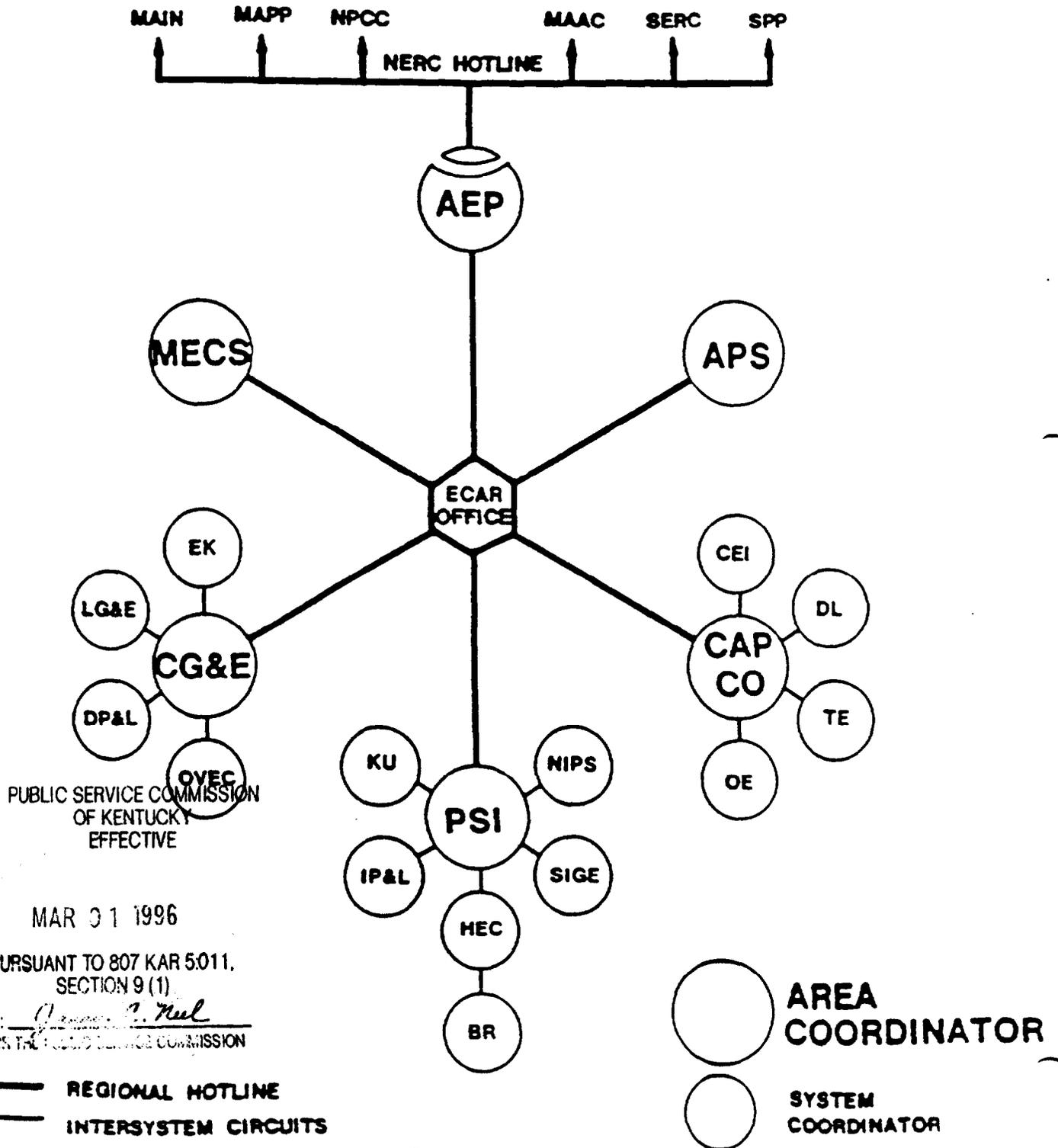
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ECAR REGION EMERGENCY NOTIFICATION CHANNELS



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— REGIONAL HOTLINE
— INTERSYSTEM CIRCUITS

○ AREA COORDINATOR
○ SYSTEM COORDINATOR

(FIG 1)

ECAR Guide No. 3

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ECAR DOCUMENT NO. 3

EMERGENCY PROCEDURES DURING DECLINING SYSTEM FREQUENCY

Approved by the Coordination Review Committee
October 24, 1968
Revised January 24, 1985

Approved by the ECAR Executive Board
November 9, 1968
Revised February 7, 1985

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BY: *Jordan C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

ECAR DOCUMENT NO. 3
EMERGENCY PROCEDURES DURING DECLINING SYSTEM FREQUENCY

The East Central Area Reliability Coordination Agreement provides for the establishment of principles and procedures regarding matters affecting the reliability of bulk power supply within ECAR. Consistent with this objective, studies have been made of system performance under conditions of declining system frequency to determine the need for and the extent of a coordinated program of emergency procedures. This Document presents the program adopted by ECAR members as a result of these studies.

Basis for the Selection of an Emergency Procedures Program

The promulgated goal of ECAR members is to design and build an interconnected network within the ECAR area which would not be subject to widespread system outages as a consequence of a major disturbance and to develop guidelines for its safe and reliable operation. Precautionary procedures, regardless of this stated goal, are required to meet emergency conditions such as system separation and operation at subnormal frequency. In addition, coordination of emergency procedures, including the load shedding practices of ECAR companies, both with respect to each other and with respect to neighboring companies outside ECAR is essential.

The basic principles of load shedding are, in the event of a serious emergency, to:

1. restore the balance between load and generation in the affected area in the shortest possible time and permit the subsequent return to 60 Hz operation, so as to minimize adverse effects on customer service; and
2. minimize the risk of damage to company and customer facilities and equipment.

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The ability to reduce firm customer load in an extreme emergency *BY order of the system*
be used as a substitute for system facilities in planning or in *need*
FOR THE PUBLIC SERVICE COMMISSION

operation. It is instead a measure to be taken only after the system has suffered an unpredictable catastrophe which may otherwise lead to widespread system outages.

Program for Emergency Procedures During Declining System Frequency

Between 60.0 - 59.8 Hz, utilize to the extent practicable all operating and emergency reserves. The manner of utilization of these reserves will depend greatly on the behavior of the system during the emergency. Below 59.8 Hz, if the frequency decline is gradual, the system operators, particularly in the deficient area shall invoke all additional non-automatic load relief procedures available to them. These efforts shall continue until the frequency decline is arrested or until underfrequency load shedding relays operate.

For rapid frequency decline only that unloaded capacity on line and automatically responsive to frequency (spinning reserve), and load shedding by underfrequency relays is effective in arresting the decline. The underfrequency load shedding schedule within the ECAR area shall be as follows:

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	<u>Step</u>	<u>Freq-Hz</u>	<u>% Load Shed</u>
	1	59.5	5.0
	2	59.3	5.0
MAR 01 1996	3	59.1	5.0
	4	58.9	5.0
PURSUANT TO 807 KAR 5.011, SECTION 9(1)	5	58.7	5.0

BY: *Charles C. Neal*
FOR THE PUBLIC SERVICE COMMISSION

The amount of load shed at each step shall be a nominal 5 percent of the system load prior to the beginning of the underfrequency occurrence. A sufficient number of relays shall be used for each step such that they may be spread across a system thereby not allowing any one step of the schedule to be concentrated in a given area. The underfrequency relays used to achieve the above schedule should be of solid state design and set to operate with no more than a 12 cycle trip delay (see NOTE 1).

If after automatic load shedding has occurred and frequency is still declining, take any action necessary to arrest the decline. This may include additional load shedding, manual or automatic, and coordinated network separations. This action shall be completed before frequency declines to less than 58.2 Hz.

If at any time in the above procedures, the decline in area frequency is arrested below 59.0 Hz, the systems in the low-frequency area shall shed an additional 5 percent of their initial loads repeating on five-minute intervals until 59.0 Hz is reached. This step must be completed within the time limits outlined in Appendix I of this Document, "Isolation of Power Plants." Furthermore, each system in the low-frequency area shall maintain or increase its generating output to a value corresponding to the full open control valve position until frequency is restored to synchronizing range of the main network.

If all of the above procedures are unsuccessful in increasing the frequency to or above 59.0 Hz, generating units may be isolated in accordance with Appendix I of this Document. In the event it becomes necessary for a system to isolate a generating unit at a frequency higher than 58.2 Hz, or a time period shorter than stipulated in the schedule of Appendix I, such system shall also simultaneously disconnect an amount of load equal to that particular generating unit's output. This amount shall be an additional amount over any load previously shed. Automatic isolation of generating units, if employed, should provide two or three seconds delay to permit temporary frequency excursions below the isolation frequency.

When area frequency has been returned to 59.0 Hz or above, the system or systems in the low-frequency area shall take any action necessary to bring the frequency of the isolated area to within synchronizing range of the main network.

After frequency has returned to synchronizing range the isolated area shall be synchronized with the interconnected systems. Load restoration shall

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then be directed by system operators; normal network operation shall be resumed under the direction of the system operators.

The inter-relationship of the Emergency Procedures Program with the Daily Operating Reserve Requirements which are established in ECAR Document No. 2 is recognized. Operating reserve, as used herein and in ECAR Document No. 2, includes spinning reserve, quick-start reserve, and interruptible loads. Emergency reserve as used herein includes emergency capacity ratings of generation, emergency power obtainable from interconnected systems, load reduction by system voltage adjustment, and load reduction by curtailment of utility company use or special customer uses. As stated, ECAR members will utilize these reserves to the best of their ability. Interruptible loads which are utilized as part of the operating reserve cannot be counted as part of the load shedding obligation. These interruptible loads should be disconnected from the system by automatic devices to assure their removal prior to Step 1 of the load shedding schedule.

In recognition of the dynamic character of the ECAR area and its neighboring systems, the application of all emergency measures during declining system frequency within ECAR should be reviewed on a regular basis and updated as required to meet changing system conditions.

NOTE 1: It is recognized that as of the revision date of this Document, February 7, 1985, electromechanical relays are being used by many of the ECAR systems for their underfrequency load shedding and that it would be unduly burdensome to require an immediate conversion. It is, therefore, agreed that these systems may over time, convert to the solid state electrostatic relay as maintenance requirements and system changes dictate. In the interim, the settings of the electromechanical relays should be made recognizing their sensitivity to the rate-of-change of frequency and tendency to drift from set point.

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APPENDIX I
"ISOLATION OF GENERATING UNITS"

Coordination of emergency procedures during low frequency operations is essential to limit the possibility of damage to equipment and still maintain the reliable operation of generating plants.

Turbine blade damage can occur if turbines are operated at nearly full load conditions during periods of abnormally low frequency. Recognizing the desirability of maintaining service continuity, the System Operators must also recognize that damage to turbines could impede the restoration of service after a major area-wide disturbance.

Isolation of Generating Units During Low System Frequency

After a frequency decline has been arrested, every effort should be made to return the system frequency to 59.5 Hz or above. The System Operators should recognize that Power Plant Operators will probably isolate generating units from the system if automatic or manual means have been unsuccessful in returning the system frequency to above 59.5 Hz.

In order to provide the System Operators with information regarding the probable frequencies at which they could expect isolation of the generating units from the system, the following table has been provided. This table is provided only as a guide for the Operators; specific units, or specific individual company practices, may provide for longer periods of operation below these specified frequencies. However, in considering the possible consequences during an area-wide underfrequency operating condition, it is recommended that the following table be used in developing operating practices other than those that apply to specific generating plants or individual units.

If a generating unit is removed from the system at a frequency higher than or a time less than that shown in the following table, an amount of load equal to the generation being removed from the system must also be shed simultaneously.

60.0 to 59.5 Hz	- Unlimited
59.5 to 58.5 Hz	- 30.0 minutes before unit isolation can be expected
58.5 to 58.2 Hz	- 7.0 minutes before unit isolation can be expected
Below 58.2 Hz	- Unit isolation without time delay can be expected

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The above operating time periods and frequencies may be adjusted for specific units for the cumulative effect of blade fatigue over the life of the turbine. BY Jonathan C. Neal
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If generating units are isolated from the system, every effort should be made by the Plant Operator to maintain unit auxiliaries and, if possible, a local load. This will allow rapid re-synchronizing of the unit to the main network to aid in restoration of the System.

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