

Exhibit No.:
Issue: Supply Plan Maintenance Expense
Normalization
Witness: F. Dana Crawford
Type of Exhibit: Direct Testimony
Sponsoring Party: Kansas City Power & Light Company
Case No.: ER-2007-_____
Date Testimony Prepared: January 31, 2007

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2007-_____

DIRECT TESTIMONY

OF

F. DANA CRAWFORD

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

**Kansas City, Missouri
January 2007**

**Certain Schedules Attached To This Testimony Designated ("HC")
Have Been Removed
Pursuant to 4 CSR 240-2.135.**

Exhibit No. 6-NP
Case No(s) ER-2007-0291
Date 10/1/07 Rptr MU

DIRECT TESTIMONY

OF

F. DANA CRAWFORD

Case No. ER-2007-_____

1 **Q: Please state your name and business address.**

2 A: My name is F. Dana Crawford. My business address is 1201 Walnut, Kansas City,
3 Missouri 64106-2124.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Kansas City Power & Light Company ("KCPL") as Vice President,
6 Plant Operations.

7 **Q: What are your responsibilities?**

8 A: My responsibilities include the direction of the operation and maintenance of KCPL's
9 fossil-fuel generating stations, including their support and construction services.

10 **Q: Please describe your education, experience and employment history.**

11 A: I graduated from the University of Missouri-Columbia with a degree in Civil
12 Engineering. I also have a Master of Business Administration degree from DePaul
13 University. I joined KCPL in 1977 as a Construction Engineer on the Wolf Creek
14 Nuclear Plant project. In 1980, I was promoted to Manager, Nuclear and promoted to
15 Director, Nuclear Power in 1983. Following completion of Wolf Creek, I became
16 Manager, Distribution Construction & Maintenance, in 1988 and Manager, Customer
17 Services, in 1989. In 1994, I became Plant Manager of the LaCygne Generating Station.
18 I was promoted to my current position in March of 2005.

1 **Q: Have you previously testified in a proceeding at the Missouri Public Service**
2 **Commission ("MPSC") or before any other utility regulatory agency?**

3 A: Yes, I testified before the MPSC in KCPL's rate case concerning the Wolf Creek Nuclear
4 Generating Station. I also submitted testimony in KCPL's 2006 rate case in Case No.
5 ER-2006-0314.

6 **Q: What is the purpose of your testimony?**

7 A: The purpose of my testimony is twofold. First, I will provide historical information
8 concerning KCPL's plant operations and outline the steps KCPL needs to take to
9 continue the successful operation of its generation facilities. Second, I will describe the
10 normalization of maintenance expenditures included in this proceeding.

11 **I. BUSINESS PLAN**

12 **Q: Please describe KCPL's historical operation of its generating units?**

13 A: KCPL has had significant success in the operation of its generating units. The net
14 generation produced by KCPL's existing coal fleet has increased significantly in recent
15 years. During the past five years (both annually and in total), net megawatt-hour
16 production from the coal units has reached the highest levels in KCPL's history.
17 In other critical performance areas, the coal fleet's equivalent availability has also
18 increased and the total production costs of the coal fleet have remained at the very lowest
19 levels both regionally and nationally.

1 **Q: What will be necessary for KCPL to continue this success?**

2 A: There are two primary areas that will be critical. First, the continuing work force
3 turnover must be effectively managed. The necessary workplace culture, management
4 talent and technical skills must be provided to maintain and operate the existing and
5 future generating assets at high levels of performance.
6 Secondly, ongoing performance improvements will be needed to continue to deliver
7 increased levels of output from the existing aging generating assets while integrating the
8 new environmental equipment into plant operations.

9 **Q: Please describe the challenges that KCPL faces regarding the generating station**
10 **workforce?**

11 A: KCPL has a very experienced workforce for its generating stations, many of whom were
12 hired at the time of construction of the units and are now nearing retirement age. In fact,
13 within the next five years, over 32% of the fossil station management employees and
14 almost 30% of the fossil station bargaining unit employees will be eligible for retirement.
15 Approximately 20% more of the employees in both groups will be eligible for retirement
16 within ten years. Because of the potential retirements of so many experienced
17 employees, KCPL will have significant ongoing recruitment, hiring and training efforts
18 for the needed replacement employees. In addition, KCPL will incur not only the
19 increased costs of "on-boarding" large numbers of new employees, but also the costs to
20 ensure that sufficient "overlap" and "knowledge transfer" training time will be available
21 with the experienced employees before they leave.

1 Q: What is KCPL's plan to address these workforce challenges?

2 A: There are a number of ongoing efforts in various areas. First, KCPL has introduced a
3 corporate-wide "winning culture" initiative to improve employee engagement and
4 accountability in the business. This has involved efforts such as leadership development
5 and training programs, increased emphasis on communication throughout the
6 organization and encouragement of learning and growth opportunities at all levels. As
7 the effects of the "winning culture" are felt, it will have a direct benefit for the
8 recruitment and hiring of new employees as well as the retention of existing employees.
9 In addition, KCPL is continuing development of a Strategic Workforce Plan. This will
10 provide a comprehensive succession plan that integrates all areas of the generation
11 workforce planning including projected retirements, management development and
12 training needs, craft skill requirements, apprentice training durations, operator training
13 needs, recruitment and hiring lead times, etc. KCPL is also enhancing its management
14 training and development programs. In particular, KCPL is emphasizing training for new
15 first-level supervisors.
16 Both craft apprentice and operator training programs are also receiving a great deal of
17 attention. New and ongoing craft apprentice classes are in progress. KCPL has evaluated
18 the operator training processes and determined that additional trainers will be needed to
19 support the increased volume of operators requiring both initial and refresher training.
20 KCPL is considering increasing the "off-shift" use of the existing unit-specific training
21 simulators at each plant site. KCPL has added additional support for efforts to recruit
22 both skilled and entry-level new employees.

1 Q: What is KCPL doing to address performance improvements needed to maintain
2 high levels of output from its existing generating assets?

3 A: There are a variety of performance improvement projects focused in four key areas.
4 The first area involves process improvement projects such as the Electric Power Research
5 Institute ("EPRI") Plant Reliability Optimization ("PRO") process that has been
6 implemented at LaCygne. The purpose of the PRO process is to facilitate moving plant
7 maintenance work from a reactive mode to a proactive (or planned) maintenance strategy.
8 The PRO process also provides a means to communicate and share best practices on a
9 consistent basis between plants. For example, by using the PRO maintenance basis and
10 root-cause analysis, equipment breakdown information at one location can easily be
11 discussed with the other plant sites. A key strategy in the process improvement effort is
12 the increased utilization of industry collaboration opportunities to share experiences and
13 operating practices with other utilities.

14 The second major area of performance improvements relates to outage planning and work
15 execution. As the cost of a lost day of production has increased, the focus of outage
16 management has moved from one of cost control to that of schedule control. The goal is
17 to minimize the outage durations while still accomplishing all the work necessary to
18 operate the unit until the next scheduled outage. KCPL continues to focus on developing
19 more comprehensive integrated outage schedules that it can analyze to determine the
20 shortest schedule well in advance of the outage. Another major component of
21 maintenance planning is the development of standardized work packages. KCPL is
22 working to develop standardized work packages for maintenance at all of its generating
23 stations. Having pre-planned work packages greatly improves crew productivity by

1 having all the information and material necessary to do the maintenance task ready when
2 the work is assigned.

3 The use of technology is the third significant area of performance improvement initiatives
4 for KCPL. For a number of years, KCPL has utilized dedicated predictive maintenance
5 teams at each plant site to gather data (vibration, oil sampling, thermography, sonic
6 testing, etc.) to proactively look for early "warning" signs of possible equipment failures.
7 These efforts have been successful and are a key component of the PRO process. KCPL
8 has installed a new technology application called "Smart Signal" on each KCPL
9 generating unit. "Smart Signal" is a proprietary process that takes real-time plant
10 operating data and feeds it into a model that compares it to "normal" conditions. Any
11 deviation can be an indication of an equipment problem needing attention. "Smart
12 Signal" is also a "backup" tool that can assist new or inexperienced employees during
13 trouble-shooting activities.

14 The "Pi" data historian that is part of each unit's Distributed Controls System is another
15 technology that is being utilized to detect "abnormal" trends that could indicate
16 equipment or operational problems. Data from the Pi historian can be automatically
17 trended and plotted against other related trend data to highlight concerns.

18 Each KCPL unit has a plant-specific operations simulator for operator training.
19 Evaluations are underway to expand the use of these simulators to accomplish increased
20 operator training during off-shifts. The simulators are also proving valuable in allowing
21 "trial" runs of proposed changes in operating procedures or practices.

22 The fourth major area of plant improvements involves upgrades or retrofit projects to the
23 existing stations. These projects may be necessary for a number of reasons such as aging

1 plant components reaching the end of their useful life and projects to increase the
2 efficiency of the plant. With the age of the KCPL generating stations, there are numerous
3 components that have reached the end of their useful lives and are required to be changed
4 out. These change-outs could be for safety reasons or to maintain the existing output and
5 reliability of the plants. An example of this situation is the reheater and economizer
6 sections of the LaCygne Unit 2 that we changed out in 2006 and the Iatan Unit 1 and
7 LaCygne Unit 1 reheaters that are being replaced in 2007. Examples of efficiency
8 projects that have or will be occurring are the LaCygne Unit 1 and Iatan Unit 1
9 turbine/generators. In both cases, the replacement of aging components will result in
10 greater unit efficiency. This is a very beneficial opportunity from both an economic and
11 an environmental viewpoint.

12 **Q: Has KCPL dedicated any resources to achieving results in these key performance**
13 **areas?**

14 **A:** Yes, KCPL has established an Operations and Maintenance Programs department that
15 will lead or support key activities in these previously mentioned performance
16 improvement areas.

17 **Q: Can you provide specific examples of these key activities?**

18 **A:** Yes. In the first area of process improvement the group will evaluate and lead the PRO
19 process. The group will first meet with LaCygne Station to evaluate the current health of
20 the process and then develop a time line to implement the process at Iatan Station. In the
21 second area of performance improvement, outage planning and work execution, the
22 group plans to take over management of the current CMMS (computerized maintenance
23 management system) including document management for the Supply division. The

1 group will evaluate the current level of standardized work package development as well
2 as the potential replacement of the current CMMS software. In the third area of
3 performance improvement, the use of technology, Operations Programs will take a lead
4 role in the areas of simulator training and "Smart Signal" utilization. Each plant will
5 have an Operations Programs staff that will lead and direct activities related to plant
6 operations training. Operations and Maintenance Programs will work closely with the
7 Supply Engineering Services department to facilitate daily monitoring and analysis of
8 performance through the use of "Smart Signal", "Pi", and DCS information.

9 II. MAINTENANCE NORMALIZATION

10 **Q: Are you sponsoring any adjustments to the test year cost of service in this filing?**

11 A: Yes. I am sponsoring Adj-26a, Maintenance Normalization-Production, and Adj-52,
12 Annualized Maintenance-LaCygne Unit 1 SCR, both included in the Summary of
13 Adjustments attached as Schedule JPW-2 in the direct testimony of KCPL witness John
14 P. Weisensee.

15 **Q: Why is the first adjustment necessary?**

16 A: Certain significant maintenance activities at KCPL's generating units such as major
17 boiler or turbine overhauls do not occur annually, but rather on a periodic cycle that may
18 occur every two to seven years, depending on the type of maintenance. It is necessary to
19 adjust the actual costs incurred during the test year to a "normalized" level of
20 maintenance expense that considers the periodic timing of major overhauls and arrives at
21 a more levelized amount of annual expense.

22 **Q: Are there differences between how KCPL addressed the maintenance steam**
23 **accounts (510-514) and the other productions accounts (551-554)?**

1 A: Yes. The steam accounts (510-514) include the scheduled boiler and turbine outages on
2 the coal-fired generating units. These outages can cause a very large variance in non-
3 KCPL labor maintenance expense, as much as several million dollars, therefore KCPL is
4 proposing the use of a multi-year average indexed to 2006 dollars for these accounts.
5 The other production accounts (551-554) would not normally have the large variances in
6 non-KCPL labor maintenance expense and therefore KCPL proposes using the 2006 test
7 year dollars as the basis for these accounts before certain specific adjustments discussed
8 below.

9 **Q: Are there other factors supporting KCPL's proposal to use the test year of 2006 for**
10 **the other production accounts (551-554)?**

11 A: Yes. KCPL added 5 simple cycle combustion turbines (West Gardner 1-4 and
12 Osawatomie 1) in 2003. The maintenance of the units would fall in accounts 551-554.
13 Since KCPL acceptance of these units was mid-year 2003, previous years would not
14 include costs associated with the new CT fleet. Also, years 2004 and 2005 would include
15 warranty work and also be expected to be low in relation to a "normal" year. Also
16 included in accounts 551-554 is maintenance on the new Spearville Wind Energy Facility
17 placed in service during the second half of 2006 for which historical data is not available.

18 **Q: Explain the method used for maintenance normalization of the steam accounts (510-**
19 **514) as it pertains to generating unit maintenance costs.**

20 A: Coal-fired steam generating units require scheduled maintenance to maintain reliability.
21 Each unit's outage schedules are unique and based on many factors. Some of these
22 factors include design parameters, such as supercritical verses sub-critical and cyclone-
23 fired verses pulverized coal-fired. Other factors include operating data like number of

1 starts, operating hours, and capacity factor. Still other factors include inspection reports
2 from previous inspections and manufacturer recommendations.

3 **Q: How does a routine scheduled outage typically affect KCPL's maintenance**
4 **expenses?**

5 A: Routine scheduled outages generally require the addition of contract crews to complete
6 the necessary work in a reasonable timeframe. The maintenance cost for contractors,
7 their equipment and the materials utilized during a routine scheduled overhaul will
8 normally result in an increase in non-KCPL labor maintenance expenditures of several
9 million or more over the amount of non-labor maintenance expense experienced in a non-
10 outage period.

11 **Q: What would typically be your longest cycle for these scheduled outages?**

12 A: As explained earlier, each unit's outage schedule is based on many factors. Typically
13 boiler outages are scheduled roughly every 2 years, and turbine outages are scheduled
14 roughly every 7 years. The recommendation for normalizing maintenance expense for
15 the steam accounts (510-514) over a 7-year period is designed to cover the longest
16 maintenance cycle.

17 **Q: Has KCPL quantified a comparison of its 2006 maintenance expense to the expenses**
18 **KCPL has historically experienced?**

19 A: Yes, KCPL quantified the comparison by restating KCPL's historical maintenance
20 expenses in 2006 dollars and comparing those expenses to KCPL's 2006 maintenance
21 expenses. The low level of maintenance expense in 2006 is evident when compared to
22 these historic figures. Due to planned outage schedule changes, the year of 2006 had
23 significantly fewer outage days than a typical year. This difference, combined with a

1 Stores inventory adjustment, were the main drivers of the abnormally low maintenance
2 expenses for 2006. To accurately compare historic costs to current costs, the costs must
3 take into account escalation and view expenditures in "same-year-dollars." Handy-
4 Whitman is a highly recognized independent source of historical escalation factors, which
5 are widely used as a standard measure of historic escalation. The historic figures shown
6 in the attached Schedule FDC-1 (HC) have been adjusted to 2006 dollars utilizing the
7 Handy-Whitman index. Schedule FDC-1 (HC) demonstrates that 2006 non-labor
8 maintenance expense is well below annual reported spending between 2000-2006. Note
9 that Grand Avenue and Wolf Creek are NOT included in the costs shown in Schedule
10 FDC-1 (HC). This is because Wolf Creek utilizes an accounting process that defers the
11 actual operations and maintenance costs of refueling outage and amortizes the deferred
12 costs to expense evenly over the 18-month cycle until the next refueling outage, which
13 maintains fairly constant maintenance expense at Wolf Creek. Grand Avenue is no
14 longer a maintenance liability for KCPL.

15 **Q: Please describe a more appropriate measure of normalized maintenance expense for**
16 **steam accounts (510-514).**

17 **A:** Due to the issues mentioned above, KCPL recommends utilizing a seven-year indexed
18 average incorporating 2000-2006 to establish an equitable and normal expectation for the
19 base level of annual maintenance expense for accounts (510-514).

20 **Q: Are there any adjustments KCPL is recommending to the 7-year average indexed to**
21 **2006 dollars for accounts (510-514).**

22 **A:** Yes. KCPL is recommending three adjustments to the 2006 indexed, 7-year average
23 (2000-2006) for accounts 510-514.

1 **Q: What is the first adjustment KCPL is recommending to accounts 510-514?**

2 A: The first adjustment is to remove \$46,874 for Grand Avenue Station. This station is no
3 longer owned by KCPL and is therefore no longer a maintenance liability.

4 **Q: What is the second adjustment KCPL is recommending to accounts 510-514?**

5 A: The second adjustment considers the fact that Hawthorn Unit 5 was under construction
6 early in the 2000-2006 period. The unit went in-service in June of 2001. 2001 and 2002
7 are considered to be unusual years for maintenance expense on Hawthorn Unit 5 for the
8 following reasons: (i) a significant level of warranty maintenance was performed at no
9 cost to KCPL; and (ii) the unit was essentially new and therefore would not be expected
10 to require the same level of maintenance as a unit with five or more years of wear and
11 tear, *e.g.*, boiler tube failures would not be expected as a result of numerous heat cycles
12 or other longer-term operating impacts.

13 For Hawthorn Unit 5, the recommendation is to utilize the four-year average of 2003-
14 2006. Although these years still reflect an essentially new unit and therefore lower
15 maintenance expense than we would anticipate in later years, 2003-2006 are much more
16 indicative of the expected maintenance expense than 2000-2002. The annual levels of
17 maintenance expense for Hawthorn Unit 5 are shown in the attached Schedule FDC-2
18 (HC), which clearly shows the unusually low maintenance expense in the years 2000-
19 2002. The adjustment for Hawthorn Unit 5 is \$1,379,497 comparing the 4-year average
20 (2003-2006) to the 7-year average (2000-2006).

21 **Q: What is the third adjustment KCPL is recommending to accounts 510-514?**

22 A: The third adjustment pertains to the Hawthorn Unit 5 turbine overhaul cycle. Hawthorn
23 Unit 5 has implemented "sectionalized turbine overhauls". Under this plan, individual

1 sections of the turbine will receive maintenance on a rotating basis. The Hawthorn Unit 5
2 turbine will be maintained in three "sections", HP/IP section, LP section, and generator.
3 Plans call for the valve work to be on a 2-year cycle, turbine work to be on a 7-year
4 cycle, and the generator work will be on a 10-year cycle. The result on turbine
5 performance is expected to be similar to a standard turbine overhaul cycle. However, the
6 proposed approach will avoid the need for scheduling the much longer turbine outages
7 required under a standard turbine overhaul cycle.

8 The 2007-2011 budgets for the Hawthorn Unit 5 turbine are shown in the attached
9 Schedule FDC-3 (HC). The resulting adjustment is \$562,400 per year.

10 **Q: Are there any adjustments to the other production accounts 551-554?**

11 A: Yes, there are three adjustments to other production accounts 551-554. The first
12 adjustment is associated with the new Spearville Wind Energy Facility. Spearville went
13 into service the end of September of 2006. The non-KCPL labor maintenance costs for
14 Spearville are included in accounts 551-554. The 2007 Spearville non-KCPL labor
15 budget is shown in the attached Schedule FDC-4 (HC). This budget is based on
16 contracted cost for the provision of maintenance from an outside vendor. The adjustment
17 for Spearville is \$1,537,853, which is the 2007 budget (\$1,838,119) minus the 2006
18 expenses (\$300,266) that were recorded in accounts 551-554.

19 **Q: What is the second adjustment to other production accounts 551-554?**

20 The second adjustment is related to KCPL's fleet of simple cycle gas turbines. KCPL
21 currently owns and operates 7 simple cycle combustion turbines, Hawthorn Units 7 & 8,
22 West Gardner Units 1-4, and Osawatomie Unit 1. Hawthorn Units 7 & 8 are General
23 Electric 7 EA gas turbines and General Electric 7A7 air-cooled generators. West Gardner

1 Units 1-4 and Osawatomie Unit 1 are General Electric 7 EA gas turbines and Brush air-
2 cooled generators. General Electric recommends a combustion inspection/overhaul on
3 these units every 400 starts or 8000 hours. The annualized cost of these
4 inspections/overhauls is \$385,000. See the attached Schedule FDC-5 (HC) for details
5 regarding these inspection/overhauls.

6 **Q: What is the third adjustment to other production accounts 551-554?**

7 A: The third adjustment pertains to Hawthorn Unit 6. Hawthorn Unit 6 is a Siemens
8 V84.3A1 gas turbine and Siemens air-cooled generator. Siemens recommends a Hot Gas
9 path inspection/overhaul every 25,000 EOH (equivalent operating hours) or 6 years. The
10 annualized cost for this inspection/overhaul is \$116,667. See attached Schedule FDC-6
11 (HC) for additional information regarding this inspection/overhaul.

12 **Q: Please describe normalized adjustment Adj-52 for Comprehensive Energy Plan**
13 **additions.**

14 A: KCPL's future annual maintenance expense is expected to be impacted by the addition of
15 new generating resources and new environmental control equipment.

16 The May 2007 addition of an operating Selective Catalytic Reduction ("SCR") on
17 LaCygne Unit 1 is one example. See KCPL witness John Grimwade's direct testimony
18 for design and in-service criteria of the LaCygne Unit 1 SCR. The maintenance impacts
19 of the LaCygne Unit 1 SCR are shown in the attached Schedule FDC-7 (HC). The total
20 amount of this adjustment is \$2,224,162, which includes \$1,931,700 of ammonia costs
21 from account 501 as fuel additives.

22 **Q: Can you summarize the adjustments to the 2006 projected test year, which are**
23 **recommended to reflect a normalized maintenance year?**

1 A: A summary of the recommended adjustments is shown in the attached Schedule FDC-8
2 (HC), Summary of Normalized Adjustments. The first series of entries deal with steam
3 accounts 510-514. There are four adjustments in this section. The first adjustment is
4 \$3,540,129, which is the difference between the seven-year indexed average (2000-2006)
5 and the 2006 test year for accounts 510-514. The second adjustment is to remove Grand
6 Avenue, a downward adjustment of \$46,874. The third adjustment is \$1,379,497, which
7 represents the difference between the proposed 7-year average (2000-2006) and a more
8 representative 4-year average (2003-2006) for Hawthorn Unit 5. The final adjustment for
9 steam accounts 510-514 is \$562,400, which is based on the Hawthorn Unit 5 turbine
10 overhaul cycle. The normalized total for steam account 510-514 is now shown as
11 \$27,489,357. The next part of the adjustment summary sheet covers other production
12 accounts 551-554. There are three adjustments proposed for other production accounts
13 551-554. The first adjustment subtracts the 2006 partial year expenses for the Spearville
14 Wind Energy Facility since a full year of expenses will be added in latter. The next two
15 adjustments deal with the combustion turbine inspection/overhaul expenses. The
16 normalized total for other production accounts 551-554 minus Spearville is now shown as
17 \$1,046,792. The last entry for Adjustment 26a projects a full year of expenses for the
18 Spearville Wind Energy Facility versus the partial year of expenses included the 2006
19 test year. The adjustment of \$1,537,853 resulted in a normalized total for wind
20 maintenance in the other production accounts (551-554) of \$1,838,119. The total of
21 Adjustment 26a is now shown as \$7,474,671 for a normalized total of \$30,374,267. The
22 last adjustment is for LaCygne Unit 1 SCR, Adjustment 52. After this adjustment the

1 grand total of adjustments is \$9,698,833 and the final normalized total amount is
2 \$32,598,429.

3 **Q: How does this final normalized total compare to KCPL's Supply Division 2008 non-**
4 **labor maintenance budget?**

5 A: The current 2008 non-KCPL labor maintenance budget is \$32,037,917. It should be
6 noted that this budget number does not include the LaCygne Unit 1 ammonia cost of
7 \$1,931,700 contained in account 501.

8 **Q: Looking to future years has KCPL experienced an abnormal increase in the cost of**
9 **goods and services?**

10 A: Yes, KCPL has seen unprecedented increases in the cost of products and materials such
11 as metals, chemicals/ammonia, gasoline/diesel and the contractor labor. An internal
12 study was completed to assess the effects of inflation on these goods and services that
13 KCPL needs to conduct its business. KCPL looked at the top 80% of plant expenditures
14 and found the average annual inflation rate to be 7.7% over the past 3 years. Some of
15 these materials have experienced average inflation rates of over 25% per year over the
16 past 3 years.

17 **Q: Does that conclude your testimony?**


18 A: Yes, it does.

In the Matter of the Application of Kansas City)
Power & Light Company to Modify Its Tariffs to) Case No. ER-2007-_____
Continue the Implementation of Its Regulatory Plan)

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

1. My name is F. Dana Crawford. I work in Kansas City, Missouri, and I am employed by Kansas City Power & Light Company as Vice President, Plant Operations.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.


F. Dana Crawford

Subscribed and sworn before me this 31st day of January 2007.

Nicole A. Wenz
Notary Public

My commission expires: Feb. 4 2007

NICOLE A. WEHRY
Notary Public - Notary Seal
STATE OF MISSOURI
Jackson County
My Commission Expires: Feb. 4, 2007

SCHEDULES FDC-1 through FDC-8

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