INTER COUNTY
ENERGY COOPERATIVE

A Touchstone Energy Cooperative

March 28, 2005

RECEIVED
MAR 29 2005
PUBLIC SERVICE COMMISSION

Ms. Beth O'Donnell, Executive Director
Public Service Commission of Kentucky
211 Sower Boulevard
PO Box 615
Frankfort, KY 40602

Re: Administrative Case No. 2005-00090
An Assessment of Kentucky's Electric Generation, Transmission and Distribution Needs

Dear Ms. O'Donnell:

Please find enclosed the original and ten (10) copies of the information requested in Administrative Case No. 2005-00090, An Assessment of Kentucky's Electric Generation, Transmission and Distribution Needs for Inter-County Energy Cooperative Corporation.

Steve Souder, Vice President-Operations, will be our witness for Item Nos. 1, 2, 5 and 18-33 of Appendix B. Sheree Gilliam, Vice President-Customer Services, will be our witness for Item No. 17 of Appendix B.

Should you need additional information concerning this filing, please contact this office.

Sincerely,

James L. Jacobus
President/CEO

JLJ/crl

INTER COUNTY
ENERGY COOPERATIVE

A Touchstone Energy Cooperative

Case No. 2005-00090

INTER-COUNTY ENERGY COOPERATIVE CORPORATION
P.O. Box 87
Danville, KY 40423-0087

APPENDIX B

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN ADMINISTRATIVE CASE NO. 2005-00090 DATED MARCH 10, 2005

1. Provide a summary description of your utility's resource planning process. This should include a discussion of generation, transmission, demand-side and distribution resource planning.

Inter-County Energy is a distribution cooperative. It does not have generation or transmission facilities.

The distribution resource planning is conducted along guidelines of the Rural Utilities Service. A long range plan is developed that encompasses the entire area served by the cooperative. This plan is prepared for a twenty-year period. It is used to project plant additions and costs for the study period. A construction work plan is prepared on a four year basis. The construction work plan is used for the immediate future needs of the system and to secure financing for those needs. The construction work plan is coordinated with the long range plan to assure that it also meets the long term requirements of the cooperative. Both the Long Range Plan and the Construction Work Plan are driven by loading that is a collaborative effort between Inter-County Energy and East Kentucky Power.

2. Are new technologies for improving reliability, efficiency and safety investigated and considered for implementation in your power generation, transmission and distribution system?

Yes.

a. If yes, discuss the new technologies that were considered in the last 5 years and indicate which, if any, were implemented.

Inter-County Energy continually explores new technologies, researches, evaluates and implements those with positive results. Included in this area are:

1. **"Link meters": These devices allow the cooperative to monitor some power quality parameters and obtain meter readings. This product was adopted and Inter-County Energy presently has approximately 500 installed.**

2. **"Digitized Mapping": Inter-County Energy changed to a digital mapping system and now has current maps of the system installed on mobile computers operating throughout the field operations.**

3. **"Vegetation Control": This subject is one of great importance both for daily operations and long term performance. Inter-County Energy has used large machinery for mowing the rights-of-way followed by an herbicide treatment. The mowing part of the plan has terminated but the herbicide treatment is continuing.**

4. **"Fault Indicators": Devices have been installed throughout the system to provide a post-operation indication of a recloser successful restoration of power following a temporary fault.**

5. **"I-Grid": East Kentucky Power has installed a device in six substations to give a notification and signature of a voltage abnormality. This information is used to assess the impact on the system of transient faults.**

6. **"Radio System": Inter-County Energy has installed a trucked radio system to provide more reliable communications. This system will improve the safety of field crews. It will also provide a platform for data communications to mobile units.**

7. **"System Analysis": The system is analyzed periodically with distribution system analysis software. The results of this analysis are improved sectionalizing, phase balancing and load allocation.**

8. **"Safety": Inter-County Energy continues to train employees in First Aid, CPR and Blood Borne Pathogens. Each employee participates in safety training at least on a monthly basis. Employees are sent to special training events as appropriate.**

5. Provide actual and weather-normalized annual coincident peak demands for calendar years 2000 through 2004 disaggregated into (a) native load demand, firm and non-firm; and (b) off-system demand, firm and non-firm.

Actual and Weather-Normalized Annual Coincident Peak Demands					
Annual Peak	Actual Peak Demand (MW)	Weather Response Function (MW / Degree)	Actual Peak Day Temperature (Degrees F)	Normal Peak Day Temperature (Degrees F)	Weather Normalized Peak Demand (MW)
December-00	104.5	-1.30	1	-3	109.7
January-01	105.1	-1.33	5	-3	115.8
February-02	96.4	-1.04	12	-3	112.0
January-03	121.6	-1.33	-7	-3	116.3
January-04	122.6	-1.33	-6	-3	118.6
Based on Lexington KY Weather Station Data and Inter-County Energy Hourly Load Data					

Inter-County Energy is a distribution cooperative; it has one customer on an interruptible contract. That customer is approximately 3 MW. There are no off-system sales.

17. Provide a summary description of your utility's existing demand-side management ("DSM") programs, which includes:

a. Annual DSM budget,

b. Demand and energy impacts,

c. The currently scheduled termination dates for the programs.

Over the last 20 years, Inter-County Energy has offered various DSM and marketing programs that were developed to meet the needs of customers and delay the need for additional generating capacity. Efforts focus on energy efficiency and conservation education programs as well as peak load reduction programs for both residential and commercial/industrial customers. The DSM programs offered by Inter-County Energy include:

Residential Programs

- **Tune-Up HVAC Maintenance Program**
- **Geothermal Heating & Cooling Incentive Program**
- **Touchstone Energy Home Incentive Program**
- **Electric Thermal Storage Incentive Program**

Residential Programs (continued)

- **Electric Water Heater Incentive Program**
- **Air-Source Heat Pump Incentive Program**
- **Button-Up Weatherization Program**
- **Manufactured Home Program**
- **Free On-Line Energy Efficiency Profile**
- **Low-Interest Home Improvement Financing**
- **Conservation Education**

Commercial Programs

- **Power Factor Correction**
- **Energy Cost Control**
- **Lighting Audits & Retrofits**

a. Annual DSM budget,

Inter-County Energy's 2005 annual DSM/Marketing budget, including training, advertising and incentives, is $60,000.

b. Demand and energy impacts.

The demand and energy impacts for individual DSM programs are listed below.

	Energy Impact (kWh)	Impact On Winter Peak	Impact On Summer Peak
Button Up	(2,700)	(2.7)	(1.0)
Tune Up	(2,200)	(2.2)	(1.0)
Geothermal	(6,000)	(3.5)	(1.5)
ETS	9,300	(2.1)	0.0
Efficient Heat Pump/ New Construction & Retrofit	(925)	2.5*	(1.0)
* Increase due to gas heated homes switching to efficient heat pumps.			
* No information available on Touchstone Energy Home-New Program in 2004.			

c. The currently scheduled termination dates for the programs.

All Inter-County Energy Marketing and DSM programs are scheduled to be in place through December 2006. Programs are evaluated annually in an effort to determine effectiveness and future marketing strategies.

18. Provide your utility's definition of "transmission" and "distribution".

Inter-County Energy is a distribution cooperative associated with East Kentucky Power. Inter-County Energy begins its operation of the system at the individual circuit breaker in each substation. Therefore, distribution to Inter-County Energy means only the circuits emanating from a substation.

19. Identify all utilities with which your utility is interconnected and the transmission capacity at all points of interconnection.

Inter-County Energy does not have any interconnections with utilities other than East Kentucky Power as described in question 18.

20. Provide the peak hourly MW transfers into and out of each interconnection for each month for the last 5 years. Provide the date and time of each peak.

Inter-County Energy does not have any interconnections with utilities other than East Kentucky Power as described in question 18.

21. Identify any areas on your utility's system where capacity constraints, bottlenecks, or other transmission problems have been experienced from January 1, 2003 until the present date. Identify all incidents of transmission problems by date and hour, with a brief narrative description of the nature of the problem. Provide the MW transfers for each of your utility's interconnection for these times.

Inter-County Energy does not have any interconnections with utilities other than East Kentucky Power as described in question 18.

22. Provide details of any planned transmission capacity additions for the 2005 through 2025 period. If the transmission capacity additions are for existing or expected constraints, bottlenecks, or other transmission problems, identify the problem the addition is intended to address.

Inter-County Energy does not have any transmission.

23. Is your utility researching or considering methods of increasing transmission capacity of existing transmission routes? If yes, discuss those methods.

Inter-County Energy does not have any transmission.

24. Provide copies of any reports prepared by your utility or for your utility that analyze the capabilities of the transmission system to meet present and future need for import and export of capacity.

Inter-County Energy does not have any transmission.

25. Provide the following transmission energy data forecast for the years 2005 through 2025.

a. Total energy received from all interconnections and generation sources connected to your transmission system.

Inter-County Energy does not have any transmission.

b. Total energy delivered to all interconnections on your transmission system.

Inter-County Energy does not have any transmission.

c. Peak demand for summer and winter seasons on your transmission system.

Inter-County Energy does not have any transmission.

26. Provide the yearly System Average Interruption Duration Index ("SAIDA") and the System Average Interruption Frequency Index ("SAIFI"), excluding major outages, by feeder for each distribution substation on your system for the last 5 years.

Inter-County Energy uses a manual system to record outages. Therefore it is impossible to accurately associate outages with substations and circuits. The following is the system SAIDI and SAIFI for the listed years.

YEAR	SAIDI	SAIFI
2000	1.73	1.57
2001	2.17	141
2002	3.01	1.63
2003	2.40	1.75
2004	3.77	2.05

27. Provide the yearly SAIDI and SAIFI, including major outages, by feeder for each distribution substation on your system for the last 5 years. Explain how you define major outages.

YEAR	SAIDI	SAIFI
2000	2.50	1.79
2001	2.17	1.41
2002	3.01	1.63
2003	4.09	1.92
2004	3.77	2.05

Inter-County Energy considers an outage that affects ten percent of customers for twenty-four hours as a major outage.

28. What is an acceptable value of SAIDI and SAIFI? Explain how it was derived.

Inter-County Energy continually strives to improve reliability. There has not been a formal adoption of an acceptable SAIDI or SAIFI.

29. Provide the yearly Customer Average Interruption Duration Index ("CAIDA") and the Customer Average Interruption Frequency Index ("CAIFI"), including and excluding major outages, on your system for the last five years. What is an acceptable value for CAIDI and CAIFI? Explain how it was derived.

Inter-County Energy uses a manual system to record outages. Therefore it is impossible to accurately calculate CAIFI.

YEAR	CAIDI Including Major Outage	CAIDI Excluding Major Outage
2000	1.40	1.09
2001	1.54	1.54
2002	1.85	1.85
2003	2.13	1.37
2004	1.84	1.84

Inter-County Energy follows the RUS reliability guideline of five customer hours outage per year. There has not been a formal adoption of an acceptable CAIDA or CAIFI.

30. Identify and describe all reportable distribution outages from January 1, 2003 until the present date. Categorize the causes and provide the frequency of occurrence for each cause category.

On February 16, 2003 Inter-County Energy experienced an ice storm that affected 4,024 customers. The storm caused outages spanning nine hours.

On September 1, 2003 a storm caused a tree to fall through a line causing an outage that affected 639 customers for nearly five hours.

On May 26, 2004 a storm caused a tree to fall through a line causing an outage that affected 942 customers for nearly five hours.

Reportable Outages 2003 to Present	
Cause	Frequency
Ice	1
Wind	2

31. Does your utility have a distribution and/or transmission reliability improvement program?

No.

32. Provide a summary description of your utility's:

a. Right-of-way management program. Provide the budget for the last 5 years.

Inter-County Energy employs a supervisor, five cutting crews and an herbicide application crew from the Townsend Tree Service company. These crews under the general direction of Inter County Energy's maintenance superintendent maintain clearance in the right-of-way on a four year cycle.

Right-of-Way Budget	
2000	$585,000
2001	$630,000
2002	$565,000
2003	$550,000
2004	$620,000

b. Vegetation management program. Provide the budget for the last 5 years.

Please see 32 a.

c. Transmission and distribution inspection program. Provide the budget for the last 5 years.

Distribution Inspection Expenses	
2000	$50,618
2001	$0
2002	$2,875
2003	$2,298
2004	$28,877

The classification of this expense appears to be in error. Inter-County Energy has an inspection program that requires the maintenance technician in each designated area to inspect the system. The inspections are documented by service order. There is no separate budget line for this expense.

33. Explain the criteria your utility uses to determine if pole or conductor replacement is necessary. Provide costs/budgets for transmission and distribution facilities replacement for the years 2000 through 2025.

Inter-County Energy began a pole inspection program in 1992 using the services of the Osmose Utilities Services, Inc. The second cycle of inspection by Osmose is currently underway. Poles are inspected and judged for integrity, if found to be sound they are treated with a wood preservative. Poles that not sound are scheduled for replacement.

The maintenance technicians report deteriorated conductors found in their course of work. These deteriorated lines are scheduled for re-conductoring.

The following tables list the actual capital investments in poles and conductors for the years 2001 through 2004 and the work plan budget amounts for the years 2005 through 2008. The Long Range Plan was completed in 1995 and projects amounts only through 2014. These projections in the Long Range Plan are not meaningful in current pricing structures. Inter-County Energy plans to perform another Long Range Plan in 2006.

INTER-COUNTY ENERGY
2001-2004 CONSTRUCTION WORK PLAN

SUMMARY

CODE	DESCRIPTION	MILES		TOTAL
100	NEW DISTRIBUTION LINES		$	5,925,984.06
302	PERRY ROGERS RD. 7.2 kV to 14.4 kV Voltage Conversion	10.13	$	20,185.83
303	RANKIN RD. TO GOGGIN RD. 7.2 kV to 14.4 kV Voltage Conversion	15.19	$	20,239.54
307	PEYTON SUB. TO ELLISBURG TO HUSTONVILLE Convert 3-p, #2 ACSR and #4 ACSR, to 3-p, 397 ACSR	6.0	$	289,832.62
308	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	10.9	$	144,938.37
309	RUSH BRANCH -OLD LICK HWY 49 7.2 kV to 14.4 kV Voltage Conversion	26.1	$	19,490.94
310	McFARLAND - BUTTON KNOB 7.2 kV to 14.4 kV Voltage Conversion	12.6	$	10,151.78
311	MINORS BR. HWY 37 7.2 kV to 14.4 kV Voltage Conversion	15.4	$	7,948.64
312	NEW SALEM - MT. SALEM GREEN RIVER CKT. 7.2 kV to 14.4 kV Voltage Conversion	76.3	$	64,648.68

314	NEW HWY 150 Convert 1-p, #4 ACSR, to 3-p, 397 ACSR	7.6	$	441,616.28
316	HOLY CROSS CKT. 7.2 kV to 14.4 kV Voltage Conversion	18.7	$	41,955.46
320	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	7.2	$	108,747.28
322	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	9	$	127,271.24
325	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	5.4	$	81,910.72
327	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	11.2	$	185,877.53
328	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	8.9	$	104,200.16
330	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	6.3	$	73,499.93
333	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	6.7	$	86,290.16
336	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	4.2	$	43,979.37
344	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	9.8	$	133,433.47
346 (606.32)	RE_CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	6.9	$	102,008.46
347 (606.44)	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	5.8	$	95,821.72
348 (606.34)	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	4.6	$	71,241.01
349 (606.11)	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	4.4	$	45,020.70
372	CWP item 7-7-A 7.2 kV to 14.4 kV Voltage Conversion	39.1	$	92,625.49

300	SYSTEM IMPROVEMENT	322.42	$	2,412,935.38
601	TRANSFORMERS & METERS		$	2,560,344.45
602	SERVICE UPGRADES		$	2,143,203.21
603	SECTIONALIZING EQUIPMENT		$	62,820.26
604	VOLTAGE REGULATORS		$	-
605	CAPACITORS		$	-
606	REPLACEMENTS - POLES		$	1,447,018.64
608	DISTRIBUTION AUTOTRANSFORMERS		$	-
600	DISTRIBUTION EQUIPMENT		$	6,213,386.56
701	SECURITY LIGHTS		$	540,872.73
700	OTHER DISTRIBUTION ITEMS		$	540,872.73
	ACTUAL 2001-2004		$	15,093,178.73

INTER-COUNTY ENERGY

2005-2008 CONSTRUCTION WORK PLAN

SUMMARY

CODE	DESCRIPTION	MILES		TOTAL
100	NEW DISTRIBUTION LINES		$	7,694,400.00
301	ATTILLA Convert 1-p, #4 ACSR, to 2-p, 1/0 AAAC	1.8	$	63,000.00
302	TICK RIDGE, US 27 Convert 1-p, #4 ACSR, to 2-p, 1/0 AAAC	0.27	$	9,450.00
303	NEW DIXVILLE ROAD Convert 3-p, #1/0 AAAC, to 3-p, 4/0 ACSR	1.1	$	44,000.00
304	INDUSTRIAL PARK Convert 3-p, #4 ACSR, to 3-p, 1/0 AAAC	0.23	$	28,780.00
305	TATUM LANE Convert 1-p, #4 ACSR, to 2-p, 1/0 AAAC	1.92	$	67,200.00
306	BARBERS MILL ROAD 7.2 kV to 14.4 kV Voltage Conversion	2	$	5,000.00

307	SNAKE RIDGE 7.2 kV to 14.4 kV Voltage Conversion	8.8	$	22,000.00
308	FORKLAND ROAD Convert 1-p, #4 ACSR, to 2-p, 1/0 AAAC	0.6	$	42,000.00
309	FOLLIS RUN ROAD Convert 1-p, #1/0 ACSR, to 3-p, 1/0 AAAC	2.2	$	89,650.00
310	NINA RIDGE 7.2 kV to 14.4 kV Voltage Conversion	1.4	$	3,500.00
311	DOTY LANE 7.2 kV to 14.4 kV Voltage Conversion	5	$	12,500.00
312	BOURNE 7.2 kV to 14.4 kV Voltage Conversion	7.4	$	33,800.00
313	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	10.7	$	160,500.00
314	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	6.4	$	96,000.00
315	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	8.6	$	129,000.00
316	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	12.8	$	192,000.00
317	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	9.1	$	136,500.00
318	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	11	$	165,000.00
319	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	9.7	$	145,500.00
320	SUGAR CREEK & JACK TURNER 7.2 kV to 14.4 kV Voltage Conversion	6.4	$	16,000.00
321	SCRUB GRASS Convert 1-p, #4 ACSR, to 2-p, 1/0 AAAC	1.1	$	38,500.00
322	ALICETON ROAD Convert 1-p, #4 ACSR, to 3-p, 1/0 AAAC	1.6	$	65,200.00

323	ST. JOE-LAGOON ROAD Convert 1-p, #4 ACSR, to 2-p, 1/0 AAAC	1.63	$	57,050.00
324	HWY39CO Convert 1-p, #4 ACSR, to 2-p, 1/0 AAAC	2.4	$	84,000.00
325	HWY150E CO 7.2 kV to 14.4 kV Voltage Conversion	4.9	$	12,250.00
326	AIRPORT RD.-CHRISMAN LN. 7.2 kV to 14.4 kV Voltage Conversion	20.1	$	67,400.00
327	WHITE OAK RD. 7.2 kV to 14.4 kV Voltage Conversion	5.1	$	21,150.00
328	HWY 127 RACE TRACK CKT Convert 3-p, #1/0 AAAC, to 3-p, 4/0 ACSR	1.61	$	73,520.00
329	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	11.3	$	169,500.00
330	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	8.8	$	132,000.00
331	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	5.5	$	82,500.00
332	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	3.9	$	58,500.00
333	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	5.83	$	87,450.00
334	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	3.75	$	56,250.00
335	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	8.06	$	120,900.00
336	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	2.2	$	33,000.00
337	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	5.5	$	82,500.00
338	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	7.6	$	114,000.00

339	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	11.7	$	175,500.00
340	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	8.83	$	132,450.00
341	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	4.4	$	66,000.00
342	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	5.7	$	85,500.00
343	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	9.25	$	138,750.00
344	RE-CONDUCTOR Convert 1-p, #4 ACSR, to 1-p, 1/0 AAAC	7.25	$	108,750.00
300	SYSTEM IMPROVEMENT	255.43	$	3,524,000.00
601	TRANSFORMERS & METERS		$	3,696,435.00
602	SERVICE UPGRADES		$	2,449,088.00
603	SECTIONALIZING EQUIPMENT		$	181,300.00
604	VOLTAGE REGULATORS		$	8,800.00
605	CAPACITORS		$	-
606	REPLACEMENTS - POLES		$	1,809,000.00
608	DISTRIBUTION AUTOTRANSFORMERS		$	12,000.00
600	DISTRIBUTION EQUIPMENT		$	8,156,623.00
701	SECURITY LIGHTS		$	498,000.00
700	OTHER DISTRIBUTION ITEMS		$	498,000.00
	BUDGET 2005-2008		$	19,873,023.00