Exhibit No:

Issue: Technical Issues Witness: Rodney P. Bourne

Type of Exhibit: Surrebuttal Testimony

Sponsoring Party: City of Rolla

Case No.: EA-2000-308

Date Testimony Prepared: October 18, 2000

PREPARED SURREBUTTAL TESTIMONY

OF

RODNEY P. BOURNE

on behalf of

CITY OF ROLLA / ROLLA MUNICIPAL UTILITIES

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Prepared Surrebuttal Testimony of Rodney P. Bourne

- Q. Please state your name for the record.
- 3 A. Rodney P. Bourne.
- 4 Q. Are you the same Rodney P. Bourne that caused to be filed prepared direct testimony in this
- 5 proceeding on June 1, 2000?
- 6 A. Yes.

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- 7 Q. What is the purpose of your surrebuttal testimony?
- 8 A. It is my intent to provide the Commission with responses to Intercounty's rebuttal testimony.
- 9 My surrebuttal testimony will discuss certain technical aspects of this case.
- 10 Q. How is your surrebuttal testimony organized?
- 11 A. It is organized by witness.
- 12 Summary
- Q. Can you summarize the major points you make in your surrebuttal testimony and the City's
- position in this case?
- 15 A. Yes. I will present in a detailed format, arguments of why I disagree with various positions
- 16 Intercounty representatives have made regarding the calculation of "fair and
- 17 reasonable" compensation, easements, RMU's capacity and capability to serve the Area,
- reintegration methods and costs, and stranded customers. I will provide backup data to
- support RMU's estimate of "fair and reasonable" compensation. I will also present a revised
- feasibility study which incorporates the overall concept presented in Intercounty's rebuttal
- 21 testimony. As also explained by Mr. Watkins, RMU has determined that its original
- approach, as discussed in my direct testimony and the feasibility study accompanying it,
- whereby Intercounty and RMU would jointly use certain existing tie lines of Intercounty

within the Area, is not feasible. Accordingly, I have modified the feasibility study to reflect 1 2 a new approach. 3 REPONSE TO SURREBUTTAL TESTIMONY OF MR. JAMES L. KETTER 4 5 Have you reviewed the prepared rebuttal testimony filed by James L. Ketter on behalf of the Q. 6 Staff of the Commission which was filed on July 18, 2000? 7 Yes. A. 8 Q. Do you have any comments on it? 9 Yes. I have comments with regard to Mr. Ketter's approach to the calculation of A. 10 depreciation in accordance with the statute, his analysis of "normalization" of revenue, his 11 discussion of joint use agreements, and his arguments regarding easements. 12 DEPRECIATION 13 On page 9 of Mr. Ketter's testimony, he states that the depreciation rate of 2.8% per year is Q. 14 a conservative rate to use. What is your reaction to that statement? 15 A. I agree that the 2.8% depreciation rate used in my direct testimony is reasonable. The rate 16 came from Intercounty's depreciation rate schedule that was provided to RMU as part of a 17 response to a RMU data request. RMU believes this rate is appropriate for use with pole line 18 construction. 19 Q. On page 10 of Mr. Ketter's testimony, he discusses estimating the average service life of the 20 existing Intercounty facilities in the Area by looking at the average age of the Intercounty 21 transformers. Do you agree with this approach? 22 A. No. It is my understanding of the statute that the role of the Commission is to try to 23 determine straight line depreciation of the facilities serving the annexed area based on the date of the <u>original</u> installation of the equipment. The transformer dates Mr. Ketter uses in his approach would not necessarily be the dates the original transformers were installed in the Area. Furthermore, Mr. Ketter's analysis does not take into account the age of poles, lines, services, other devices, etc.... Mr. Marmouget will also discuss the correct method of calculating straight-line depreciation from an accounting standpoint in his surrebuttal testimony. Rather than duplicate a discussion here, in my response to Mr. Ledbetter's rebuttal testimony on this same subject of depreciation later in this testimony, I will present additional evidence that supports how RMU has estimated Intercounty's original installation dates for their facilities. The method I describe there is superior to the approach Mr. Ketter was discussing.

Q.

A.

NORMALIZATION OF REVENUE

- On page 12 of Mr. Ketter's testimony, he refers to the two inactive accounts that RMU removed from the revenue stream in the calculation of four times the annual revenue. What is your opinion of his position?
- I do not agree with Mr. Ketter's analysis. RMU deleted those accounts as part of the "normalization" process the statute calls for. Since those buildings no longer exist, any new structures that are to be constructed in these two locations are the rightful customers of RMU, according to my understanding of the law. As I stated in my direct testimony, I do not believe RMU should have to pay four times the previous annual revenue for these two vacant properties, since new any structures that may be built there sometime in the future will be customers of RMU regardless of the outcome of this case. Again, I believe that deletion of the revenue from these two parcels should be part of the normalization process.

Q. On page 13 of Mr. Ketter's testimony, he discusses the merits of "a carefully crafted joint use agreement." How do you respond?

A.

Intercounty and RMU have had a long history of joint use of poles in the Rolla area. All of the joint installations on poles have been accomplished without the benefit of a joint use agreement. These installations have included both crossings and joint construction along the same pole line. A majority of these joint installations were negotiated between the Intercounty and RMU line crews during the construction or maintenance of lines.

The management of RMU has been made aware of litigation regarding the liability and exposure that a utility can experience without the use of a joint use agreement. Because of this significant potential exposure, RMU has made a concerted effort to implement mutually beneficial joint use agreements with all of the utilities with which RMU shares joint use poles. To date, Intercounty and RMU have not come to terms on a joint use agreement.

I believe that once a joint use agreement is implemented between Intercounty and RMU, we can continue to share common poles, as has been the case in the past. This arrangement will ensure the safety of the workers constructing and maintaining these lines. However, until this agreement is implemented, or until Intercounty and RMU can agree on limited joint use agreements to cover individual pole contact situations, RMU can not participate in "joint" use of common poles on future installations.

While I would like to believe that Intercounty and RMU can come to an agreement regarding a joint use agreement, it is entirely possible that a joint use agreement will not be worked out. With that in mind, the alternative plan presented in Mr. Ledbetter's rebuttal testimony has some merit -- as I discuss later -- because it provides a solution that minimizes, and perhaps eliminates, joint use situations between Intercounty and RMU as it relates to the

| 1 | | Area. |
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| 2 | | REINTEGRATION COSTS |
| 3 | Q. | On page 13 of Mr. Ketter's testimony, he agrees with your proposal to pay for Intercounty's |
| 4 | | "actual cost" of re-integration of their facilities with a "not-to-exceed" cap. Do you have a |
| 5 | | comment on that? |
| 6 | A. | I was pleased to see that Mr. Ketter agreed with RMU's position. RMU is still willing to |
| 7 | | agree to that approach and believes the Commission should include that in its order. |
| 8 | | STRANDED CUSTOMERS |
| 9 | Q. | With regard to "stranded customers," Mr. Ketter states on page 14 of his testimony that these |
| 0 | | customers would best be handled by separate applications for change-of-supplier or by the |
| .1 | | appropriate addition of funds to compensate Intercounty for additional reintegration costs. |
| 2 | | What do you think of his proposed solution? |
| .3 | A. | Both approaches that he discusses may need to be implemented to adequately address |
| 4 | | stranded customers in this situation. Depending on the specific stranded customer, it may |
| .5 | | make sense to reintegrate that customer back to an Intercounty line, or it may make sense to |
| .6 | | strongly urge the customer to apply for a change of supplier which is contingent on the |
| .7 | | outcome of this case. In other words, the customer would only change suppliers if the |
| .8 | | Commission grants RMU's request for the exclusive service territory. I will discuss this |
| 9 | | topic of stranded customers further later on in my testimony. Mr. Watkins will also address |
| 20 | | the subject of change-of-supplier applications in his surrebuttal testimony. |
| 21 | | EASEMENTS |
| 22 | Q. | Mr. Ketter states on pages 14 and 15 that RMU would receive whatever facilities and |
| 23 | | easements that Intercounty has to transfer. He goes on to state that the acquisition of |

- easements or valuation of easements is not a matter subject to the jurisdiction of the Commission. Do you agree?
- A. No. Mr. Watkins will also address this subject in his testimony, but RMU does not believe that Intercounty should be rewarded for acquiring easements that on their face are not recordable, or for failure to record easements that are recordable. The issue still remains that many of the areas where Intercounty has power lines right now are not in recorded easements. While this may not concern Intercounty, the transfer of facilities to RMU without proper easements still presents a significant potential liability to RMU, as I discussed in my direct testimony. The Commission is supposed to arrive at a "fair and reasonable" compensation amount. RMU believes that there is nothing in the statutes that prevents the Commission, in determining "fair and reasonable compensation," from reducing the value of Intercounty's facilities that is otherwise applicable, by the amount of this potential liability. This is especially true since RMU will be compensating Intercounty for engineering and right-of-way (easement) acquisition costs for these existing facilities. RMU will also be compensating Intercounty for the new lines Intercounty will construct to reintegrate its facilities around the Area.

IMPACT ON INTERCOUNTY LOAD AND REVENUE

- Q. On page 16 of Mr. Ketter's testimony, he states that there would be little impact on the revenue or electric load of Intercounty's system from the transfer of the facilities serving the 286 customers. Do you agree with him?
- A. Yes. As I stated in my prior testimony, the overall loss of 286 customers would be relatively insignificant to Intercounty out of 27,000 total customers.

RESPONSE TO SURREBUTTAL TESTIMONY OF MR. BRIAN NELSON

- Q. Have you reviewed the prepared rebuttal testimony filed by Mr. Brian Nelson on July 18,
- 3 2000?

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- 4 A. Yes.
- 5 Q. Do you have any comments on it?
- 6 A. Yes. There are several areas of Mr. Nelson's comments that I believe require a response.
- Generally, these include his analysis of Intercounty and RMU capacity and facilities, his
- 8 arguments regarding reliability comparisons between Intercounty and RMU, the effect of
- 9 loss of load and customers on Intercounty, his analysis of depreciation, joint use agreements,
- easements, reintegration of Intercounty facilities and the topic of PCB's.

EXISTING AND FUTURE FACILITIES

- Q. In several places in Mr. Nelson's testimony, he says that the three Intercounty substations
- serving the Area have significant capacity for growth and the substations have been located
- and sized to serve the current and future needs of the Area. Do you have a response to that?
- 15 A. Yes. With regard to the current electrical needs of the Area, I agree that Intercounty is
- serving the existing customers and appears to have adequate capacity to do so. As far as the
- needs of future customers in the Area, however, I don't think anyone is disputing that RMU
- is the only lawful supplier of electricity for any future development. That is my
- understanding of the statutes. In other words, Intercounty's capacity for future growth in the
- annexed area does not apply to new structures built in the Area after the annexation, and is
- irrelevant. There is growth and development outside of the Area that can and undoubtedly
- will be served by those Intercounty facilities.
 - Q. Mr. Nelson also makes the point on page 5 of his testimony that only Intercounty has the

facilities in place at this time to serve the existing customers and that RMU will have to invest significantly in the Area to duplicate these facilities. Do you have a response to that? First of all, it is true that only Intercounty presently has facilities to serve customers in the Area. That is because RMU could not legally serve any part of the Area prior to the annexation because it was outside of the city limits. And it is true that RMU will invest money to install a distribution system in the Area to serve new growth. However, RMU will have to construct this distribution system regardless of the outcome of this case. Once the decision was made by the City to annex the Area, and the annexation was approved by the voters, RMU has always realized that we would have to build necessary infrastructure to serve the Area with electricity.

RMU will not be building "redundant" facilities, however, if the Commission agrees to the revised approach RMU has adopted, which is basically the plan stated in Mr. Ledbetter's rebuttal testimony. RMU will build facilities that serve specific areas and specific customers. RMU will acquire the existing Intercounty facilities and integrate them into RMU's system. This will only produce "duplicate" facilities in a very few places where there may be "stranded" customers where Intercounty will have to have a line near to an RMU line to continue to serve an Intercounty customer. We will not be constructing a system to back up Intercounty's system and likewise Intercounty's system will not, in general, parallel the RMU system. The systems are not redundant either physically or functionally. Each system has its own purpose and function.

The question that has surfaced since the annexation is how to best serve the customers that existed in the Area prior to annexation. Under the current circumstances, without the transfer of facilities requested by RMU in this case, both Intercounty and RMU

| 1 | | will have systems in place to serve different customers in the same area. This is not practical |
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| 2 | | or in the public interest and basically is the reason RMU has filed its application in this |
| 3 | | proceeding. |
| 4 | Q. | On page 7 of his testimony, Mr. Nelson alleges that RMU will be required to construct new |
| 5 | | substations and invest substantially in conversion of existing substations. Is this correct? |
| 6 | A. | No. As I stated in my direct testimony, RMU already has sufficient capacity in its existing |
| 7 | | substations to serve the customers in the annexed area. The cost to install a step-up |
| 8 | | transformer at RMU's Ft. Wyman substation is minimal in the context of substation |
| 9 | | equipment and is addressed in my Feasibility Study. |
| 10 | Q, | On page 7, Mr. Nelson makes the following statement: "The costs of reproducing |
| 11 | | Intercounty's facilities and system will be undoubtedly be paid by RMU and its ratepayers |
| 12 | | by expenditures of existing cash reserves, loans or potential rate increases." Do you have a |
| 13 | | response to that? |
| 14 | A. | That statement is pure speculation on his part. He has no facts to back it up. Mr. Watkins |
| 15 | | and Mr. Marmouget both address that subject in more detail. |
| 16 | | ELECTRIC SYSTEM RELIABILITY |
| 17 | Q. | On page 6 of his testimony, Mr. Nelson discusses reliability issues. What do you think of |
| 18 | | his statements? |
| 19 | A. | Mr. Nelson expounds on the reliability records that Intercounty maintains and how he did |
| 20 | | not locate any comparable data from RMU which would allow him to make a comparison. |
| 21 | | Intercounty is apparently required by RUS, as stated in his testimony, to maintain detailed |
| 22 | | outage statistics. RMU is not required by any governmental agency to keep such records. |
| 23 | | RMU does, however, keep a record of outages which occur on our system. It shows the |

cause (if known) and duration of each outage for both our water and electric system. We made those records available to Intercounty to inspect in this case. In essence, Mr. Nelson can not state which system is more reliable.

Q.

Another point I would like to make on this topic is that Intercounty's statistics are based on its system-wide reliability. None of their statistics pertain directly to the Area under review here. The Intercounty statistics are only representative of its multi-county system as a whole.

All electric utilities will experience outages from time to time, including Intercounty and RMU. RMU responds to all service and outage calls regardless of location or how long a customer has been receiving service from the utility. This will continue to be our policy regarding the annexed area.

LOSS OF LOAD

- Mr. Nelson states on page 8 of his testimony that the loss of 286 customers would amount to 39.1% of Intercounty's recent annual growth. Do you have any response to that?
- A. You have to look at the 286 customers in the "big picture." The 286 customers are 1% of Intercounty's total membership. Based on Intercounty's own statistics, current growth in their system will replace these customers in less than 6 months. Yes, the loss of these members may appear relatively large when you only compare to annual growth, but it is relatively insignificant in the overall scheme of things.

I would also observe that this is the first annexation of this kind in Rolla in over 20 years. According to the tax records RMU located, construction of 80% of the present buildings in the annexed area occurred prior to 1976. See my Schedule RB-4 for the details. Since the annexation and availability of city services, one new subdivision has been platted

and two more are being planned in the Area. I will discuss the relevance of Schedule RB-4 later in my testimony when I address depreciation.

DEPRECIATION AND AGE OF INTERCOUNTY FACILITIES

Q. With regard to the cost of the Intercounty facilities, on page 11 through 13 of Mr. Nelson's testimony, he discusses your analysis of the facility costs and your basis for determining the appropriate depreciation rates used for the facilities. What do you think of his analysis?
A. I agree with Mr. Nelson that administrative, engineering, easements fees, and right-of-way clearing costs should be added to the cost of the existing Intercounty facilities located in the Area. Mr. Ledbetter provided estimates of appropriate costs for these items in his Rebuttal Testimony. It should be noted that the costs included by Mr. Ledbetter for easements and right of way are for utilities following normal practices of obtaining and recording easements. The easements -- where they exist -- that RMU will be acquiring from Intercounty in this situation are not of the same quality. Estimates for administrative overhead, engineering costs, easements fees, and right-of-way clearing costs were not available at the time I wrote RMU's original Feasibility Study. I have made the appropriate

corrections as required in my revised study, which is attached as Schedule RB-3.

I do not agree that Intercounty's "system wide depreciation" method should be used as a basis for determining the statutory requirements with regard to depreciation. The statute is clear to me that depreciation is to be calculated using a straight line method. Intercounty's system-wide depreciation is not computed using a straight line method and therefore is not relevant or appropriate to this proceeding. I believe that the intent of the statute is to determine the present-day reproduction cost new of the facilities, minus depreciation calculated on a straight line basis. I believe the statute is directed to determining a

representative cost of the actual facilities that are annexed - not the book value that 1 2 Intercounty happens to maintain in its accounting system for its entire system. This topic is also addressed in Mr. Marmouget's testimony. 3 JOINT USE AGREEMENTS 4 5 On page 18, Mr. Nelson refers to joint use agreements. What is RMU's position regarding Q. 6 the need for such agreements? As I stated before, RMU's main intent for utilizing joint use agreements is to limit the 7 A. 8 exposure of liability to the utility. RMU believes that the joint use agreement it presented 9 to Intercounty is a unbiased document that does not favor one utility over another. Its main 10 purpose is to limit liability coverage. Joint use agreements do contain very minimal rental 11 clauses for joint use of poles (reciprocal for both utilities); however, that is not the main 12 intent of a joint use agreement. 13 **EASEMENTS** On page 18 and 19, Mr Nelson discusses their practice of obtaining blanket easements and 14 Q. that Intercounty's practice has not caused them significant problems. Do you have any 15 16 comments on that? 17 A. While Intercounty may not have experienced major problems with blanket easements yet, 18 that is not RMU's point regarding the easements. As I stated in my previous testimony, it's 19 Intercounty's practice of not having legal easements, i.e. not notarized, incomplete, etc..., that 20 causes concerns for RMU about future liability. In addition, Intercounty also has a practice 21 of not recording the easements it does have. 22 While RMU does not follow the practice of blanket easements, it is a practice that 23 some utilities use. They provide a great deal of flexibility to the utility. They also leave the landowner, and future landowners, exposed to future improvements against their wishes. It's the exposure and liability from these landowners that causes concern to RMU if a transfer takes place. We've tried to put a reasonable dollar amount on this potential exposure in order to quantify it for the purposes of this proceeding.

On page 20 of his testimony, Mr. Nelson also states that condemnation of easements by RMU (presumably to correct the problems created by Intercounty in the first place) may be a "detriment to public interest" and should be considered by the Commission. Let me be very clear. This issue of condemnation would not exist if Intercounty followed a procedure of obtaining legal easements and recorded all of their easements. It is RMU's policy to obtain legal easements and record such easements. It is also RMU's policy to obtain easements that will allow the easement to be used by all utilities when possible. RMU's policy attempts to eliminate the need for every utility to obtain a separate easement. In addition, all new developments go through a city planning process designed to provide access for all utilities. The problem is solely that of Intercounty's making and responsibility.

TRANSFER OF SERVICE

Q. What about transfer of service costs?

A.

Mr. Nelson addresses this issue on page 21 of his testimony. I agree with him that this work could be performed by an outside contractor and that RMU could reimburse Intercounty for these expenses. I would suggest that RMU pay the contractor's actual cost with a "not to exceed cap" placed on these expenses. RMU would like to be involved in writing, negotiating and awarding this contract. I believe Mr. Strickland includes an amount of \$24,000 on Page 16 of his testimony to cover this transfer of facilities. Mr. Strickland also states that the \$24,000 cost includes meter reading, final bills and crew time. RMU believes

| the \$24,000 | is a reasor | able numbe | r to use f | or the cap | in this | circumstance. |
|----------------------|-------------|------------|------------|------------|---------|---|
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2 PCBs

- Q. What is your opinion regarding the presence of PCB's in Intercounty equipment that would be transferred to RMU.
- A. Mr. Nelson is correct on page 22 of his testimony where he states that Intercounty's liability with regard to PCB contaminated equipment is not eliminated when it is transferred to RMU. He suggests that RMU be required to test the equipment prior to transfer of ownership and if a piece of equipment is contaminated, Intercounty would retain ownership and responsibility for disposal.

It is not now, and should not ever be, RMU's responsibility to test Intercounty's equipment for the presence of PCB's. This testing should have been completed years ago by Intercounty when the government determined that PCB's were a health hazard. RMU took the initiative to test all of our equipment several years ago and to properly dispose of all contaminated components. The testing of equipment is the responsibility of Intercounty and the liability for contaminated components is the responsibility of Intercounty. It would be beneficial for Intercounty to have this issue resolved prior to transfer. The Commission should not order RMU to test Intercounty's equipment. The Commission should order Intercounty to test its own equipment. Please refer to Mr. Watkin's testimony on this subject for additional discussion.

RESPONSE TO SURREBUTTAL TESTIMONY OF MR. VERNON W. STRICKLAND

Q. Have you reviewed the prepared rebuttal testimony filed by Mr. Vernon W. Strickland on July 18, 2000?

1 A. Yes. Do you have any comments on it? 2 Q. Yes. There are several areas of Mr. Strickland's testimony that require a response. 3 A. Generally, these include his analysis of depreciation, additional re-integration costs, and his 4 analysis of capital credits (also referred to as "patronage obligation"). 5 6 FAIR AND REASONABLE COMPENSATION 7 Q. On pages 14 through 16, Mr. Strickland discusses concerns Intercounty has regarding the 8 methods you utilized in calculating the fair and reasonable compensation. How do you 9 respond? Mr. Strickland makes his case for Intercounty utilizing their "system wide valuation" method 10 A. 11 to determine the appropriate amount or depreciation rate to be used in calculating the facility 12 costs. As I said before, I disagree with this method. It does not meet the statutory requirement to use straight line depreciation for the specific facilities that are located within 13 14 the annexed area. In addition, Mr. Strickland adds costs to Mr. Ledbetter's estimate as follows: 15 16 \$24,000 for "transfer of facilities, including meter reading, final bills and crew time." 17 \$53,000 for "re-integration of telephones, fiber optics, computers and communications at a relocated office out of the annexed area." 18 19 \$402,649.39 for "the retirement of the annexed member's patronage obligation." 20 Do you believe the \$24,000 figure is reasonable for transfer of facilities? Q. 21 A. RMU will be responsible for Intercounty's costs associated with transfer of service. RMU 22 requested back-up information from Mr. Strickland in a data request to substantiate this

number. He did not provide detailed backup information. Instead he stated that the amount

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- of \$24,000 was based on an "estimate of costs for labor, administrative time, and materials based on past history and experience for similar items." Without the back-up data, it is difficult to state if this cost truly is reasonable. However, RMU is willing to pay the actual cost of transferring facilities with \$24,000 as the "cap" for this item.
- 5 Q. What about reintegration costs associated with Intercounty's office/warehouse?
- A. Mr. Watkins discusses why RMU should not be required to purchase Intercounty's office/warehouse in his surrebuttal testimony. Based on that, and RMU not being required to purchase this facility, RMU should not be required to pay the \$53,000 associated with relocation of the communication equipment. Therefore, this should not be an issue.
- Q. Do you have any comments on Mr. Strickland's testimony regarding the member's patronage?

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A. First of all, Intercounty has already collected this money from the Intercounty members it has in the annexed area. Secondly, Intercounty has been holding this money since Intercounty collected it. In some cases Intercounty has been holding their members' money since the early 90's. Mr. Strickland stated in response to RMU Data Request 192 that the patronage obligation amount in his testimony "...is the amount due from the cooperative to the members in the annexed area..." He goes on to state that the patronage obligation "... should not be the obligation of the remaining members to pay."

It is Intercounty that owes the patronage obligation or "capital credits" to the members in the annexed area. The cooperative has already collected this money. If RMU were to pay this amount, the cooperative would be "double-dipping." The Intercounty members should be paid their capital credits by Intercounty in accordance with the policies already in place by Intercounty and the members should receive the money that Intercounty has been holding

| 1 | | in their name. RMU should not be required to pay this amount. |
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| 2 | | These amounts do have a bearing in the calculation of the normalized revenues, though. |
| 3 | | I will make appropriate changes to RMU's estimate of "fair and reasonable compensation" |
| 4 | | based on the above information. |
| 5 | | |
| 6 | RESI | PONSE TO SURREBUTTAL TESTIMONY OF MR. JAMES LEDBETTER |
| 7 | Q. | Have you reviewed the prepared rebuttal testimony filed by Mr. James Ledbetter on July 18, |
| 8 | | 2000? |
| 9 | A. | Yes. |
| 10 | Q. | Do you have any comments on it? |
| 11 | A. | Yes. There are several areas of Mr. Ledbetter's comments and testimony that require a |
| 12 | | response. Generally, these include his plan to reintegrate the Intercounty facilities, his |
| 13 | | method to calculate depreciation and estimate the life of the Intercounty facilities in the Area, |
| 14 | | his revised unit material and labor costs, his "normalization" of revenues, and how he |
| 15 | | addresses stranded customers. |
| 16 | Q. | What is your overall impression of Mr. Ledbetter's testimony in this case? |
| 17 | A. | Mr. Ledbetter's role is to provide the technical base to Intercounty's arguments. The general |
| 18 | | concept he proposed is for Intercounty to sell all of the lines within the annexed area to RMU |
| 19 | | and for Intercounty to build their tie lines around the Area to re-integrate the Intercounty |
| 20 | | system. This would minimize interferences and the sharing of common poles and pole lines |
| 21 | | within the Area. |
| 22 | | Mr. Strickland stated that this would be Intercounty's plan in a meeting held prior to |
| 23 | | RMU filing its application with the Commission. RMU's initial reaction to this approach |

when it was first presented by Mr. Strickland was that it seemed wasteful and unnecessary to construct tie lines around the Area when tie-lines already existed through the Area. I used the existing tie-line concept as a basis for my direct testimony and the original Feasibility Study.

After review of Mr. Ledbetter's plan, I have to agree that there is some merit to it.

There are also some flaws that will need to be addressed which I will explain in detail.

SYSTEM WIDE DEPRECIATION

- Q. On page 2, Mr. Ledbetter discusses Intercounty's use of system-wide depreciation. Do you have a comment on that?
- A. As I stated before, system-wide depreciation, in my opinion, does not meet the requirements of the statute and therefore should be ignored by the Commission.

INTERCOUNTY FACILITY COSTS

- Q. Mr. Ledbetter uses revised values for facility costs in his estimate. Do you agree with his rationale?
 - A. No. Mr. Ledbetter revised the unit costs for material and labor using contractor bid data received by another rural electric cooperative that was having work performed in the Shawnee Bend area near the Lake of the Ozarks. In my opinion, the costs associated with work being done on Shawnee Bend has very little or no bearing on work being performed by Intercounty in Phelps County, and more specifically in the annexed area. Intercounty provided unit costs for work they have had performed on their system. RMU plans to use these costs in our analysis. These are real costs for the specific area. Costs associated with another utility located in another part of the state should not be considered by the Commission in this situation.

| I do agree that reasonable costs for engineering, staking, right-of-way acquisition and |
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| right-of-way clearing should be included in the cost of Intercounty's facilities. These costs |
| were not included in RMU's original estimate in my original feasibility study. They are now |
| included in the revised Feasibility Study. |

- Q. What about Mr. Ledbetter's assertion that it costs more to build in a congested area due to "more property owners, traffic, fences, and other facilities such as water, sewer, telephone, and cable?"
- A. While this may be true in an existing subdivision, you have to keep in mind that when these subdivisions were platted and developed, there were no houses or fences. Water and sewer systems were private, i.e. they consisted of private wells and septic systems, and would have been installed when each house was constructed. This would have been after the electric system was installed. And furthermore, since 99 percent of Intercounty's system is of overhead construction, the telephone and cable systems are installed on Intercounty's pole lines and would have been installed after Intercounty completed their installation. So no, I do not believe that the costs to install this system are significantly different than in a rural area.

DEPRECIATION AND AGE OF INTERCOUNTY FACILITIES

- Q. Mr. Ledbetter and the other representatives of Intercounty talk at length about how your analysis is flawed regarding the method you used to apply depreciation to the Intercounty facilities. Is there a better way?
- A. Because Intercounty does not keep vintage accounting records of their facilities, it is a difficult task to approximate straight line depreciation as required by the statute. The best answer is to approximate the age of the facilities using whatever records are available. It is

entirely possible for 10 intelligent people to produce 10 different methods designed to comply with the statute. I don't believe Mr. Ketter's use of transformer installation dates or Intercounty's use of "system wide depreciation" meet the intent of the statute as I understand it. I would be the first to admit that the method I originally used in determining a depreciation rate can be improved upon.

My interpretation of the statute is that the intent is to reimburse the affected utility for the reproduction cost of the facilities less straight line depreciation from when that facility was initially constructed. I believe the reproduction cost new should be based on Intercounty's value presented in response to RMU Data Requests. That is \$547,131.01 plus reasonable costs for engineering, staking, right-of-way acquisition and right-of-way clearing as outlined by Mr. Ledbetter at a cost of \$195,000. Added together, this provides an initial amount of \$742,131.01. Estimated straight line depreciation by using the best information available as to when Intercounty's facilities were actually constructed within the Area reduces the value of the Intercounty facilities to \$66,791.79. I have a summary of these calculations included as Schedule RB-5 to my testimony.

Q. How did you determine a more correct amount of depreciation?

A. The difficult task in calculating the depreciation of the facilities is accurately estimating the date the facilities were originally constructed since Intercounty apparently has no such records. To accomplish this, RMU personnel went to the Phelps County Courthouse and obtained the dates when a majority of the buildings in the Area were put on the County Assessor's tax roles. This data gives a very good indication of when a physical structure would have been built and subsequently served with electricity by Intercounty.

Obviously, homes built prior to the 1940's most likely did not have electricity until

1 electric lines were constructed in the Area. It appears that a majority of structures were 2 constructed prior to 1976 as indicated in Schedule RB-4, which was prepared under my supervision. 3 Please summarize your findings regarding the construction dates. 4 Q. With the help of the County Assessors office, RMU located 197 properties in the Area with 5 A. 6 associated dates of construction. 7 Q. Why is this number different from the 286 customers that are being used for the revenue calculations? 8 9 Some of the properties are multi-family, i.e. duplexes, trailer parks, etc. This means that A. 10 there may be multiple meters (customers) for the same parcel of property. In addition, there were a very small number of properties for which the Assessors office could not determine 11 12 construction dates. Does that affect your analysis or conclusions? 13 Q. I don't think so. I believe that the data we gathered is pretty representative of the Area based 14 A. on my familiarity with the Area. 15 16 What conclusions did you reach after you reviewed the data? Q. 17 I concluded that my original analysis of the age of the Intercounty facilities had been fairly Α. conservative. 18 How so? 19 Q. 20 Well, my original analysis of the construction dates of the Intercounty facilities was that 70% A. 21 of the facilities had been constructed prior to 1965 and the remaining 30% was substantially 22 completed prior to 1976.

How do you justify such a broad approach?

23

Q.

- A. The detail I had at the time of my original analysis was pretty limited. Intercounty does not keep or maintain vintage accounting records of their installations and therefore did not provide any usable data to RMU. My original analysis was based upon when the main subdivisions were platted in the Area. I assumed that the houses would be constructed within a reasonable time frame after the original plat dates.
- 6 Q. Did Intercounty agree with your analysis?

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- A. No. Their representatives stated that the electrical construction could have been sequenced in the subdivisions as houses were constructed. In other words, the electric lines could have been extended each time a new house was constructed. Their analysis indicated that RMU could not directly correlate between subdivision plat dates and the electric line installation.
- 11 Q. What do you think about their criticisms?
- 12 A. Based on the information that I had at the time, that was my best attempt at trying to estimate
 13 the age of the Intercounty facilities.
- 14 Q. Do you have better data now?
- 15 A. Yes. And the data RMU has gathered since the time of my direct testimony supports my
 16 original claims. Based on the available tax records, 44% of the properties had buildings
 17 constructed prior to 1965. And 80% of the properties had buildings constructed prior to
 18 1976.
- 19 Q. How does this information support your original claim that 70% of the facilities were constructed prior to 1965 when only 44% of the structures had been built?
- A. You have to analyze not just the quantity of structures built, but where the buildings were constructed, and what Intercounty facilities had to be in place to support these buildings.
- Q. What about Intercounty's claim of "staged" construction?

- A. For the most part, that claim just doesn't hold up. I looked at both the main trunk lines and the individual branch lines of Intercounty that feed into the various subdivisions. Based on the information I have available to me and my understanding of how the Area developed, the original trunk lines were installed in the 1940's as I stated in my direct testimony. I next looked at the Parkview Subdivision. It was platted in three phases from 1955 to 1963 and all Intercounty lines would have been installed prior to 1965.
- 7 Q. How do you know that?
- A. It's easy. All I needed to do was compare the date when a house was constructed at the end of an Intercounty branch line. If the house was built prior to 1965, the electric line feeding that house must have been constructed prior to 1965. Since all of the houses at the end of branch lines were constructed prior to 1965, I can logically conclude that all of the Intercounty electric system in the Parkview subdivision was completed prior to 1965.
- Q. Did you perform a similar analysis in the other subdivisions?
- A. Yes. I verified that the lines in Ozark Terrace subdivision and the lines along Little Oaks
 Road, Rolla Street, and State Route O were also constructed prior to 1965. Portions of the
 Longview subdivision also fell into this category. Because of the extensive infrastructure
 required to support the above developments, I am comfortable in assuming that 70% of the
 Intercounty facilities were originally constructed prior to 1965.
- 19 Q. What about the balance of the Area?
- 20 A. Using a similar analysis, other branch lines were constructed in the Longview Subdivision 21 in 1966, 1968, and 1970 depending upon the specific branch line. Similarly, Line Barnitz 22 Forest Subdivision was completed prior to 1970. Shady Lane Subdivision was completed 23 in approximately 1975.

There were several houses and buildings constructed after 1976. How do you account for 1 Q. 2 these buildings in your analysis? A majority of these houses were "filling up holes" in existing subdivisions. Some of the 3 A. 4 buildings were constructed outside of the subdivisions, but most of these building are located 5 adjacent to lines that were constructed prior to 1965. There are a couple of isolated cases where Intercounty would have extended primary lines after 1976, but these cases are isolated. 6 7 With this additional research and documentation, I am comfortable that my overall analysis 8 is the most reasonable of those that have been presented. 9 REINTEGRATION PLAN 10 On page 6 and 7, Mr. Ledbetter presents his analysis of the cost of constructing lines around Q. 11 the Area. What do you think of this plan? 12 I believe it is a more expensive plan than the proposal originally made by RMU, but as I said A. 13 earlier, the plan has merit and I believe that RMU is willing to work towards implementing 14 Intercounty's solution as long as a few discrepancies and details can be worked out and 15 negotiated. What do you mean? 16 Q. Exhibit JEL-3 of Mr. Ledbetter's testimony broke down the estimated cost for relocating 17 A. 18 Intercounty's main lines around the area. It included constructing/upgrading the following types of lines: 19 1.75 miles of Double Circuit, 3-phase 477 ACSR 20 21 4.5 miles of 3-phase 477 ACSR 22 1.75 miles of 3-phase 1/0 tie line 23 1.00 miles of 3-phase 1/0

The only change I would require to the <u>quantities</u> Mr. Ledbetter estimated is for the last item. I personally surveyed the area where Mr. Ledbetter planned to install the 1.00 mile of 3-phase 1/0 conductor. The distance is actually approximately 0.5 miles instead of 1.00 miles.

In a response to a subsequent RMU Data Request, Mr. Ledbetter broke down how he estimated the cost per mile for these improvements. His estimate included costs for right-of-way acquisition and clearing costs for all of these upgrades. I disagree with including costs for right-of-way acquisition and clearing for a majority of the planned Intercounty improvements. Most of these planned upgrades will be to upgrade existing Intercounty pole lines. Intercounty already has right-of-way procured and cleared for these existing lines.

RMU asked Intercounty as part of RMU Data Request 212 if they "require any new or revised easements where Intercounty proposes to replace or upgrade an existing Intercounty pole line?" Intercounty stated in their response, "Yes, in most cases new or updated easements would have to be obtained to allow construction of the new lines." Now I have not reviewed Intercounty's easements for these lines, but I just don't understand why new easements would be required for existing lines that should already be located in dedicated Intercounty easements. It makes me wonder how confident Intercounty is of their existing easement policies. The point I am making is that RMU will pay Intercounty for acquiring and clearing right-of way where they presently do not have lines constructed. RMU will not reimburse Intercounty for acquiring and clearing right-of way where they should have existing right-of way. The revisions to Mr. Ledbetter's estimates for R/W acquisition and R/W clearing are included in Schedule RB-6. These changes are all based on my personal observation of the locations where Intercounty proposed to build these new lines.

| Finally, I also disagree with Intercounty taking this opportunity to upgrade the |
|--|
| conductor size of their facilities at RMU's expense. A majority of the tie lines that |
| Intercounty has running through the Area are constructed of #4, #2, and 1/0 Aluminum with |
| the exception of one portion of approximately 0.5 miles of 3-phase 477 ACSR. RMU should |
| only be responsible for Intercounty's cost to construct a similar system. RMU should not |
| be required to compensate Intercounty for upgrades to their system. I have revised the |
| estimates Mr. Ledbetter prepared to change his selected conductor size from 477 ACSR to |
| 1/0 ACSR with a corresponding change to the unit prices. Intercounty should be responsible |
| for the costs to upgrade the conductors from 1/0 ACSR to 477 ACSR if it desires to take this |
| opportunity to improve its infrastructure. |

A.

- Q. Could you briefly describe the difference between 1/0 ACSR and 477 ACSR for those of us who are not intimately familiar with conductor sizes?
 - Sure. 1/0 (pronounced one ought) ACSR is a bundled group of stranded conductors consisting of 6 stranded aluminum wires wrapped around one steel core wire. The 1/0 conductor is approximately 0.398 inch in diameter. ACSR stands for aluminum conductor-steel reinforced. The 477 ACSR is of a similar construction but consists of 18 stranded aluminum wires wrapped around one steel core wire. It is about 0.814 inch in diameter. Basically, the conductor size doubles in size between these two conductor types. Along with the bigger size comes an increase in current carrying capacity of over 2½ times. What Intercounty proposes to do is trade their "Chevy" for a "Mercedes" and have RMU pick up the tab. While RMU is not opposed to Intercounty upgrading their line, we are opposed to Intercounty performing this upgrade at our expense. The only cost I have adjusted in my estimate is for conductor size. The poles are the same, the insulators are the same, etc....

Intercounty only needs to pay for the added cost to upgrade their conductor size if they believe it will be an improvement to their system. I think this is a logical and reasonable approach.

NORMALIZED REVENUE

- 5 Q. What is your impression of Mr. Ledbetter's analysis of "normalized revenue?"
- A. I have some problems with his analysis. A summary of his analysis was presented in his

 Exhibit JEL-4. Mr. Ledbetter added in the two former Intercounty customers that no longer

 exist and he then proceeded with "normalizing" the monthly amounts.
- 9 Q. What did you have problems with?

A.

As I have stated before, I do not believe the two former accounts should be added into the revenue stream. Not adding them is part of the normalization procedure. Secondly, Mr. Ledbetter stated in response to RMU Data Request 127 that "Revenues for services which have become idle during the test year have been normalized." This means that he added in revenue for apartments or houses that only had part-time occupancy. I disagree with this method. Utilities always have periods where apartments and houses are vacant and the utility gains little or no revenue from these properties. I interpret the "normalization" process to adjust the revenues for abnormal weather conditions or other significant anomalies.

I believe the correct <u>base</u> quantity to use for "four times normalized revenue" is \$1,481,853.80 as stated in my direct testimony. However, based on Exhibit VWS-7 and Mr. Strickland's responses to RMU Data Requests, RMU now believes that this quantity should be further refined. This further refinement will be addressed in Mr. Watkin's surrebuttal testimony.

STRANDED CUSTOMERS

- Q. How did Mr. Ledbetter address stranded customers?
- A In his rebuttal testimony, he stated that the costs for serving stranded customers is difficult to estimate, but he placed a cost of \$150,000 on this item.
- 5 Q. Do you agree with this amount?

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- A. Not exactly. We asked Mr. Ledbetter in RMU Data Request 131 to provide the backup for his estimate. Mr. Ledbetter did provide this backup information as part of his response to this data request (Exhibit JEL-11). The estimated costs included the following amounts:
 - \$1,500 for 0.03 miles of 1-phase #2 tie line
 - \$4,000 for 0.11 miles of 1-phase #2 tie line
 - \$144,500 for 0.75 miles of 3-phase 477 ACSR tie line

This estimate contains a few problems. The first item for \$1,500 is not required. The new electric line Mr. Ledbetter proposes to construct would serve to tie an existing Intercounty line with a new Intercounty line to be constructed to reintegrate stranded customers located within the boundaries of the old city limits. This new tie-line only serves a single building. Redundancy is not required and this property can be adequately served by existing Intercounty lines.

The second item for \$4,000 is also not required. According to the maps provided by Mr. Ledbetter, this new electric line would serve as a tie-line from Bishop Avenue to an Intercounty line supposedly located in Lion's Club Park. However, unbeknown to Mr. Ledbetter apparently, that Intercounty line in Lion's Club Park was removed by Intercounty several years ago. Apparently, the Intercounty maps Mr. Ledbetter is using do not indicate this line as having been removed and consequently led Mr. Ledbetter to erroneously

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Q.

A.

| The last item for \$144,500 would provide the means for Intercounty to serve its |
|--|
| stranded customers located within the boundaries of the old city limits. But there are a few |
| discrepancies with this estimate. First of all, Mr. Ledbetter proposes constructing this line |
| with 477 ACSR conductor. As I stated earlier, RMU is willing to reimburse Intercounty for |
| reasonable costs to re-integrate their system based on similar construction, however, RMU |
| is not willing to pay for upgrades to Intercounty's system. The correct estimate for 48.510 |
| construction for a 1/0 Aluminum line is \$67,540 per mile according to Schedule RB-6. A |
| simple calculation of 0.75 miles times \$67,340 per mile yields a cost of \$50,655 instead. 48,510 36,382,50 |
| How did Mr. Ledhetter address the situation of stranded customers? |

- The plan Mr. Ledbetter proposed to route Intercounty's lines around the city has created additional stranded customers. Mr. Letbetter did not address these customers in his testimony.
 - Do you have any suggestions or recommendations on how to handle these stranded customers?
 - New or previously mentioned stranded customers include the Rolla Elks Lodge located at the intersection of Bishop Avenue and Lions Club Drive, the Faulkner property at 1202 S. Bishop Avenue, the Buenger residence at 551 Kent Lane, the Harley Moore property at the intersection of State Route 72 and Dewing Lane, and the Elliott residence at the 1006 Southview Drive.

I discuss the subject of stranded customers in greater detail in my revised feasibility study. But briefly, I believe the first three properties (Elks Lodge, Faulkner property, and the Buenger residence) could continue to be served from Intercounty by allowing Intercounty

| 1 | | to maintain lines to these locations within the Area. The Moore property has been acquired |
|----|-----|--|
| 2 | | by the Missouri Highway and Transportation Department and will be torn down to allow |
| 3 | | construction of State Route 72. |
| 4 | | The Elliott Property is located in such a position that serving the property from the |
| 5 | | reconfigured Intercounty lines is not very practical; however it can be accomplished by |
| 6 | | Intercounty installing 0.25 miles new line from Rolla Street at a estimated cost of \$8,145. |
| 7 | | See Schedule RB-6F for an appropriate cost/mile estimate for this new line. Another |
| 8 | | possibility is for these Intercounty members to file applications with the Commission |
| 9 | | requesting a change of electric supplier from Intercounty to RMU that would be contingent |
| 10 | | on the outcome of this case. That would involve the least expenditure of funds. |
| 11 | | INTERCOUNTY OFFICE FACILITIES |
| 12 | Q. | What is your response to Mr. Ledbetter's discussion of the Intercounty office building |
| 13 | | facilities? |
| 14 | A. | Mr. Watkins will discuss the rationale as to why RMU does not think that we should be |
| 15 | | required to obtain these facilities. |
| 16 | | |
| 17 | CON | CLUSION |
| 18 | Q. | Have you recalculated the "fair and reasonable compensation" to be paid to Intercounty for |
| 19 | | the facilities located within the Area based on responses to data requests, Intercounty's |
| 20 | | rebuttal testimony and further discussions? |
| 21 | A. | Yes, I have. |
| 22 | Q. | Could you summarize that cost? 1,285,210.83 |

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I estimate that cost at approximately \$1,299,473.33. A complete summary of this cost is

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A.

Revised 11/28/00

- included as Schedule RB-5.
- Q. Does this conclude your surrebuttal testimony?
- 3 A. Yes, at this time.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

| In the matter of the application of the City of Rolla, Missouri, for an order assigning exclusive service territories and for determination of fair and reasonable compensation pursuant to section 386.800 RSMo 1994. |) Case No. EA-2000-308) | | | |
|---|-----------------------------------|--|--|--|
| AFFIDAVIT OF ROD | NEY P. BOURNE | | | |
| STATE OF MISSOURI)) ss COUNTY OF PHELPS) | | | | |
| Rodney P. Bourne, being first duly sworn, states upon his oath that he has participated in the preparation of the foregoing surrebuttal testimony in question and answer form; that the answers to the same were given by him; that he has knowledge of the matters set forth therein, and that such answers are true and correct to the best of his knowledge and belief. Rodney P Bourne | | | | |
| Subscribed and sworn to before me this 17th day of October, 2000. | | | | |
| (Notary seal/stamp) | Donnis h Roberto Notary Public | | | |
| DENNIS L. ROBERTS Notary Public - Natary Seal State of Missouri Phelps County My Commission Expires Jun 14, 2004 | | | | |

FEASIBILITY STUDY

FOR THE

ACQUISITION OF IECA FACILITIES

IN THE

ROLLA SOUTHSIDE ANNEXATION AREA

Initial Issue: May, 2000 Revised: October, 2000



ROLLA MUNICIPAL UTILITIES 102 WEST 9TH STREET P.O. Box 767 ROLLA, MISSOURI 65402-0767

REVISED FEASIBILITY STUDY FOR THE ACQUISITION OF IECA FACILITIES IN THE ROLLA SOUTHSIDE ANNEXATION AREA

Initial Issue: May, 2000 Revised: October, 2000

INTRODUCTION

Rolla Municipal Utilities (RMU) has filed with the Missouri Public Service Commission (PSC) under RSMo 386.800 for RMU to purchase the electrical facilities and customers of Intercounty Electric Cooperative Association (IECA) in a recently annexed area of the City of Rolla.

The intent of this revised feasibility study is for RMU to present an alternate plan for the reintegration of Intercounty facilities. This report follows the same basic form as the previous feasibility study and addresses the following issues:

- 1. Upgrades which will be required to reintegrate the IECA facilities.
- 2. Estimated cost associated with the IECA reintegration.
- 3. Upgrades which will be required of the RMU system to support the addition of the Southside Annexation Area (Area) customers.
- 4. Estimated cost associated with upgrading the RMU facilities.
- 5. Stranded Customers
- 6. Propose a timetable for the switch over from IECA to RMU.
- 7. Outline a procedure for transferring the IECA customers to the RMU system.
- 8. Provide a table of estimated expenditures and revenues for a 3 year period.
- 9. Provide information on any financing that would be required for this project.
- 10. Provide information regarding anticipated rate changes or fees that would be required of the new RMU customers.

For the purposes of this study, <u>RMU is assuming</u> that the PSC will render a judgement in favor of awarding the IECA facilities and customers located within the Area to RMU.

1. INTERCOUNTY ELECTRIC COOPERATIVE ASSOCIATION FACILITY UPGRADES AND MODIFICATIONS.

This section will discuss in detail the upgrades that Intercounty will be required to perform to reintegrate its system. RMU estimates this expense at \$383,077.50.

IECA currently operates several trunk distribution lines that traverse through the Area. These trunk lines serve as ties between the following IECA substations: East Rolla, South Rolla, and Dry Fork Substations. IECA serves its members in the Area via branch lines from the main trunk lines or via taps directly from the trunk lines. IECA operates its electric lines at 12.47kV.

Under Intercounty's proposal, which was presented in their rebuttal testimony, Intercounty proposed that these trunk lines be transferred to RMU along with the branch lines in the Area. To re-integrate the Intercounty system, Intercounty (specifically Mr. Ledbetter) proposed to route new tie lines around the East and South sides of the Area. These Lines would serve as new ties between the three Intercounty substations to maintain existing backfeed capability. This proposal is illustrated in Exhibit JEL-3 and is discussed in Mr. Ledbetter's rebuttal testimony.

RMU will accept the intent of the Intercounty plan and will implement their plan in this study.

2. ESTIMATED COSTS ASSOCIATED WITH IECA FACILITY UPGRADES

Please refer to <u>Schedule RB-6</u> which summarizes the estimated costs required to reintegrate the IECA facilities as described in Section 1.

Schedule RB-6 is basically the same format and unit prices as Exhibit JEL-3 with the following modifications:

- Conductor size and associated unit prices have been revised to reflect construction with 1/0 ACSR to be an equivalent construction to what is currently installed by Intercounty.
- Portions of these new lines are installed in existing Intercounty easements or right-ofway. Right-of-way acquisition and right-of-way clearing costs have been deleted from Mr. Ledbetter's estimates for these areas because they are unnecessary.
- RMU modified the length of one circuit from Mr. ledbetter's estimate of 1.0 mile to 0.5 mile based on actual field observation. Mr. Ledbetter also revised this quantity in exhibit JEL-11.

3. ROLLA MUNICIPAL UTILITIES FACILITY UPGRADES

This section will discuss in detail the upgrades that RMU will make to the existing RMU facilities in order for RMU to successfully serve the IECA members. RMU estimates this expense at \$103,388.50.

RMU will supply a majority of the Area load from the Dewing Lane Substation. The Dewing Lane Substation is served by a 5MVA transformer with a distribution voltage of 12.47kV. The station currently is loaded to approximately 300kVA. RMU will utilize two existing circuits from this substation to serve the Area. RMU does not anticipate any additional upgrades to this substation to serve the Area.

The balance of the Area will be supplied from the Ft. Wyman Substation. The Ft. Wyman

Substation is served by a 10/12.5MVA transformer with a distribution voltage of 4.16kV. The station currently is loaded at approximately 3 to 5MVA. Initially, RMU will utilize a single circuit from this substation to serve the Area. RMU will install a 4.16-12.47kV stepup transformer on a dedicated circuit to achieve the required distribution voltage which will match the Dewing Lane Substation.

RMU will construct a 12.47kV overhead line from the Ft. Wyman Substation to the intersection of Bishop Avenue and Lions Club Drive. This upgrade will require the installation of taller poles to allow joint construction with an existing RMU 4.16kV line. At the Bishop Avenue and Lions Club Drive intersection, the new RMU 12.47kV line will tie into the existing Intercounty trunk lines.

RMU will construct an extension of the Wyman 12.47kV circuit along Bishop Avenue, from Lions Club Drive to Hartville Road, to serve customers located along the west side of Bishop Avenue. IECA currently serves these properties with a three-phase line located at the rear (west side) of the properties. It is RMU's intent to serve these properties by extending their services to the new RMU line on the East side of their property. RMU would not purchase the IECA line.

RMU will construct an extension of the Wyman 12.47kV circuit along Cottonwood Drive to serve a majority of the customers located in the Parkview Subdivision. IECA currently serves these properties with a three-phase branch circuit from State Route CC.

RMU will extend the Ft. Wyman 4.16kV circuit along the west edge of the Parkview Subdivision to pick up the three Intercounty members in the SW corner of the subdivision. IECA currently serves these properties with a single-phase branch circuit from State Route CC.

4. ESTIMATED COSTS ASSOCIATED WITH RMU FACILITY UPGRADES

Please refer to <u>APPENDIX A</u> which includes a table of the estimated costs required to make the improvements to RMU facilities as described in Section 3.

5. TRANSFER PROCEDURE

The Intercounty plan described in rebuttal testimony did not indicate how transfer of the Intercounty lines and members would take place. The Intercounty plan also did not provide a similar level of detail on how stranded customers were to be re-integrated into the Intercounty system. RMU will attempt to provide a description of the areas where key transfers will take place. For the most part, the Intercounty lines will be severed at these locations. There are 14 individual details to discuss. Detailed drawings are included in Appendix B for physical depictions of each area.

Detail #1.

At this location, the Missouri Highway & Transportation Department is widening State

Route 72. Both Intercounty and RMU will be forced to relocate their existing facilities at this location due to the Highway widening project. A section of the Intercounty line will be removed where it crosses over Route 72. RMU will energize the Intercounty trunk lines at this location. The branch Intercounty feeder to Mr. Whites' property will be relocated to a new RMU pole.

Detail #2.

At this location, the span of overhead conductor between IECA pole #67408 and #67409 will be removed to provide isolation between the Intercounty and RMU system.

Detail #3.

Similarly, the span of overhead conductor between IECA pole #68867 and #68868 will be removed to provide isolation between the Intercounty and RMU system.

Detail #4.

The span of overhead conductor between IECA pole #52906 and #52911 will be removed to provide isolation between the Intercounty and RMU system.

Detail #5.

The span of overhead conductor between IECA pole #89191 and #89769 will be removed to provide isolation between the Intercounty and RMU system.

Detail #6.

The span of overhead conductor between IECA pole #97029 and the IECA pole south of Little Oaks Drive (no number) will be removed to provide isolation between the Intercounty and RMU system.

Detail #7

This location is on the east side of the Rolla Elks Lodge. In order for Intercounty to continue to serve the Elks Lodge, the lines to be transferred to RMU at this location will need to be routed around the Elk's Lodge. To accomplish this, three spans of overhead conductor will be constructed as indicated in Detail #7. In addition, three spans of overhead conductor will need to be removed in this area, as indicated in Detail #7, to isolate the Intercounty and RMU systems. There will be an outage of approximately 1 - 2 hours while the actual transfer of customers is accomplished.

Detail #8

RMU will reconstruct the underground service entrance to 1320 S. Bishop avenue at this location. Intercounty will retain ownership of their overhead line on the west side of this property. The property owner will have a brief outage during the actual transfer process.

Detail #9

RMU will construct three spans of 3-phase overhead line and a 600 amp disconnect

switch along Cottonwood Drive in the Parkview Subdivision. Once Intercounty removes the overhead conductors between IECA pole #74805 and #99320, RMU can energize the subdivision from the line on Cottonwood Drive. There will be an outage of approximately 10 minutes for the customers located within the Parkview Substation while this transfer takes place.

Detail #10

One span of overhead conductor will be installed along Parkwood Drive to connect IECA Pole #74870 into the RMU System. One span of overhead conductor will be removed between IECA Pole #74869 and a new RMU pole installed to isolate the two systems.

Detail #11

At this location, Intercounty is joint with RMU on an existing RMU pole. Intercounty should install two new poles at this location and reroute their lines accordingly to serve their riser pole(#109310) and then construct a new single phase overhead line along the south edge of Oak Knoll South Subdivision to be able to serve the Elliot property.

Detail #12

RMU will construct an overhead line from Bishop Avenue west to serve these properties. A span of overhead conductor will be removed form IECA Pole #97993 to #97994. In addition, a span of overhead conductor will be removed form IECA Pole #77392 to an un-numbered IECA pole to isolate the systems. The property owners will have a brief outage during the actual transfer process.

Detail # 13

RMU will construct a line to IECA Pole #74801 from the north. One span of overhead conductors will be removed form IECA Pole #74799 to #74798 to isolate the systems.

Detail #14

Intercounty has an existing circuit that follows Kent Lane from Bishop Avenue to 551 Kent Lane. Intercounty should connect this line to its new line which will be constructed along the west side of Bishop Avenue in the vicinity of IECA pole #74863. The overhead span from IECA pole #114611 to the RMU pole located on the north side of Kent Lane should be removed. No outages will result from this transfer.

6. TIMETABLE FOR SWITCH OVER

This section will discuss a timetable that RMU has developed for the systematic transfer of customers from the IECA system to the new RMU electric distribution system.

Mr. Nelson has requested a two year time frame to allow Intercounty to construct the required

lines around the perimeter of the Annexed Area. RMU believes that this construction period can be reduced. This period of time will also allow RMU to construct the required lines within the Area to allow the addition of the Area electrical load onto the RMU system.

Once both utilities have constructed the required lines, the process of "cutting" over the trunk lines can begin. I envision the process to involve the following steps:

- 1. The work described in details #10, #13, and #14 should be completed first. This work will move only 3 members onto the new RMU electric system. But, it will provide an opportunity for "bugs" to get worked out in the transfer process. At each of these locations, there will be a short outage of less than one hour while the transfer takes place. During this time, electric meters should be read to determine the final billing from Intercounty and the beginning billing from RMU.
- 2. The Parkview Subdivision could be transferred to the RMU system by performing the transfer process illustrated by Detail #9. It is possible that RMU could install a temporary switch in the new RMU line to allow an outage of less than 10 minutes while the transfer takes place.
- 3. The work at Details #2, #3, #4, #5, #6 should be completed next. This work would involve the Intercounty crews removing spans of overhead conductors to isolate the Intercounty system from the soon-to-be RMU system. I do not believe any outages would occur as a result of this work.
- 4. The work illustrated in Detail #7 could be performed next. This would create the tie around the Elk's Lodge. There are disconnects located just east of the Elk's Lodge on the Intercounty line. These disconnects should be opened and locked out if possible. Appropriate warning signs should be placed on the disconnect pole to caution against closing of the disconnect switch. A 1 to 2 hour outage will occur for both Intercounty and RMU customers during this transfer.
- 5. The work described in Details #8 and #12 could be completed next. This work will move customers located west of Bishop Avenue and south of Lion's Club Drive onto the RMU system. Each customer will experience a short outage while the transfer takes place.
- 6. The last work to be completed would be at Detail #1. This transfer affects approximately 70% of the Area. Because of the load involved, the transfer will require that both the Intercounty and RMU lines be de-energized to accomplish this transfer. A 1 to 2 hour outage will occur for both Intercounty and RMU customers during this transfer.

The engineering and right of way acquisition for the reintegration of IECA facilities per the general plan outlined by Mr. Ledbetter, as modified by this study, should take no more than 90 days. Right of way clearing for these facilities should take no more than 30

days. On the assumption that the Commission issues its order in early March, 2001 in this case, Intercounty should therefore complete its engineering and right of way acquisition for the reintegration of its facilities by no later than June 30, 2001. Intercounty should complete the right of way clearing for those purposes no later than July 31, 2001.

Actual line construction for Intercounty should take no more than one year. Therefore, Intercounty should complete the necessary line construction by no later than July 31, 2002. Since RMU will be working on constructing its own facilities during this period, the actual isolation of the IECA system and the transfer of the facilities serving the 286 customers within the annexed area should take no more than 60 days. Therefore, it should be completed no later than September 30, 2002.

7. TRANSFER OF CUSTOMERS

As sections of the new RMU lines are energized, RMU envisions that an IECA and RMU crew will work in tandem to implement a process of disconnecting branch feeders or primary transformer feeds from the IECA lines and relocating these taps to the newly constructed RMU lines. At this time, the end electrical user would become a customer of RMU. The meters would be read at this time in order for IECA to prepare a final bill for its member. RMU would also read the meter to begin the billing cycle for the new RMU customer.

I have attempted to estimate outage times for customers affected by the transfer. RMU would like to have a coordination meeting prior to the transfer process beginning that would outline a more comprehensive plan. The goal of this meeting would be to ensure the safety of the workers completing the transfers and to attempt to reduce the outage times experienced by affected customers.

8. EXPENDITURES AND REVENUES

This section will discuss in detail the estimated expenditures and revenues projected over the next three years for the annexation area.

The expenses and revenues discussed in this section will deal primarily with the Annexation Area.

8.A. FIRST YEAR ESTIMATED EXPENSES AND REVENUE

During the first year RMU estimates the following expenses related to the Area: \$33,660.00 33,495,00 Intercounty Engineering and R/W acquisition Intercounty R/W clearing \$20,691.00

RMU Upgrades <u>\$103,388.50</u>

157,544,50 Total First Year Expenses \$152,739.50

RMU does not anticipate any transfer of IECA customers to the RMU system during the first year. Therefore, the revenue stream for the first year will be based on the addition of an estimated 20 new RMU customers in the Area with an average usage of 1000 kWH per new customer per month.

 1^{st} year revenue = 20 customers X 1000 kWH X 12 Months = \$14,400/year

8.B. SECOND YEAR EXPENSES AND REVENUE

During the second year RMU estimates the following expenses related to the Area:

Intercounty Line Construction

\$387.516.50 373, 419

Transfer of Customers to RMU Total Second Year Expenses

\$857,605.83

\$1,245,122.33 1,231,024.83

During the second year RMU estimates the following revenues related to the Area:

286 Former IECA Customers for 8 months

\$137,280.00

Estimated 50 new RMU Customers

\$36,000.00

Total Second Year Revenues

\$173,280.00

8.C. THIRD YEAR EXPENSES AND REVENUE

Since all estimated expenses associated with the switchover of the IECA members will have been paid prior to the third year, RMU has assumed no expenses related to the Annexation Area:

During the third year RMU estimates the following revenues related to the Area:

286 Former IECA Customers Estimated 80 new RMU Customers

\$205,920.00 \$57,600.00

Total third Year Revenues

\$263,520.00

9. FINANCING REQUIREMENTS

Please refer to the Direct Testimony of Mr. Dan Watkins, General Manager of Rolla Municipal Utilities, for detailed information regarding any financing required for completion of this project.

10. RATE CHANGES AND FEES

Please refer to the Direct Testimony of Mr. Dan Watkins, General Manager of Rolla Municipal Utilities, for detailed information regarding any rate changes or fees required for completion of this project.

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Revised 11/28/00

APPENDIX A

COSTS TO RMU ASSOCIATED WITH UPGRADING CURRENT RMU FACILITIES

SOUTHSIDE ANNEXATION AREA FEASIBILITY STUDY APPENDIX A

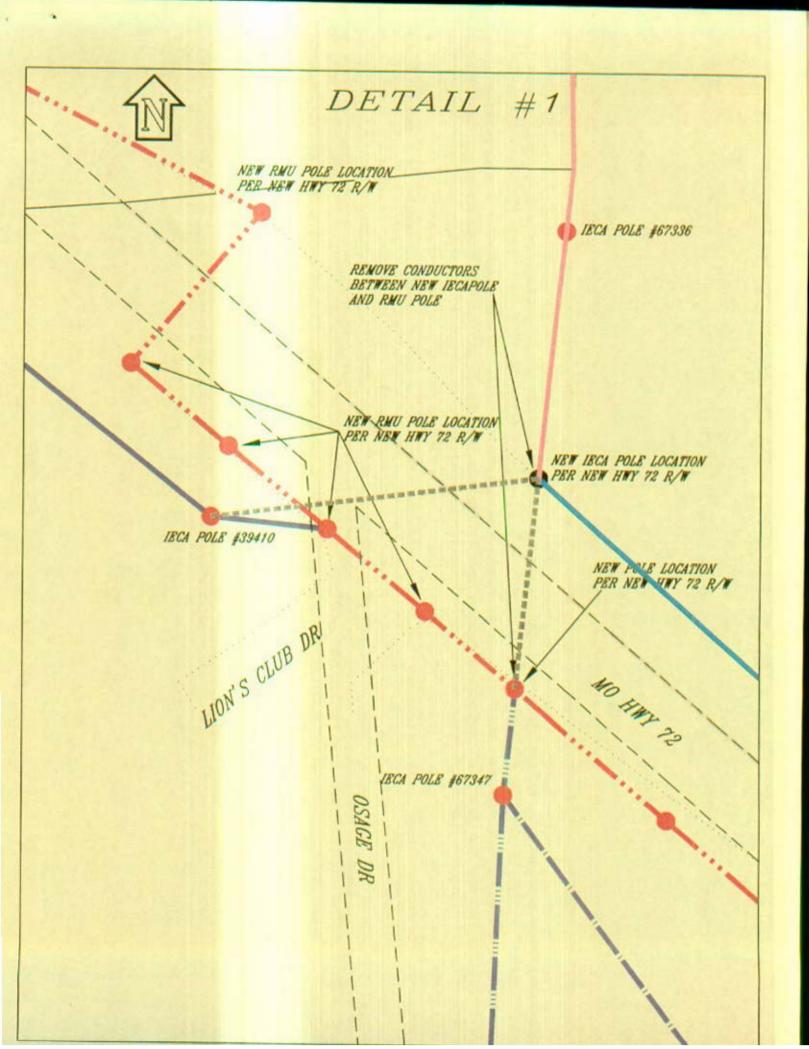
Costs to RMU associated with upgrading the current RMU facilities.

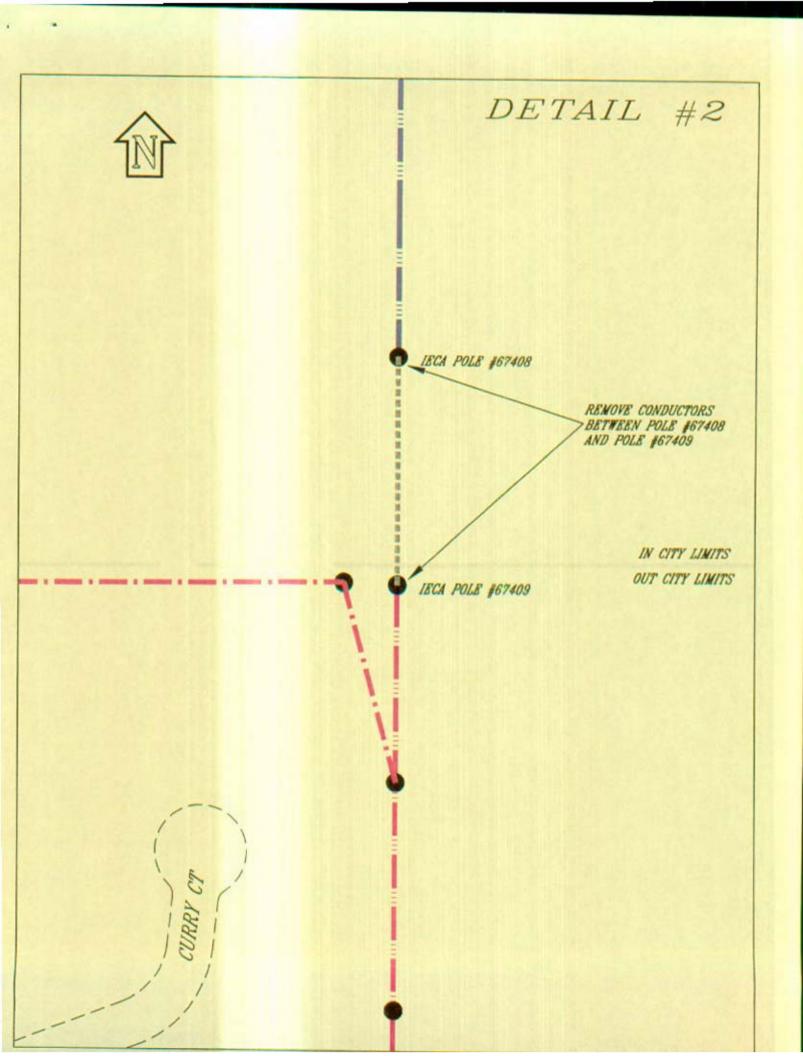
| Description of Item | Line Section | | | | | Material | Labor | Total |
|--|--------------|--------------|----------|-----------|--------------------------|-------------|------------|--------------|
| | Wyman | New Wyman | | Cottonwoo | West side of Parkview | | | |
| | Transformer | Circuit | Drive | d Drive | Subd. | Cost | Cost | Cost |
| 55 foot wood pole | <u></u> | 22 | 12 | 3 | 4 | \$425.33 | \$198.90 | \$25,593.43 |
| 2000kVA 4.16-12.47kV Xfmr | 1 | | | | | \$20,000.00 | \$4,773.60 | |
| 600Amp Switch Disconnect | | | <u> </u> | 1 | | \$1,878.00 | \$1,591.20 | \$3,469.20 |
| 112.5kVA 12.47kV-208Y Xfmr | | | 1 | | | \$2,984.00 | \$298.35 | \$3,282.35 |
| Relocate Transformer | | 6 | | | | \$50.00 | \$198.90 | \$1,493.40 |
| 25kVA Dual Voltage Transformer | | | į | į | 2 | \$600.00 | \$298.35 | \$1,796.70 |
| Service Drop | | 4 | 1 | | 3 | \$150.00 | \$198.90 | \$2,442.30 |
| Single-Phase Tap | i . | 1 | 2 | | 2 | \$150.00 | \$198.90 | \$1,744.50 |
| Multi-Phase Tap | | 1 | 1 | 2 | | \$200.00 | \$198.90 | \$1,595.60 |
| 336.4 ACSR | | 3850 | 1850 | 400 | 600 | \$1.48 | \$1.50 | \$19,966.00 |
| Subtotal | | | | | | | | \$86,157.08 |
| 20% Margin(for miscellaneous material & labor) | | | | | | | | \$17,231.42 |
| Total | | | | | | | | \$103,388.50 |

Notes:

APPENDIX B

TRANSFER SERVICE DETAIL DRAWINGS







DETAIL #3

IECA POLE #68867

REMOVE CONDUCTORS

BETWEEN POLE #68867

AND POLE #68868

IN CITY LIMITS

IECA POLE #68868



DETAIL #4

IN CITY LIMITS

OUT CITY LIMITS

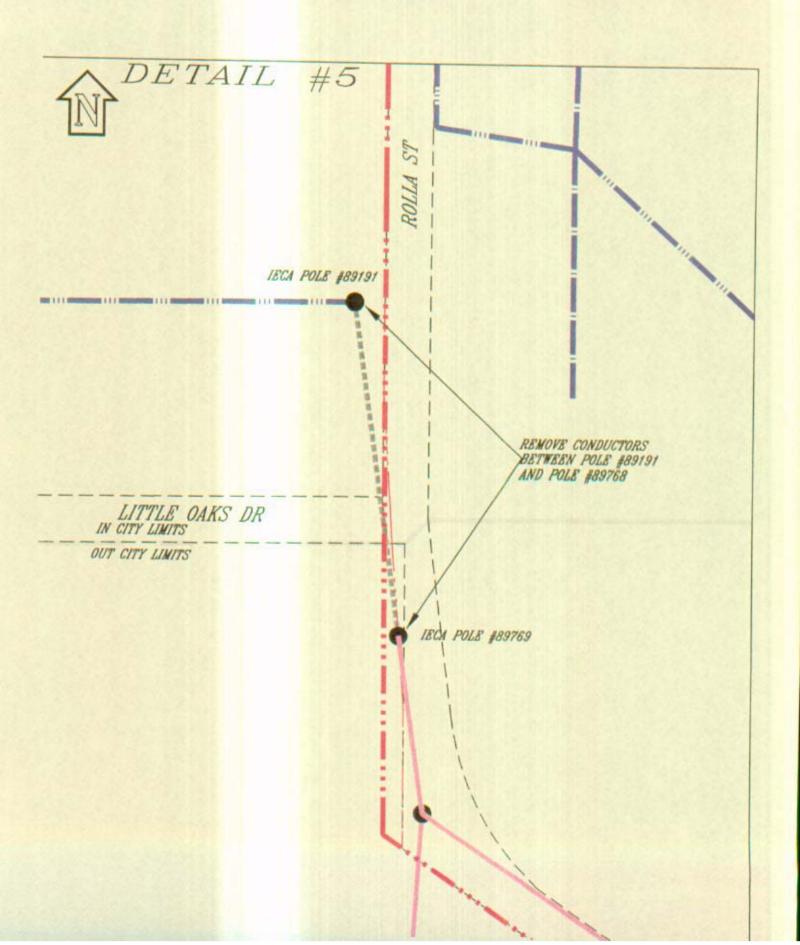
IECA POLE #52906

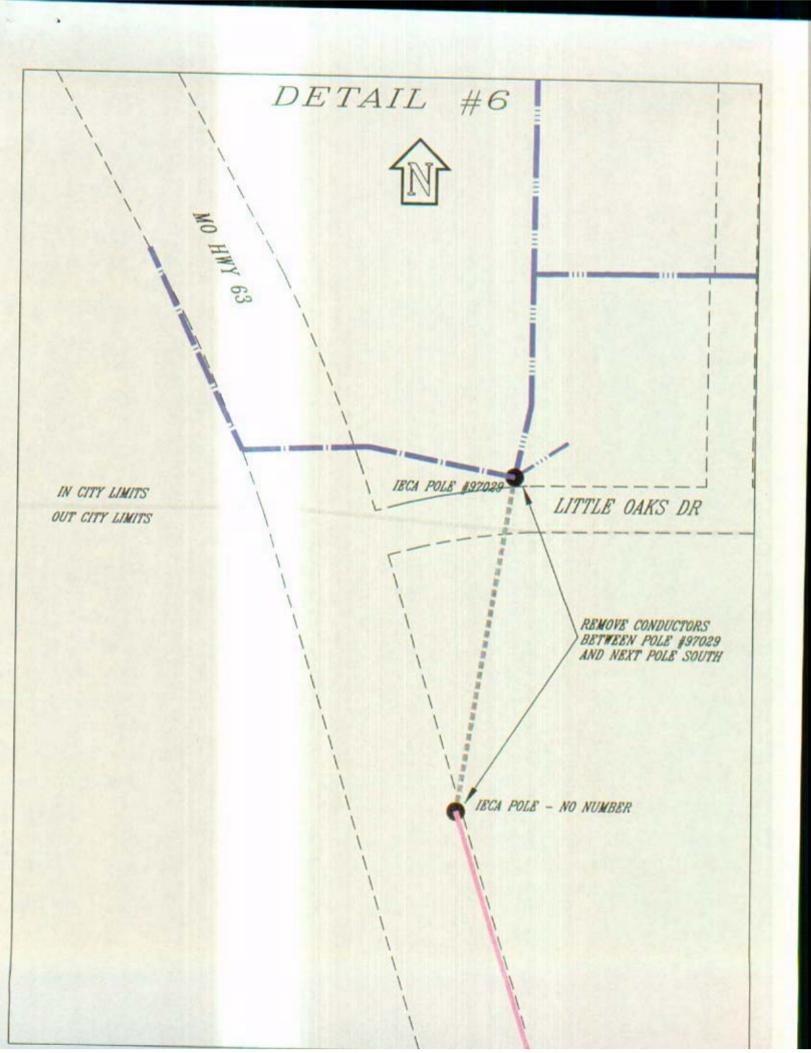
REMOVE CONDUCTORS

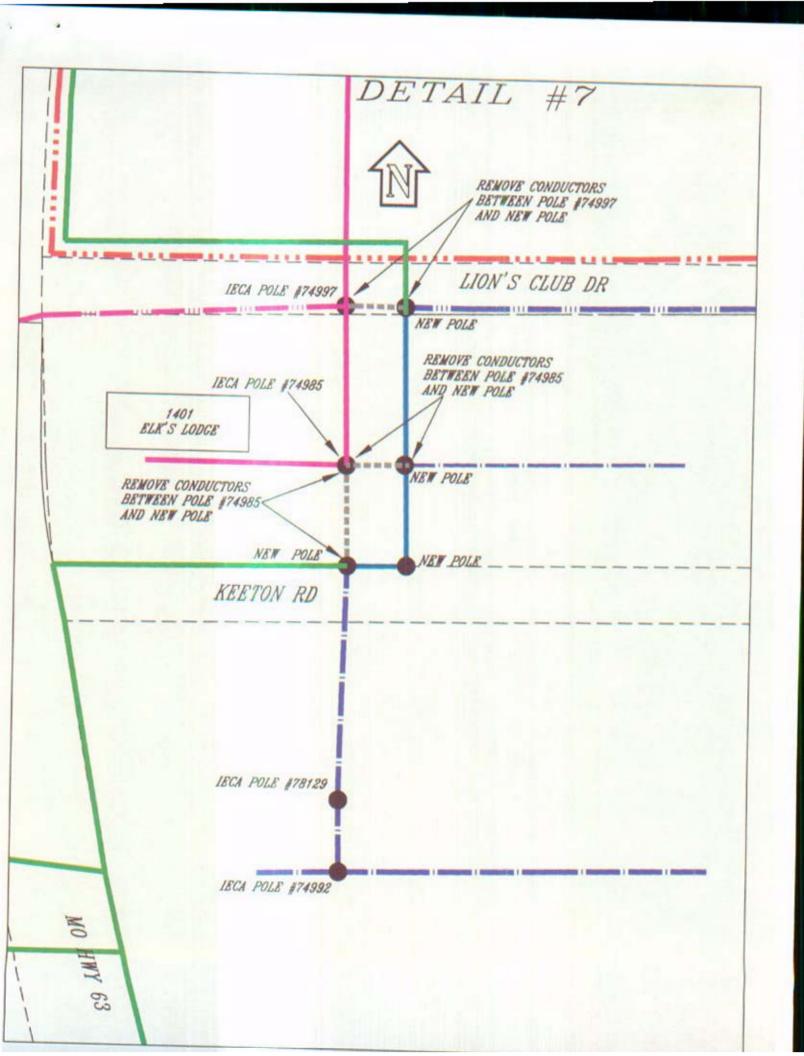
BETWEEN POLE #52906

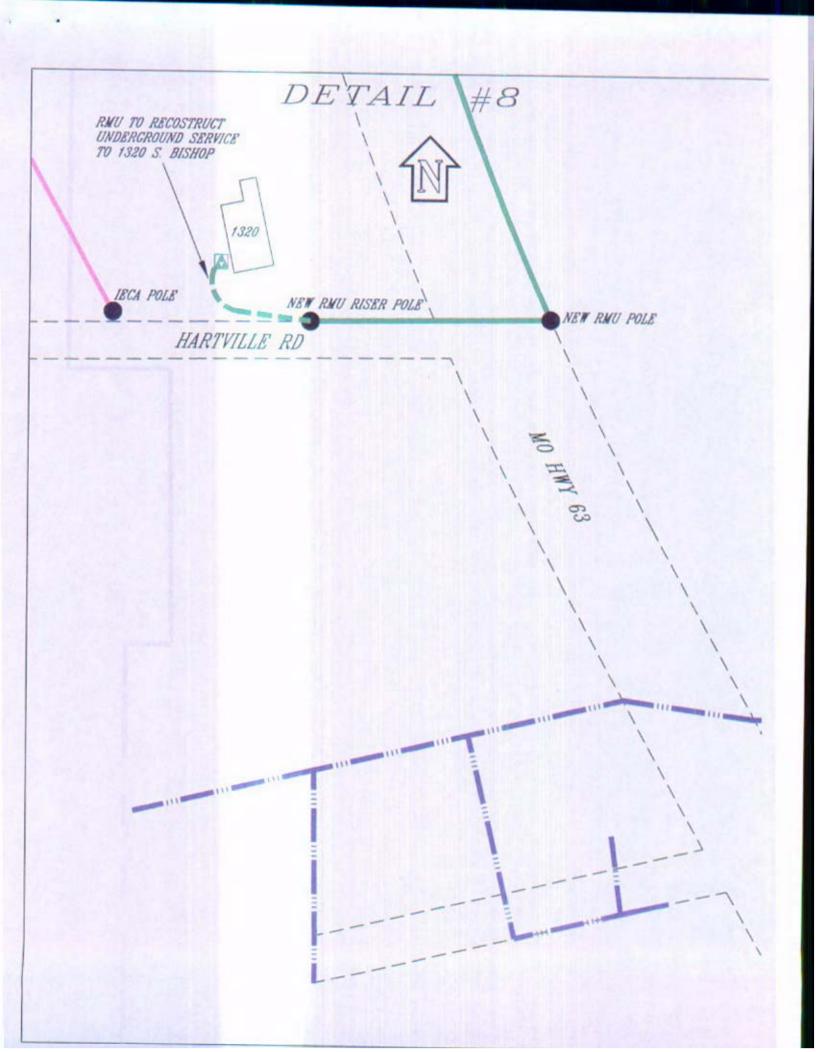
AND POLE #52911

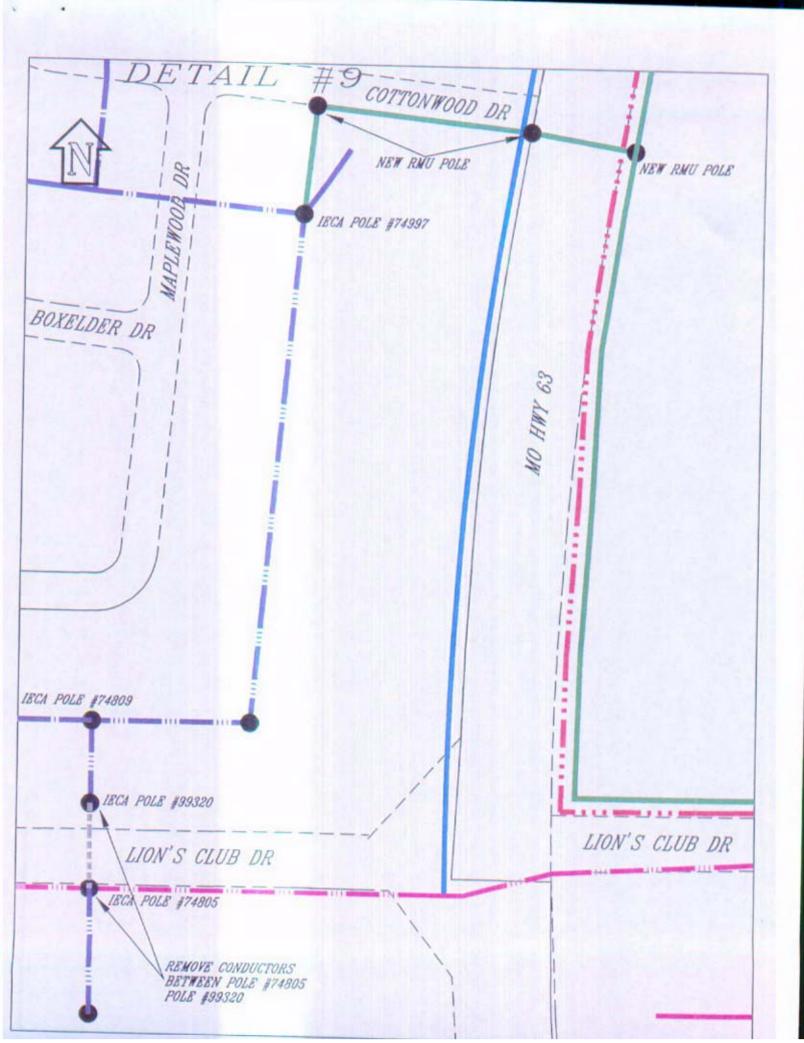
IECA POLE #52911

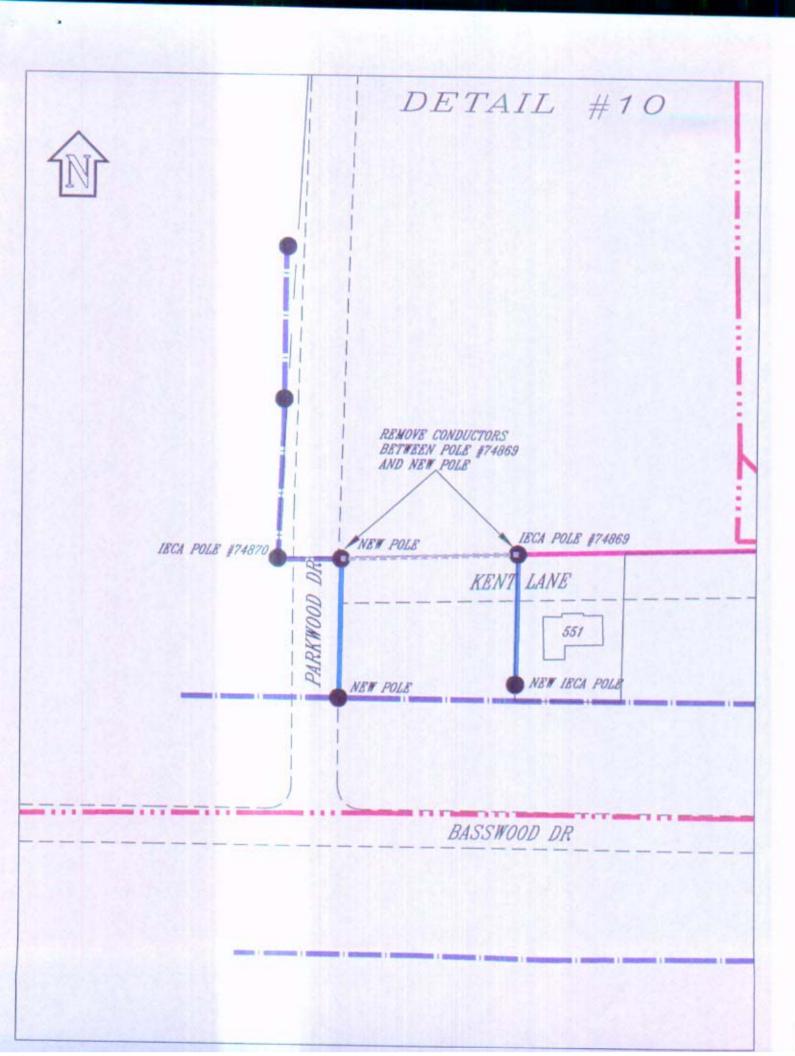














DETAIL #11

IECA TO INSTALL NEW POLE
AND REROUTE EXISTING
CONDUCTORS FROM IECA POLE
#109310 TO THIS NEW POLE
THEREBY ELIMINATING
CONTACT ON EXISTING RMU
POLE.

NEW IECA POLE

IECA POLE \$109310 NEW IECA POLE

TO ELLIOT PROPERTY

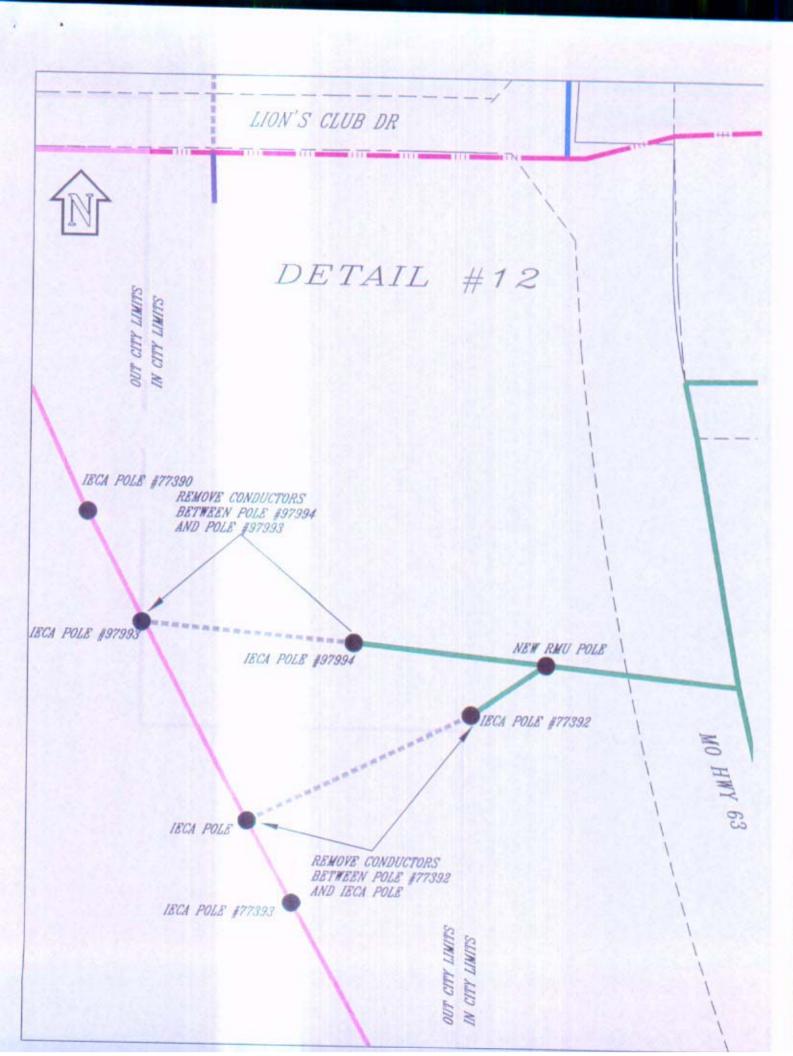
EXISTING RAU POLE

SOOTER LANE

ROLLA ST

SHADY LA

BECCA DR



DETAIL #13 REDWOOD DR IECA POLE #74801 MAPLEWOOD DR IECA POLE #74799 REMOVE CONDUCTORS BETWEEN POLE #74799 < AND POLE #74798 IECA POLE #74798 LION'S CLUB DR

