Exhibit No.:
Issues: Greenwood Energy Center 1 & 2 Lease
Witness: Glenn P. Keefe
Sponsoring Party: Missouri Public Service
Case No.: ER-2001-672

Before the Public Service Commission
of the State of Missouri

Rebuttal Testimony

of

Glenn P. Keefe

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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
REBUTTAL TESTIMONY OF GLENN P. KEEFE
ON BEHALF OF MISSOURI PUBLIC SERVICE,
A DIVISION OF UTILICORP UNITED INC.
CASE NO. ER-2001-672

Q. Please state your name and business address.

A. My name is Glenn P. Keefe. My business address is 10700 East 350 Highway, Kansas City, Missouri 64138.

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

A. I am employed by UtiliCorp United Inc. ("UtiliCorp") as Vice President, Generation. I have responsibilities for the operation and maintenance of UtiliCorp's regulated generating assets. In Missouri, UtiliCorp currently conducts its regulated utility business though its Missouri Public Service ("MPS") and its St. Joseph Light & Power operating divisions.

Q. Briefly describe your education and work experience.

A. In 1973 I received a Bachelor of Science degree in Mechanical Engineering from the University of Missouri – Rolla. After receiving my degree, I joined the Missouri Public Service Company, which later became UtiliCorp, as Staff Engineer at the Sibley Generating Station. In 1974, I was promoted to Station Superintendent at the Ralph Green Generation Station in Pleasant Hill, Missouri. In 1976, I returned to the Sibley Generating Station as Operations Engineer. From 1979 through 1989, I served as Assistant Station Superintendent at the Sibley Generating Station and in 1989 was promoted to Station Superintendent. I have served in my current position of Vice President, Generation since 1997. My current responsibilities include supervision of the operation and maintenance of 41 generating units at 15 different locations in Missouri, Kansas, and Colorado. This includes part ownership of the three units at the Jeffrey Energy Center operated by Western Resources and the Iatan Generating Station operated by Kansas City Power & Light. Included in my responsibilities is the overall supervision of the maintenance of utility turbines.

Q. What is the purpose of the rebuttal testimony you now are submitting to the Missouri Public Service Commission ("Commission")?

A. The purpose of my rebuttal testimony is to address and respond to certain statements and positions of the Commission Staff ("Staff"). Specifically, I am addressing direct testimony filed by Cary Featherstone, dated December 6, 2001, and involving the Greenwood Energy Center, specifically the lease of and rate treatment for Greenwood Units 1 and 2 (the "Greenwood Units"). A number of his assumptions, philosophical positions, and conclusions are incorrect. Therefore, his recommendations to the Commission also are incorrect and should not be followed.

Q. Did you file direct testimony on any issue in this proceeding?

A. No. UtiliCorp witness Stephen L. Ferry addressed the matter of the Greenwood leases at pages 24-26 of his direct testimony, and explained why purchasing the Greenwood units was the best option, placing the assets in an subsidiary of UtiliCorp and leasing the property to MPS as a cost savings for the customer.

[Source: Direct Testimony of Stephen L. Ferry, filed June 8, 2001.]

Q. Do you agree with the statements made in Mr. Ferry's testimony about UtiliCorp's purchase of the Greenwood Units and the lease of those Units to MPS?

A. I do.

Q. What issues do you wish to address on this topic?

A. Mr. Featherstone has several concerns with MPS's requested treatment of its actual costs relating to the Greenwood Units. Therefore, he recommends that rather than allowing MPS to recover its actual current costs relating to these units, the Commission instead should allow recovery of a smaller amount of costs, and should act as if MPS had purchased the Units at issue even though that did not occur. To demonstrate that Mr. Featherstone is wrong both as to his facts and as to his conclusions, I will address the following points in his testimony:

1. Treatment of the Greenwood Units in the Ratemaking Process
2. Cost and Value of the Units
3. Lease Payments

Q. Will your rebuttal testimony address all of the generating units at the Greenwood facility?

A. I will primarily address Units 1 and 2 and the costs relating to those Units. There are four separate combustion turbines located at the Greenwood Generating Station. As Mr. Ferry stated in his direct testimony, only the lease for Greenwood Units 1 and 2 has expired, and therefore MPS only is seeking the recovery of new costs as to those Units. [Source: Direct Testimony of Stephen L. Terry, page 25.]

Q. Did Mr. Featherstone address the other two Greenwood units (Units 3 and 4) in his testimony as well?

A. Yes. Mr. Featherstone stated at page 16 of his testimony that the Commission should address the future rate treatment of Units 3 and 4. MPS is not seeking any change in the costs in its rates with respect to Units 3 and 4 since the lease cost for those units – which have been in place since the late 1970s and the full lease cost of which have been included in MPS's rates since that time – have not yet expired.

BACKGROUND

Q. Are any costs for Greenwood Units 1 and 2 currently included in MPS's rates?

A. Yes. At all times since MPS first began to lease these Units in the mid-1970s, MPS has requested, and this Commission has approved MPS's requests, to include in rates the actual costs MPS has incurred in leasing these Units from their owners.

Q. Is MPS proposing to continue this same rate treatment in the future – that is, is MPS proposing to continue including in rates the actual costs to MPS of leasing Greenwood Units 1 and 2?

A. Yes. The 25-year lease for Greenwood Units 1 and 2 expired in mid-2000, and MPS entered into a new, shorter-term lease for the Units at that time. The cost of leasing the Units is, of course, higher now than it was in the mid-1970s, just as the cost of leasing virtually any item of property such as a car or a house would be considerably higher, on a nominal dollar basis, than in the mid-1970s. Therefore, the annual lease costs that MPS is seeking approval to include in rates is greater than the costs of the 1970s-era lease. [Source: Current Greenwood lease between Energy One Ventures and MPS, provided to Staff on MPSC 299, Supplement 1.]

Q. Mr. Featherstone states in his testimony that there is no executed lease between MPS and EnergyOne Ventures for the Greenwood Units. Is that true?

A. No. A new lease for the Units has been executed and was provided to Staff as a response to MPSC 299, Supplement 1. That lease is effective as of April 2000.

Q. Does Mr. Featherstone dispute MPS's need for the capacity and energy from Greenwood Units 1 and 2?

A. Not to my knowledge. I believe neither Staff nor any other party has ever argued that MPS and its customers do not need the capacity and energy provided by Greenwood Units 1 and 2. If a party did dispute the need of MPS and its customers for that capacity and energy, they would be wrong. MPS and its customers have a clear need for these Units, just as it has since the 1970s. If MPS did not continue to lease these Units, it would need to buy other generating units or enter into power purchase agreements for the capacity and energy. As far as I am aware, the only dispute concerning Greenwood Units 1 and 2 is the proper rate treatment for them, and the amount of costs related to the Greenwood Units that should be included in MPS's rates.

TREATMENT OF UNITS IN RATEMAKING PROCESS

Q. Does Mr. Featherstone advocate different rate treatment for the Greenwood Units than MPS has proposed?

A. Yes. Mr. Featherstone makes clear, beginning on page 16 of his testimony, that he believes Greenwood Units 1 and 2 should be rate-based and that MPS should recover costs based on the assumption that the Units were purchased by MPS and placed in rate base. He also asserts that upon the expiration of the existing lease for units 3 and 4, those Units should be rate-based as well.

Q. How do you respond?

A. Mr. Featherstone is proposing rate treatment for the Greenwood Units based on events that did not happen, and facts that are wrong. His assumptions do not reflect reality.

Q. Is Mr. Featherstone correct that the Greenwood Units should be rate based?

A. No. It was the proper decision, for both ratepayers and MPS, for MPS to continue to lease Greenwood Units 1 and 2 after the long-term lease for those Units expired in 2000. MPS firmly believed then, and continues to believe today, that leasing the Units rather than buying them at their market value when the lease expired will result in lower costs and less risk for MPS's ratepayers.

[Source: Data Request MPSC-236, Fern Engineering Report dated July 9, 1999; Data Request MPSC-236, Purchase Greenwood Turbines, Economic Analysis, UtiliCorp Power Service, December 1999.]

Q. Should the issue of rate-basing Units 3 and 4 be addressed by the Commission in this proceeding?

A. No, there is no reason for the Commission to address or decide whether Units 3 and 4 should be rate-based. MPS is not requesting to change the existing cost recovery methodology for those Units, or the amount of costs for them that is now included in MPS's rates. As Mr. Ferry noted in his testimony, the lease cost for Units 3 and 4 will not change until the term of the original leases expire. These financial arrangements will continue as Mr. Featherstone recognizes (at page 10 of his testimony). The costs relating to those leases have consistently been subject to Commission review and have consistently been approved and included in MPS's rates since the late 1970's. There is no reason for the Commission to re-evaluate its prior decision allowing the lease costs to be included in MPS's rates.

Q. Why does Mr. Featherstone advocate rate-basing the Greenwood Units?

A. There apparently are three reasons for Mr. Featherstone's recommendation to rate-base Greenwood Units 1 and 2 (as well as, at some future time, Units 3 and 4). First, and based on a post-hoc analysis of the now-expired 25-year lease for Greenwood Units 1 and 2, he concludes that it was a mistake for MPS, in the mid-1970s, to lease the Greenwood Units instead of buy them and put them in rate base. Second, he assumes that the future will be exactly like the past. Therefore, he asserts that because it was a mistake to lease the assets in the mid-1970s, it also would be a mistake to allow MPS to continue to lease the Greenwood Units today, and that to avoid that mistake the Commission should force MPS to rate-base the assets even though MPS does not own them. Third, Mr. Featherstone creates "savings" for ratepayers from his proposed rate-basing of the Units by urging that the Commission rate-base the Units at an arbitrary number he asserts is their "true" value. He asserts this value should be used even though the Units were sold, in an arms-length transaction between two unaffiliated parties, at a price almost 50% higher than the value he proposes.

Q. Are any of these assumptions, conclusions or recommendations correct?

A. No. Mr. Featherstone's conclusions, as well as the facts and assumptions he relies on for his conclusions, are wrong. The Commission should not accept them.

Q. As to the first of Mr. Featherstone's conclusions, why does he believe it was a mistake for MPS to have entered into a lease for the Greenwood Units in the mid-1970s?

A. At various points in his testimony, Mr. Featherstone dissects the original, now-expired lease between MPS and certain financial institutions for Greenwood Units 1 and 2 that were entered into in the mid-1970s, and he analyzes the benefits (or detriments) to ratepayers of that lease. He concludes that, as events have turned out over the 25-year term of that lease, ratepayers would have been better off if MPS would have purchased these Units and placed them into rate base, rather than having leased them and recovered the lease costs through rates. As a result, at page 24 of his testimony Mr. Featherstone includes a question about whether there is a way of "correcting this costly past mistake of leasing rather than owning the Greenwood Units." In response, he states that while it is not possible to correct the past mistake, the Commission and MPS can avoid making the same mistake today by rate-basing the Greenwood Units rather than allowing MPS to recover its actual lease costs.

Q. Is Mr. Featherstone correct that it was a "mistake" for MPS to lease the Greenwood Units in the mid-1970s?

A. No, and apparently the Commission did not think it was a mistake either because, as Mr. Featherstone notes at page 10 of his testimony, the Commission approved the lease when it was entered into. Moreover, the Commission has considered and allowed MPS to recover the full cost of the lease in numerous MPS rate case orders since the mid-1970s. It is indeed odd for Mr. Featherstone now, after the end of the full term of the 25-year lease for Units 1 and 2, to allege that it was a mistake for MPS to have entered into the lease in the first place. Presumably he also thinks it was a mistake for the Commission to allow MPS to recover the costs of that lease as well, though to my knowledge, Staff never raised any such issue with the lease during its entire 25-year term.

Q. What were the conditions that caused MPS, in the mid-1970s, to determine that leasing the Greenwood Units would be more beneficial than buying generating units or entering into power purchase agreements?

A. In 1975, MPS decided to initially lease the Units for the simple reason that MPS did not have the cash to support buying such assets. MPS had gone through and was in a tremendous growth period.

Q. Please briefly describe the history leading up to the decisions to lease the Greenwood Units.

A. MPS had experienced dramatic growth during the 1960's and 1970's, and electric demand was continuing to increase. MPS had built the Ralph Green Units 1 & 2 in the mid 1950's – those units had a generating capacity of 22 MW each. Electrical growth continued to surpass demand and in 1960, the 44 MW Sibley Unit 1 was built. In 1962 another 44 MW of generating capacity was added with Sibley Unit 2. During the mid-1960's, the Sibley Units were operating at maximum capacity and yet demand continued to grow. In 1969 Sibley Unit 3 went commercial. When additional peaking units were needed in the mid 1970's, MPS was still a small utility, and in light of the substantial capital commitments on generating assets in the most recent 10 or 15 years, simply did not have enough cash to finance buying or owning the Greenwood combustion turbines. Given those conditions and the general state of the electric industry at that time, the most viable and available option was to lease the needed generating capacity. The Commission understood that leasing not only was the best option for the customers and the company, it really was the only viable option available.

Q. Aside from the fact that leasing the Units was not a mistake because it was the only option available, how did customers fare over the 25-year term of the lease by MPS leasing rather than buying and rate-basing the Units?

A. Mr. Featherstone presents a spreadsheet (Schedule 2-1) to compare leasing and owning the Greenwood Units, and argues that the spreadsheet demonstrates customers would have been better off if MPS would have bought and rate-based the assets rather than leased them. He is wrong.

Q. Why is Mr. Featherstone wrong?

A. His spreadsheet needs to be separated into two parts, the first lease period (that is, the 25-year term of the original lease) and the second lease period (that is, the period of time beginning in 2000 upon the expiration of the original lease). His spreadsheet states that from June 1, 1975 through May 31, 2000, the lease cost was $3,375,629 lower than the cost would have been if the Greenwood units had been put into rate base, thus saving ratepayers over $3.3 million dollars over the 25 year period.

Q. Does Mr. Featherstone's spreadsheet contain all of the calculations necessary to evaluate leasing or buying the Greenwood Units?

A. No. MPS also uses an additional spreadsheet calculation to compute the effects of inflation. By using the consumer price index for the years 1975 through 2000, we can fairly compare any year from 1975 to 1999 to 2000 dollars. Using those figures, and based on 2000 dollars, the lease saved MPS's consumers $9,922,449 from 1975 to 2000, compared to if MPS had owned the assets and rate-based them.

[Source: Schedule GPK3.]

Q. Is the future and the second portion of Mr. Featherstone's Schedule 2-1 spreadsheet accurate?

A. Unfortunately, no. The year 2000 marked the end of the original 25-year lease and the commencement of a new lease. The cost of the new lease must be, and was, established based on the facts, costs and market conditions that existed at that time. No rational businessperson or regulator can simply assume, without any additional analysis, that it is appropriate merely to extrapolate the future from past numbers and events as if nothing has changed and as if no analysis or consideration of market conditions or other present facts is necessary. If only business planning and ratemaking were so easy! Instead, MPS and the Commission must look at current facts and market conditions; as a result, Mr. Featherstone's spreadsheet must be recomputed as well.

Q. What action does Mr. Featherstone propose to "correct" what he views as the 25-year old "mistake" of leasing the Greenwood Units instead of buying them?

A. Well, he says at page 24 of his testimony that "it is not possible to go back in time and restate for rate purposes what the cost would have been owning versus leasing the Greenwood Units." I agree. However, he then says that MPS and the Commission should avoid making this same "mistake" again by having MPS rate-base the assets now, instead of continuing to lease them.

Q. Do you agree with this approach?

A. No. First, as noted above, I do not agree that the original decision was a mistake. Second, and regardless whether or not it was a mistake, Greenwood Units 1 and 2 should not be rate-based now.

Q. Why not?

A. For several reasons. First of all, it is not appropriate for the Commission to base its rate orders on pretend facts rather than real facts. MPS does not own the Greenwood Units. It would be improper for the Commission to impute to rate base, assets that MPS does not own. Second, Mr. Featherstone's analysis that ratepayers would get a better deal in the future if MPS were considered to have purchased the assets in 2000 and rate-based them, rather than allowing MPS to recover its actual lease costs, is mistaken and based on several faulty assumptions and allegations concerning the correct cost/value of those units

Q. You already have stated that you believe it would be improper for the Commission to rate-base an asset that MPS does not even own. Are there other reasons you believe it would be inappropriate for the Commission to adopt Staff's recommendation to treat the Greenwood Units as if they were owned and thus to rate-base them?

A. Yes. MPS firmly believed in 2000 upon the expiration of the original lease and continues to believe now that the best option for both MPS and its ratepayers is for MPS to control the assets but for the Units not to be purchased and placed into rate base. Staff apparently believes that the only reason MPS wishes to keep assets out of rate base is for the sole benefit of MPS and UtiliCorp stockholders. For example, on page 16 of his testimony, Mr. Featherstone states that MPS and UtiliCorp refused to consider placing the Greenwood Units in rate base solely due to the "regulatory climate" in Missouri.

Q. Is this an accurate statement?

A. No. MPS believes its decision, made in early 2000, to continue leasing the Units rather than to buy them was and is in the best interest of its ratepayers.

Q. Did the "regulatory climate" influence MPS's decision?

A. The regulatory climate was one reason MPS believed it was not in either ratepayers' or MPS's interest to own and rate-base the Greenwood Units. But Mr. Featherstone apparently is talking about a different "regulatory climate" than the one that influenced MPS's decision. Mr. Featherstone hints that MPS is afraid of the treatment it will receive from this Commission in this or future rate cases if it were to rate-base the Greenwood Units. In fact, the "regulatory climate" that influenced MPS's decision was its overall evaluation – at the time it was renegotiating the lease – of the status of electric deregulation in the United States and the general rates of return allowed on regulated assets. While retail access has not yet been introduced in Missouri and no one knows when or if it will be, it certainly cannot be denied that the wholesale and retail electric industries in the United States have undergone dramatic change over the last four or five years, particularly with respect to the treatment of generating assets and the ownership and control over those assets.

Q. So what does all of that have to do with MPS's decision to continue leasing the Greenwood Units instead of buying them and putting them into rate base?

A. *Simply that, when viewed in the perspective of the time when MPS was making a* decision whether to buy or lease the Greenwood Units, it believed then (and continues to believe today) that MPS and its customers will benefit from not taking on large, long-term capital commitments for generation capacity at a time of such great uncertainty in the electric market. As I will demonstrate below, the real value of the units was at least $18 million, not the $13 million advocated by Mr. Featherstone. Moreover, there was and is substantial uncertainty about both the regulatory structure of the electric industry and the future price of generation capacity. For MPS to take on the long-term capital commitment in 2000 (or at the current time) to purchase the Greenwood Units at market price would place both the company and its ratepayers at peril for years into the future.

Q. Why?

A. No one can predict future energy prices or the value of generating assets. In the late 1970s and early 1980s many utilities and state public service commissions believed they were accurately forecasting future energy prices and the future value of generating assets when the utilities entered into contracts with "qualifying facilities" (under PURPA) that contained power purchase rates set at what the Commissions believed were the utilities' "avoided costs" of producing energy. As everyone now knows, those estimates proved to be wildly wrong. Those contracts have resulted in utilities – and thus their ratepayers – paying prices for energy from QFs that have been far in excess of market rates. If future energy prices go down instead of up, which certainly is possible, MPS's decision to lease the Greenwood Units for renewable 5-year terms rather than buy and rate-base them will be a wise decision for both MPS and its ratepayers. Even if energy prices and the cost of generating capacity go up in real dollars, there certainly is no guarantee – despite Mr. Featherstones's allegations to the contrary – that rate-basing the Greenwood Units will be cheaper for customers than leasing them.

Q. Are there other reasons ratepayers will benefit from the current lease structure?

A. Yes. Because of the current uncertain electric regulatory environment, MPS believes it is not prudent to take on large capital investments. In other states where competition has been introduced, utilities and their state commissions have been forced to deal with enormous stranded cost problems resulting from the utilities having taken on – and the regulators having approved – large capital costs for generating facilities that then had to be treated as stranded costs when retail competition was implemented. Commissions, utilities and ratepayers have been forced to deal with these costs and issues in their restructuring processes, and the presence of stranded costs may have stunted the development of retail competition in some states. By avoiding large long-term capital commitments for generation, MPS is seeking to avoid – for ratepayers, policymakers and MPS itself – creating large long-term costs that may present a stranded cost problem should the State of Missouri decide to embrace retail competition. Even though UtiliCorp realizes the state currently does not plan to do so, no one can predict the future. Certainly in 1996 no one could have predicted what has happened in the electric utility industry over the last five years, both on the federal and state levels.

Q. Are there still other reasons?

A. Yes. It has long been recognized that utilities and this Commission should act reasonably to ensure the financial health of utilities that serve the public. MPS's financial health will be better as a result of leasing the units rather than taking on large capital commitments right now. Not keeping our utilities in Missouri healthy will increase customer costs in the long run.

Q. *Staff alleges that MPS did not evaluate whether it should purchase and rate-base the Greenwood Units instead of continue to lease them. Is that true?*

A. No. MPS did consider purchasing the Greenwood Units and treating the investment as a rate base component. As part of its negotiation process with the owners of the Units prior to the expiration of the original 25-year lease, UtiliCorp and MPS investigated a variety of options, including MPS purchasing the Units and including the cost in rate base. In evaluating various options, UtiliCorp and MPS looked for the option that would combine the lowest reasonable cost with the lowest reasonable risk to ratepayers, while also providing flexibility to allow UtiliCorp and MPS to successfully navigate a highly uncertain future regulatory environment. At the time the decision was made to continue leasing the units, retail competition seemed at least a reasonable possibility in the near future, and MPS simply did not want to assume the substantial risk of taking on millions of dollars in capital costs for new generation capacity.

[Source: MPSC-236, Purchase Greenwood Turbines, Economic Analysis, UtiliCorp Power Service, December 1999, and Supplement 1.]

Q. Would treating the costs of the Greenwood Units as if they were to be rate-based be fair to MPS?

A. No. In addition to all of the other reasons set forth in my testimony, forcing MPS to recover costs for the Greenwood Units as if they were owned and in rate base, rather than allowing MPS to recover the actual costs it is incurring to lease the Units would be unfair to MPS. It would force MPS and its shareholders to bear the difference in cost between rate-basing the assets and leasing them. And, it would give ratepayers the benefit of an asset being in rate base even though ratepayers would not be taking on the concomitant risk of a long-term commitment. The Commission would be giving ratepayers the benefit of a long-term commitment on a short-term basis, and would be forcing MPS to subsidize that difference in treatment. There simply is no basis for forcing MPS and its shareholders to provide that subsidy. In any event, the value of the Units that should be used if the Commission were to rate-base the assets is much higher than the value suggested by Mr. Featherstone, thus dramatically limiting or even eliminating any alleged benefit to ratepayers of rate-basing the assets.

COST AND VALUE OF UNITS

Q. You stated earlier that Mr. Featherstone had relied on faulty assumptions in arriving at the value of the Greenwood Units should they be included in rate base. What are those faulty assumptions?

A. He assumes, wrongly, that if the Greenwood Units were to be rate-based, the proper value for rate base purposes would be the "appraised value" of the Units. Even if he was relying on a correct and valid appraisal for this conclusion – and he is not – this conclusion would be mistaken in light of the fact that the marketplace has established the actual value of the Units. An unregulated business unit of UtiliCorp bought the Greenwood Units in 2000 after an arms-length negotiation and transaction with unaffiliated entities (that is, the financial institutions that previously owned the Units). EnergyOne Ventures, L.P. ("EOV") is the new owner of the beneficial interest in the trust.

Q. What is EOV?

A. EOV is a Delaware limited partnership formed on September 28, 1999. EOV is an energy services provider created to market commodity and related services to retail and wholesale markets. EOV's primary business activity at this time is selling natural gas in several states, including Missouri. EOV operates separately and independently from the regulated utilities of UtiliCorp.

Q. Who actually negotiated the final price with the original owners?

A. UtiliCorp conducted the actual negotiations. UtiliCorp had the greatest knowledge of the assets and their value in the market and thus conducted the negotiations. After negotiations were reaching their final stage, the decision was made for an unregulated unit of UtiliCorp to purchase the Units and for MPS to continue leasing the Units from that unregulated entity.

Q. Were negotiations conducted on an arms-length basis?

A. While Mr. Featherstone criticizes what was paid for the Units, he does not – and cannot – argue that the parties to the transaction were affiliated in any way or that the transaction was negotiated or concluded on anything other than an arms-length basis. As a result, even if the Commission was to rate-base the Greenwood Units, and it should not, the correct value for doing so would not be the "appraised value" offered by Mr. Featherstone, but the actual market value as established in the year 2000.

Q. But Mr. Featherstone says that EOV paid far more for the Greenwood Units than their value, as established in a report completed by UtiliCorp's own appraisers, Fern Engineering ($6.5 million for Unit 1 and $6.5 million for Unit 2). How can the higher purchase price possibly be justified?

A. Mr. Featherstone alleges that he is relying on the appraisal completed for UtiliCorp by Fern Engineering when he asserts that the value of the Units is $6.5 million each. The report does not value the units at $6.5 million each and more details of the Fern Engineering report will be discussed later. Even if that report says what Mr. Featherstone alleges – and it does not – reliance on the appraisal would be inappropriate in light of the fact that an actual arms-length purchase and sale transaction for the assets occurred in the open marketplace, and the result of that transaction was that the value of the Units is $8,837,500 each.

Q. What evidence supports your testimony that this price represents a truly market-based transaction between non-affiliated parties?

A. Prior to EOV's purchase of the Greenwood Units, they were owned by entities (that is, PSEG Resources Inc., Ameren Services, and a company named ATEL in San Francisco) that were not and are not owned or otherwise affiliated with UtiliCorp, EOV or MPS. I believe there is no dispute about that matter, and therefore there should be no dispute that the purchase and sale transaction was between unaffiliated parties and the transaction was at arms length. Moreover, MPS has produced a substantial amount of documentation to Staff detailing the negotiation history of the purchase price for the Greenwood Units. That documentation demonstrates that the original owners of Greenwood Units initially were demanding a purchase price of at least $13 million per Unit, while UtiliCorp was offering $5 million per Unit. The fact that these third parties were demanding what they were as an initial negotiating position should demonstrate that UtiliCorp did not simply voluntarily agree to pay well in excess of the market value for the Units. The final purchase price was agreed upon after substantial back-and-forth negotiations.

Q. But what about Mr. Featherstone's allegation that the appraisal report of UtiliCorp's own appraiser valued the Units at only $6.5 million each?

A. The appraisal report relied on by Mr. Featherstone does not support his conclusion. First, and since Mr. Featherstone is advocating that assets be purchased and rate-based rather than leased, we can look at the cost MPS would incur if it would have purchased generating facilities such as the Greenwood Units in the open market. As demonstrated by the Fern Engineering report, "Based on the above information if 4 gas turbine units were to be installed today with turbines of the same configuration and accumulated time the cost would be:

Unit #1

Base "B" model engine with new major inspection.................................$8,300,000

Installation similar to Greenwood site with duel fuel and building enclosure...$5,500,000

Debit for cycles used (1256 cycles X $1250)..-$1,570,000

Estimated value Unit 1..$12,230,000

Unit #2

Same as unit #1 except debit for cycles used (999 cycles X $1250 = $1,248,750 instead of $1,570,000)..$12,551,250

As a result, the true replacement value for the Greenwood Units, as demonstrated by the Fern Engineering report on which Mr. Featherstone purports to rely, is a total of $24,781,250 for the two Units – not the $13,000,000 suggested by Mr. Featherstone. There certainly is no way MPS could have purchased in the marketplace turbines of a comparable condition to the Greenwood Units at anything near Mr. Featherstone's proffered value/cost of $6,500,000 per turbine. In fact, the value to MPS is considerably higher than the actual price at which the turbines were purchased from their previous owners.

[Source: Fern Engineering Report dated July 9, 1999.]

Q. If the value of the Greenwood Units truly is much higher than the negotiated price, how did EOV manage to purchase the turbines at the price it did?

A. Part of UtiliCorp's negotiating stance was to demonstrate how willing MPS was to let the Units go and replace them with other used turbines, new turbines, or power purchase contracts. If the leaseholder were to take the Units, MPS would have had both removal costs and reengineering costs for new units or used units if available. The Units were more valuable to UtiliCorp than other comparable units that might have been available on the open market because we knew the units were well maintained and in good condition – indeed, MPS had been responsible for the maintenance of the units. By attempting to purchase capacity or other units on the open market, MPS would also have a possible risk of not obtaining additional generation in time before the following summer's peak demands.

[Source: Purchase Greenwood Turbines, Economic Analysis, UtiliCorp Power Service, December 1999; Fern Engineering Report, dated July 9, 1999.]

Q. What market condition variables impacted the negotiations?

A. Several market conditions variables were considered in UtiliCorp's negotiations to purchase the Greenwood Units. First, UtiliCorp was concerned about a repeat of the generation costs from the summer of 1999. Second, at the same time UtiliCorp was negotiating to purchase the Greenwood Units, it also was negotiating to renew the lease for the Units. There was no way of knowing, during the course of those negotiations, whether UtiliCorp would be successful in any of its negotiations, as these were arms-length transactions with the then-owners of the Units. Third, the owners of the Units would have had to market the Units and the time spent marketing the Units represented a risk to them. Fourth, at the time of final negotiations, the owners of the Units faced the opposite problem of marketing the Units in time for summer conditions in the Midwest or, alternatively, holding them for a year. Finally, if the Units were moved, environmental permitting would add to the relocation costs.

Q. Given all these factors, did EOV pay a fair price for the Greenwood Units?

A. Yes, EOV paid a fair price when it purchased the Greenwood Units. EOV of course would have preferred to pay less. But because the transaction was negotiated at arms-length, paying less was not an option. Every buyer in every arms length transaction would prefer to pay less rather than more; every seller would prefer that the buyer pay more. Because the buyer and seller have to agree if the transaction is to be consummated, they negotiate to reach a middle ground, and that is exactly what happened between UtiliCorp (the negotiator) and the previous owners of the Greenwood Units. EOV in fact managed to purchase the Units at a price well below the initial sale prices offered by the previous third party owners of the Units.

Q. What about Mr. Featherstone's proposals to use the $6,500,000 per unit figure contained in the Fern Engineering report, for purposes of rate-basing the Greenwood Units?

A. It would be both wrong and unfair to use that figure. At the end of the 25-year lease, the customers of MPS benefited from the lease arrangement by the amount of $3,375,629 actual dollars ($9,922,449 adjusted for inflation – Schedule GPK3). This value is from Mr. Featherstone's Schedule 2-1 of his testimony comparing purchase versus lease from a decision made and approved 25 years ago (Revenue Requirement Plus Depreciation Minus Lease Payments). At the end of a lease, the equipment may be released for another period or purchased at a negotiated value. The market value of the Greenwood Units 1 & 2 has increased significantly over the past 25 years. The market value to MPS customers of Greenwood Units 1 and 2 is <u>at least</u> $17,675,000. The original lease has ended and it is now time to face the reality of today's current market.

[Source: Fern Engineering Report dated July 9, 1999.]

Q. Are there other reasons as well that Mr. Featherstone is mistaken in urging the Commission to use a $6.5 million value for each of the Greenwood Units?

A. Yes. Mr. Featherstone performed no independent review or analysis of the Greenwood Units, but rather obtained the $6.5 million figure from Fern Engineering, Inc.'s evaluation of the Greenwood Units. However, a complete reading of Fern Engineering's report states that Fern Engineering obtained the $6,500,000 per unit figure by contacting four different suppliers and comparing the costs of recent turbine acquisitions. The $6,500,000 figure was obtained from one of the four suppliers contacted that had recently purchased an "as is" unit in Korea. The other three estimates ranged from $9,500,000 to $12,500,000.

[Source: Fern Engineering Report dated July 9, 1999.]

Q. Fern Engineering's report states that estimated $6,500,000 turbine price is for a unit "as is". What does this phrase mean?

A. The "as is" is an indicator of the condition of the unit. Fern Engineering's report states that a unit of this type would have to be completely reconditioned at a cost of $1,800,000 for a total cost of $8,300,000 ($6,500,000 + $1,800,000). Based on my experience as an engineer and working with overhauls of generation facilities, I know that purchasing a unit "as is" from a foreign country, and performing a regular overhaul ($1,800,000) may not bring the unit up to standards for operation. Uncommon component cracks or unusual abuse may cost much more.

[Source: Fern Engineering Report dated July 9, 1999.]

Q. What is a fair price for the Greenwood Units?

A. EOV acquired the Units from the previous owners for $8,837,500 per Unit, in an arms length transaction. This price is a fair. Fern Engineering valued Greenwood Unit 1 as installed at the facility at $12,230,000 and for Unit 2 at $12,551,250. The Greenwood Units have low hours and have been well maintained over the years, thereby justifying the cost.

Q. Did any other factors influence the negotiations?

A. Yes. During the summer of 1999, purchase power prices reached, in certain hours, prices of over $3,000 per MWh above MPS's sale price of energy to retail customers. The risk of increasing costs was extremely high. At the time the Greenwood Units lease was expiring, MPS placed an extremely high value on obtaining reliable generating capacity and energy for its customers, at a reasonable price, but it also did not want to take on long-term capital commitments for capacity at potentially inflated prices. If these two units were not available during six hours of the high 1999 prices, the cost to MPS and ultimately to our customers would have been approximately $2,160,000 (6 Hrs X 120 MW X $3,000 / MWhr). The lease came due in a "seller's market", thereby placing more pressure on UtiliCorp during negotiations with the previous owners.

Q. Were the Greenwood Units 1 & 2 purchased at a reasonable cost?

A. Yes. If MPS had decided in early 2000 to build new generation to replace the Greenwood Units, the cost would have been approximately $275 per KW, or about $17 million to replace each Unit. This cost would have been even higher a year or so later (maybe $350 per KW), but has dropped back somewhat in the last several months. If the Units had been replaced with refurbished generation, and based on my knowledge of the industry and the marketplace, I believe the cost would have been between $11,000,000 and $14,000,000 per unit. The refurbished equipment would be "EA" standards with increased rating of 70 MW each. This would translate to $157 – 200 per KW. The purchased cost of $17,675,000 ($8,837,500 per unit) or $142 per KW is a reasonable cost.

[Source: Fern Engineering Report of July 9, 1999.]

Q. Finally, what do you think of Mr. Featherstone's suggestions that the Commission consider rate-basing the Greenwood Units at their "original cost" with a full depreciation reserve identified along with current depreciation expense, or to rate base the Units at the full newly acquired cost with the full accumulated depreciation reserve level and current depreciation expense?

A. I already have explained why it would be inappropriate to second-guess 25-year old decisions by MPS and this Commission approving and allowing into rates the original lease of the Greenwood Units. Mr. Featherstone's proposals appear to be an effort to go back and undo 25-year old decisions, and undo them in a way that works solely to the detriment of MPS. Moreover, these statements by Mr. Featherstone are inconsistent with his own testimony at page 24, where he says that "it is not possible to go back in time and restate for rate purposes what the cost would have been owning versus leasing the Greenwood Units." I agree, and the Commission should not attempt to do so by imputing to MPS and its rates a depreciation reserve that was never created, for assets that MPS did not own and does not now own.

LEASE PAYMENTS

Q. Mr. Featherstone states on page 11 of his testimony states "The lease payment "negotiated" between Missouri Public Service and UtiliCorp's EnergyOne Ventures in the first year of the new lease is $3,127,954." Is this an accurate statement?

A. No. UtiliCorp negotiated the lease payment and the possible purchase of the Greenwood Units with the original financial institution owners of the Greenwood Units. In the latter portion of the negotiations, UtiliCorp offered to those owners $8,200,000 per Unit to buy the Units and an annual rental price of $3,000,000. The lease owner counter-offered $9,350,000 per unit and an annual rental price of $3,600,000. No additional reduction was offered after that involving the annual rental cost. The final purchase price for the units was $8,850,000 per unit. The lease payment calculated was a declining annual periodic lease paid quarterly over five years. The average cost of the lease over the five-year period was $2,866,310 per year. The lease cost of the original 25-year lease was a constant $1,106,260 per year. So the current lease requires an annual payment of more money, in nominal dollars, than the original lease, but this current lease payment is reasonable considering the consumer price index over the past 25 years. In fact, the original annual lease payment of $1,106,260, escalated at the CPI, would today be $3,508,000 – less than the annual lease payment (that is, $3,062,542) in the Greenwood Unit 1 and 2 lease now in effect.

Q. Was the Commission Staff aware of UtiliCorp's plan to have an unregulated unit of UtiliCorp purchase the Greenwood Units and lease them to MPS?

A. Yes. The arrangement was discussed through the regular Integrated Resource Plan Power Supply Update, including at the March 24, 2000 meeting with the Staff.

Q. How does the lease cost per MW to MPS in the current lease compare to other alternatives by which MPS could have obtained its needed capacity and energy?

A. The lease cost of $3,062,542 for the first year for 124.2 MW of generating capacity represents a capacity cost of $24.66 per Kw-yr or $2.05 per KW-mo. The cost of Greenwood Units 1 & 2 was compared as a Rate Base asset to establish a reasonable lease payment.

[Source: Data Request MPSC-234; Schedule 4]

Q. Mr. Featherstone states that he believes the lease payment in the current lease is inflated and improper because it was the result of negotiations between two UtiliCorp affiliates and thus was the result of "affiliate abuse." Do you agree?

A. Absolutely not. As I already have explained, the lease cost that is set forth in the currently-effective lease for Greenwood Units 1 and 2 basically was <u>not</u> arrived at through negotiations between two UtiliCorp entities, but through negotiations between MPS and the previous, non-affiliated owners of those Units. During the last negotiations with those unaffiliated owners, MPS was proposing an annual lease payment of $3,000,000, and the owners were proposing an annual lease payment of $3,600,000. Those owners initially had demanded an annual lease payment of more than $4.7 million. So the annual lease payment now in effect is only $62,542 higher than MPS's offer to the third party owners, and is more than $1.6 million lower than the annual lease payment originally demanded by those owners. I do not understand, and do not believe, that this annual lease payment can be maligned as being an unfair amount not reflecting market realities.

Q. But isn't it true that the current lease is between two affiliated entities?

A. It is true that the lease now in effect is between MPS and a trust whose beneficial interest is owned by EOV. However, as I already have described, the annual payment required by that lease really represents the low point of the final negotiations between UtiliCorp and the previous unaffiliated third party owners of the Units.

Q. Are there other reasons you believe the lease payments set forth in the current lease are reasonable?

A. Yes. As I have explained above, the true market value of the Greenwood Units is the price at which EOV obtained them, not the arbitrary value assigned by Mr. Featherstone. In fact, the value to MPS and its ratepayers is even higher than the purchased price of the Units, as I have demonstrated. As a result, the lease payments are reasonable and MPS should be allowed the recover the full amount of them in its rates.

Q. Does MPS have any additional calculations for the Commission to consider in evaluating the cost of the current lease for Greenwood Units 1 and 2?

A. Yes. Four spreadsheets will be supplied with this testimony. The schedules are described as follows:

<u>Schedule GPK1</u> – Calculations of old lease payment compared to rate base option from 1975 to 2000; This is essentially the same as Mr. Featherstone's spreadsheet.

<u>Schedule GPK2</u> – Calculations of new lease payment compared to rate base option.

<u>Schedule GPK3</u> – Calculations of old lease viewed with a consumer price index establishing all old lease payments adjusted to equivalent 2000 dollars and future lease payments as proposed by the company based on an index increase average at 3.957 % increase per year. The future index was calculated as the average of the last 7 years. The years 2000 and beyond, must be separated from the old years, new values and

depreciation must be calculated to reflect the realities of the situation. The new spreadsheet (Schedule GPK2), for the years 2000 through 2014, using some of the same assumptions from the first spreadsheet to remain consistent but attaches new values and applicable depreciation, shows that leasing the Units would cost more than the cost of ownership by $2,161,621 in actual dollars (Schedule GPK2). If converted to 2000 dollars, the difference would be $2,042,222. If we net these two amounts from the first 25 years with the next 15 years, then the ratepayer has still benefited by $1,214,010 in actual dollars, and by $7,880,227 in 2000 adjusted dollars (Schedule GPK3).

<u>Schedule GPK4</u> – Greenwood Units 1 and 2 Revenue Requirement.

Q *Does this conclude you testimony?*

A Yes, it does.

Greenwood Analysis

Date	lease pymt	depr rate	ann depr	accum depr	net plant BV	ROR	Rate base	Rev. Req	Rate payer savings / (excess)
11482874		0.036363636							
					11,482,874				
1975	553,130	0.03636	243,552	243,552	11,239,322	10.5450%	691,359	934,911	381,780.57
1976	1,106,260	0.03636	417,517	661,069	10,821,805	10.5450%	1,141,159	1,558,677	452,416.63
1977	1,106,260	0.03636	417,517	1,078,586	10,404,288	10.5450%	1,097,132	1,514,649	408,389.43
1978	1,106,260	0.03636	417,517	1,496,104	9,986,770	12.2578%	1,224,158	1,641,676	535,415.63
1979	1,106,260	0.03636	417,517	1,913,621	9,569,253	12.4622%	1,192,539	1,610,057	503,796.75
1980	1,106,260	0.03636	417,517	2,331,138	9,151,736	12.7066%	1,162,874	1,580,392	474,131.75
1981	1,106,260	0.03636	417,517	2,748,656	8,734,218	12.7066%	1,109,822	1,527,340	421,079.50
1982	1,106,260	0.03636	417,517	3,166,173	8,316,701	14.5124%	1,206,953	1,624,470	518,210.24
1983	1,106,260	0.03636	417,517	3,583,690	7,899,184	15.2414%	1,203,946	1,621,464	515,203.51
1984	1,106,260	0.03636	417,517	4,001,207	7,481,667	15.2414%	1,140,311	1,557,828	451,568.02
1985	1,106,260	0.03636	417,517	4,418,725	7,064,149	15.2414%	1,076,675	1,494,193	387,932.54
1986	1,106,260	0.03636	417,517	4,836,242	6,646,632	15.2414%	1,013,040	1,430,557	324,297.06
1987	1,106,260	0.03636	417,517	5,253,759	6,229,115	15.2414%	949,404	1,366,922	260,661.58
1988	1,106,260	0.03636	417,517	5,671,277	5,811,597	15.2414%	885,769	1,303,286	197,026.10
1989	1,106,260	0.03636	417,517	6,088,794	5,394,080	15.2414%	822,133	1,239,651	133,390.62
1990	1,106,260	0.03636	417,517	6,506,311	4,976,563	14.8936%	741,189	1,158,707	52,446.65
1991	1,106,260	0.03636	417,517	6,923,829	4,559,045	14.8936%	679,006	1,096,523	(9,736.71)
1992	1,106,260	0.03636	417,517	7,341,346	4,141,528	14.8936%	616,823	1,034,340	(71,920.06)
1993	1,106,260	0.03636	417,517	7,758,863	3,724,011	14.8936%	554,639	972,157	(134,103.42)
1994	1,106,260	0.03636	417,517	8,176,380	3,306,494	14.8936%	492,456	909,973	(196,286.78)
1995	1,106,260	0.03636	417,517	8,593,898	2,888,976	14.8936%	430,273	847,790	(258,470.13)
1996	1,106,260	0.03636	417,517	9,011,415	2,471,459	14.8936%	368,089	785,607	(320,653.49)
1997	1,106,260	0.03636	417,517	9,428,932	2,053,942	14.8936%	305,906	723,423	(382,836.84)
1998	1,106,260	0.03636	417,517	9,846,450	1,636,424	12.0446%	197,101	614,618	(491,641.93)
1999	1,106,260	0.03636	417,517	10,263,967	1,218,907	12.0446%	146,812	564,330	(541,930.22)
2000	460,942	0.03636	173,966	10,437,932	1,044,942	12.0446%	52,441	226,407	(234,535.20)
	27,564,312		10,437,932				20,502,011	30,939,944	3,375,631.81

Greenwood Analysis

Date	lease pymt	depr rate	ann depr	accum depr	net plant BV	ROR	Rate base	Rev. Req	Rate payer
2000	1,824,640	0.03636	243,552	10,681,484	801,390	12.0446%	56,306	299,858	(1,524,782.46)
2001	3,051,641	0.03636	417,517	11,099,002	383,872	12.0446%	46,236	463,753	(2,587,887.80)
2002	2,920,819	0.03636	417,517	11,516,519	(33,645)	12.0446%	(4,052)	413,465	(2,507,354.09)
2003	2,789,997	0.03636	417,517	11,934,036	(451,162)	12.0446%	(54,341)	363,177	(2,426,820.37)
2004	2,659,175	0.03636	417,517	12,351,553	(868,679)	12.0446%	(104,629)	312,888	(2,346,286.66)
2005	1,085,278	0.03636	417,517	12,769,071	(1,286,197)	12.0446%	(154,917)	262,600	(822,677.95)
	14,331,550		2,331,138				(215,398)	2,115,741	(12,215,809.33)
2005	1,443,076		417,517	13,186,588	(1,703,714)	12.0446%	(205,206)	212,311	(1,230,764.50)
2006	2,419,335		417,517	13,604,105	(2,121,231)	12.0446%	(255,494)	162,023	(2,257,311.75)
2007	2,266,709		417,517	14,021,622	(2,538,748)	12.0446%	(305,782)	111,735	(2,154,974.01)
2008	2,135,887		417,517	14,439,139	(2,956,265)	12.0446%	(356,070)	61,447	(2,074,440.26)
2009	2,005,065		417,517	14,856,656	(3,373,782)	12.0446%	(406,359)	11,158	(1,993,906.51)
2010	812,732		417,517	15,274,173	(3,791,299)	12.0446%	(456,647)	(39,130)	(851,861.77)
	11,082,804		2,505,102				(1,985,557)	519,545	(10,563,258.80)
2010	758,222		417,517	15,691,690	(4,208,816)	12.0446%	(506,935)	(89,418)	(847,640.02)
2011	1,743,421		417,517	16,109,207	(4,626,333)	12.0446%	(557,223)	(139,706)	(1,883,127.27)
2012	1,612,599		417,517	16,526,724	(5,043,850)	12.0446%	(607,512)	(189,995)	(1,802,593.52)
2013	1,481,777		417,517	16,944,241	(5,461,367)	12.0446%	(657,800)	(240,283)	(1,722,059.78)
2014	1,350,955		417,517	17,361,758	(5,878,884)	12.0446%	(708,088)	(290,571)	(1,641,526.03)
2015	540,186		417,517	17,779,275	(6,296,401)	12.0446%	(758,376)	(340,859)	(881,045.28)
	7,487,160		2,505,102				(3,795,934)	(1,290,832)	(8,777,991.90)
lease total	60,465,826		17,779,275	17,779,275			14,505,123	32,284,398	(28,181,428.22)
rate base	32,284,398								
diff	28,181,428								

Greenwood Analysis

price paid $ 8,672,110 for unit 1 and same for 2
quarterly lease pymts of $ 390,994 for each unit

Date	lease pymt	depr rate	annual depr. Exp	accum depr	net plant BV	ROR	Rate base	Rev. Req	Rate payer savings / (excess)
17344220		0.036363636							
					17,344,220				
2000	3,228,929	0.04950	858,539	858,539	16,485,681	12.0446%	1,985,634	2,844,173	(384,755.96)
2001	3,091,143	0.04950	858,539	1,717,078	15,627,142	12.0446%	1,882,227	2,740,766	(350,377.70)
2002	2,953,358	0.04950	858,539	2,575,617	14,768,603	12.0446%	1,778,819	2,637,358	(315,999.43)
2003	2,815,572	0.04950	858,539	3,434,156	13,910,064	12.0446%	1,675,412	2,533,951	(281,621.16)
2004	2,677,786	0.04950	858,539	4,292,694	13,051,526	12.0446%	1,572,004	2,430,543	(247,242.89)
2005	2,540,000	0.04950	858,539	5,151,233	12,192,987	12.0446%	1,468,596	2,327,135	(212,864.63)
2006	2,402,214	0.04950	858,539	6,009,772	11,334,448	12.0446%	1,365,189	2,223,728	(178,486.36)
2007	2,264,428	0.04950	858,539	6,868,311	10,475,909	12.0446%	1,261,781	2,120,320	(144,108.09)
2008	2,126,642	0.04950	858,539	7,726,850	9,617,370	12.0446%	1,158,374	2,016,913	(109,729.82)
2009	1,988,857	0.04950	858,539	8,585,389	8,758,831	12.0446%	1,054,966	1,913,505	(75,351.56)
2010	1,851,071	0.04950	858,539	9,443,928	7,900,292	12.0446%	951,559	1,810,097	(40,973.28)
2011	1,713,285	0.04950	858,539	10,302,467	7,041,753	12.0446%	848,151	1,706,690	(6,595.02)
2012	1,575,499	0.04950	858,539	11,161,006	6,183,214	12.0446%	744,743	1,603,282	27,783.25
2013	1,437,713	0.04950	858,539	12,019,544	5,324,676	12.0446%	641,336	1,499,875	62,161.51
2014	1,299,927	0.04950	858,539	12,878,083	4,466,137	12.0446%	537,928	1,396,467	96,539.78
	33,966,425		12,878,083				18,926,720	31,804,803	(2,161,621.38)

lease total	33,966,425
rate base	31,804,803
difference	2,161,621

Schedule GPK-2

Greenwood Analysis

Date	Difference from Schedule	CPI index	equivalent 2000 dollars		
1975	381,781	53.8	1,221,982		
1976	452,417	56.9	1,369,177		
1977	408,389	60.6	1,160,473		
1978	535,416	65.2	1,414,089		
1979	503,797	72.6	1,194,956		
1980	474,132	82.4	990,843		
1981	421,080	90.9	797,689		
1982	518,210	96.5	924,723		
1983	515,204	99.6	890,743		
1984	451,568	103.9	748,412		
1985	387,933	107.6	620,836		
1986	324,297	109.6	509,525		
1987	260,662	113.6	395,123		
1988	197,026	118.3	286,795		
1989	133,391	124.0	185,241		
1990	52,447	130.7	69,100		
1991	(9,737)	136.2	(12,310)		
1992	(71,920)	140.3	(88,273)		index
1993	(134,103)	144.5	(159,810)		increase
1994	(196,287)	148.2	(228,074)		3.7
1995	(258,470)	152.4	(292,051)		4.2
1996	(320,653)	156.9	(351,922)		4.5
1997	(382,837)	160.5	(410,745)		3.6
1998	(491,642)	163.0	(519,391)		2.5
1999	(541,930)	166.6	(560,146)		3.6
2000	(234,535)	172.2	(234,535)		5.6
	3,375,632		9,922,449		
				avg =	3.957143
					3.957143
2000	(384,756)	172.2	(384,756)		
2001	(350,378)	176.2	(342,507)		
2002	(315,999)	180.1	(302,115)		
2003	(281,621)	184.1	(263,459)		
2004	(247,243)	188.0	(226,430)		
2005	(212,865)	192.0	(190,928)		
2006	(178,486)	195.9	(156,859)		
2007	(144,108)	199.9	(124,140)		
2008	(109,730)	203.9	(92,690)		
2009	(75,352)	207.8	(62,439)		
2010	(40,973)	211.8	(33,317)		
2011	(6,595)	215.7	(5,264)		
2012	27,783	219.7	21,778		
2013	62,162	223.6	47,863		
2014	96,540	227.6	73,042		
	(2,161,621)		(2,042,222)		
grand total	1,214,010		7,880,227		

GREENWOOD #1 & #2
REVENUE REQUIREMENT

Capacity in MW	124
Purchase Price - $x1,000	17,850
Capital Cost - $/kw	$ 144
In Service Date	2000
Service Life in Years	14.5
Equity Percentage	39.58%
Debt Percentage	60.42%
Return on Equity	10.75%
Debt Cost	7.8%
Blended Capital/Discount Rate	9.0%
Income Tax Rate:	39.0%
General Inflation Rate	2.5%

							Monthly Revenue Required			
	Net Plt	ROE	Debt	Depr	Inc Tx	Annual Revenue Required	Rate Base $/kw-mo.	Levelized Lease $/kw-mo.	Proposed lease payment	
2000	143.95	6.12	6.78	9.93	2.39	25.23	2.10	1.623	$ 3,127,954.25	1st renewal
2001	134.02	5.70	6.32	9.93	2.22	24.17	2.01	1.623	$ 2,997,132.20	
2002	124.10	5.28	5.85	9.93	2.06	23.12	1.93	1.623	$ 2,866,310.14	
2003	114.17	4.86	5.38	9.93	1.89	22.06	1.84	1.623	$ 2,735,488.09	
2004	104.24	4.44	4.91	9.93	1.73	21.01	1.75	1.623	$ 2,604,666.04	
2005	94.31	4.01	4.44	9.93	1.57	19.95	1.66	1.623	$ 2,473,843.99	2nd renewal
2006	84.39	3.59	3.98	9.93	1.40	18.90	1.57	1.623	$ 2,343,021.93	
2007	74.46	3.17	3.51	9.93	1.24	17.84	1.49	1.623	$ 2,212,199.88	
2008	64.53	2.75	3.04	9.93	1.07	16.79	1.40	1.623	$ 2,081,377.83	
2009	54.60	2.32	2.57	9.93	0.91	15.73	1.31	1.623	$ 1,950,555.77	
2010	44.67	1.90	2.11	9.93	0.74	14.68	1.22	1.623	$ 1,819,733.72	possible 3rd
2011	34.75	1.48	1.64	9.93	0.58	13.62	1.14	1.623	$ 1,688,911.67	
2012	24.82	1.06	1.17	9.93	0.41	12.57	1.05	1.623	$ 1,558,089.62	
2013	14.89	0.63	0.70	9.93	0.25	11.51	0.96	1.623	$ 1,427,267.56	
2014	4.96	0.21	0.23	9.93	0.08	10.46	0.87	1.623	$ 1,296,445.51	
						NPV of Payments	$13.11	$13.11		

Schedule GPK-4

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of Missouri Public Service	)	Case No. ER-2001-672
of Kansas City, Missouri, for authority	)	
to file tariffs increasing electric rates	)	
for service provided to customers in the	)	
Missouri Public Service area	)	

County of Jackson	)	
	)	ss
State of Missouri	)	

AFFIDAVIT OF GLENN P. KEEFE

Glenn P. Keefe, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Rebuttal Testimony of Glenn P. Keefe;" that said testimony was prepared by him and under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.

Glenn P. Keefe
Glenn P. Keefe

Subscribed and sworn to before me this 7th day of January, 2002.

Terry D. Lutes
Notary Public

My Commission expires:

8-20-2004

TERRY D. LUTES
Jackson County
My Commission Expires
August 20, 2004