

Thomas "Kip" Bowmar  
Kentucky Association of Community Action  
101 Burch Court  
Frankfort, Kentucky 40601

**Description of the Program**

A. **Program Purpose and Participant Eligibility.**

4. By its Order dated March 14, 2006 in P.S.C. Case No. 2005-000341, *In the Matter of: A General Adjustment In The Rates of Kentucky Power Company*, the Commission approved a settlement of Kentucky Power's application to adjust its rates. The settlement as approved by the Commission provided for the establishment of a Home Energy Assistance Program ("HEA Program") by Kentucky Power. The program is to be funded by a ten cent per month charge on each residential meter. In addition, the Settlement as approved by the Commission requires Kentucky Power to contribute a sum equal to that raised by the monthly residential meter surcharge during the first two years of the program. This application is filed pursuant to the Commission's March 14, 2006 Order.

5. Although approving the Settlement Agreement, the Commission's March 14, 2006 Order directed the Kentucky Power and KACA to submit the programmatic details to the Commission for approval. This application is made pursuant to that requirement.

6. The Kentucky Power HEA Program is modeled on the Kentucky Utilities program approved by the Commission by its Order in Case No. 2005-00303. Nevertheless, there were certain modifications, detailed below, to reflect the unique characteristics of Kentucky Power's service territory or because of changed circumstances. Representatives of Kentucky Power and KACA met by telephone and in person on several occasions in May and June, 2006 to negotiate the details of the Kentucky Power HEA Program and to discuss the necessary changes and additions to their IT systems. Both parties participated in the development of this

Application, made recommendations for the program and agreed to the details as set forth in this Joint Application. A copy of the Operating Agreement between Kentucky Power and KACA is attached hereto as EXHIBIT 1.

7. The Kentucky Power HEA Program is intended to improve the affordability of electric service for low-income customers by providing a subsidy during peak heating and cooling months. It is anticipated that participation in the program will allow customers to become more energy self-sufficient and reduce the incidence of disconnections.

8. Program participants must be Kentucky Power customers or must have applied for service. Participants must be enrolled in the federal Low Income Home Energy Assistance Program ("LIHEAP") and the ratepayer of record for their household. LIHEAP benefits due a participant will be paid to Kentucky Power. Participants' income must not exceed the then effective maximum income level for participation in the federal LIHEAP program (currently 130% per cent<sup>1</sup> of the Federal Poverty guidelines for the contiguous 48 states as published in the Federal Register for the applicant's family unit size for the applicable year. A copy of the applicable 2006 Federal Poverty Guidelines are attached as EXHIBIT 2.)

B. Nature and Amount of Benefits Under the Program.

9. Because of the more limited penetration by Columbia Gas in Kentucky Power's service territory, as compared to Columbia Gas' penetration in Kentucky Utilities' service territory, a smaller percentage of low-income Kentucky Power customers who do not use electricity to heat their homes have access to programs, such as Columbia Gas' WinterCare Program, to assist with high energy costs. After detailed discussions, the Joint Applicants

---

<sup>1</sup> The Kentucky Utilities program uses 110% of the federal poverty guidelines, which the LIHEAP qualification level at the time the Kentucky Utilities program was initiated.

11. Persons who do not use electricity as their primary source of heat will be eligible to receive \$33 in monthly benefits. In calculating that amount the Joint Applicants principally considered the fact that the monthly usage (March, 2006) for residences not using electricity as their principal source of heat was approximately one-half the usage of residences using electricity as the primary source of heat (approximately 1,146 kWh vs. approximately 2,049 kWh.) The Joint Applicants also considered the need to make the benefit for customers who do not use electricity as their principal source of heat meaningful in terms of both size of the benefit and number of customers receiving the benefit, without unduly limiting the amount of funds available to fund benefits for customers who use electricity as their principal source of heat. Benefit levels for persons who do not use electricity as their primary source of heat will be reviewed annually to determine whether they should be adjusted in light of changes in available funding and effectiveness of benefit levels.

12. Benefits will be paid to eligible participants for bills rendered during revenue months of December, January, February and March (winter heating season) and July, August and September (summer cooling season). The Kentucky Utilities program utilizes the same benefit months.

C. Allocation of Benefits Under The Program.

13. The program is expected to generate revenues of \$350,000 in its first two years. The revenue will be generated by the ten cent per residential meter charge<sup>3</sup> and a matching annual contribution of approximately \$175,000 by Kentucky Power in the first two years of the program. Consistent with the Kentucky Utilities program approved by the Commission, up to

---

<sup>3</sup> \$.10 x 145,013 residential customers x 12 months a year = \$174,015 (March 2006).

ten percent of the revenues (or \$35,000) may be expended on administrative expenses. Net funds available to pay benefits in each of the first two years are expected to total \$315,000.

14. Because the program's primary emphasis is to provide assistance to low-income households using electricity as the primary source of heat, the Joint Applicants, after discussion and considering other alternatives, elected to use eighty five percent (85%) of net proceeds to pay benefits to persons using electricity as their principal source of heat and 15% for non electric-heating households. The Joint Applicants believe this allows for a meaningful number of participants in each benefit sector while reflecting both the fact that households using means other than electricity as their primary source of heat constitute approximately 43 percent of Kentucky Power's residential ratepayers and the need to pay higher benefit amounts to households using electricity as their primary source of heat.

15. \$266,239 (85% x \$313,222) will be available to pay benefits to households using electricity as the primary source of heat. These funds should generate benefits for 585 participants.<sup>4</sup> \$46,983 (15% x \$313,222) will be available to pay benefits to households using means other than electricity as their primary source of heat. These funds should generate benefits for 203 participants.<sup>5</sup> See, EXHIBIT 3.

16. By agreement of the participating community action agencies, KACA and Kentucky Power program slots will be allocated among the participating community action agencies based upon the proportion that the number of Kentucky Power residential customers living with the area served by a community action agency bears to the total number of Kentucky Power residential customers. Because of the low number of Kentucky Power residential

---

<sup>4</sup>\$266,239/ (\$65/mo x 7 months) = 585 participants.

<sup>5</sup>\$46,983/ (\$33/mo x 7 months) = 203 participants.

customers residing within the counties they serve, and with the agreement of the two agencies, the Daniel Boone Development Council and Licking Valley Community Action Program will not participate in the program because the administrative costs and overhead are expected to exceed the benefits available to be distributed. Combined, the Daniel Boone Development Council (19 residential customers) and the Licking Valley Community Action Program (219 residential customers) account for less than 0.2% of the total Kentucky Power residential customers. Using the March, 2006 customer census, the parties agreed to distribute participant slots as follows:

Community Action Agency	Counties	Percent Kentucky Power Heating Customers	Number of Participant Slots for Residences Heating With Electricity	Percent Kentucky Power Non-Heating Customers	Number of Participant Slots for Residences Non-Heating With Electricity
Northeast Community Action Agency	Boyd, Carter, Elliott, Greenup, and Lawrence	27.47%	161	39.20%	74
Gateway Community Service Organization	Rowan and Morgan	1.43%	9	1.30%	2
Big Sandy Community Action Program	Floyd, Johnson, Magoffin, Martin and Pike	39.84%	232	36.45%	69
Middle Kentucky River Area Development Council	Breathitt and Owsley	3.20%	19	3.13%	17

LKLP Community Action Council, Inc.	Leslie, Knott, Letcher and Perry	28.06%	164	19.92%	41
<b>Total</b>		<b>100%</b>	<b>585</b>	<b>100%</b>	<b>203</b>

17. Applications will be ranked and slots assigned based upon need. Need will be determined using factors similar to those used to determine receipt of weatherization assistance, including the proportion of income required to pay energy costs and the presence of a senior citizen or a child under six in the household. The initial assignment of slots will be made on or before December 15, 2006. Once the slots are filled, a waiting list will be developed by each participating community action agency and new applicants ranked based upon their need. As slots become available they will be assigned to the neediest applicants from the waiting lists. The participating community action agencies, KACA and Kentucky Power have agreed that if a slot remains unfilled it may be transferred to another community action agency with unmet demand.

**Implementation and Administration of the Program.**

A. Recruitment and Intake.

18. Potential program participants will be recruited through a data search by participating agencies. Participants will be recruited based upon their history of high energy bills and repeat requests for energy assistance including LIHEAP Crisis. KACA and its participating agencies will develop fliers to use as a method to educate potential program participants about the program. Fliers will also be available at Kentucky Power customer service points and Kentucky Power will promote the program through inserts to customers' bills or messages on customers' bills.

19. Intake staff at the contracting community action agency will conduct screenings and assessments. When an applicant presents at the community action agency, staff will explain the program and inquire about the applicant's level of interest. The applicant's most recent Kentucky Power bill will be assessed for program eligibility, including whether the applicant is a high energy user. The community action agency will also verify applicant's type of heating. Income will be verified and filed at the community action agency at the time of enrollment and annually thereafter. Verification will be made using income records (check stubs, employer verification, IRS W-2 form, etc.). Re-verification will be required annually in order to remain enrolled. Failure to re-verify will result in dismissal from the program. Re-verification of income will also be required to re-enroll in the program should a program default occur.

20. Eligibility, enrollment, initial income verification and re-verification will be tracked in CASTinet. The information will be transmitted in "real-time" using CASTinet over a secure Internet connection.

B. Benefits And Termination.

21. Participants will receive a credit on their bill during the designated months and be responsible for the portion of the bill not paid by the subsidy. If the credit exceeds the balance due at billing (including any arrearages), the credit will carry forward to the next month's bill. If a participant changes residences, the participant may remain on the program if the participant remains a Kentucky Power customer and he or she notifies the enrolling agency of the change of address. If the participant does not continue as a member of the program all unspent benefit amounts will remain in the program pool. Participants may also elect to participate in Kentucky Power's budget plans (Equal Payment Plan or Average Monthly Plan). Budget participants will

go through the normal annual budget review and the budget review will take into consideration all eligible subsidy credits the participant is to receive when calculating the budget amount.

22. Participants will remain eligible for other assistance such as LIHEAP Subsidy, LIHEAP Crisis, WinterCare. Any LIHEAP subsidy assistance received by the participant will be directed to Kentucky Power and credited to the participant's bill.

23. Participation in the program will terminate: (a) upon the participant's failure to meet the eligibility requirements; (b) at the participant's request; and (c) following service disconnection for failure to pay. If the final bill results in a credit balance, a refund will only include the portion of the credit balance in excess of the subsidy assistance provided in the then current program year.

24. Disconnections will be handled in accordance with Kentucky Power's tariffs and applicable Commission regulations. If service is disconnected, a participant may continue in the program if the past due amount and all other required charges are paid in full within five (5) working days of the disconnection.

C. Reports and Program Review.

25. KACA will provide Kentucky Power with the following reports:

(a) Request File. Will be sent for each program participant prior to beginning of receipt of benefits and will notify Kentucky Power to begin crediting participant's account. Initially it will be sent on or before December 15, 2006. Thereafter, it will be sent on an as-needed basis. It will provide:

(i) name of household to be enrolled;



- (ii) address of household to be enrolled;
- (iii) account number of household to be enrolled;
- (iv) level of benefit to be credited to household to be enrolled.

(b) Ineligibility File. Will be sent upon determination that program participant is no longer eligible to receive benefits.

(c) Quarterly Status File. Will be sent quarterly and will provide a report of the operational details of the program for the previous quarter.

26. Kentucky Power will provide KACA with the following reports:

- (a) Billing File. Sent daily when enrolled customer is billed. It provides:
  - (i) KPCo indicative data -Customer name, KPCo account number;
  - (ii) KACA indicative data - Customer request ID;
  - (iii) Current month kWh usage;
  - (iv) Current month billing data (Current bill & Arrears amount);
  - (v) HEAP subsidy amount credited to current bill; and
  - (vi) HEAP subsidy date.

(b) History File. Sent in response to KACA's enrollment file to acknowledge acceptance of customer in to HEAP program. It provides:

- (i) Kentucky Power indicative data - Customer name, KPCo account number;
- (ii) KACA indicative data - Customer request ID
- (iii) Customer electric consumption data - 12 Months of KWH use; and

(iv) Customer DNP (Disconnect for non pay) history - number of times service was disconnected in previous 12 months.

c. Disconnect File. Sent to KACA when service to enrolled customer has been discontinued. Service may be discontinued at customer request or at end of five working days when service has been disconnected for non-payment (DNP) and required payment amount has not been received. It provides:

- (i) KPCo indicative data -Customer name, KPCo account number;
- and
- (ii) Service discontinuance code (Customer request / DNP)

All files will be transmitted electronically by Kentucky Power to KACA using File Transfer Protocol (FTP).

D. Program Evaluation.

27. The HEA program will be regularly reviewed by KACA and Kentucky Power staff responsible for the program. KACA will provide oversight for the project, which includes on-site monitoring as well as review and analysis of monthly program reports. This information will be available to Kentucky Power and the Commission upon request.

28. Joint Applicants will file a quantification of the cost savings achieved along with their evaluation of the HEA program by February 28, 2009 (which is 90 days after the conclusion of the second year in which benefits are paid under the program.) However, it is difficult to attribute variations in the amount of arrearages, the number of disconnects and the amount of bad debt solely to the HEA program. For example, changes in such measures can be

related to economic fluctuations, fuel supply costs, the amount of other available energy assistance funding and other causes. To the extent actual net savings are produced from this program, those savings will be addressed in Kentucky Power's next general rate case.

29. On or before February 28, 2009, Joint Applicants will file a comprehensive program assessment with the Commission. The assessment will be performed by KACA with input from Kentucky Power. The program will be measured against the following benchmarks:

(a) **Increased energy savings in combination with weatherization programs** – Enrollees in the HEA who were also enrolled in other weatherization programs experienced at least a z% reduction in energy costs.

*Baseline:* Participants' previous year's energy consumption.

*Evaluation:* Compare annual energy consumption before and after weatherization.

(b) **Reduce loss of service due to non-payment** – Reduce by z% the percentage of participants losing service because of non-payment.

*Baseline:* Kentucky Power will provide data for each participant reporting the number of disconnect notices and actual disconnections for one year prior to enrollment.

*Evaluation:* Number of disconnect notices and actual disconnections per year will be compared to number of notice and disconnections per year during program.

(c) **Reduce arrearages** – Reduction in participant arrearages by x%.

*Baseline:* Kentucky Power will provide the amount of arrearages currently associated with customer account.

*Evaluation Procedure:* Compare arrearage data for participants every six (6) months during enrollment in the program.

(d) **Reduce the need for LIHEAP Crisis Assistance** – x% of enrollees in the HEA were free of need for LIHEAP Crisis Assistance.

*Baseline:* Upon enrollment, match enrollee with history of Crisis Assistance using statewide LIHEAP data for past three (3) years.

*Evaluation Procedure* Compare Crisis Assistance requested and approved during enrollment in the program.

(e) **Other** –

(i) Total households served, total amount of assistance provided;

(ii) An assessment of how program benefits were distributed to customers in all of the counties eligible to participate in the program;

(iii) An assessment of movement of participants in and out of the program to determine if benefits to participants are short-term or long-term in nature.

30. The HEA Program financial records will be audited annually in accordance with OMB A-133 auditing standards by a third-party independent auditor.

#### **Annual Budget**

31. KACA's proposed operating budget for Kentucky Power's HEA program is attached hereto as **EXHIBIT 4**.

**Recovery of Technology Implementation Costs Through  
Kentucky Power's Demand Side Management Mechanism**

32. KRS 278.285(2) and (4) permit the recovery of costs associated with home energy assistance programs through demand side management programs.

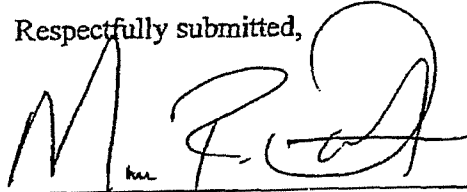
33. One-time information technology implementation costs incurred by both KACA and Kentucky Power are properly recoverable through Kentucky Power's DSM mechanism. Based upon information to date, and as set out in EXHIBIT 5, Kentucky Power and KACA estimate these costs to be \$74,668 (\$58,968 and \$15,700 respectively) . Kentucky Power proposes to revise its DSM tariff to include these programming costs in a February, 2007 progress report following the Commission's Order in this proceeding.

**WHEREFORE**, the Joint Applicants respectfully request that the Commission issue an Order:

1. Approving the programmatic details of a Home Energy Assistance program in the Kentucky Power service territory;
- 2 Approving the recovery of Kentucky Power and KACA's one-time information technology implementation costs through Kentucky Power's DSM mechanism; and
3. Conduct an informal conference with the Joint Applicants to discuss the Joint Application and to address any initial questions staff may have.

Dated this the 20<sup>th</sup> day of July, 2006.

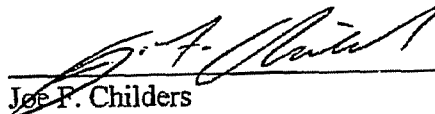
Respectfully submitted,



---

Mark R. Overstreet  
STITES & HARBISON, PLLC  
421 West Main Street  
P.O. Box 634  
Frankfort, Kentucky 40602-0634  
Telephone: 502-223-3477

COUNSEL FOR:  
KENTUCKY POWER COMPANY



---

Joe P. Childers  
Suite 310  
201 West Short Street  
Lexington, Kentucky 40507  
Telephone: 859-253-9824

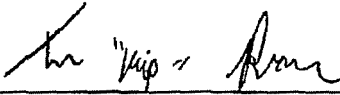
COUNSEL FOR:  
KENTUCKY ASSOCIATION FOR  
COMMUNITY ACTION



**VERIFICATION**

COMMONWEALTH OF KENTUCKY    )  
  ) SS  
COUNTY OF FRANKLIN            )

The undersigned, Thomas "Kip" Bowmar, being first duly sworn, deposes and says he is the Executive Director of Kentucky Association for Community Action, Inc., that he has personal knowledge of the matters set forth in the foregoing Joint Application, and the facts contained therein are true and correct to the best of his information, knowledge and belief.

  
\_\_\_\_\_  
Thomas "Kip" Bowmar  
Executive Director

Subscribed and sworn to before me, a Notary Public in and before said State and County, this the 28<sup>th</sup> day of July, 2006.

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

My Commission Expires:  
2/1/2010



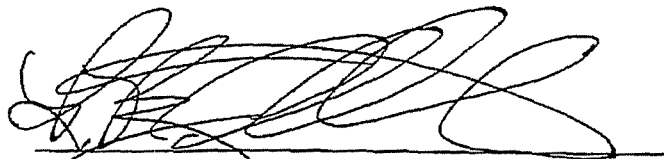
**CERTIFICATE OF SERVICE**

I hereby certify that a true and accurate copy of the Joint Application was served via the United States Postal Service, First Class Mail, postage prepaid, upon:

Elizabeth E. Blackford  
Kentucky Attorney General's Office  
Suite 200  
1024 Capital Center Drive  
Frankfort, Kentucky 40601-8204

Joe F. Childers  
Suite 310  
201 West Short Street  
Lexington, Kentucky 40507

on this the 3<sup>rd</sup> day of August, 2006.



COUNSEL FOR:  
KENTUCKY POWER COMPANY

KE057:KE186:14273:4:FRANKFORT

# **Exhibit**

# **1**

## AGREEMENT

THIS AGREEMENT ("Agreement") is made and entered into as of this the 28th day of July, 2006, by and between KENTUCKY POWER COMPANY ("Kentucky Power" or "KPCo"), a corporation organized and existing under the laws of Kentucky, and KENTUCKY ASSOCIATION FOR COMMUNITY ACTION, INC. ("KACA"), a nonprofit corporation organized and existing under the laws of Kentucky.

### WITNESSETH:

WHEREAS, the Public Service Commission of Kentucky ("KPSC") by Order dated March 14, 2006 in P.S.C. Case No. 2005-000341, *In the Matter of: A General Adjustment In The Rates of Kentucky Power Company*, approved the parameters of a low-income home energy assistance program (the "HEA Program") to assist low-income households in the Kentucky Power service territory, conditioned upon Commission approval of a definitive agreement between KACA and Kentucky Power governing the program;

WHEREAS, KACA and Kentucky Power have entered into this definitive Agreement to govern the HEA Program;

WHEREAS, Kentucky Power's HEA Program will help low-income families afford and maintain utility service with Kentucky Power during peak heating and cooling months;

WHEREAS, KACA is willing to act as administrative agent and to operate Kentucky Power's HEA Program for eligible residential customers of Kentucky Power; and

NOW, THEREFORE, in consideration of the mutual obligations of the parties hereto, each of them does hereby covenant and agree:

#### I. TERM OF AGREEMENT

This Agreement shall be for an indefinite term beginning April 1, 2006. In the event funds remain unexpended at the termination of this Agreement, including any contributions by Kentucky Power for the period ended March 31, 2008, the parties agree the program may continue for an additional period necessary to expend the funds, which period shall not exceed 90 days.

A. Either party may terminate this Agreement without cause at the end of any Program Year by giving written notice of intent to do so no less than thirty days prior to the end of the Program Year. Termination of this Agreement shall not relieve KACA of its obligation to continue to perform its duties under this Agreement for the remainder of the Program Year, including the filing of the Audit required by Section III, unless requested not to do so by Kentucky Power. While performing its services under this Agreement, KACA will continue to be compensated pursuant to the terms of this Agreement.

**EXHIBIT 1**

B. Nothing in this paragraph shall authorize Kentucky Power to collect the ten cent per residential customer monthly charge beyond the date its authority to do so under the Orders of the KPSC and Kentucky Power's duly filed tariffs expires. As used in this Agreement, the term "Program Year" shall run from the Company's revenue months December 1 to November 30 the following year except that the first program year shall run from April 1, 2006 to November 30, 2006.

**II. ADMINISTRATIVE EXPENSES**

A. Pursuant to Paragraph 8 of the Settlement Agreement in KPSC Case No. 2005-00341 and approved by the KPSC by its Order dated March 14, 2006 (the "KPSC Order"), KACA is entitled to recover its actual reasonable operating expenses in administering the HEA Program in an amount up to but not to exceed in total ten percent (10%) of the total HEA funds collected during the life of the program. The parties acknowledge that the ten percent (10%) limitation on reasonable operating expenses to be reimbursed from the Program funds shall be calculated based upon total HEA funds collected over the life of the Program and that funds available for operations, as well as assistance funds, if unused, will "roll-over" to and be available for expenditure in subsequent periods of the Program.

B. During the first program year Kentucky Power and KACA shall be entitled to recover KRS 278.285(4) their actual IT implementation costs not to exceed \$59,968 and \$15,700 respectively. Such IT implementation costs shall be in addition to and not be charged against the 10% limitation imposed by paragraph II(A) and shall be collected pursuant to KRS 278.285(4). Budgets for IT Implementation Costs are attached as **EXHIBIT 5**.

**III. BUDGET/AUDITS/QUARTERLY MEETINGS**

A. Within time to file for the necessary approval by the KPSC and in no event no later than 30 days following the execution of this Agreement and thereafter at least thirty days prior to the beginning of each Program Year, KACA shall prepare and present to Kentucky Power for its approval an annual budget for the HEA Program. Kentucky Power shall provide KACA in a timely fashion such information as may be reasonably required for the preparation of the budget.

B. An outside independent audit of KACA's financial records will be performed annually by an independent certified public accountant, in accordance with existing federal audit requirements. The audit will include a detailed accounting of all expenses associated with administration of the Program, which shall be filed by KACA annually with the KPSC and provided to Kentucky Power. The parties also agree to meet quarterly, or more often if needed, to review Program status and financial reports for actual expenditures compared to budget. This report shall be made in line item detail. KACA shall provide Kentucky Power with an explanation of any variance in Program expenses that vary from budget (either greater or less than) by 10% or more.

**IV. KENTUCKY POWER RESPONSIBILITIES**

A. Kentucky Power will include on each residential customer's monthly bill for service beginning April 1, 2006 a ten-cent HEA charge to fund Kentucky Power's HEA

**EXHIBIT 1**

Program. The charge shall be recovered pursuant to KRS 278.285(4) and shall be set forth as a separate line item on each such bill.

B. For the period May 1, 2006 through April 30, 2008 Kentucky Power shall contribute to the HEA Program a sum equal to the amount collected from residential customers from the ten cent per residential bill charge described in paragraph IV(A). Contributions shall be made monthly. Contributions shall be made in the month following the month in which the charge is collected.

C. Kentucky Power agrees to respond to general billing questions related to whether or not a participant's account has been credited with the appropriate HEA subsidy amount.

D. Kentucky Power agrees to work with KACA in evaluating the HEA Program and to provide KACA with data reasonably necessary for KACA to make all required reports and to assist in the evaluation of the HEA Program. Kentucky Power also agrees to provide to KACA all information reasonably necessary to permit KACA to balance the actual HEA funds collected with HEA funds distributed to customers for each Program year. Upon request by KACA Kentucky Power agrees to work with KACA to provide a list of customers participating in the HEA Program for KACA to compare with its records.

E. Beginning no later than the 20<sup>th</sup> day of the month preceding the actual expenditure of funds in connection with the HEA Program, and the 20<sup>th</sup> day of each succeeding month during the term of this Agreement, Kentucky Power shall pay KACA one-twelfth (1/12) of ten percent (10%) of the annual estimated Program budget, for administrative costs. No such payment shall be made for the twelfth month of each year of the program. Instead, within 90 days of the close of each program year KACA's actual operating expenses in administering the HEA Program for the twelve months of the program year shall be compared to the amounts paid by Kentucky Power for the first eleven months of the program year and any difference remitted to or by KACA. As set out in Article II, unused funds for administrative costs will "roll-over" for subsequent periods during the HEA Program, except that in no event shall KACA be paid more than its actual reasonable costs in administering the program.

F. Kentucky Power shall notify KACA whenever a participant is mailed a disconnect notice. Kentucky Power shall provide KACA with the participant's name, billing address, account number and telephone number if available.

G. Kentucky Power shall provide KACA with the following reports:

1. Billing File. Sent daily when enrolled customer is billed. It provides:

- (a) KPCo indicative data -Customer name, KPCo account number;
- (b) KACA indicative data - Customer request ID;
- (c) Current month kWh usage;

**EXHIBIT 1**

- (d) Current month billing data (Current bill & Arrears amount);
- (e) HEAP subsidy amount credited to current bill; and
- (f) HEAP subsidy date.

2. History File. Sent in response to KACA's enrollment file to acknowledge acceptance of customer in to HEAP program. It provides:

- (a) Kentucky Power indicative data - Customer name, KPCo account number;
- (b) KACA indicative data - Customer request ID
- (c) Customer electric consumption data - 12 Months of KWH use; and
- (d) Customer DNP (Disconnect for non pay) history - number of times service was disconnected in previous 12 months.

3. Disconnect File. Sent to KACA when service to enrolled customer has been discontinued. Service may be discontinued at customer request or at end of five working days when service has been disconnected for non-payment (DNP) and required payment amount has not been received. It provides:

- (a) KPCo indicative data -Customer name, KPCo account number; and
- (b) Service discontinuance code (Customer request / DNP)

These files shall be transmitted electronically by Kentucky Power to KACA using File Transfer Protocol (FTP).

**V. KACA GENERAL RESPONSIBILITIES**

A. KACA acting through its member community action agencies shall administer the HEA Program on behalf of Kentucky Power by identifying and certifying to Kentucky Power the identity of eligible participants. KACA shall also immediately notify Kentucky Power when participants are no longer eligible to participate in the HEA Program.

B. KACA will monitor both the implementation and ongoing operation of the HEA Program, monitor the data collected and report to Kentucky Power and the KPSC as required by the KPSC.

C. KACA will track Program expenditures against budget through monthly financial reports and ensure that the annual OMB A-133 audit is performed by a third party. All such audits shall be seasonably provided to Kentucky Power and the Commission.

**EXHIBIT 1**

D. KACA will provide oversight for the HEA Program, including on-site monitoring as well as review and analysis of Program reports.

E. KACA and its employees, agents and member community action agencies shall manage and expend all monies paid to reimburse the reasonable costs in administering the HEA Program in a diligent manner that embodies sound business practices.

F. KACA agrees to maintain, during the term of this Agreement and for two years following its termination, complete and accurate records of all receipts and disbursements that are funded by this Agreement and to provide Kentucky Power with monthly financial statements in the form of EXHIBIT 6, attached hereto. KACA will also provide Kentucky Power with monthly Program updates including number of clients served, attrition, new clients entering the Program, and county distribution.

G. Kentucky Power shall have the right, at any reasonable time, to inspect and audit at Kentucky Power's sole cost the records maintained by KACA either through its own authorized representatives or through any public accounting firm selected by Kentucky Power.

H. KACA agrees to provide Kentucky Power with any and all information necessary to meet KPSC requirements.

I. As part of its screening and qualification procedures KACA or its member Community Action Agencies shall obtain from all applicants a written release permitting Kentucky Power to divulge customer information necessary for the administration of the program to KACA and the applicable community action agency. KACA or its member Community Action Agencies also shall obtain a signed release absolving Kentucky Power of liability in connection with the administration of the HEA Program. The form of the release shall be provided by Kentucky Power. A copy is attached as EXHIBIT 8.

J. As part of its screening and qualification process KACA or its member Community Action Agencies shall require applicants to read and initial the following statement:

The program, including benefit amounts and eligibility requirements, may be changed from time to time upon approval by the KPSC. Benefits will be paid only so long as funding is available and the participant remains eligible.

K. When submitting approved applications KACA will provide Kentucky Power with a Request File containing the following information:

- (i) name of household to be enrolled;
- (ii) address of household to be enrolled;
- (iii) account number of household to be enrolled;

**EXHIBIT 1**

- (iv) level of benefit to be credited to household to be enrolled.

The Request File shall be transmitted electronically using File Transfer Protocol (FTP).

L. On or before February 28, 2009, KACA, in conjunction with Kentucky Power shall prepare and file with the KPSC an evaluation of any cost savings resulting from the HEA program along with a comprehensive program assessment. In addition to any requirements imposed by the KPSC, the program assessment shall report on the indices set out in **EXHIBIT 9** this Agreement.

**VI. PROGRAM OPERATION**

A. Scope of Program. The HEA Program is intended to provide assistance with residential electric bills to low income individuals who are customers of Kentucky Power. Assistance shall be provided for the revenue months of December, January, February and March (winter heating season) and July, August and September (summer cooling season) during the term of the HEA Program.

B. Eligibility. Participants must:

1. Be individuals whose income shall not exceed the then effective maximum income level for participation in the federal Low Income Home Energy Assistance Program ("LIHEAP) program ( currently 130% per cent of the Federal Poverty guidelines for the contiguous 48 states as published in the Federal Register for the applicant's family unit size for the applicable year. A copy of the applicable 2006 Federal Poverty Guidelines are attached as **EXHIBIT 2**;

2. Be a customer of Kentucky Power Company with service in the applicant's name or have applied for service in the applicant's name;

3. Be enrolled in the LIHEAP program and direct LIHEAP payments to Kentucky Power;

4. Apply for available weatherization programs and accept services if eligible and available.

5. Not reside in a multi-unit single meter building;

6. Provide Kentucky Power with access for the monthly meter reading; and

7. Agree that no part of any benefit shall be refunded to a participant. If a final bill otherwise shows a credit balance a refund will be made of only that portion, if any, of the final credit balance that exceeds the total benefits applied during the current Program Year.



**EXHIBIT 1**

C. The program, including benefit amounts and eligibility requirements, may be changed from time to time upon approval by the KPSC.

D. Allocation of Funding.

1. Funding shall be made available to residential electric customers. Initially, 85% of the funding shall be made available to residential customers who use electricity as their primary source of heat with the remainder (15%) being provided to customers who use other sources of energy for heating.

2. The monthly benefit level for participants who use electricity as their primary source of heat shall be \$65. The monthly benefit for participants who do not use electricity as their primary source of heat shall be \$33.

3. Within each of the two sectors of residential customers (electric heating and non-electric heating) funding slots initially shall be allocated on a community action agency basis based upon the proportion that the number of Kentucky Power residential customers residing within a community action agency bears to the total number of Kentucky Power residential customers residing in the following Kentucky Counties: Boyd, Carter, Elliott, Greenup, Lawrence, Rowan, Morgan, Floyd, Johnson, Magoffin, Martin, Pike, Breathitt, Owsley, Leslie, Knott, Letcher and Perry Counties. Because of the limited number of Kentucky Power customers in the areas served by Daniel Boone Community Action Agency and Licking Valley Community Action Agency no slots will be provided for customers in Lewis and Clay Counties. The initial allocation of slots is attached hereto as EXHIBIT 7.

4. In the event no qualified applicants are seasonably available within a community action agency's region, a slot may be transferred to another Community Action Agency.

5. Kentucky Power and KACA shall meet annually to evaluate the formula for allocating slots and the amount of the monthly payments.

E. Screening and Certification.

1. KACA or its member community action agencies shall be responsible for screening all applicants seeking to participate in the HEA Program to determine their eligibility under the criteria set out in Paragraph VI(B) of this Agreement. If KACA or the member agency determines an applicant meets the eligibility criteria KACA shall certify that fact to Kentucky Power along with the applicant's name and residential service address.

2. Participants shall be screened and certified no less frequently than once every 12 months. If KACA determines a participant is no longer eligible to participate KACA shall notify Kentucky Power and the applicant immediately.

3. KACA shall pay member community action agencies \$25.00 per approved application and \$15.00 per approved recertification.

**EXHIBIT 1**

**F. Manner of Distribution of Funds.**

1. Upon certification an applicant shall be eligible to participate if the community action agency within whose territory the applicant lives has an available Program Slot. If there is no available Program Slot, the applicant shall be placed on a waiting list and admitted to the program when a slot becomes available based upon the date of their certification. If more than 12 months have elapsed since an eligible applicant was certified the applicant shall be re-certified prior to being admitted from the waiting list into the program.

2. Participation in the HEA program shall begin at the beginning of the applicable billing cycle for applicant's residence following the applicant's admission to the program.

3. Program participants shall receive benefits under the program in the form of a credit to their Kentucky Power bill in the amount of the Uniform Monthly Benefit. If a HEA Program participant's service is terminated for any reason during a billing cycle the subsidy benefit shall be terminated retroactive to the last billing. In no event shall a participant receive payment of any unused credit.

**G. Termination of Participation.**

1. Except as set out in subparagraph 3 of this paragraph, participation in the program shall terminate when a participant no longer meets the eligibility requirements of Paragraph VI(B) or the participant's electric service is terminated for any reason.

2. Credits to a participant's account shall terminate the billing month following the date the customer is no longer eligible to participate in the program.

3. In the event the customer's service is disconnected for non-payment, the customer shall have five business days after disconnection in which to pay all past due amounts plus all associated charges. If all past due amounts and associated charges are not paid within five business days of disconnection the customer's participation in the program shall end.

**VII. REGULATORY APPROVALS**

Approval of this Agreement and the details of the HEA Program by the KPSC is required. As a result, the parties' rights and obligations are expressly contingent upon obtaining and maintaining such approval and KACA will cooperate fully with Kentucky Power in this regard. Furthermore, to the extent that there may be, or later arise, a conflict between this Agreement and KPSC requirements, the latter shall be controlling. KACA and Kentucky Power agree to cooperate in obtaining all necessary KPSC approvals for the HEA Program.

**VIII. DEFAULTS AND REMEDIES**

A. Each of the following events or occurrences shall constitute an event of default under the Agreement:

**EXHIBIT 1**

1. Declaration of Bankruptcy of KACA; or
2. Failure to administer and implement the HEA Program in conformity with this Agreement; or
3. Failure to file in a timely manner any financial and progress reports required by this Agreement; or
4. Failure to disclose or to explain to Kentucky Power's satisfaction any variance in Program expenses that must be reported pursuant to Article III; or
5. Disclosure or discover that the covenants and representations made by KACA requiring the fulfillment of any requirement covered under this Agreement or any other document submitted in support of this Agreement is, was, or shall be false or misleading in any material respect.

B. Except as otherwise provided in this Agreement, in the event of any default in or breach of this Agreement, or any of its terms or conditions by KACA, KACA shall, upon written notice from Kentucky Power, proceed immediately to cure or remedy such default or breach. Until such default or breach is cured, and without limiting Kentucky Power's rights under this Agreement, Kentucky Power shall have the option of suspending its performance under this Agreement.

**IX. CONFIDENTIALITY**

A. The parties acknowledge that each will have access to Confidential Information, obtained, developed or provided by the other with respect to HEA Program applicants and participants (the "Confidential Information") and each party providing such information is relying upon the representations contained in the Article in making such disclosure.

B. Each of the parties agrees to protect and maintain as confidential all such Confidential Information obtained from another party, and to use such Confidential Information received from another party only in connection with the implementation, operation, evaluation and oversight of the HEA Program, and not to further disseminate such Confidential Information, intentionally or externally or to use it for any other purpose.

C. It is understood and agreed that, to the extent that Confidential Information must be used or reflected in Kentucky Power's billing or accounting systems for purposes of the HEA Program or Kentucky Power's routine operations, then Kentucky Power's usual precautions on dissemination and availability of customer information shall be sufficient for purposes of this Article.

D. All anecdotal reports containing or using Confidential Information shall use fictitious names, addresses, employers, and other identifiers.

E. No individual, firm, partnership, corporation or agency shall be given, sold or otherwise allowed access to Confidential Information.

**EXHIBIT 1**

f. Nothing herein shall limit use of the Confidential Information as necessary to implement, document, evaluate or monitor the HEA Program or to comply with any court or regulatory agency proceeding or filing to which they may be subject. However, in any such proceeding or filing, they shall make reasonable efforts to protect the confidentiality of such information.

**X. GOVERNING LAW AND CONSTRUCTION OF CONTRACT**

The rights and obligations of Kentucky Power and KACA and the validity and construction of this Agreement shall be interpreted and enforced in accordance with the laws of the Commonwealth of Kentucky. This Agreement was drafted by Kentucky Power for convenience purposes only but has been negotiated by both parties and shall not be interpreted or construed against Kentucky Power or KACA.

**XI. ENTIRE AGREEMENT**

This Agreement contains all the terms, conditions and promises of the parties hereto. No modification or waiver of this Agreement, or of any provision thereof, shall be valid or binding, unless in writing and executed by both of the parties hereto. No waiver by either party or any breach of any term or provision of this Agreement shall be construed as a waiver of any succeeding breach of the same or any other term or provision.

**XII. NO OTHER BENEFICIARIES.**

This Agreement is solely between KACA and Kentucky Power, and nothing in this Agreement or in the HEA Program shall be construed as creating any rights or claims in any third party, whether a natural person or otherwise. Notwithstanding the forgoing, KACA hereby represents that it is authorized to bind its member participating community action agencies to the confidentiality requirements of paragraph IX of this Agreement. KACA acknowledges Kentucky Power is relying upon this representation.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

Kentucky Power Company

BY: Ernest H. Wagner  
Its: Director of Regulatory Services

The Kentucky Association for  
Community Action, Inc.

BY: Mr. "kip" An  
Its: Executive Director

**EXHIBIT 8**  
**Page 3 of 3**

**Kentucky Power Company**  
**HEA CUSTOMER AGREEMENT FORM**

I want to enroll in the Kentucky Power Company Home Energy Assistance Program and as a potential participant in the Kentucky Power Company Home Energy Assistance Program, I agree to accept all the program conditions as listed below.

**I agree to:**

- \*Re-verify gross monthly income once a year.
  
- \*Notify Community Action of any change in income, household size, or residency while a participant in the program.
  
- \*Apply for Weatherization services and accept if applicable.
  
- \* Authorize Kentucky Power to share Account Information with Community Action to verify program eligibility.
  
- \*Sign and return the enclosed Confidentiality Agreement.
  
- \*Accept any program change resulting from approved modifications to the program made by the HEA Collaborative, Kentucky Public Service Commission, or any other governing agency.

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

# **Exhibit**

# **9**

EXHIBIT 9

The program will be measured against the following benchmarks:

(a) **Reduce the need for LIHEAP Crisis Assistance** – x% of enrollees in the HEA were free of need for LIHEAP Crisis Assistance.

*Baseline:* Upon enrollment, match enrollee with history of Crisis Assistance using statewide LIHEAP data for past three (3) years.

*Evaluation Procedure* Compare Crisis Assistance requested and approved during enrollment in the program.

(b) **Reduce arrearages** – Reduction in participant arrearages by x%.

*Baseline:* Kentucky Power will provide the amount of arrearages currently associated with customer account.

*Evaluation Procedure:* Compare arrearage data for participants every six (6) months during enrollment in the program.

(c) **Reduce loss of service due to non-payment** – Reduce by z% the percentage of participants losing service because of non-payment.

*Baseline:* Kentucky Power will provide data for each participant reporting the number of disconnect notices and actual disconnections for one year prior to enrollment.

*Evaluation:* Number of disconnect notices and actual disconnections per year will be compared to number of notice and disconnections per year during program.



(d) **Increased energy savings in combination with weatherization programs** – Enrollees in the HEA who were also enrolled in other weatherization programs experienced at least a z% reduction in energy costs.

*Baseline:* Participants' previous year's energy consumption.

*Evaluation:* Compare annual energy consumption before and after weatherization.

(e) **Other –**

(i) Total households served, total amount of assistance provided;

(ii) An assessment of how program benefits were distributed to customers in all of the counties eligible to participate in the program;

(iii) An assessment of movement of participants in and out of the program to determine if benefits to participants are short-term or long-term in nature.

# **Exhibit 10**

**EXHIBIT 10**

**List of Community Action Agencies in the KPCo service territory who will participate in the program.**

<b>Provider</b>	<b>Counties</b>
Northeast Kentucky Community Action Agency	Boyd, Carter, Elliott, Greenup, Lawrence
Gateway Community Services Organization	Morgan, Rowan
Big Sandy Community Action Program	Floyd, Johnson, Magoffin, Martin, Pike
Middle Kentucky River Community Action Agency	Breathitt, Owsley
LKLP Community Action Council	Leslie, Knott, Letcher, Perry



**KPSC Administrative Case No. 2007-00477 An Investigation of the Energy and  
Regulatory Issues in Section 50 of KY's 2007 Energy Act  
Commission Staff's Second Set of Data Requests  
Order Dated January 3, 2008  
Item No. 36  
Page 1 of 1**

Kentucky Power Company

**REQUEST**

Please provide customer disconnect statistics for 2006. Compare KPCo disconnect rates to industry average experience. Do reconnect charges recover actual costs? Provide analyses and/or management's opinion about whether the implementation of "Smart Meters" would reduce these costs?

**RESPONSE**

The number of customers disconnected during calendar year 2006 was 9,854 and the number of customers reinstated for the same time period was 6,127. The vast majority of these customers were residential customers. KPCo is unaware of any industry average disconnect rate.

The reconnect charge does not recover the actual cost of performing the disconnect. Smart Meters (meters with two way communication) would reduce the average cost of disconnecting and reinstating customers.

**WITNESS:** Errol K Wagner and Timothy C Mosher



**Kentucky Power Company**

**REQUEST**

Please provide the total number of industrial customers at June 30, 2007. Of these customers, how many have opted-out of participating in the DSM program? Briefly describe the process an industrial customer must follow to opt out of the DSM program.

**RESPONSE**

As of June 30, 2007 the Company had 1,436 industrial customers.

The number of customers that opted out at June 19, 1996 was 54.

The process followed for an industrial customer to opt out is attached.

**WITNESS:** Errol K Wagner and Timothy C Mosher

**KENTUCKY POWER COMPANY  
INDUSTRIAL CLASS SELF-DIRECTED PROVISION  
DEMAND-SIDE MANAGEMENT (DSM) PROGRAMS**

**ATTACHMENT 1**

The General Assembly of the Commonwealth of Kentucky has enacted Statute KRS 278.285 effective July 14, 1994 which encourages utility companies to offer DSM programs. Pursuant to this statute, the utility is allowed to recover costs of its DSM programs from the customer class benefiting from the programs. However, the statute also provides that the Kentucky Public Service Commission shall allow individual industrial customers "with energy-intensive processes" to implement cost-effective DSM measures in lieu of measures (and programs) offered by the utility if the alternative measures are not subsidized by other customer classes.

Industrial customers with energy-intensive processes that elect to implement their own measures in lieu of Kentucky Power Company's sponsored programs will be referred to as electing the "Self-Directed Provision." If approved for the Self-Directed Provision, the customer will not be assessed the DSM surcharge. Such customers are subject to the following filing procedure and approval process:

Filing Procedure

The documentation for election of the "Self-Directed Provision" consists of:

- o Sworn affidavit which contains the measures that have been performed or are planned to be performed;
- o Estimates (where available) of the achieved or expected kW and kWh savings of each measure, as well as the total costs of each measure and timing of their installation;
- o If estimates not available, the reason the industrial customer believes that they have complied with KRS 278.290 (3) and qualify for the Self-Directed Provision; and
- o Notice of election of the Self-Directed Provision to cover the Kentucky Power Company's DSM plan.

Approval Process

- o The industrial customer is to indicate (by submission of Attachment 1) to Kentucky Power Company by May 15, 1995 whether or not they intend to elect the Self-Directed Provision.
- o Affidavit with supporting information (indicating the customer's election of the Self-Directed Provision) to be submitted to Kentucky Power Company for review and recommendation to the Kentucky Public Service Commission.
- o Consistent with KRS 278.290 (3), approval of the customer's election of the Self-Directed Provision is made by the Commission. Such approval will be considered in the development of the industrial sector DSM surcharge initially applied at the beginning of Kentucky Power's three-year plan. If approved for the Self-Directed Provision, the customer will not be assessed the DSM surcharge.
- o If a customer initially elects the Self-Directed Provision but later decides it wishes to participate in the Company-sponsored DSM programs, the customer should notify Kentucky Power Company sixty (60) days prior to the beginning of the second or third year of the three-year plan. With the Company's approval, the customer would then be eligible for the Company's programs and subject to the industrial surcharge beginning in either the second or third fiscal year of the Company's three-year plan, as appropriate.



**ATTACHMENT 2**

**PLEASE RETURN THIS ATTACHMENT BY MAY 15, 1995.**

**Return to:**

**Lois Kellogg  
Kentucky Power Company  
P. O. Box 1428  
Ashland, KY 41105-1428**

**CUSTOMER NAME** \_\_\_\_\_  
**ADDRESS** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
**CUSTOMER CONTACT** \_\_\_\_\_  
**PHONE NUMBER** \_\_\_\_\_

**PLEASE INDICATE BY AN "X" IN THE APPROPRIATE SPACE BELOW  
(CHOOSE ONLY ONE):**

\_\_\_ **We choose to be eligible for the *Company-sponsored DSM* programs expected to be offered beginning in the latter part of 1995.**

**OR**

\_\_\_ **We will be electing the "*Self-Directed Provision*" and will provide Kentucky Power Company with the required Affidavit and supporting information by June 30, 1995 which serves as our initial election of this provision.**



**Kentucky Power Company**

**REQUEST**

Referring to Discovery Response, Item 2, to the extent that more recent reports are now available, or become available by February 22, 2008, please provide copies of such documents. Provide a summary of the current credit ratings for AEP and KPCo from Moody's and S&P.

**RESPONSE**

Please find attached a more recent report for AEP from Moodys and a summary of the current credit ratings for both AEP and KPCo from Moody's and S&P. There were no more recent reports available from the credit agencies.

**WITNESS:** Errol K. Wagner and Timothy C. Mosher

## Current Ratings Summary:

### American Electric Power

	<u>S&amp;P</u>	<u>Moody's</u>
Senior Unsecured Debt	BBB	Baa2
Commerical Paper	A2	P2
Outlook	Stable	Stable

### Kentucky Power

	<u>S&amp;P</u>	<u>Moody's</u>
Senior Unsecured Debt	BBB	Baa2
Outlook	Stable	Stable



Credit Opinion: American Electric Power Company, Inc.

**American Electric Power Company, Inc.**

Columbus, Ohio, United States

**Ratings**

Category	Moody's Rating
Outlook	Stable
Sr Unsec Bank Credit Facility	Baa2
Senior Unsecured	Baa2
Jr Subordinate Shelf	(P)Baa3
Commercial Paper	P-2
<b>AEP Capital Trust I</b>	
Outlook	Stable
Preferred Shelf	(P)Baa3
<b>AEP Capital Trust II</b>	
Outlook	Stable
Preferred Shelf	(P)Baa3
<b>AEP Capital Trust III</b>	
Outlook	Stable
Preferred Shelf	(P)Baa3

**Contacts**

Analyst	Phone
James Hempstead/New York	212.553.4318
William L. Hess/New York	212.553.3837

**Key Indicators**

[1]

American Electric Power Company, Inc.

	LTM 9/30/07	2006	2005	2004
(CFO Pre-W/C + Interest) / Interest Expense	3.6x	3.9x	3.6x	3.8x
(CFO Pre-W/C) / Debt	16%	17%	15%	18%
(CFO Pre-W/C - Dividends) / Debt	12%	14%	11%	14%
(CFO Pre-W/C - Dividends) / Capex	56%	61%	63%	113%
Debt / Book Capitalization	55%	54%	52%	53%
EBITA Margin %	20%	19%	19%	18%

[1] All ratios calculated in accordance with the Global Regulated Electric Utilities Rating Methodology using Moody's standard adjustments.

Note: For definitions of Moody's most common ratio terms please see the accompanying *User's Guide*.

**Opinion**

**Company Profile**

American Electric Power Company, Inc. (AEP) is a large utility holding company with electric utility operations serving approximately 5 million retail customers across eleven states (Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia and West Virginia). The majority of AEP's operations are vertically integrated electric utilities that are primarily regulated by the state regulatory authorities for the states in which they operate. In addition, AEP owns a sizeable barge and coal handling business, which is non-regulated, along with an energy trading and hedging operation and a small wholesale generation company. AEP is

headquartered in Columbus, Ohio.

AEP is primarily viewed as a rate-regulated electric utility holding company. The vast majority of its 2006 consolidated revenues (70%), cash flows (90%) and assets (94%) were associated with rate-regulated electric utility businesses. These operations are primarily conducted through eleven separate utility companies, seven of which (representing approximately 89% of AEP's total consolidated regulated utility revenues) remain vertically integrated. The four utilities which are not vertically integrated enjoy monopolistic electric transmission and distribution service territories. In addition, two of AEP's vertically integrated utilities (representing approximately 27% of AEP's total consolidated regulated revenues) have monopolistic service territories in Ohio, which is currently experiencing another round of legislative intervention.

AEP owns approximately 38 GW's of electric generation capacity. These GW's are diversified by fuel, geographic region and regulatory jurisdiction. Approximately 87% of this generation capacity (33GW's) is associated with vertically-integrated electric utilities. Another 12.2 GW's (or 32%) is associated with the Ohio-based regulated utilities, currently undergoing legislative intervention and market restructuring and roughly 5.1 GW's (or 13%) is considered non-regulated, or exposed to the wholesale open market, through AEP Generating Company. AEP generated approximately \$13.1 billion in revenues for the latest twelve months ended September 2007.

#### **Rating Rationale:**

AEP's Baa2 senior unsecured rating reflects a combination of credit assessments which are more fully described in our Global Regulated Electric Utilities Rating Methodology, published in March 2005. Moody's views AEP as a lower-risk utility holding company, where a majority of its business activities relate to rate-regulated electric utilities in states with relatively constructive regulatory authorities and where a reasonably strong diversity (in terms of geography and regulatory jurisdictions) benefits the consolidated financial profile over the long term. In addition, AEP has produced key financial credit metrics within the Baa-rating category on a relatively consistent basis over the past 3 and 5-year periods while at the same time generally lowering its overall business and operating risk profile through the disposition of more risky, non-regulated ventures and with the resolution of some outstanding litigation.

The most important drivers of AEP's rating and rating outlook are as follows:

#### **MAINTAINING STEADY AND PREDICTABLE FINANCIAL CREDIT RATIOS**

The vast majority of AEP's revenues, earnings, cash flows and assets are related to its numerous rate-regulated electric utility subsidiaries, which we view, in general, as having a relatively low over-all business and operating risk profile. AEP has produced, on average over the past 5 year and 3 year periods, a ratio of cash flow from operations pre working capital (CFO pre w/c) plus interest divided by interest of roughly 3.8x. For the latest twelve months ended September 2007, the ratio fell slightly to 3.6x, but is still considered within the Baa-rating category and appears appropriate for the Baa2-senior unsecured rating of AEP. Prospectively, Moody's incorporates a view that AEP will continue to produce a CFO pre w/c interest coverage ratio of over 3.5x for the intermediate-term horizon. In addition, AEP's ratio of CFO pre w/c to debt has averaged, over the past 5 year and 3 year periods, roughly 16.5%. This ratio also declined slightly over the latest twelve months ended September 2007 to approximately 15.5%. Prospectively, Moody's incorporates a view that AEP will be successful in producing a ratio of CFO pre w/c to debt over 15% for the intermediate term horizon. From a credit perspective, these key financial credit ratios are viewed as appropriate for a Baa2-rated utility holding company, albeit at the lower end of the Baa-rating category.

#### **DIVERSITY OF OPERATIONS A CREDIT STRENGTH**

AEP's businesses and assets are well diversified, although they are concentrated within the electric utility sector. AEP's utility subsidiaries are located in 11 different states, and are therefore regulated by 11 different regulatory authorities (the largest being Ohio, Texas and Virginia - ranked by rate base). These jurisdictions translate into good diversity in revenues (by state and operating utility), cash flows, assets, debt outstanding, customers and generation capacity. From a credit perspective, Moody's views this diversity as a meaningful credit strength, due to the insulation that benefits the parent company from an unexpected adverse development or other negative development occurring at one of its companies or with one of its state service territories.

#### **REGULATORY ENVIRONMENTS GENERALLY CONSIDERED SUPPORTIVE**

AEP is exposed to eleven different state regulatory commissions: Indiana Utility Regulatory Commission; Kentucky Public Service Commission, Michigan Public Service Commission, Public Utility Commission of Ohio, Commonwealth of Virginia State Corporation Commission, Public Service Commission of West Virginia, Arkansas Public Service Commission, Public Utility Commission of Texas and Louisiana Public Service Commission. In addition, AEP has a small utility operation in Tennessee. In general, Moody's views these state regulatory commissions favorably, due to their reasonably transparent rulemaking procedures and likelihood to settle as opposed to litigate rate cases. We observe that most of these commissions are appointed (Louisiana and Oklahoma are elected); that a majority of the states did not pursue a legislatively mandated form of deregulation (with the exception of Ohio, Texas, Virginia and Michigan), that fuel cost / purchased power costs trackers are allowed in some fashion (except for Ohio) and that most have approval authorities over securities issuances and

M&A change of control (except Michigan). As a portfolio, these regulatory commissions are viewed as maintaining a relatively constructive relationship with the utilities they regulate and are considered a benefit to AEP's over-all business and risk profile.

#### SUBSTANTIAL CAPITAL INVESTMENT PLAN RAISES NEAR-TERM RISKS

Over the next three years (2008 - 2010), AEP is expecting to invest approximately \$11 billion into its business infrastructure and almost \$18 billion over the next five-year period. While we acknowledge that a significant portion of these investments can be considered aspirational and subject to various forms of regulatory pre-approvals before they become committed, this level of spending could clearly create financial pressure on the company. The majority of the base capital plan relates to investments in generation, which include plans to build a new IGCC-plant in West Virginia, and, over the longer term, a new nuclear facility. In addition, Moody's observes that a significant portion of the base capital plan includes AEP's aspirations to build new high-voltage transmission lines throughout its service territories, which are also long-term projects where meaningful spending is not expected to occur for some time. From a credit perspective, Moody's views investments in regulated rate-base positively, and we incorporate a view that regulators will provide meaningful and timely recovery for prudently incurred investments. Nevertheless, we remain cautious as to the scale and scope of capital expenditure plans of this size, due to the negative free cash flow that will be incurred and the potential regulatory overhang associated with the ultimate impact on end-use customer rates. In our opinion, utilities that are embarking on a capital investment program of this size should also be redoubling their efforts to bolster their balance sheet and cash flow credit metrics, in an effort to create enough financial strength to weather potentially distressful environments related to economic conditions, volatility in commodity markets, regulatory changes or other unanticipated developments.

#### OHIO REGULATORY ENVIRONMENT IN TRANSITION

Ohio is currently experiencing a significant amount of potential legislative / regulatory intervention risk, which is not expected to be fully resolved for many years. As a result, electric utilities that operate in Ohio will have a higher level of business and operating risk, due to the uncertainty associated with the ultimate outcome of any potential intervention or what form any legislation might take and the magnitude of any potential changes to business strategy, if any, that might unfold. In our opinion, the best way to mitigate against this uncertainty is to bolster and strengthen the balance sheet, and deploy a set of extremely conservative financial policies until more clarity becomes available. Moody's also notes that not all intervention is negative to credit quality, and, in our opinion, we view the current Ohio situation as being substantially less contentious than the recent intervention experienced in Illinois and Maryland within the last year. Moody's incorporates a view that the utilities in Ohio will most likely reach some form of negotiated agreement with the PUCO that essentially extends the current Rate Stabilization Plans the bulk of which are scheduled to expire in December 2008, perhaps with some built-in rate increases that addresses legislator's desires to protect consumers from rate shocks and industrial consumers with some form of rate stability. As the situation in Ohio continues to develop, Moody's will update our views regarding how we will incorporate these potential risks into our credit analysis as developments materialize.

#### SHAREHOLDER REWARDS STRATEGIES VIEWED AS SHORT-SIGHTED

Given the level of spending that AEP is anticipating, the continued increases in non-fuel operating and maintenance expenses, the volatility associated with natural gas fuel commodities, rising costs for coal and nuclear fuel, uncertainties associated with increasingly stringent environmental compliance mandates plus an aging workforce, Moody's views the company's current shareholder rewards strategies as being somewhat inconsistent with the risks facing the industry (in general) and AEP, specifically. While we do not dispute the board of director's need to maximize shareholder value, we remain concerned as to the fixed nature of the company's common stock dividend policy and dividend payout targets. In our opinion, the company already has very little "cushion" as a Baa2-rated company should a meaningfully adverse development materialize that negatively impacts its cash flows. We observe that several of AEP's peers appear to be positioned much more soundly within their given rating categories, although most fall within the overly-biased shareholder rewards classification, given the capital spending plans that are disclosed in the annual SEC 10-K filings. From a credit perspective, While Moody's views AEP's current shareholder rewards strategies as being neutral to the credit over the near-term, they could be viewed as harmful if unexpected negative developments were to materialize since we view AEP's common dividend as a fixed obligation.

#### Liquidity:

AEP maintains two separate credit facilities at the parent company, each \$1.5 billion where one matures in March 2011 and the other matures in April 2012. As of September 30, 2007, there was approximately \$559 million of commercial paper outstanding under these facilities and \$69 million of L/C's issued, leaving a total available capacity of approximately \$2.6 billion. Scheduled debt maturities appear to be reasonable, with roughly \$520 million expected to mature in 2008 and \$345 million maturing in 2009, the vast majority of which represent regulated utility debt maturities. The two credit facilities contain a single financial covenant, a 67.5% adjusted leverage test. As of September 2007, the company was in compliance with that covenant and appears to have ample headroom. There are no ongoing material adverse change conditions.

AEP is expected to generate approximately \$9 billion of cash from operations over the next three years, invest roughly \$11 billion in capital expenditures and pay roughly \$2 billion in common dividends. This results in approximately \$4 billion of negative free cash flow, the vast majority of which is expected to be financed with

additional debt. If AEP were unable to access the capital markets for some reason its current committed bank facilities would appear to be adequate to provide sufficient liquidity, if needed.

**Corporate Governance:**

AEP has important governance strengths that outweigh any weaknesses; however, we believe the impact on the rating is limited at this time. The board appears to have a good framework for corporate governance, for example, implementing a robust board evaluation process. Like some other utilities, the board has a fairly structured approach to corporate governance (e.g., a large number of committees) which lends obvious strength in ability to focus on proper detail, but also may carry some risk of inadequate overall board integration.

Director succession at AEP may prove challenging as five outside directors, including the chair of the audit committee, are within one to three years of the board's mandatory retirement age of 72. This includes one director Moody's does not consider independent - E.R. Brooks, the retired chairman and CEO of Central and South West Corporation, which merged with AEP in June 2000 - plus four directors we do view as independent. These upcoming director changes present some potential transition risks for the board since the retiring directors have built up considerable institutional memory and there have been few new directors added to the board in recent years. A less risky director transition process might allow for the recruitment of two to four new directors, over a two year period, providing an opportunity for some transfer of company knowledge from long-tenured directors limiting the material loss of institutional memory for the board overall, particularly, at a time when major decisions may be made with respect to building new base load generation facilities.

**Rating Outlook:**

The stable rating outlook for AEP is primarily based on our views regarding the company's intermediate and longer-term strategic plans, the diversity of its cash flow generation from rate-regulated electric utility companies, and a reasonably predictable financial profile that is expected to maintain key financial credit metrics, including cash flow to debt in the mid-teen's range.

**What Could Change the Rating - Up**

The ratings could be upgraded if AEP were to improve its financial profile and its key financial credit ratios on a sustainable basis. This would include improving its ratio of CFO pre w/c to debt to the high-teen's (from the current mid-teen's) and CFO pre w/c interest coverage closer to roughly 4x (from the current 3.5x range).

**What Could Change the Rating - Down**

Ratings downgrades could occur if the financial profile were to deteriorate to where the key financial credit ratios resulted in CFO pre w/c in the low teen's and CFO pre w/c interest coverage fell closer to 3x. Separately, ratings could be downgraded if AEP's over-all business and risk profile were to increase without a corresponding improvement to its financial profile. A more contentious environment in Ohio, or other negative or contentious regulatory developments could pressure the rating; the outcome of various environmental mandates or operation problems at AEP's major generating stations would also be viewed negatively from a credit perspective.

**Rating Factors**

**American Electric Power Company, Inc.**

Select Key Ratios for Global Regulated Electric Utilities

Rating	Aa	Aa	A	A	Baa	Baa	Ba	Ba
Level of Business Risk	Medium	Low	Medium	Low	Medium	Low	Medium	Low
CFO pre-W/C to Interest (x) [1]	>6	>5	3.5-6.0	3.0-5.7	2.7-5.0	2-4.0	<2.5	<2
CFO pre-W/C to Debt (%) [1]	>30	>22	22-30	12-22	13-25	5-13	<13	<5
CFO pre-W/C - Dividends to Debt (%) [1]	>25	>20	13-25	9-20	8-20	3-10	<10	<3
Total Debt to Book Capitalization (%)	<40	<50	40-60	50-70	50-70	60-75	>60	>70

[1] CFO pre-W/C, which is also referred to as FFO in the Global Regulated Electric Utilities Rating Methodology, is equal to net cash flow from operations less net changes in working capital items



COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, such information is provided "as is" without warranty of any kind and MOODY'S, in particular, makes no representation or warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability or fitness for any particular purpose of any such information. Under no circumstances shall MOODY'S have any liability to any person or entity for (a) any loss or damage in whole or in part caused by, resulting from, or relating to, any error (negligent or otherwise) or other circumstance or contingency within or outside the control of MOODY'S or any of its directors, officers, employees or agents in connection with the procurement, collection, compilation, analysis, interpretation, communication, publication or delivery of any such information, or (b) any direct, indirect, special, consequential, compensatory or incidental damages whatsoever (including without limitation, lost profits), even if MOODY'S is advised in advance of the possibility of such damages, resulting from the use of or inability to use, any such information. The credit ratings and financial reporting analysis observations, if any, constituting part of the information contained herein are, and must be construed solely as, statements of opinion and not statements of fact or recommendations to purchase, sell or hold any securities. NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER. Each rating or other opinion must be weighed solely as one factor in any investment decision made by or on behalf of any user of the information contained herein, and each such user must accordingly make its own study and evaluation of each security and of each issuer and guarantor of, and each provider of credit support for, each security that it may consider purchasing, holding or selling.

MOODY'S hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MOODY'S have, prior to assignment of any rating, agreed to pay to MOODY'S for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,400,000. Moody's Corporation (MCO) and its wholly-owned credit rating agency subsidiary, Moody's Investors Service (MIS), also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually on Moody's website at [www.moody.com](http://www.moody.com) under the heading "Shareholder Relations - Corporate Governance - Director and Shareholder Affiliation Policy."



## **Kentucky Power Company**

### **REQUEST**

Recognizing that utilities are generally opposed to the imposition of a renewables portfolio standard (RPS), if such a standard were considered in Kentucky, what percent do you believe would be realistic as a 2020 target? What factors, if any, would make it easier or more difficult for KPCo to meet a statewide standard, based on specific service area considerations? If renewables projects are developed outside of the KPCo Kentucky service area, what are the major considerations, benefits, impediments to meeting an RPS on this basis?

### **RESPONSE**

AEP views an arbitrarily set Renewable Portfolio Standard as a costly technology mandate for its customers as the policy is likely to result in above- market electricity prices. Setting a short end date and / or faster escalating percentages will potentially result in customers paying higher prices. If the Commonwealth of Kentucky intends to establish an RPS, it should first conduct a detailed study of its renewable energy resources that can be economically developed and understand the implication for electricity consumers and the state's economy. In our judgment as a developer, owner and operator of wind projects, the wind resource in the Commonwealth does not appear to be as robust as in many states to the west where wind is being successfully developed. Wind is usually the primary resource that is developed to satisfy RPS requirements. AEP believes the use of clean energy technologies including energy efficiency, clean coal and renewables should be encouraged through voluntary measures and incentives (e.g., enhanced rate of return). These positive supporting policies will yield a natural migration towards the use of renewables and low carbon technologies. For example, legislation in Indiana (IC 8-1-8) and in Virginia (SB1416) encourages clean coal and renewable generation to be constructed inside the jurisdiction with assured investment recovery and enhanced rates of return. The Virginia legislation also includes a voluntary RPS, with extra basis points for achieving the goals.

Based on studies conducted by the Department of Energy (DOE) and AEP's present understanding, renewable resources are limited within the KPCo service territory as well as the Commonwealth of Kentucky as a whole. The following link may be used to review the information: [http://www.eere.energy.gov/windandhydro/windpoweringamerica/wind\\_maps.asp](http://www.eere.energy.gov/windandhydro/windpoweringamerica/wind_maps.asp)

**KPSC Administrative Case No. 2007-00477 An Investigation of the Energy and  
Regulatory Issues in Section 50 of KY's 2007 Energy Act  
Commission Staff's Second Set of Data Requests  
Order Dated January 3, 2008  
Item No. 39  
Page 2 of 2**

Additionally, please see the *AEP and Climate Legislation* powerpoint dated October 9, 2007 provided to the Commission Staff and Overland Consulting, Inc. during the interview meeting on December 17, 2007.

AEP believes that allowing renewable resources to be located within the PJM and / or MISO RTOs provides additional flexibility to deliver lower cost renewable energy to KPCo customers. An example of this flexibility can be evidenced by KPCo's affiliate, Appalachian Power Company's (APCo), recent acquisition of wind energy from sites in Indiana and Illinois. These wind projects were well outside APCo's service territory but within the PJM RTO and were secured as a result of a PJM RFP for wind energy which was conducted in April 2007. This resulted in the lowest reasonable cost for APCo's customers.

All costs incurred with an RPS should qualify for contemporaneous recovery, as environmental compliance costs now do in Kentucky. For example, capital, operation and maintenance costs for generating facilities, transmission and distribution facilities required to be installed or modified that are associated with the generation should be recoverable. Costs for renewable energy credits and energy under power purchase agreements also should be recoverable along with other costs to comply. It also would be appropriate for the Commission to approve rates of return on qualifying costs that are especially supportive of investment within the Commonwealth.

**WITNESS:** Errol K Wagner and Timothy C Mosher



## **Kentucky Power Company**

### **REQUEST**

Based on comments made in its December 18 interview, Duke identified the need for a "Smart-Metering" program to expand EE and DSM program benefits. What are KPCo's views and current plans regarding implementation of a "Smart-Metering" Program. Please provide any overview and analysis KPCo has available regarding costs and benefits of implementation of such a program.

### **RESPONSE**

AEP believes that the deployment of smart meters -- meters that offer two-way communication -- can enable additional DSM/EE programs/activities given that customers will have more information about their usage and may one day have in-home networks that can automatically respond to pricing signals. KPCo is currently developing an analysis regarding the costs and benefits of deploying an advance metering infrastructure including smart meters. As part of AEP's gridSMART project, KPCo will be evaluating a deployment plan and related costs and benefits of implementing such program later this year.

AEP's gridSMART initiative addresses AEP's corporate vision for enhancing the distribution and customer service business in the future, including the development of customer programs to reduce energy consumption and peak demand. It also will include a plan to deploy advanced technologies such as advanced metering that will modernize our energy delivery system. AEP envisions giving customers greater information visibility and control over their energy use while allowing AEP to better manage its system with automation to improve reliability, cost and energy losses. In addition, under the gridSMART project, AEP will monitor the development of new and emerging technologies that may impact the use of electric transportation, distributed generation (biomass, solar and fuel cells), electric energy storage, and power outage mitigation. We will be addressing the full energy pathway -- from the power generation plant to the home or business -- with behind-the-scenes technology innovations to improve efficiency and control of electric energy flow. These increased efficiencies by customers, and by our own generation and delivery systems, translate to reductions in fuel used and emissions released, while deferring or delaying the need for new generation supply to keep up with AEP's responsibility to serve the growth in demand for electricity.

**WITNESS:** Errol K Wagner and Timothy C Mosher



**KPSC Administrative Case No. 2007-00477 An Investigation of the Energy and  
Regulatory Issues in Section 50 of KY's 2007 Energy Act  
Commission Staff's Second Set of Data Requests  
Order Dated January 3, 2008  
Item No. 41  
Page 1 of 1**

**Kentucky Power Company**

**REQUEST**

Please provide any available forecasts on the potential for DSM within the KPCo's service territory.

**RESPONSE**

There are no studies or forecasts for DSM potential within KPCo's territory. All estimates were part of the IRP process and developed internally.

**WITNESS:** Errol K Wagner and Timothy C Mosher





**KPSC Administrative Case No. 2007-00477 An Investigation of the Energy and  
Regulatory Issues in Section 50 of KY's 2007 Energy Act  
Commission Staff's Second Set of Data Requests  
Order Dated January 3, 2008  
Item No. 42  
Page 1 of 1**

**Kentucky Power Company**

**REQUEST**

Please provide any available forecasts on the potential for utilization of renewables and distributed generation within KPCo's service area.

**RESPONSE**

No forecasts are available for the potential utilization of renewables or distributed generation within KPCo's service area.

**WITNESS:** Errol K Wagner and Timothy C Mosher



## **Kentucky Power Company**

### **REQUEST**

Please describe the process by which computer-based models are deployed to run sensitivity analyses in KPCo's (AEP's) IRP process.

Please describe the inputs to the modeling:

- (a) Summarize all the cases run in the last IRP
- (b) How are different supply-side and demand-side technologies pre-selected and selected in the modeling process?
- (c) What input variables are employed to run sensitivity analyses?
- (d) What distributional assumptions are employed for each of these variables?
- (e) What statistical measures are employed to quantify the impact of individual input variables, and perhaps also combinations of variables, on results?

### **RESPONSE**

a. The comprehensive scenario analyses for the 2007 AEP IRP was conducted using Strategist, a resource optimization tool. Strategist was used to evaluate the following scenarios:

- Base Commodity, Base CO<sub>2</sub>. This case assumes a national cap on CO<sub>2</sub> emissions in 2015 based on 2010 levels. Plant build costs are assumed to de-escalate from current levels.
- Base Commodity, Low CO<sub>2</sub>. Assumes a national cap on CO<sub>2</sub> emissions is delayed five years until 2020 and capped at 2015 levels. Plant costs de-escalate from current levels (as above).
- Base Commodity, High CO<sub>2</sub>. Assumes a national cap on CO<sub>2</sub> emissions in 2015 based on 2010 levels. Cap then is reduced by 5% in 2020 and an additional 5% in 2025. Plant build costs de-escalate from current levels. A national 10% renewable portfolio standard is assumed enacted, effective 2020.
- Base Commodity, No CO<sub>2</sub>. Assumes "business as usual" with no substantive carbon legislation in the planning horizon. Plant build costs, however, continue to de-escalate from current levels.

- Base Commodity, Base CO2, High Capital. Same as “Base Commodity, Base CO2” however, this scenario assumes the currently-experienced significant escalation of the capital costs continue throughout the planning horizon.
- Low commodity, Base CO2. Commodities are discounted one standard deviation from the five year average, emissions valued on historically seen values. Market capacity and energy price is based on fuel and emission prices.
- Mid High Commodity, Base CO2. The arithmetic average between “High Commodity, Base CO2” and “Base Commodity, Base CO2”.
- High commodity, Base CO2. Commodities are increased by 1.5 standard deviations from the five year average. Market capacity and energy price is based on fuel and emission prices.
- Base commodity, Base CO2 and No IGCC. Same as “Base Commodity, Base CO2”, except the IGCC was omitted as a possible alternative during the optimization.
- Base commodity, Base CO2 and 2 Year Retirement Delays. Same as “Base Commodity, Base CO2”, except potential unit retirements after 2010 were delayed by two years.
- Base commodity, Base CO2 and Incremental DSM. Same as “Base Commodity, Base CO2”, except it also includes 4 MW of DSM in 2010, an additional 108 MW DSM in 2015, and an additional 303 MW of DSM by 2020.
- Base commodity, Base CO2 and Low Economic. Same as “Base Commodity, Base CO2” except AEP’s forecasting group developed a low economic scenario based on driving force variable (GDP and employment rates) deviations using professional judgment.
- Base commodity, Base CO2 and High Economic. Same as “Base Commodity, Base CO2” except AEP’s forecasting group developed a high economic scenario based on driving force variable (GDP and employment rates) deviations using professional judgment.

b. The cost and operating characteristics of various baseload, intermediate and peaking supply-side alternatives were developed by AEP’s New Generation Development Organization (NGDO). NGDO relied on industry collaboratives such as EPRI, EEI, and its association with A&E’s and OEM’s for information on these technologies. The NGDO also used their own experience and intelligence gathering to develop these supply-side alternatives.

A busbar screening (40 year levelized \$/kW-yr cost vs. capacity factor) was performed on the various “families” of baseload, intermediate and peaking alternatives. This initial screening was necessary in order to reduce the number of alternatives made available to the more detailed Strategist optimization model.

The optimum assets from each technology “family” were entered into Strategist and the model was allowed to optimize based on “real world” restrictions. Strategist uses a dynamic programming algorithm which creates all of the possible combinations of alternatives for each year of the study period which meet user defined constraints (e.g. minimum capacity reserve margin). These combinations of alternatives (i.e. expansion plans) are then ranked based on a user defined objective function (e.g. minimization of utility revenue requirements).

The Demand-side technologies were pre-selected and screened by both AEP and their consultants. AEP worked with R J Rudden/ Black and Veatch to carry out a comprehensive analysis of DSM potential for the AEP System. The Black and Veatch/ Rudden effort included:

- Developing an extensive database of DSM measures that might be applicable across the AEP System.
- Customizing the parameters used to model those measures to reflect conditions in AEP’s operating jurisdictions.
- Developing a DSM economic screening model to perform benefit/ cost analyses of those measures,

The DSM programs meeting certain constraints (e.g. TRC >1.0, allowance for consumer preferences, etc) were then “locked in” to all of the Strategist optimization runs.

c. The input variables employed to run sensitivity analyses are: Market energy and capacity prices, fuel prices, emission allowance prices, and load.

d. In our Strategist modeling, distributions of the input variables are not used. Rather, selected scenarios from the list provided in response (a) are used as inputs.

e. The Strategist modeling results in a cost for each scenario considered.

**WITNESS:** Errol K Wagner and Timothy C Mosher



**Kentucky Power Company**

**REQUEST**

What is the variable that is optimized within AEP's planning models? To the extent that a model's objective function is focused on minimizing cost of service, describe the elements constituting the cost measure. To the extent the objective function embodies components other than costs currently incurred by utilities (such as, for example, social welfare impacts related to environmental and health costs), describe the justification for their inclusion and the methodologies for estimating their values.

**RESPONSE**

The objective function of the Strategist planning model is lowest cumulative present worth of revenue requirement over the study period. Included in this requirement are carrying costs on capacity, fixed O&M, variable O&M, fuel net of revenue from off-system sales, purchased power, and the value of emission allowances consumed.

There are no components other than costs incurred by utilities.

**WITNESS:** Errol K Wagner and Timothy C Mosher





## **Kentucky Power Company**

### **REQUEST**

Please provide any existing forecasts of the costs of developing and deploying the following in any of AEP's service territories:

New conventional generation, for all types of fuels  
New renewable generation, for all types  
New DSM / energy efficiency programs, for all types, preferably organized by customer class

To the extent possible, disaggregate cost estimates into sub-categories such as, capital costs; fixed and variable operations and maintenance costs; fuel costs; etc. Provide expectations of cost of capital or discount rates assumed for new projects.

If forecasts are not available, please provide the information identified above for actual projects that have recently been developed by AEP or its utility subsidiaries within the US.

### **RESPONSE**

Confidential treatment in the form of a Petition for Confidentiality is being sought for Attachment 1. Attachment 1 is the new conventional generation for the AEP-East zone.

Forecasts of the costs of developing and deploying renewable generation are provided in Attachment 2.

Forecasts for AEP-East (DSM) program development and deployment have not been developed at this time. The IRP used individual measure costs to determine their economic effectiveness but did not construct programs as market potential studies and other important information was not available.

**WITNESS:** Errol K. Wagner and Timothy Mosher



	M	N	O	P	Q	R	S	T	U	V	W	X
1												
2												
3												
4	50 MW PV	84 MW Concentrator Solar					1.5 MW Landfill Gas	East, 100 MW Wind	West, 100 MW Wind	1.5 MW Small Residential Wind	10 MW Distributed Wind, East	30 MW Mid-Size Wind, East
5								300	300	0.002	10	30
6	0.050	64						33.00%	43.00%	30.00%	33.00%	33.00%
7	17.000	22.00%						80.00%	80.00%	80.00%	80.00%	80.00%
8	60.000	NA						2.120	4.120	1.070	2.120	2.120
9	6.648	3.508						NA	NA	NA	NA	NA
10	NA	NA						NA	NA	NA	NA	NA
11	6,648,240	3,508,000						2,120	2,120	7,070	2,120	2,120
12	804	\$150 - \$170						146	114	477	128	135
13								NA	NA	NA	NA	NA
14	NA	NA						NA	NA	NA	NA	NA
15	NA	NA						NA	NA	NA	NA	NA
16	NA	NA						NA	NA	NA	NA	NA
17	NA	NA						NA	NA	NA	NA	NA
18	NA	NA						NA	NA	NA	NA	NA
19	NA	NA						NA	NA	NA	NA	NA
20	NA	NA						NA	NA	NA	NA	NA
21	NA	NA						NA	NA	NA	NA	NA
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												



## **Kentucky Power Company**

### **REQUEST**

Please provide a description of any plans to modify existing coal and/or gas facilities to improve plant efficiency; to utilize renewable technologies. Please address the costs and benefits associated with these projects.

### **RESPONSE**

There are plans to modify existing KPCo coal and/or gas facilities to improve plant efficiency, but none to utilize renewable technologies. A total replacement of the 1963 vintage High Pressure (HP) Turbine including the Turbine Casing and New Intermediate/ Single Flow Low Pressure (IP/SFLP) Turbine Internals is planned for Big Sandy Unit 1 in 2008. The result will be an up-to-date high efficiency turbine with improved reliability and efficiency. The efficiency improvement consists of two parts, recovery of deterioration to bring the turbine back to original design efficiency and the increase in efficiency from the original to the new design. The expected recovery of deterioration losses is about 300 Btu/kWh. The expected design improvement is 250 Btu/kWh. The total improvement will be about 550 Btu/kWh. The cost of this improvement is \$33.4 million. The other KPCo units, Big Sandy Unit 2 and Rockport Units 1&2, have already been updated with higher performance HP rotors.

Another modification, applicable to Rockport Units 1&2, is replacement of the HP turbine stop and control valves with a reduced pressure drop design. Heat rate is not the primary reason for this change because heat rate alone would not provide justification for the cost, but there is a heat rate benefit. The heat rate improvement is 10 Btu/kWh and the flow passing capability will increase. The cost of this improvement is \$14 million per unit and is planned for 2011/2012.

**WITNESS:** Errol K. Wagner and Timothy C. Mosher



**KPSC Administrative Case No. 2007-00477 An Investigation of the Energy and  
Regulatory Issues in Section 50 of KY's 2007 Energy Act  
Commission Staff's Second Set of Data Requests  
Order Dated January 3, 2008  
Item No. 47  
Page 1 of 1**

**Kentucky Power Company**

**REQUEST**

If not already provided in previous discovery responses, please provide details of DSM/EE programs implemented in other jurisdictions that AEP plans to implement in Kentucky (please provide details on technology, timeframe, expected outcomes and participation levels)

**RESPONSE**

There are none.

**WITNESS:** Errol K Wagner and Timothy C Mosher