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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2010-0036

DIRECT TESTIMONY

OF

RONALD C. ZDELLAR

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a AmerenUE

St. Louis, Missouri
July, 2009

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Date 3-18-10 Reporter KF
File No ER-2010-0036

TABLE OF CONTENTS

DIRECT TESTIMONY

OF

RONALD C. ZDELLAR

CASE NO. ER-2010-_____

I. <u>INTRODUCTION</u>

Q. Please state your name and business address.

A. My name is Ronald C. Zdellar. My business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri.

Q. By whom are you employed and in what position?

A. I am employed by Union Electric Company d/b/a AmerenUE ("AmerenUE" or "Company") as Vice President, Energy Delivery-Distribution Services.

Q. Please describe your educational background.

A. I received a Bachelor of Science in Electrical Engineering from Washington University of St. Louis, and a Master of Business Administration, also from Washington University.

Q. Please describe your professional work experience.

A. I joined Union Electric Company ("UE") in 1971 as a transmission and distribution engineer. From 1973-1975, I worked in UE's Corporate Planning Department; from 1975-1981, I worked in the Transmission and Distribution Performance Management work group; and from 1981-1988, I was Manager of Distribution Operations, which included responsibility over UE's vegetation management. In 1988, I was promoted to the position of Vice President of Transmission and Distribution. In 1998, I was named Vice President, Customer Services, and in 2002, I was named Vice President, Energy Delivery-Distribution Services.

Q. Please describe the duties and responsibilities of your current position.

A. In my position, I am responsible for gas and electric distribution engineering, construction, operations and maintenance for AmerenUE. Sixteen managers report directly to me, including each of the Company's nine Division Managers and the Managers for Distribution Operations, Reliability Improvement, and System Metering, as well as the Director of Labor Relations and Administration. I am involved in negotiations with the various labor unions that represent AmerenUE employees and I am responsible for the oversight of AmerenUE's efforts to comply with the Missouri Public Service Commission's ("Commission") new vegetation management, infrastructure inspection and reliability rules.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. My testimony will address several operational issues, including the improvements AmerenUE has made to its distribution system, the resulting improvement in reliability measures and AmerenUE's plans for continuing improvement in service reliability for its customers in the future. In the past three years, AmerenUE has implemented six reliability programs for its distribution system and has experienced marked improvement in the reliability of its service to customers as a result of its efforts, especially in areas where customers had historically experienced repeated outages. I will also provide some background on the January 2009 ice storm in Southeast Missouri and the resulting service interruption to Noranda Aluminum, Inc. ("Noranda"). I will discuss AmerenUE's much improved ability to restore customer service after major storms, and the resultant need for and the customer benefits of a "storm restoration tracker," which I discuss in more detail below.

III. AMERENUE'S RELIABILITY IMPROVEMENT EFFORTS

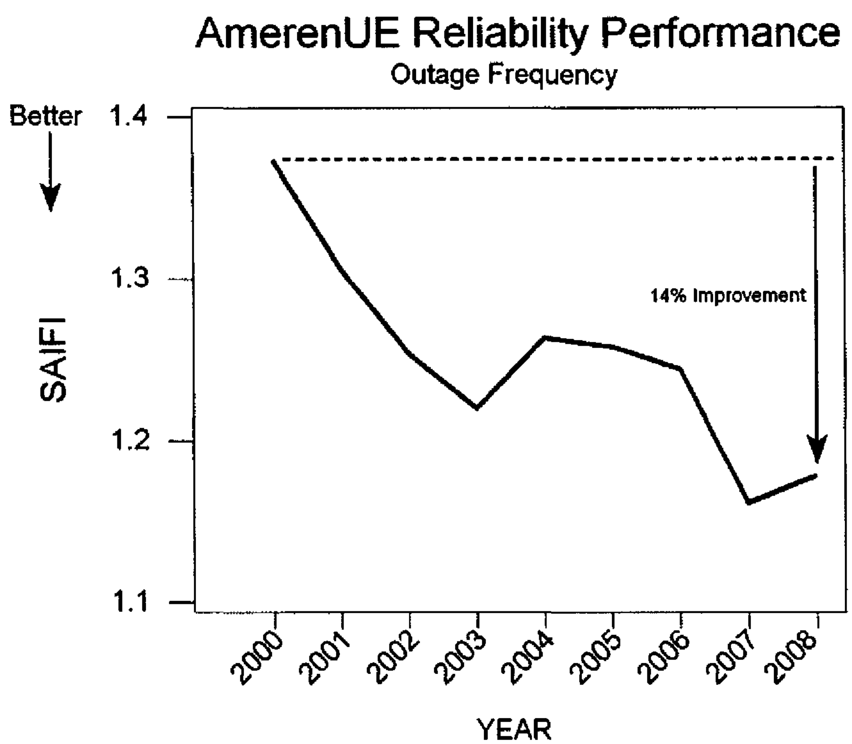
Q. Has AmerenUE continued its focus on improving the reliability of service to its customers?

A. Yes, it has. I have previously testified about AmerenUE's continuing commitment to improving the reliability of electrical service for our customers in the last two rate cases and in other proceedings before the Commission. After the severe storms experienced in the AmerenUE service territory in 2006 and early 2007, the Company was confronted with increased reliability expectations driven by reliance on electricity for virtually every aspect of our customers' lifestyles. The electrical requirements of a typical residential customer are very different today than they were twenty years ago. The reliability of electrical service provided by AmerenUE has had to catch-up to these customers' increased expectations of very reliable electric service. AmerenUE has made a concerted effort to meet those expectations and this commitment has resulted in significant reliability improvements for AmerenUE's customers.

Q. Can you be more specific about what you mean by "reliability improvements"?

A. There are a number of ways to measure reliability. On a system-wide level, the System Average Interruption Frequency Index ("SAIFI") measures the average number of interruptions a customer experiences in a year, excluding major storms. It is a widely accepted measure of service interruptions within the electric industry and is one of the reliability measures the Company is now required to report annually to the

Commission. When compared to 2000, AmerenUE's 2008 SAIFI score shows significant improvement. As can be seen in the chart below, AmerenUE's SAIFI score in 2000 was 1.37 outages per customer. AmerenUE's emphasis on system reliability has reduced its SAIFI score to 1.18 in 2008.



As can be seen in the chart, AmerenUE's SAIFI number varies and, at times, the average can move upward. This variation is normal and occurs with changes in the weather, including upward variations caused by non-major storms. However, the overall trend is a decreasing SAIFI score, which is the goal. AmerenUE will continue to harden its system and to look for additional opportunities to further improve this reliability measure, but the Company is proud of the progress it has made to date. In fact, AmerenUE's SAIFI score compares favorably when measured against industry standards. According to the "IEEE Benchmarking 2007 Results," published in January 2009, the median SAIFI score for North American utilities is approximately 1.33 interruptions per customer. I expect AmerenUE's SAIFI score to continue to improve; however, it will take time for all of AmerenUE's reliability improvement efforts and investments to be reflected in our SAIFI score and other reliability measures because there is always a lag between when operational improvements are made and when the impact of those improvements is reflected in the statistical measures of reliability.

In addition to the objective improvement we have seen in the Company's SAIFI score, there is other evidence to support the conclusion that the ability of AmerenUE's distribution systems to withstand damage from storms has improved over the past few years. For example, I have heard frequent comments from dispatchers and workers in the field that there is less post-storm damage to the system today than would have been expected in the wake of storms in the past. While this is only anecdotal evidence, it comes directly from those individuals who have constant, daily exposure to the distribution system.

Q. You have talked about the measurable reliability improvements the Company is seeing. Please describe the specific changes the Company has made to improve the reliability of electrical service to its customers.

A. Since 2007, AmerenUE has formalized six reliability improvement programs for its distribution system.[1] The six programs are the Circuit Inspection program, the Subtransmission Circuit program, the Circuit Performance Improvement program, the Smart Grid program, the Underground Cable Replacement program and the Underground Conversion (*Power On*) program. Each of these programs has as its

[1] There are also reliability programs for the transmission system, including transmission ground line inspections, transmission line patrol inspections and transmission line detailed inspections.

purpose the improvement of the reliability of electrical service to our customers. Some of these programs are based upon the Commission's vegetation management and infrastructure inspection rules, and others are programs not required by any Commission regulation or order. Each program is set forth in *AmerenUE's Reliability Improvement Program Summary Report*, submitted to the Commission Staff's Energy Department Manager in December of 2008, as required by Commission regulation.[2] A copy of the program descriptions provided to the Staff is attached as Schedule RCZ-E1.

Q. Please provide an example of one of these reliability improvement programs.

A. In 2007, AmerenUE started its *4 or More* list as a part of its Circuit Performance Improvement program. This list identifies AmerenUE customers who have experienced four or more outages per year for three consecutive years. In 2007, that list included 12,113 customers, a number the Company found unacceptable. As of April 30, 2009, that list has been cut by almost 60% -- to just 5,114 customers (approximately 4/10 of 1% (.004) of all AmerenUE electric customers).

Q. What steps did AmerenUE take to reduce this number by almost 60%?

A. The answer is different for each customer or group of customers. Each AmerenUE division[3] is responsible for identifying the cause and developing a solution for the customers within their division who are on the *4 or More* list. This work has, for

[2] 4 CSR 240-23.010(9), titled Reliability Improvement Programs.

[3] AmerenUE's service territory is divided into eight divisions – Archview, Boone Trails, Central Ozarks, Gateway, Gravois Valley, Missouri Valley, SEMO and Twin Rivers.

the most part, been independent of the undergrounding effort that is part of AmerenUE's *Power On* program, although there can be some overlap.

Sometimes the division is able to identify a common cause for the multiple outages and sometimes the outages cannot be attributed to a common cause. AmerenUE has had success in reducing outages in both circumstances. For example, in the town of Centertown and the surrounding area, customers experienced four or more outages per year for the three years ending in 2008. Evaluation by the division determined there was no single cause for these outages. During 2008, AmerenUE performed a climbing inspection of all 1,178 poles on the circuit and corrected all problems revealed. Repairs included replacing 44 lightning arrestors and 191 insulators, as well as installing 41 animal guards. The result of this work was improved reliability for all 1,270 customers on this circuit. Since the completion of this work in December of 2008, there has been only one outage, which was caused by lightning. This distribution system work cost around \$229,672 or just over \$180 per customer.[4]

Other times the outages can be traced to a root cause. For example, in Franklin County, the Company's St. Albans substation serves 613 customers. 172 of these customers were on the *4 or More* list. It was determined that there were two major contributing factors. The first was the Babler-71 circuit, the subtransmission line feeding the substation, which is an approximately six-mile cross country circuit. The length and location of this circuit inherently made locating and repairing any damage to the line a costly and time-consuming effort. The second factor was that the Babler-71 circuit also feeds the Enbridge Pipeline pump station, and when the Enbridge pumps turned on, they

[4] \$229,672 ÷ 1,270 customers = \$181.00

caused a significant and noticeable voltage drag on the system. As a result of this evaluation, AmerenUE extended the Rockwood-73 circuit, which is only 1.3 miles long, into the St. Albans substation. Rockwood-73 is now the primary line to the St. Albans substation and Babler-71 is the reserve. Enbridge is still served by Babler-71, removing the voltage concern during normal operation. AmerenUE's customers serviced by the St. Albans substation now have two sources for their electrical supply, so an outage on one subtransmission line can be resolved by switching to the other subtransmission line without subjecting customers to an extended outage. This distribution system improvement cost approximately $558,000 or just over $900 per customer.[5]

AmerenUE believes its *4 or More* list has been important in resolving concerns for customers with multiple outages by systematically focusing efforts to combat recurring outages. AmerenUE's review of multiple outages in St. Louis County found one tap responsible for 910 customer interruptions in 2008. The tap was infrared inspected and spot tree trimming was performed in the area. A significant portion of the line was re-conductored and additional fusing was added so that future outages would impact fewer than all of the 120 customers on the line. Since this work has been completed, no tap related outages have occurred. This distribution system work cost approximately $95,600 or just under $800 per customer.[6]

Q. How does the *4 or More* list correspond to customers on the Company's worst performing circuits list now required by the Commission[7]?

[5] $558,000 ÷ 614 customers = $909.00
[6] $95,600 ÷ 120 customers = $796.67
[7] 4 CSR 240-23.010(6), titled Worst Performing Circuits.

A. The two lists are each designed to identify areas with reliability concerns. However, the two are not directly comparable. The worst performing circuit list is compiled at the circuit level, as the name implies. The *4 or More* list is developed at the customer level. A customer could be on the *4 or More* list but that customer's circuit may or may not be on the worst performing circuit list. AmerenUE believes that both lists have value in identifying areas of concern and both are used by the Company for that purpose.

Q. Is AmerenUE's *Power On* project a part of those six reliability improvement programs?

A. Yes, *Power On* was first announced in July of 2007 and a portion of *Power On* includes a 3-year program to underground distribution lines where it would improve customer reliability. The undergrounding portion of *Power On* is one of the six reliability improvement programs mentioned above. However, the global *Power On* concept that has been discussed in the media is more than just an undergrounding program; it also includes installation of the scrubber that is under construction at AmerenUE's Sioux Plant, and the vegetation management efforts and the circuit inspection and repair programs which are currently underway.

Q. Has the undergrounding portion of *Power On* been successful in improving the reliability of service to AmerenUE's customers?

A. The undergrounding of lines has been successful in reducing outages, but that improvement has not been easy or inexpensive. In total, AmerenUE estimates that its completed *Power On* undergrounding projects have saved customers 8,793 interruptions annually. AmerenUE achieved this level of improvement because of the project ranking process used to determine which projects should be pursued. The process starts with a comprehensive listing of circuits and circuit sections that experienced the greatest number of interruptions since 2004. Each division investigates their circuits on the list and submits project proposals for undergrounding specified overhead lines. The Company's Reliability Improvement department constructs a more detailed reliability performance history of each circuit in question to determine how many outages would have been avoided with the undergrounding of the circuit section proposed by the division. Using that information in combination with the number of customers that would benefit from this outage reduction, a total number of "avoided customer interruptions per year" is calculated as the reliability benefit derived from undergrounding that section of overhead line. The Company also determines the estimated cost of undergrounding each particular section of line. The final result is a measure called the "Cost per Annual Avoided Customer Interruption" ("CAACI"). For each of the divisions, the projects considered are ranked in increasing order of CAACI. AmerenUE works on those projects with the lowest CAACI value, ensuring projects with the most effective reliability improvement for the investment are pursued first.

Examples of the success AmerenUE has achieved with *Power On* include an area in North St. Louis County, called the Talismanway subdivision. This project was the first overhead conversion project AmerenUE undertook. Completed in two phases, there were 54 customers with reliability issues which this project resolved, avoiding an estimated 71 customer interruptions annually. This project cost \$343,000 or just over \$6,000 per customer.[8] Duchesne Drive in St. Charles was the first feeder backbone that

[8] \$343,000 ÷ 54 = \$6,352

was converted to underground as a part of *Power On* and this project has improved the reliability for all 1,465 customers on the feeder. Since the project was completed in the summer of 2008, there has not been a single feeder outage. It is estimated that 851 customer interruptions are avoided annually by this work. AmerenUE spent $1,427,000 on this project, or approximately $970 per customer.[9] Finally, the Bissell Hills subdivision in Bellefountaine Neighbors is one of the first large-scale overhead conversions in a residential subdivision, involving 242 residential properties and impacting the reliability of 661 customers. It is estimated that 533 customer interruptions will be avoided annually with this work. The total cost of these improvements was significant, $2,106,000, which is approximately $3,000 per customer.[10]

Q. How many lines have been undergrounded as a part of *Power On*?

A. As of the end of May of 2009, almost 150 miles of new underground cable in conduit has been installed and placed in service in AmerenUE's service territory, improving reliability for over 61,000 of our customers.

Q. Does AmerenUE intend to continue its emphasis on undergrounding lines?

A. AmerenUE does intend to adjust the amount of undergrounding that it does in the future. Using the CAACI value as the method for choosing projects, the Company has successfully undergrounded many of its most troublesome lines. As AmerenUE has worked through these projects, it has learned some important lessons. First, gaining customer cooperation for this work turned out to be more difficult than anticipated. The completion dates of many *Power On* projects were delayed due to

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[9] $1,427,000 ÷ 1,465 = $974
[10] $2,106,000 ÷ 661 = $3,186

complications in getting the required customer permission (e.g., to excavate customer yards, to underground the service lines or to place pad-mounted transformers on customer property) and some planned projects were abandoned when it became obvious permission would not be granted. Additionally, the other utilities which also have lines on AmerenUE's poles did not underground their lines, meaning poles were not removed after AmerenUE facilities were taken down. These customers ended up with both a pole and pad-mount equipment in their yard, further reducing the incentive for some customers to cooperate with AmerenUE's efforts in this area. Finally, these projects were very expensive, averaging close to one million dollars per mile of overhead line converted. For these reasons and as part of the Company's continuing efforts to be good stewards of the investments made in its system, AmerenUE's emphasis on undergrounding will not be as pronounced going forward. Instead, the Company will invest in other system improvements. The goal is to invest in a manner that has the greatest positive impact upon system reliability, whether that is undergrounding an overhead line or installing smart grid technology to improve AmerenUE's ability to operate the distribution system.

Q. Another one of the distribution system reliability improvement programs you mentioned is the Smart Grid program. How can smart grid technology help improve the reliability of electrical service for AmerenUE's customers?

A. "Smart grid technology" is a phrase that covers an extremely broad category of technologies which include those that can resolve a system problem, such as an outage, remotely and/or on its own (sometimes referred to as a "self healing grid").[11] The goal of AmerenUE's Smart Grid reliability program is to enhance the Company's distribution circuits by adding automatic and/or remotely operated equipment to improve the operation of the distribution system. That is not to say that AmerenUE doesn't already have some smart grid technology in place, such as radio controlled capacitor banks which control voltage and reduce losses, automatic notification of outages through the meter system and a networked monitoring system on the portion of AmerenUE's system which is underground in the City of St. Louis. More investments are being considered, such as the installation of remote controlled switching devices on circuits to give the Company the ability to remotely reroute power, thus improving restoration times for customers after an outage. The Company is also installing Supervisory Control and Data Acquisition ("SCADA") and remote metering equipment in most of its substations to improve its ability to continuously monitor and rapidly control substation devices. All of these are part of the technologies referred to in the industry as smart grid technology. Among the primary focuses of AmerenUE's smart grid strategy is the implementation of those technologies that improve the distribution aspect of energy delivery. Other areas of

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[11] Regional meetings convened under the Modern Grid Strategy project of the National Energy Technology Laboratory ("NETL") identified the following characteristics or performance features of a smart grid:

- Self-healing from power disturbance events,
- Enabling active participation by consumers in demand response,
- Operating resiliently against physical and cyber attack,
- Providing power quality for 21st century needs,
- Accommodating all generation and storage options,
- Enabling new products, services, and markets, and
- Optimizing assets and operating efficiently.

Information from http://www.oe.energy.gov/smartgrid.htm.

the Company, such as the Energy Efficiency department, headed by AmerenUE witness Stephen M. Kidwell, are evaluating smart grid technologies at the customer level of the distribution system.

Q. In your discussions of AmerenUE's efforts to improve the reliability of service provided to your customers, you haven't mentioned the Company's vegetation management efforts or infrastructure inspection work. Where does AmerenUE's compliance with the Commission's rules on vegetation management and infrastructure inspection stand?

A. AmerenUE is in compliance with the Commission's rules on vegetation management and infrastructure inspection. As I stated earlier, part of those efforts are included in the larger *Power On* project announced in July of 2007. Because of the emphasis placed on vegetation management in *Power On*, AmerenUE was in compliance with the Commission's vegetation management rules beginning in January of 2008, a full six months prior to the effective date of the new rules. As of November 21, 2008, AmerenUE's entire system had been, and continues to be, trimmed on the required four year cycle for urban areas and six year cycle for rural areas (4/6 cycle). In 2007, also as part of the larger *Power On* program, the Company initiated a circuit inspection program. That program has been expanded to meet the Commission's infrastructure inspection requirements and the Company is in compliance with the requirements of that rule as well.

To point out some examples of the work completed as a part of infrastructure inspection programs, since 2007, AmerenUE has:

- Strength assessed more than 120,000 wood poles;
- Visually inspected over 224,000 wood poles;

- Identified for replacement or reinforcement over 4,700 poles prior to in-service failure; and
- Identified over 25,000 facility issues related to overhead circuits.

AmerenUE's vegetation management efforts in 2008 have yielded equally significant results. AmerenUE has:

- Completed the first mid-cycle inspection on 4,300 miles of line, identifying 1,400 tree conditions which required vegetation management work outside the normal 4/6 year cycle on the Company's distribution system;
- Completed vegetation management work on 675,000 trees on AmerenUE's distribution system;
- Removed 160,000 trees, both on and off the Company's easements, which presented a threat to the AmerenUE distribution system;
- Trimmed more than 737,000 trees; and
- Cleared more than 1,000 acres of brush.

Q. In AmerenUE's last rate case, the Commission established a vegetation management/infrastructure inspection tracker. Has AmerenUE spent the base amount set in that tracker?

A. At this point in time, AmerenUE has not had the tracker for a full year, but it appears the Company is on track to spend the $64.8 million used as the base for that tracker.

Q. What amount does AmerenUE propose as the base for this tracker in this rate case?

A. Consistent with the Commission's Report and Order in its last rate case,[12] the Company has used the two-year average of its budgeted expenditures for 2010 and 2011, which results in a very modest ($1.1 million) increase in the base amount. This modest increase resets the base amount for the tracker at $65.9 million, which is the sum included in the Company's proposed revenue requirement in this case.

[12] Case No. ER-2008-0318, Report and Order, February 6, 2009, p. 34.

IV. AMERENUE'S RESPONSE TO MAJOR STORM EVENTS / STORM RESTORATION TRACKER

Q. Please provide some background of the January 2009 ice storm that devastated AmerenUE's southeast Missouri service territory and the areas served by other providers.

A. In late January of 2009, a major and arguably unprecedented ice storm hit the southeastern portion of AmerenUE's service territory. Freezing rain began falling late in the evening of January 26th and continued to fall throughout January 27th and 28th. At the end of the day on January 28th, more than 2½ inches of ice covered AmerenUE's facilities (and everything else in the region) causing widespread devastation to all of the utilities in the area, including AmerenUE.

In total, AmerenUE serves seven counties in the area impacted by this ice storm. Over 36,500 AmerenUE customers in six of those counties lost power - approximately 95% of all of the Company's customers in the area. This included commercial customers, such as the hotels, restaurants, fueling stations, caterers and other businesses upon which AmerenUE normally relies for lodging, meals, fuel and other necessities for its workers who are restoring power. AmerenUE only serves a portion of the total population in this area, but neighboring municipalities and cooperatives were equally hard hit by this storm. By Executive Order 09-04, Governor Nixon declared a State of Emergency for this area of Missouri. I have included several photos of the damage sustained and restoration efforts as Exhibit RCZ-E2.

AmerenUE lost approximately 3,800 poles to heavy ice loading, the most it has ever lost because of a single storm. In contrast, the two separate and unusually severe July 2006 storms downed just 750 poles. Damage from the ice storm was not limited to the Company's distribution system. Damage to the Company's subtransmission system was also severe and AmerenUE was forced to rebuild much of its subtransmission system before the distribution system could be restored. Aerial patrols revealed 80 miles of subtransmission circuits on the ground after this storm. One subtransmission circuit had 30 miles of line on the ground and only one pole left standing.

The devastation of this storm also caused an interruption of service to AmerenUE's largest industrial customer, Noranda. Noranda operates an aluminum smelter located near New Madrid, Missouri and has been within the certificated service territory of AmerenUE since 2005. Noranda is unique to AmerenUE's service territory as it is served directly from four 161kv transmission lines owned by Associated Electric Cooperative, Inc. ("AECI") rather than from AmerenUE's distribution system. The ice accumulation brought down AECI's transmission lines serving Noranda, causing damage to Noranda's production facility from which it is still recovering.

AmerenUE was faced with undertaking a massive logistical effort to get service to its customers restored. The Company brought in close to 4,000 individuals, including 2,400 lineman, 555 tree trimming personnel, 161 field checkers and hundreds more to handle the logistics of the restoration effort, which included making arrangements for meals, sleeping quarters, showers, laundry service and buses to move personnel as needed. AmerenUE is very proud of its restoration efforts. It also recognizes that it likely could not have responded in as organized and timely a manner just a few years ago. After listening to our customers and the Commission after the 2006 and 2007 storms, the Company has made storm restoration a top priority and has planned for and invested in the systems, resources, people and training to enable AmerenUE to restore service quickly.

In its cover pleading to the report about the January 2009 ice storm that the Staff filed with the Commission on June 15, 2009, the Staff stated, "[t]his report is Staff's fifth storm report involving AmerenUE's restoration efforts in the last five (5) years. In summary, Staff's overall conclusion is that AmerenUE has applied the lessons it learned from previous storm restoration efforts to this ice storm, evidenced by the faster restoration times."[13] The Staff's Report stated, "[b]ased on the Staff's experiences during the restoration process and the feedback received from various city and county emergency management personnel directly involved in the restoration process, AmerenUE was the IOU singled out for outstanding assistance in the days after the storm."[14] The Company appreciates Staff's acknowledgment of its efforts at improving its storm restoration capability. AmerenUE cannot control when a severe storm hits but it can work to reduce the inconvenience to customers in its aftermath. Like the reliability improvements I discussed earlier, that commitment, however, comes with a cost that ultimately must be reflected in higher customer rates.

Q. What did this restoration effort cost AmerenUE?

A. The total cost of the restoration effort was over $82 million, most of which was capitalized. The Operations and Maintenance ("O&M") (excluding internal labor) portion[15] of that amount was approximately $7.8 million or about $214 per customer who

[13] Case No. EO-2008-0218, Cover pleading to Final Report of Staff Investigation of the January 2009 Southeast Missouri Ice Storm, p. 2, ¶ 6.
[14] Id., p. 7 of Report.
[15] The $7.8 million does not include internal labor costs or internal overtime labor costs

was left without service by the storm.[16] This one storm alone has eclipsed the amount included in rates (for O&M costs) by the Commission in the last rate case, which was $5.2 million.

Q. Even so, $7.8 million seems to be a lot less than other storm costs incurred by the Company in recent years. Please explain.

A. $7.8 million is just the O&M (excluding internal labor) portion of the costs. The Company also had to make capital investments (for, e.g., replacing poles) of approximately $71 million to restore service after the January 2009 ice storm, which brings the total costs of this storm to $82 million,[17] as noted earlier. In some storms, the amount of capital investment required to restore service is much greater than the O&M costs; in some storms it is just the opposite.

Q. How have the costs of extraordinary storms historically been treated for ratemaking purposes?

A. Historically, capital costs have been included in rate base when a rate case is filed (which is the treatment used by AmerenUE in this case) and O&M costs have been recovered through a five-year amortization. The five-year amortization is not required by any Commission rule, but has been the practice in recent years, usually as the result of stipulations and agreements reached in accounting authority order cases filed after major storms. There is no need for an accounting authority order regarding this storm, since it occurred during the test year for this rate case.

[16] $7.8 million ÷ 36,500 = $214
[17] Internal labor costs were approximately $3 million.

Q. Is AmerenUE requesting similar treatment in this case?

A. No. While AmerenUE could seek to recover the O&M costs associated with this storm over a protracted (five-year) recovery period, such a long period provides a poor match to the compressed time frames within which these kinds of costs must be incurred, and exacerbates the Company's already-existing negative cash flows from its operations. These kinds of costs are extraordinary and uncontrollable. In fact, when faced with a choice between spending less versus spending more in the face of the need to restore service in the wake of a severe storm, the Company has deliberately chosen to spend what it needs to in order to restore service in the shortest possible amount of time. AmerenUE believes this is the choice the Commission and its customers want the Company to make. No party to an AmerenUE rate case has ever questioned whether AmerenUE was spending too much money on its restoration efforts. No public official has complained that restoration of service has happened too quickly. No Commission order has ever found that any of these expenditures were imprudent. Moreover, continued reliance on protracted recovery through long amortizations exacerbates existing negative cash flows from operations at a time when access to credit is more difficult and costly than it has been historically, and at a time when the Company needs more, not less cash, in order to continue making the large investments in its system that are needed to continue to improve the reliability of its service and address environmental requirements, as discussed by AmerenUE witness Warner L. Baxter in his direct testimony.[18]

[18] And, as I noted earlier, in addition to O&M costs, severe storms often require large capital investments, which means that the Company must borrow additional monies to provide the cash needed to make storm-related capital investments while continuing its other investments in its generation, transmission and distribution systems. These additional borrowings come at a cost.

Q. Specifically, what relief other than an amortization of these extraordinary storm costs is AmerenUE asking the Commission for in this case?

A. First, the Company is asking the Commission to set the base level of storm restoration O&M costs (excluding internal labor) in the Company's revenue requirement at the actual amount incurred during the test year, which is $10.4 million. Second, AmerenUE is asking the Commission to establish a "storm restoration tracker." Storm-related O&M expenses (excluding internal labor) would be tracked against this base amount with expenditures below the base to create a regulatory liability and expenditures above the base to create a regulatory asset, in each case along with the associated interest (at the Company's AFUDC rate), to be reflected in the revenue requirement in the Company's next rate case and amortized through rates in that next rate case over two years.

Q. Why is the proposed tracker necessary?

A. The tracker is necessary because of AmerenUE's need to recover these storm restoration expenditures over a time period that more closely matches the timing of the expenditures, particularly given the severe storms that have repeatedly hit AmerenUE's service territory since 2003.

Continued reliance on the historic practice of obtaining accounting authority to amortize these costs over a protracted five-year period doesn't make sense. It forces the Company to internally finance these restoration efforts over an extended period of time. And, although the Company eventually recovers these costs, as noted earlier there is a long-term cash flow impact from each storm. In an economy where credit is more expensive and electric demand (and revenues) are stagnant or decreasing, the Company may be forced to incur more costly financing (by short-term borrowings, or otherwise) to finance both these storm costs and normal (but very important) operational and capital needs. As economic conditions have worsened, these choices become more difficult.

Historically, this Commission has allowed AmerenUE to implement trackers for large costs that were outside of the Company's control. For example, the Commission has approved a tracker for AmerenUE's pensions and other post-employment benefits ("OPEB") as well as a tracker for its vegetation management and infrastructure inspection costs. The costs associated with storm restoration efforts are even less in the control of the Company and are thus appropriate to be recovered through a tracker. Severe storms are Acts of God. Immediate service restoration is demanded by both our customers and by the Commission. AmerenUE is proud of its ability to provide a much improved restoration process. It only makes sense that the Company be provided a mechanism which allows for the timely recovery of the legitimate costs of restoring service after major storms.

Q. Does that conclude your direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area.	)))))	Case No. ER-2010-

AFFIDAVIT OF RONALD C. ZDELLLAR

STATE OF MISSOURI)
) ss
CITY OF ST. LOUIS)

Ronald C. Zdelllar, being first duly sworn on his oath, states:

1. My name is Ronald C. Zdellar. I work in the City of St. Louis, Missouri, and I am employed by Union Electric Company d/b/a AmerenUE as Vice President Energy Delivery-Distribution Services.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 22 pages, Schedules RCZ-E1 - RCZ-E2 all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

RC Zdellar
Ronald C. Zdellar

Subscribed and sworn to before me this 24th day of July, 2009.

Amanda Tesdall
Notary Public

My commission expires:

Amanda Tesdall - Notary Public
Notary Seal, State of
Missouri - St. Louis County
Commission #07158967
My Commission Expires 7/29/2011

AmerenUE 4 CSR 240-23.010 Electric Utility System Reliability Monitoring and Reporting Submission Requirements – Reliability Improvement Program Summary Report

Introduction

This report details Union Electric (dba AmerenUE) Company's reliability improvement programs for calendar year 2009 as required by Missouri Public Service Commission Rule 4 CSR 240-23.010, Electric Utility System Reliability Monitoring and Reporting Submission Requirements (referred to in the remainder of this document as "the Rule"). This report is required by Section (9) of the Rule which states, *"Each electrical corporation shall transmit to the manager of the energy department of the commission, or the manager's designee, no later than the last business day of December each year: A summary report detailing all programs scheduled for the upcoming calendar year designed to maintain or improve service reliability. The information shall be reported by region/district/division operating areas, if the electrical corporation's operations are divided into regions/districts/divisions. This report shall include funding levels and the status of each of these programs."* This report will briefly describe each of AmerenUE's reliability programs for 2009 as well as the funding levels for each program. The report will be divided between programs associated with the company's transmission system and its distribution system. Where applicable, the funding levels will be broken down by the associated operating divisions. This report will not include information on the company's vegetation management program, as the reporting requirements for vegetation management programs are addressed under 4 CSR 240-23.030, Electrical Corporation Vegetation Management Standards and Reporting Requirements.

Definitions

For the purposes of this report, the following definitions shall apply:

1. Transmission System – That portion of the AmerenUE system operated at voltages of 100 kilovolts (kV) and above.
2. Distribution System – That portion of the AmerenUE system operated at voltages below 100kV.
3. Patrol Inspection – A simple visual inspection of applicable electrical corporation equipment and structures which is designed to identify obvious structural problems and hazards as defined in Section (2) (E) of 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards.
4. Visual Inspection – A careful visual examination of equipment and structures designed to identify structural problems, hazards, and defective or improperly operating equipment. Equivalent to "Detailed Inspection" as defined in Section (2) (B) of 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards.
5. Ground Line Inspection – A complete intrusive inspection of overhead poles whereby the pole is excavated to a depth of 18 to 24 inches, tested for internal and external decay, treated with a preservative, and then backfilled. Equivalent to "Intrusive

Inspection" as defined in Section (2) (C) of 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards.

6. Overhead Equipment – Equipment used in the operation of the transmission and distribution system mounted on overhead poles including, but not limited to, conductors, transformers, fuses, switches, insulators, and lightning arresters.
7. Underground Pad-mounted Equipment – Underground Residential Distribution (URD) system equipment including single phase and three phase pad-mounted transformers, pad-mounted switchgear, junction boxes, non-traffic rated vaults, and pedestals. Equivalent to "Underground-direct buried and conduit" and the equipment noted under Note 3 on the table entitled, "Electrical Corporation System Inspection Cycles (Maximum Intervals in Years)", included with 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards.
8. Underground Network Equipment – Manholes, vaults, network transformers, network protectors, and other underground structures. Equivalent to "Underground Networks" and "Manholes, Vaults, Tunnels, and Other Underground Structures" noted on the table entitled, "Electrical Corporation System Inspection Cycles (Maximum Intervals in Years)", included with 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards.
9. Streetlights – Automatically controlled lighting for lighting of streets, alleys, walkways, and other thoroughfares open to and reserved for general public use when such lighting facilities are operated and maintained as an extension of AmerenUE's distribution system as described in Service Classification 5(M). This definition does not apply to lighting installed on public or private premises for the purpose of providing area or security lighting (i.e., "dusk-to-dawn" lights), customer-owned street and outdoor lighting as described in Service Classification 6(M), and incandescent municipal streetlighting or private streetlighting described under Service Classifications 7(M) and 8(M).

Transmission System Reliability Improvement Programs

AmerenUE has one major reliability improvement program associated with its transmission system scheduled for 2009. This program is:

1. The Transmission Inspection Program – This program entails performing inspections on selected circuits as required by 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards. These inspections include:
    a. Transmission Ground Line Inspections – this entails performing Ground Line Inspections on poles associated with selected transmission lines in accordance with the schedule included in AmerenUE's 4 CSR 240-23.020 Electrical Corporation Infrastructure Standards Compliance Plan submitted on 30 June 2008. This is a continuation of an ongoing program. $185,000 is budgeted for this program in 2009.
    b. Transmission Line Patrol Inspections – This entails performing Patrol Inspections of the entire AmerenUE transmission system as described in AmerenUE's 4 CSR 240-23.020 Electrical Corporation Infrastructure

Standards Compliance Plan submitted on 30 June 2008. This is a continuation of an ongoing program. $50,000 is budgeted for this program in 2009.

c. Transmission Line Detailed Inspections – This entails performing Detailed Inspections of selected transmission lines in accordance with the schedule included in AmerenUE's 4 CSR 240-23.020 Electrical Corporation Infrastructure Standards Compliance Plan submitted on 30 June 2008. This is a new program required by 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards, which will begin in 2009. $162,400 is budgeted for this program in 2009.

Distribution System Reliability Programs

AmerenUE has six reliability improvement programs associated with its distribution system scheduled for 2009. These programs are applicable to all of AmerenUE's operating divisions and are as follows:

1. The Circuit Inspection Program – This program entails performing inspections on selected circuits as required by 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards. This program includes several inspection programs including:
    a. Overhead Circuit Inspections – This entails performing Visual and Ground Line Inspections of poles and overhead equipment, including overhead-fed streetlights, in accordance with the schedules included in AmerenUE's 4 CSR 240-23.020 Electrical Corporation Infrastructure Standards Compliance Plan submitted on 30 June 2008. It also includes making any repairs required as a result of the inspections. This is a continuation of a program begun in 2007 and enhanced in 2008.
    b. Underground Pad-mounted Equipment Inspections – This entails performing Patrol and Detailed Inspections of underground pad-mounted equipment, including underground-fed streetlights, in accordance with the schedules included in AmerenUE's 4 CSR 240-23.020 Electrical Corporation Infrastructure Standards Compliance Plan submitted on 30 June 2008. It also includes making any repairs required as a result of the inspections. This is a new program required by 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards, which will begin in 2009.
    c. Underground Network Inspections – This entails performing Patrol and Detailed Inspections of all manholes, vaults, and other underground structures in accordance with the schedules included in AmerenUE's 4 CSR 240-23.020 Electrical Corporation Infrastructure Standards Compliance Plan submitted on 30 June 2008. It also includes making any repairs required as a result of the inspections. This is an existing program which has been revised to meet the requirements of 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards, effective in 2009.

d. Device Inspections – This entails performing Detailed Inspections as defined in Section (2) (B) of 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards, on all installed reclosers, sectionalizers, voltage regulators, and capacitors on an annual basis. This is a continuation of a program begun in 2007 and enhanced in 2008.

The funding levels for this program are detailed in Appendix A.

2. The Subtransmission Circuit Program – This entails performing inspections and enhancements to AmerenUE's subtransmission circuits. This program includes the following:
    a. Subtransmission Lightning Protection – This entails analyzing and installing or upgrading lightning protection for AmerenUE's 34kV and 69kV subtransmission circuits. This is a continuation of an ongoing program.
    b. Subtransmission Aerial Infrared Inspections – This entails performing aerial infrared inspections of AmerenUE's subtransmission circuits. It also entails making any repairs required as a result of the inspections. This is a continuation of an ongoing program.

    The funding levels for this program are detailed in Appendix A.

3. The Circuit Performance Improvement Program – This program entails making reliability improvements to circuits identified as needing improvements as a result of internal company analyses. This program incorporates several methods of identifying circuits in need of improvement, including:
    a. Multiple Device Interruptions – Circuit reviews are initiated when a protective device has operated 3 times in a twelve month period.
    b. 4 or More Outages in 3 Consecutive Years – Circuit reviews are initiated when a customer experiences 4 or more extended outages per year in 3 consecutive years.
    c. Tap Fusing Initiative – Circuits are analyzed to identify the best opportunities for additional fusing of taps off of the main feeder.
    d. Worst Performing Circuits – Identifies the worst performing circuits based on 3 year SAIFI performance. The program will be modified to incorporate circuits identified as worst performing circuits under Section (6) of 4 CSR 240-23.010, Electric Utility System Reliability Monitoring and Reporting Submission Requirements.

    This is a continuation of an existing program with revisions to meet the requirements of 4 CSR 240-23.010, Electric Utility System Reliability Monitoring and Reporting Submission Requirements. The funding levels for this program are detailed in Appendix A.

4. The Smart Grid Program – This program entails enhancing AmerenUE's distribution circuits by adding automatic and/or remotely operated equipment to improve AmerenUE's ability to operate the distribution system. The program includes the following programs:
    a. Distribution Automation – This entails installing remotely controlled switching devices on circuits to enhance the ability to reroute power and

restore customer outages more quickly. This is a continuation of a program initiated in 2008.

b. SCADA and Metering – This entails installing SCADA and remote metering equipment in substations to enhance the ability to remotely monitor and control substation devices. This is a continuation of a program initiated in 2008.

The funding levels for this program are detailed in Appendix A.

5. The Underground Cable Replacement Program – This program entails replacing aging underground cable that meets replacement criteria developed by the company. This is a modification of an existing program with new criteria and funding levels for 2008. The funding levels for this program are detailed in Appendix A.

6. The Underground Conversion Program (PowerOn) – This program entails replacing certain overhead electrical circuits with underground circuits, as well as upgrading certain underground circuits in order to improve the reliability of these circuits. This is a continuation of a program initiated in 2007. The funding levels for this program are detailed in Appendix A.

Conclusion

AmerenUE has a number of programs designed to improve transmission and distribution system reliability planned for 2009. This comprehensive slate of programs has been designed both to meet the reliability needs of AmerenUE's customers and to meet or exceed the requirements of 4 CSR 240-23.020, Electrical Corporation Infrastructure Standards, and 4 CSR 240-23.010, Electric Utility System Reliability Monitoring and Reporting Submission Requirements. AmerenUE expects to continue to evaluate these programs and to make adjustments as needed in an ongoing effort to more efficiently meet the reliability needs of its customers.


35
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