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BEFORE THE ARIZONA CORPORATION COMMISSION

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DOCKETED BY

CARL J. KUNASEK
Chairman
JIM IRVIN
Commissioner
WILLIAM A. MUNDELL
Commissioner

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR APPROVAL OF ITS STRANDED COST RECOVERY AND FOR RELATED APPROVALS, AUTHORIZATIONS AND WAIVERS.	DOCKET NO. E-01933A-98-0471
IN THE MATTER OF THE FILING OF TUCSON ELECTRIC POWER COMPANY OF UNBUNDLED TARIFFS PURSUANT TO A.A.C. R14-2-1602 *et seq.*	DOCKET NO. E-01933A-97-0772
IN THE MATTER OF THE COMPETITION IN THE PROVISION OF ELECTRIC SERVICES THROUGHOUT THE STATE OF ARIZONA.	DOCKET NO. RE-00000C-94-0165 **NOTICE OF FILING REBUTTAL TESTIMONY AND WITNESS LIST**

Pursuant to the Commission's Procedural Order dated June 23, 1999 in the above-captioned matters, Tucson Electric Power Company hereby files the Rebuttal Testimony of James S. Pignatelli, Karen Kissinger and Bentley Erdwurm. Also attached is TEP's list of witnesses and subject areas covered in the testimonies.

RESPECTFULLY SUBMITTED this 6th day of August, 1999.

TUCSON ELECTRIC POWER COMPANY

By: ______________________
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Kelly Johnson

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Secretary for Bradley S. Carroll

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK
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IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR APPROVAL OF ITS STRANDED COST RECOVERY AND FOR RELATED APPROVALS, AUTHORIZATIONS AND WAIVERS.	DOCKET NO. E-01933A-98-0471
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IN THE MATTER OF THE COMPETITION IN THE PROVISION OF ELECTRIC SERVICES THROUGHOUT THE STATE OF ARIZONA.	DOCKET NO. RE-00000C-94-0165 **TEP'S LIST OF WITNESSES AND SUBJECT AREAS TO BE COVERED IN TESTIMONIES**

Witness: James S. Pignatelli (Direct and Rebuttal)

Subject Areas Covered: Mr. Pignatelli's Direct Testimony discusses the Settlement from a policy perspective. It discusses the background that the led up to the Settlement, and the major provisions and the benefits of the Settlement including: the introduction of Competitive Retail Access in TEP's service territory; TEP's stranded cost recovery plan; the recovery methodology; the impact on competition; the financial and accounting implications; unbundled and standard offer rates; rate implications; transfer of TEP's competitive assets; TEP's low income programs; TEP's Code of Conduct; the AISA/ISO; dismissal of outstanding litigation; and TEP's request for waivers. Mr. Pignatelli's Rebuttal Testimony generally responds to issues raised by Staff and Intervenors including: Staff's analysis of TEP's waiver requests; market power; must-run generation; the M-S-R/SCPPA contracts; clarifications requested by the City of Tucson; Code of Conduct; the CTC as it relates to special contracts; and other comments raised by Commonwealth and New West Energy.

Witness: Karen G. Kissinger (Rebuttal)

Subject Areas Covered: Ms. Kissinger's Rebuttal Testimony addresses accounting and financial issues raised by Intervenors concerning: the use of both a fixed and a floating CTC to recover stranded costs; the use of FAS 121 impairment tests to determine fair value for the Company's generation plant assets; and certain proposals which, if adopted as proposed, could cause write-offs for the Company.

Witness: Bentley Erdwurm (Rebuttal)

Subject Areas Covered: Mr. Erdwurm's Rebuttal Testimony addresses issues raised by Staff and Intervenors regarding: the cost basis for the unbundling of TEP's distribution and standard offer tariffs; fair value and other rate matters; billing, collection; metering; uncollectible amounts; demand side management charges with respect to the unbundled tariff; TEP's projected customer growth rate; the Market Generation Credit and Adder; the Must-Run Generation Rider and the Fixed CTC Rider; must-run generation as it related to market power; and certain AISA issues.

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK
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IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR APPROVAL OF ITS STRANDED COST RECOVERY.	DOCKET NO. E-01933A-98-0471
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IN THE MATTER OF THE COMPETITION IN THE PROVISION OF ELECTRIC SERVICES THROUGHOUT THE STATE OF ARIZONA.	DOCKET NO. RE-00000C-94-0165 **REBUTTAL TESTIMONY OF JAMES S. PIGNATELLI**

On Behalf of
TUCSON ELECTRIC POWER COMPANY

AUGUST 6, 1999

Q. Please state your name and business address.

A. James S. Pignatelli, 220 West Sixth Street, Tucson, Arizona 85701.

Q. What is your position with Tucson Electric Power Company ("TEP" or "Company")?

A. I am Chairman of the Board, President and Chief Executive Officer. I also hold these same positions with TEP's parent company, UniSource Energy Corporation.

Q. Are you the same James Pignatelli who filed direct testimony in this proceeding?

A. Yes.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to generally respond to the direct testimony and comments filed by Staff and some of the Intervenors regarding the Settlement Agreement dated June 9, 1999 ("Settlement") in this proceeding. In addition to my rebuttal testimony, TEP has filed rebuttal testimony for Karen Kissinger and Bentley Erdwurm to specifically respond to the testimony and comments regarding the transfer of TEP's competitive generation assets pursuant to FAS 121, TEP's proposed stranded cost recovery methodology and TEP's proposed unbundled rates.

Q. Do you have any preliminary comments regarding the testimony and comments that were filed?

A. Yes. I am pleased that most of the testimony and comments that were filed regarding the Settlement were generally supportive of Commission approval. Of course there were some disagreements and suggestions for change, but the overall tenor of the testimony and comments was for the Commission to approve the Settlement so that Competitive Retail Access may commence in TEP's service territory. What this indicates is that TEP and its customers struck an appropriate balance regarding the interests of all stakeholders. This is evident in the objective testimony of the Commission Staff, who is in the unique position of taking into consideration and balancing the interests of the Company, all classes of customers and new entrants while ensuring that the overall structure for competition will foster a robust competitive market.

To the extent there was opposition to the Settlement, it appears to have stemmed from either a lack of understanding of the Settlement or what appears to be a desire to delay Competitive Retail Access in Arizona. I would urge the Commission to reject the unsupported arguments of such naysayers in favor of moving forward and bringing an end (and a beginning) to what has been a five-year process.

Q. Please turn your attention to the specific testimony and comments filed by Staff and some of the Intervenors. Starting with Staff, Mr. Williamson in summarizing the Settlement states on page 3, line 8, that "the Settlement also indicates that the parties to the Settlement will make certain recommendations to the Commission for the low-income rate discount program." Have TEP and the parties to the Settlement (collectively referred to hereinafter as "Parties") made such recommendations?

A. Yes. The recommended changes to TEP's low-income rate discount program are set forth in TEP's proposed unbundled distribution tariff contained in Exhibit B to the Settlement. The changes reflect what was set forth in the Section 11.1 of the Settlement and in my direct testimony.

Q. Mr. Williamson discusses Staff's recommendations with respect to the proposed waivers requested in Section 12.1 of the Settlement. Do you have any response?

A. Yes. TEP will agree to all of the Staff recommendations with respect to the requested waivers. TEP would also request the Commission to approve the waivers of Condition Nos. 23 and 25 of Decision No. 60480 regarding the requirements to maintain job descriptions and to keep "positive" time sheets for the reasons set forth in my direct testimony.

Q. Ms. Smith's testimony on page 3 states that, although she believes that the formation of the Arizona Independent Scheduling Administrator ("AISA") and Desert STAR is "an important step in providing fair access to the wires," she alleges that "as long as a single entity owns and controls transmission and owns generation there will be an incentive for and the possibility of limiting access of other suppliers to the wires." What is your response to this contention?

A. TEP believes that the AISA and Desert STAR will have protocols that will preclude limiting access to other suppliers to the wires of a utility distribution company ("UDC") despite its ownership of generation facilities. Notwithstanding these protocols, the Commission (and this Settlement) through the Electric Competition Rules ("Rules") will require the transfer of generation to a separate affiliate and for the UDC to provide standard offer service to be procured from the open market. These safeguards, along with the Federal Energy Regulatory

Commission ("FERC") required Open Access Transmission Tariff ("OATT") and FERC's oversight over transmission, will mitigate this concern raised by Ms. Smith.

Q. Citing to recent FERC pronouncements regarding Regional Transmission Organizations ("RTOs") and existing utility control over transmission, Ms. Smith also raises a concern regarding must-run generation being provided by an affiliate. Do you believe this is a valid concern under the structure proposed in the Settlement?

A. No. Must-run generation is a component of local distribution support, the prices for which would still be regulated by the Commission. It will also be addressed in both AISA and Desert STAR protocols which would be consistent with eliminating potential concerns.

Q. Ms. Smith and some of the other Intervenors suggested that the Adder be increased to further enhance competition. What is your response to this recommendation?

A. Mr. Erdwurm will address this question in more detail in his rebuttal testimony. However, during the negotiation process, the determination of the appropriate Adder probably received more attention than any other area. I wish to reiterate now that TEP believes that the Adder should reflect only truly avoidable costs. The Settlement recognizes a compromise on the magnitude of these costs and the items that are appropriate to be included. When the market opens and begins to mature, we can then define with more precision each and every cost. This is also why the Adder will be revisited in 2004. However, a change in the Adder now would alter the overall economics of the Settlement, thereby throwing off the delicate balance that was achieved through the negotiation process. The Company and the Parties believe that the Adder is sufficient to promote competition in TEP's service territory. If the Adder is increased beyond the level contained in the Settlement, TEP would under-recover its stranded costs. Therefore, the recovery period would have to be extended or there would need to be a corresponding increase in other rates and charges. Moreover, all interested parties will have an opportunity to request modifications to the Adder at the 2004 filing. At such time, there will be more information available to determine the relative impacts of any adjustments.

Q. On page 6 of Ms. Smith's testimony, she suggests that customer bills should reflect the Market Generation Credit ("MGC") and the Adder as a combined shopping credit for generation. Would TEP agree with to this?

A. Yes.

Q. On page 8 of Ms. Smith's testimony, she suggests that the MGC calculation be based upon the average of at least three days on settlement prices from the NYMEX market. Would TEP agree to this change?

A. Yes.

Q. Also on page 8 of Ms. Smith's testimony, she indicates that the Settlement would be improved by a provision that permitted a redefinition of the MGC under some circumstances such as the NYMEX not surviving in its current form. Ms. Smith recommends that there be a provision included in the Settlement that would allow the Company, Staff or ESPs to request a revision in the measure of the MGC if it becomes impossible to compute with the current definition or otherwise proves unworkable. Would TEP agree to this provision?

A. Yes. I believe that a provision allowing the index to be changed under such circumstances is appropriate.

Q. Do you have any comments with respect to the comments of the Arizona Consumers Council?

A. Only to the extent that the issues regarding "fair value" are addressed in Mr. Erdwrum's rebuttal testimony, and I will leave the legal issues to the attorneys.

Q. The testimony of M-S-R Public Power Agency and Southern California Public Power Authority (collectively "MSR") raises concerns regarding the transfer of TEP's competitive generation assets to a competitive subsidiary and the affect such transfer might have on the existing contractual relationships between the parties. Do you have any comments regarding these concerns?

A. Yes. MSR's primary concern is that the proposed transfer might adversely affect the existing contracts. They propose that TEP should not be "allowed" to transfer the assets without ironclad assurances from TEP and the Commission that this will not occur. First, the transfer of generation assets set forth in the Settlement is in response to and in compliance with the provisions of the Rules. This is a requirement that the Commission (not TEP) has imposed on all Affected Utilities in the State of Arizona. Therefore, to the extent MSR is looking for assurances, it should do so in the context of the rulemaking proceeding so that the Commission can address these issues uniformly among Affected Utilities. More to the point, TEP has committed to MSR, in response to data requests, that notwithstanding the transfer, TEP intends to fulfill its contractual obligations under these contracts. However, in the unlikely event that some unanticipated or unintended consequence of the transfer adversely impacts TEP's ability to fulfill its contractual obligations, TEP will seek assignment, renegotiation or pursue other alternatives to remedy the situation. This written assurance should be sufficient to satisfy MSR at this time. I do not think it is necessary, reasonable or appropriate for the Commission to find as a matter of law (and condition the approval of the Settlement) that the transfer will in no way interfere with these contracts – contracts over which FERC, and not the Commission, has regulatory jurisdiction.

Q. The City of Tucson has requested clarification as to when TEP would start purchasing power for its standard offer power from the competitive market. When will this occur?

A. Pursuant to Section 3.1 of the Settlement, TEP will commence purchasing competitive generation for its standard offer customers on or before December 31, 2002 concurrently with the transfer of its competitive generation assets.

Q. As requested by the City of Tucson in its Comments, will TEP update its unbundled tariffs following rate reductions?

A. Yes. Following any changes in its rates or charges, TEP has and will file with the Commission revised tariffs.

Q. As requested by the City of Tucson in its Comments, would TEP agree to permit any party to this docket to intervene at the time of the 2004 filing to request changes in rates and charges or the Adder?

A. Yes.

Q. As requested by the City of Tucson in its Comments, would TEP agree to permit any party to this docket to intervene and participate with respect to the approval of a Final Code of Conduct?

A. Yes.

Q. Enron and Commonwealth raised issues with respect to the Code of Conduct. Would you please comment on their concerns.

A. Yes. Although the Code of Conduct is an important issue in which many of the stakeholders have different perspectives, TEP has attempted to address this issue on an interim basis in order to permit Competitive Retail Access to commence in TEP's service territory as soon as possible. First, it should be noted that the Interim Code of Conduct ("Interim Code") that TEP filed in conjunction with this Settlement, was modeled in large part after the requirements set forth in the Commission's Affiliate Transaction Rules that were adopted last year. Section 7.1 of the Settlement provides that TEP will follow the Interim Code until a Final Code of Conduct is adopted consistent with the Rules. Therefore, TEP anticipates that the Rules will set forth minimum requirements for a Code of Conduct for all Affected Utilities and their affiliated ESPs and that a separate proceeding will be conducted by the Commission in which all stakeholders will have input prior to the adoption of any Final Code of Conduct. However, the Interim Code contains all the necessary safeguards to prevent cross subsidization and level the playing field among all ESPs. It should be noted, however, that at this time since NEV Southwest was recently sold, TEP does not have an affiliated ESP. TEP anticipates filing an application for a CC&N for an ESP in the near future, which would then have to be processed through the Commission. Therefore, the issue of the Interim Code for TEP is currently moot as we anticipate that any ESP affiliate that TEP will form will be subject to the Final Code of Conduct. Notwithstanding, the Interim Code should serve the purpose contemplated in the Settlement.

Q. Do you have any other comments regarding the comments filed by Enron?

A. Yes. Most of Enron's other concerns will be specifically addressed by Ms. Kissinger or Mr. Erdwurm in their rebuttal testimony. However, I think it should be noted that up until approximately one hour before the Settlement was executed, Enron was represented in the Settlement negotiations by counsel through AECC. Enron had access to all information and the ability to participate. TEP considered Enron as the ESP representative during the negotiation process. TEP believes that the seven policy areas set forth on page 2 of Enron's comments were part of the negotiations and are reflected in the Settlement.

Q. Mr. Neidlinger claims on page 6 of his testimony that the Competition Transition Charge ("CTC") collection from special contract customers in all likelihood will fall short of the actual amount of CTC such customer's should be paying. Mr. Neidlinger also states how the shortfall should be collected. Please comment on this assertion.

A. Ms. Kissinger will address this issue in greater detail. However, TEP has always maintained that TEP must have a reasonable opportunity to recover its stranded costs. This was a negotiated Settlement. The provisions regarding special contract customers are consistent with the Commission's Rules. Mr. Neidlinger's suggestion that TEP should forego what he believes to be $119 million of stranded costs is completely unacceptable. Moreover, the suggestion that special contract customers would voluntarily renegotiate their contracts to pay an additional $119 million is just not realistic.

Q. Mr. Neidlinger also suggests on page 5 of his testimony that some kind of rate case be filed within one year to determine stranded cost for each ratepayer class. Would TEP be willing to prepare this filing?

A. No. The Settlement specifically calls for the unbundling of TEP's existing rates pursuant to the Rules for each tariff, which TEP has done. Additionally, TEP has also not collapsed any tariff which could result in cost shifting. The unbundled rates for each customer class do not exceed the rates that such classes are currently paying today. At the time of the 2004 filing, appropriate adjustments, if any, can be made.

Q. Turning your attention to the testimony filed by Commonwealth, did Commonwealth directly participate in the Settlement negotiations?

A. No. However, as I discussed in a previous answer, TEP viewed Enron as the ESP representative in the negotiations. Additionally, Commonwealth was given a copy of the term sheet and the proposed Settlement in advance of the filing. No attempt was made to meet with TEP to address Commonwealth's initial concerns prior to the filing, although an offer to do so was extended by TEP.

Q. Mr. Bloom asserts at page 5 of his testimony that the Settlement limits residential access. Do you agree?

A. No. The Settlement is consistent with the Rules, and TEP will phase-in residential access in conformance with Commission requirements. Mr. Bloom's assertion that TEP cannot point to other states that limited residential participation is ludicrous. TEP is obligated to follow the Rules of this Commission. If Commonwealth has an issue with the Rules, it should participate in the rulemaking docket as opposed to criticizing TEP and the Settlement.

Q. Mr. Bloom states on page 6 that the Settlement is not in the public interest and that there will be no competition in Arizona until 2009. Please comment on this?

. . .

A. It is clear to me that Mr. Bloom does not understand the Settlement. The Settlement is in the public interest because it provides TEP a reasonable opportunity to recover its stranded costs while, at the same time, it provides efficient ESPs an opportunity to compete for customers. I strongly disagree with the assertion that because "TEP has not determined what the average savings might be for its customers . . . I can only conclude that this Settlement merely gives TEP continued monopoly control in exchange for a 2% rate cut for its customers." This statement is not based upon any facts or analysis. ESPs should be doing their own competitive analysis as to what savings a customer might achieve to entice them to switch providers.

Q. Please comment on Mr. Bloom's reference to Dr Rosen's past testimony to bolster Commonwealth's claim that the Adder proposed by the Settlement is too low.

A. I do not think it is appropriate to even reference Dr. Rosen's testimony in this proceeding. Without waiving TEP's right to object, I disagree with Dr. Rosen's analysis, which is not based upon this Settlement.

Q. On page 13 of the testimony, Mr. Bloom asserts that he is not alone in not understanding the MGC. He bases this allegation on the fact that TEP did not provide him with a specific example and referred Commonwealth to the language of the Settlement. To your knowledge, has any other party raised concerns regarding the complexity of the MGC?

A. No. In fact, the feedback that I have been receiving has been fairly positive with respect to the MGC/Adder approach. It seems to provide those ESPs (that have taken the time to understand it) a real mechanism to be able to compete for customers in Arizona. The implication that TEP does not understand its own MGC, because it did not do Commonwealth's work for it, makes little sense.

Q. On page 22 of his testimony, Mr. Bloom advocates TEP auctioning its generation assets. He also refers to TEP's proposed witness in the previous settlement agreement to support his claim. What is your position?

A. Again, I think it is inappropriate to reference Mr. Paton's testimony. This testimony was based upon the Company's decision to divest itself of its generation assets premised on a prior Commission decision. This is clearly not the case today, nor the basis of this Settlement.

Q. On page 23 of his testimony, Mr. Bloom raises concerns about TEP's continued ownership of generation and other competitive assets. He states that the transfer will result in TEP being able "to set the price of generation in its service territory." Do you agree?

A. No. Again, if Mr. Bloom had read the Settlement carefully, he would see that TEP is required to transfer its assets to a subsidiary and then procure its standard offer generation from the competitive market. If TEP's Genco prices its generation out of market, it will be unable to use those generation assets to provide generation to TEP's UDC. On the wholesale transmission side, TEP is obligated to follow its FERC required OATT. There is also the oversight from the Commission, the AISA and eventually Desert STAR.

Q. Mr. Bloom's final recommendation is for the Commission to reject the Settlement in its entirety. Please comment.

A. Given Commonwealth's positions in the TEP and APS proceedings, I do not believe that Commonwealth is serious about Competitive Retail Access becoming a reality in Arizona. If the Commission rejects this Settlement, Competitive Retail Access will be delayed indefinitely. Further, there is no assurance that, even after fully litigated proceedings, Commonwealth would have better opportunities than what would exist under the Settlement. No other ESP is calling for the outright rejection of the Settlement in its entirety, which is an indication about other ESPs' ability to compete, as well as Commonwealth (who has not re-applied for a CC&N), as a serious player in Arizona.

Q. New West Energy is suggesting that the Agreement be approved on an interim basis with a cost of service study to be filed within three months followed by a rate case. This would also include an evaluation of TEP's transmission and distribution rates. What is TEP's position on this recommendation?

A. The specifics of these recommendations will be discussed in greater detail in Ms. Kissinger's and Mr. Erdwurm's rebuttal testimonies. However, TEP would not agree to this recommendation. TEP has unbundled its rates consistent with the Rules. A part of the negotiation process and a condition of the Settlement was that this type of a rate review would be conducted in 2004. This timing will allow competition to commence and then to determine whether any rate adjustments are necessary. As I discussed in an earlier response,

. . .

changing the rates at this time would upset the delicate balance that this Settlement attempts to achieve and would change the economics of the Settlement.

Q. New West Energy is also suggesting that the recovery period for stranded cost end at 2004 consistent with APS and SRP. What is TEP's position?

A. Again, Ms. Kissinger and Mr. Erdwurm will address this issue in their rebuttal testimonies. However, it is impossible for TEP to have a reasonable opportunity to recover all of its stranded costs by 2004 without increasing rates to its customers. The Rules permit the Commission to examine each Affected Utility on the basis of their unique financial and other circumstances. Arbitrarily terminating TEP's stranded cost recovery at 2004 and causing write-offs is inconsistent with the Rules and the Commission's Stranded Cost Orders.

Q. Do you have any concluding remarks?

A. Yes. This Settlement and this proceeding is the culmination of over five years of hard work by the Commission, Staff and the numerous parties that have spent considerable time, money and effort in bringing Competitive Retail Access to Arizona. This Settlement, albeit not perfect, by definition is a compromise that will permit the introduction of Competitive Retail Access in TEP's service territory before the end of this year. Although TEP recognizes that some of the Intervenors are requesting that the Commission alter the Settlement, the Settlement was the product of months of negotiation that established a delicate balance of interests. I urge the Commission to approve the Settlement in its present form. Without the Settlement, the introduction of Competitive Retail Access in Arizona could be delayed indefinitely.

Q. Does this conclude your rebuttal testimony?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK
Chairman
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IN THE MATTER OF THE COMPETITION IN THE PROVISION OF ELECTRIC SERVICES THROUGHOUT THE STATE OF ARIZONA.	)	DOCKET NO. RE-00000C-94-0165 **REBUTTAL TESTIMONY OF KAREN G. KISSINGER**

On Behalf of
TUCSON ELECTRIC POWER COMPANY

AUGUST 6, 1999

Q. Please state your name and business address.

A. Karen G. Kissinger, 220 West Sixth Street, Tucson, Arizona 85701.

Q. What is your position with Tucson Electric Power Company ("Company" or "TEP")?

A. I am Vice President, Controller and Chief Information Officer. I am also Vice President, Controller and Principal Accounting Officer of TEP's parent company, UniSource Energy Corporation.

Q. What is the purpose of your testimony?

A. The purpose of my rebuttal testimony is to address certain accounting issues raised concerning determinations of stranded cost and values for generation assets.

Q. Some intervenors have raised questions regarding the lack of a specific determination of a total amount of stranded cost to be recovered through the Settlement. What is your response?

A. The amount of actual stranded cost can only be determined over the useful lives of the generation assets. We cannot today predict with certainty the value that the markets will place on electricity generation in the region in the future. We did, however, provide estimates of total stranded cost based on an estimated market value.

There are some costs, such as regulatory assets, which we know for certain would not be recoverable in an unregulated environment. These costs are the direct result of past regulatory decisions. The projected balance of these costs at September 30, 1999 is approximately $200 million. Each of these regulatory costs has been previously subjected to a rate proceeding, approved as an appropriate cost, and is being recovered through rates today. The $200 million represents the amount of regulatory assets we will have not yet recovered through rates as of September 30, 1999.

To further identify stranded costs, we can also subject our generation plant assets to a fair value impairment test as specified under Statement of Financial Accounting Standards No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of* ("FAS 121"). This test uses the best information available today to estimate whether the asset will earn sufficient income throughout its life to cover the costs of operating that asset, including its depreciation. We performed such a test on our generation assets and determined that, absent recovery under normal rate regulation, $250 million of such costs would not be recovered. This amount of plant cost would be written down and a new stranded cost asset would be established to replace it. We have added that $250 million of costs to our request for stranded cost recovery.

The generation regulatory assets and the impaired portion of the generation plant assets total $450 million and represent the amount of cost for which we are seeking recovery through the Fixed CTC mechanism. These are the amounts of stranded costs we feel certain we will incur and for which we need an assured mechanism to provide recovery. The Fixed CTC mechanism allows us to keep the costs capitalized on the balance sheets, and to amortize them to expense as the related revenues are recovered. Without this assured recovery mechanism, the Fixed CTC, we would be required to write off these costs in accordance with generally accepted accounting principles.

The remaining elements of stranded cost recovery are more difficult to identify and more difficult to predict with certainty. Under the proposed Settlement, the balance of the stranded costs is determined by the difference between the revenues allowable under the frozen rate and the sum of the regulated tariffs for transmission and distribution services and the price for energy determined by the competitive energy market. The price that generation earns in the competitive market will vary over time. The Floating CTC allows our recovery to change as the market changes. When the value of generation declines, the stranded cost and Floating CTC increase. Similarly, as the value of generation increases, stranded cost and the Floating CTC decrease. The amount of recovery varies with the need for recovery.

Q. Some parties have suggested that a portion of the $450 million of costs proposed to be recovered through the Fixed CTC be recovered through the Floating CTC. Is this acceptable from an accounting and financial perspective?

A. No, it is not. In order to capitalize these costs on the balance sheet for future recovery and to avoid write-offs which would unacceptably reduce the Company's equity, the recovery path needs to be fixed and determinable. Recovery through a floating mechanism is not fixed or determinable. The revenue stream for the recovery must meet the requirement of Emerging Issues Task Force Issue 97-04 - *Deregulation of the Pricing of Electricity - Issues Related to the Application of FASB Statements No. 71, Accounting for the Effects of Certain Types of Regulation, and No. 101, Regulated Enterprises-Accounting for the Discontinuation of Application of FASB Statement No. 71* (ITF 97-4). Paragraph 11 states:

11. On Issue 4(b) the Task Force reached a consensus that the "regulatory assets" and "regulatory liabilities" that originated in the separable portion of an enterprise to which Statement 101 is being applied should be evaluated on the basis of where (that is, the portion of the business in which) the regulated cash flows to realize and settle them, respectively, will be derived. "Regulated cash flows" are from rates that are charged to customers and intended by regulators to be for the recovery of the specified "regulatory assets" and the settlement of "regulatory liabilities." They are derived from a "levy" on rate regulated goods or services provided by another separable portion of the enterprise that meets the criteria for application of Statement 71.

Q. Others have suggested a Fixed CTC for the entire amount of recovery, rather than a split of fixed and floating. How would this change the accounting for the Settlement?

A. The use of a Fixed and a Floating CTC was developed to provide a flexible mechanism which is fair to the consumer. A Fixed CTC for the entire balance would provide greater assurance that a certain amount of recovery would occur. However, given the natural volatility of competitive markets, the amount of recovery would certainly be different from the projection. If generation values prove to be low in the marketplace, the Company would under-recover its stranded costs, which is not acceptable to the Company. If generation values prove to be high, the Company could over-recover, which would likely not be acceptable to the consumer. The blend of Fixed and Floating CTC as proposed by the Company was intended to provide a more accurate recovery mechanism.

Q. Some concern has been raised about the use of the tests in FAS 121 as the determinant of fair value. Could you please discuss why FAS 121 was used?

A. Once the Arizona Corporation Commission approves the Settlement Agreement, the Company will have a specific cost recovery plan for its assets and a determinable deregulation plan. This means that at that point in time the Company will need to cease accounting for its generation assets in accordance with the provisions of FAS 71. Once that occurs, all of the generation plant assets will be subject to the FAS 121 impairment test described earlier in this testimony. This is the test that will determine the amount of any write-offs which may be required. The $250 million of plant write-down to be recovered through the Fixed CTC was determined through this same test. Since this is the test to which the Company will be held accountable for financial reporting purposes, it is an appropriate measure to use for a fair value determination in this circumstance. Other measurements, such as an appraisal, would take considerably more time and expense to accomplish. Further, an appraisal would provide no greater value as a future value measure because an appraisal would be as of a fixed point in time, as is the FAS 121 impairment test.

Q. Is this the same test the Company intends to use to determine the fair value of the generation plant when it is transferred out of TEP to an affiliate?

A. Yes. Since this is the test that the Company applied now to determine the fair value of the plant, it is appropriate to use the same measure in the future. However, as stated in TEP's replies to various data requests, if generally accepted accounting principles change between now and the date of transfer to require a different determination of fair value, then the new measure of fair value will be applied.

Q. Some parties have made a distinction between the use of fair value and book value as a transfer price for the transfer of generation from TEP to an affiliate. This issue was also raised in the Arizona Public Service Company ("APS") hearing. Do you believe this should be a significant issue in TEP's case?

A. No, I do not. Because the value of the generation assets has been determined to be impaired, and a write-down proposed, at the present time there is little value to the distinction. After the $250 million of plant costs are written off and re-established as regulatory assets, the value of generation plant on the financial records of TEP will approximate fair value under the FAS 121 impairment test. With an insignificant difference between the two values after this write-down occurs, I expect little difference between the values in the short three-year period between now and the proposed date of transfer to an affiliate.

Q. Some parties have questioned what specific assets the Company intends to transfer to a generation affiliate. Could you please describe those assets?

A. The Company intends to transfer all of the plant assets related to the generation business to the affiliated company. If there is some concern that there are other kinds of competitive assets that TEP could be transferring, the issues can be further explored at the time of transfer. Moreover, UniSource Energy Corporation has recently sold its interest in New

Energy Ventures, Inc. to AES Corporation in July of this year. TEP has no assets other than generation plant that we perceive would be relevant to an unregulated generation company.

Q. Some parties have suggested that the transmission and distribution rates as proposed in the Company's Settlement should be lowered. Others have suggested that, if the CTC does not recover fully stranded costs from a particular class of customer, TEP shareholders should absorb the difference. Do you have any accounting concerns from either of these positions?

A. Yes, I am concerned that the principles of the Settlement adhere to the principles of cost recovery in rate design. The operations of the distribution company will remain within the accounting applicability of FAS 71, but only so long as the basic tenets of cost-based ratemaking are adhered to. Any cost allocation method must recover the cost to provide that service and be based upon that premise. Otherwise, the distribution company would not be permitted to account for its operations in accordance with FAS 71. The distribution company would then be required to write off its regulatory assets and subject all of its plant assets to a FAS 121 impairment test. Such write-offs would further erode TEP's equity and impair TEP's ability to continue as a provider of regulated distribution services.

Similarly, I am concerned about write-offs from the desire to have TEP shareholders absorb any costs not recovered from a particular class of customer or contract. Any costs that are demonstrated to be unrecoverable need to be written off as soon as it becomes probable that such costs will not be recovered.

Q. Some parties have suggested that the stranded cost recovery period for TEP should end in 2004, as it does for APS and Salt River Project ("SRP") in their deregulation proposals. Do you have any concerns about the possibility of recovery ending as early as 2004 for TEP?

A. Yes. By nearly any measure of relative size, TEP's stranded costs are much higher than those of APS or SRP. TEP has far fewer customers, TEP's retail revenues are much lower, and TEP's balance sheet has significantly less shareholder equity relative to APS. Full stranded cost recovery is essential to TEP's continued financial viability. A shorter stranded cost recovery period would not allow TEP to offer the agreed-upon rate freeze. The Fixed CTC and Floating CTC would each have to be increased, with a commensurate increase in standard offer rates. Accelerated amortization of the Stranded Cost Asset would significantly reduce TEP's net income and impair TEP's common equity. Without an accelerated recovery of the stranded costs to fit the shorter time-line, any amounts of stranded costs not expected to be recovered through rates would need to be written off to expense as soon as the lack of recovery becomes probable.

Q. Do you have any concluding remarks?

A. No.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASEK
Chairman
JIM IRVIN
Commissioner
WILLIAM A. MUNDELL
Commissioner

IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR APPROVAL OF ITS STRANDED COST RECOVERY.	DOCKET NO. E-01933A-98-0471
IN THE MATTER OF THE FILING OF TUCSON ELECTRIC POWER COMPANY OF UNBUNDLED TARIFFS PURSUANT TO A.A.C. R14-2-1602, *et seq.*	DOCKET NO. E-01933A-97-0772
IN THE MATTER OF THE COMPETITION IN THE PROVISION OF ELECTRIC SERVICES THROUGHOUT THE STATE OF ARIZONA.	DOCKET NO. RE-00000C-94-0165 **REBUTTAL TESTIMONY OF BENTLEY ERDWURM**

On Behalf of
TUCSON ELECTRIC POWER COMPANY

AUGUST 6, 1999

Q. Please state your name and business address.

A. Bentley Erdwurm, 220 West Sixth Street, Tucson, Arizona 85701.

Q. What is your position with Tucson Electric Power Company ("Company" or "TEP")?

A. I am the Rate Analysis Supervisor in the Marketing and Regulatory Services Department at TEP.

Q. Please summarize your educational background.

A. I hold a B.A. in Economics from the University of Dallas and an M.S. in Economics from Texas A&M University. My academic focus was in the areas of econometrics, industrial organization, and mathematical statistics.

Q. Please summarize your work experience.

A. From 1982 through 1985, I was employed by the Public Utility Commission of Texas ("PUCT") as an Analyst and as a Senior Analyst. At the PUCT, I testified as an expert witness on cost allocation, rate design, and statistical and econometric issues. From 1985 to 1991, I was employed by Alabama Gas Corporation ("Alagasco") as a Senior Rate Analyst and as a Rate Supervisor. At Alagasco, I worked and testified in the areas of pricing, cost allocation, statistical and econometric analysis, and the acquisitions of other gas distribution systems. At TEP, I have worked on cost allocation, pricing, statistical and econometric issues, and have testified in the last two general rate cases.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address the specific concerns raised in the comments and testimonies filed by Staff and the Intervenors in this proceeding relating to the following:

- Various Intervenors have claimed that the cost basis for the unbundling is outdated, and have proposed the equivalent of a new rate case. I will describe TEP's unbundling methodology and explain why the Company's unbundling approach offers a timely, sound and appropriate route to competition.
- Various Intervenors have claimed that TEP's transmission and distribution (T&D) rate is excessive. As I will explain, TEP's T&D rate is reasonable and cost justified.
- The Arizona Consumers Council has alleged that the proposal "does not set a fair and reasonable market value for generation assets as required by the rules and decisions of

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this Commission." I will explain why TEP's unbundled rates address this issue and why I believe the Settlement is consistent with the Commission's ratemaking authority.

- Various Intervenors have alleged that billing and collection and metering charges are not based on embedded costs. I will explain why this is not correct and that billing and collection and metering charges are based on the average embedded cost rates approved in TEP's last general rate case.
- Various Intervenors have alleged that the Adder is insufficient to facilitate competition. TEP's Adder proposal is the only well-documented, cost-based Adder proposal presented in this proceeding.
- Various Intervenors have alleged that the shopping credit (represented by the sum of the Market Generation Credit ("MGC") and the Adder, loss adjusted) proposed by TEP is a complicated, burdensome approach that will preclude active residential and small commercial participation in the competitive market. I will discuss TEP's simple energy-based Adder mechanism that provides ample opportunities for small customer participation, and TEP's MGC calculation that applies across the board to all customer classes.
- I will address issues raised by Mr. Neidlinger with respect to the Fixed Must-Run and Fixed CTC Riders.
- I will address the issue of TEP's load growth that was raised in the testimony of Ms. Smith.
- I will address Enron's issue relating to the Arizona Independent Scheduling Administrator ("AISA") costs.

Q. Please elaborate on the claim by some Intervenors that the basis for unbundling is outdated and that a new rate case is required.

A. A new rate case is not necessary at this time. TEP's unbundling meets two main goals:

- First, pursuant to the Settlement, the sum of the unbundled rate components of the direct access tariffs equals the bundled standard offer rate. This ensures that customers need not deal with a new bundled rate design at the same time they are trying to sort out the benefits of competition. Additionally, it helps ensure that no customer sees a rate increase. Finally, it subjects the unbundled proposal to the review and scrutiny of TEP's last two general rate cases. Total rate base, expenses, income taxes and associated returns upon which revenue requirements are based, have been approved by the Arizona Corporation Commission ("Commission"). Moreover, embedded cost and fair value determinations were made in the last general rate case and apply to the bundled rates, the basis for the unbundling proposal. Relevant support was provided in the Company's supplemental response to Staff's request No. LS-3 which is attached as Exhibit DBE-1 to my testimony.

- Second, pursuant to the Settlement, the combined distribution (including distribution, meter services, meter reading services, billing and collection, demand-side management ("DSM") system benefits, customer information and lifeline discount system benefits, and uncollectible accounts) and transmission ("T&D") components of the rate would average 2.60 cents per kWh. The unbundled components are cost-based and the unbundling is based on the methodology approved by the Commission in the last general rate case. The functional unbundling is accurate and is conducted at a level of detail that will facilitate competition. Parties to the Settlement agreed that the 2.60 cents per kWh T&D rate was reasonable and reflective of T&D costs that will be associated with these functions on a go-forward basis. Details of the 2.60 cents per kWh T&D rate were provided in the Company's responses to data requests.

Finally, as mentioned previously, the proposal for a new rate case would substantially delay the start of competition and would be extraneous given the thorough analysis that is the basis for the unbundled rates in the Settlement.

Q. Please comment on New West's allegation that "the proposed transmission and distribution prices are excessive, as evidenced by the fact that unbundled transmission and distribution prices are 17.6% higher than TEP's own statement of costs in its last rate case."

A. TEP's 2.60 cents per kWh T&D rate is cost-based, and TEP has provided documentation of this rate in its data requests. New West's statement that TEP's proposed 2.60 cents per kWh T&D rate is excessive is based on a perfunctory comparison to the T&D costs stated in TEP's last general rate case. According to New West's responses to TEP's Data Requests 2 and 7, no additional analysis supported their allegation that the T&D charge is excessive. It is interesting to note that while New West is quick to judge TEP's T&D rate to be excessive, New West has indicated in response to TEP Data Request 6 that it has not raised the issue regarding the level of T&D with respect to the unbundled tariffs of either Arizona Public Service Company or to New West's parent company, Salt River Project ("SRP"). I performed a calculation based on SRP's functional unbundling, and found that SRP's residential T&D component <u>exceeds</u> TEP's comparable proposed residential T&D component by 18% based on TEP's typical average summer and winter residential load (average summer monthly usage of 853 kWh and average residential winter usage of 695 kWh). The SRP average residential T&D component for this typical customer is 4.40 cents per kWh, compared to 3.73 cents for TEP. Admittedly, one must be careful in making cost comparisons between distribution companies because circumstances differ. However, this T&D residential cost comparison demonstrates the pitfalls in New West's rush to judgment in assuming that TEP's 2.60 cents per kWh T&D rate is excessive.

Q. Please address New West's and various other Intervenors' concerns over the increase in TEP's T&D rate.

A. The Commission has put forth various policy decisions with respect to current vertically integrated utilities. In particular, TEP's Settlement and the Commission's Electric Competition Rules ("Rules") require the transfer of "generation and other assets deemed to be competitive as defined in the Rules to a subsidiary of TEP, at market value." TEP's unbundling analysis incorporates the expected effects of the disaggregation of the Company. With respect to the transmission component of the T&D rate, the FERC-approved Open Access Transmission Tariff revenue requirement was taken as a given, and all other unbundled components of the rate were calculated accordingly.

Q. Please comment on the Arizona Consumers Council's claim that the Settlement "does not set a fair and reasonable market value for generation assets as required by the rules and decisions of this Commission."

A. The issue of the transfer of generation assets at market is addressed in Ms. Kissinger's rebuttal testimony. With respect to fair value relating to TEP's unbundled rates, the sum of the unbundled rate components of the direct access tariffs equals the bundled standard offer rate. Embedded cost and fair value determinations were made in the last general rate case and apply to the bundled rates – the basis for the unbundling proposal. This information was provided in the supplemental response to Staff No. LS-3 (*see* Exhibit DBE-1). TEP is not seeking any increases in its rates and charges which would necessitate a filing by TEP and review and approval by the Commission to set the rates. The Settlement is nothing more than an unbundling of TEP's existing Commission approved rates and charges (coupled with a rate decrease). Based upon my experience with TEP as it relates to fair value determinations in rate cases, it is clear that the analysis in the last general rate case applies to this Settlement process.

Q. Please comment on the assertions that billing and collection and metering costs are not based on embedded costs, and on the specific allegation by Commonwealth Energy Corporation that "the Arizona utilities are on a mission to use the 'net avoided cost' approach to metering, meter reading, and billing and collection services."

A. Billing and collection, metering, meter reading, and costs associated with the service drop were the components of customer charges approved by the Commission in the last two general rate cases. In these cases, TEP argued that customer charges should be limited to the billing and collection, metering, meter reading, and service drop functions, and should not include the type of distribution costs associated with "minimum system" type approaches, or any other approaches that would increase customer charges through the inclusion of additional distribution costs. Neither Staff nor any Intervenor opposed TEP's position that customer charges should be limited to the aforementioned functions. Indeed, TEP's proposal was well received. Testimony on the specific dollar amounts of the components was offered by TEP and at least one Intervenor, and the Commission determined appropriate embedded cost-based customer charges. These Commission-approved, embedded cost-based customer charges supported the sum of the unbundled customer charges included in the Settlement.

Q. Please discuss TEP's Adder proposal in the Settlement, addressing the concerns of some Intervenors that the Adder is insufficient to facilitate competition.

A. TEP's Adder proposal is the only well-documented, cost-based Adder proposal presented in this proceeding. As Mr. Pignatelli stated, the Adders are intended to reflect avoidable costs, which are the basis for the Adders shown in TEP's proposed Rider No. 1. The cost differential calculation was provided in data request responses. After extensive negotiation, the Parties to the Settlement reached a consensus that the proposed Adders were sufficient to facilitate a competitive market. Consequently, the various proposals of Staff and Intervenors for additional increases in the Adders to account for a potpourri of assorted "retailing" costs are irrelevant. More significantly, the bases for these calls for additions to the Adder are unsound, and represent attempts to unfairly place the burden of competitive access on TEP's shareholders. This amounts to a subsidy to the ESPs by TEP's shareholders.

Q. Please comment on Enron's claim that there is no way to evaluate whether an Adder is adequate for particular customers.

A. Enron is incorrect when it asserts that there is no way to determine the adequacy of Adders for particular customers. The Adders are supported in cost analysis provided in TEP's responses to data requests. This cost analysis is consistent with Settlement language cited by Enron that the Adder's purpose is to estimate the cost of supplying power to a specific customer or customer group and stratum relative to the value of the NYMEX futures price used in the calculation of the market price for a 100% load factor customer. Enron incorrectly states the language of Section 2.1(e) of the Settlement. Enron claims that the Section states that "the MGC and the adder will be adjusted for each customer class (which may be further divided into class strata or in some cases by large customer) for differences between the class load factor and the system average load factor." In fact, Section 2.1(e) mentions neither the class load factor nor the system average load factor.

Q. Enron's misread of the Settlement language notwithstanding, has the Adder been adjusted for differences between class load factor and system load factor?

A. It is more accurate to say that Adders reflect class load profiles. Load profiles are built from hourly load data, and are more comprehensive than load factor calculations that express only the relationship between average demand and peak demand. A load factor can be calculated from load profile data, but a load profile cannot be extracted from a load factor. Implicit in the load profile is the load factor.

Q. Which is more accurate, an Adder cost analysis based on load profiles (as performed for the Settlement analysis) or an analysis based on load factors?

A. The analysis based on load profiles is more accurate, since it incorporates the effect of the entire load shape, not just the load factor.

Q. Has the MGC been adjusted for differences in class load factor and system load factor?

A. No. Such an adjustment would not make sense for the MGC as defined in the Settlement. All load shaping is accomplished through the Adder. This simplifies the MGC calculation. TEP's calculation of the Settlement MGC is based on a load factor of 100% and applies across the board to all classes of service. Enron's confusion on this issue results from its misreading the Settlement language, as described above.

Q. Enron has argued in its comments that the Adder should include "retailing costs (*e.g.*, customer care, marketing, procurement and scheduling) and all other costs directly charged to an ESP or its Scheduling Coordinator." Has Enron quantified any of these costs?

A. No. In response to TEP's Data Request TEP-2 to Enron, Enron stated that it "is not aware of the specific level of costs that should be included in the adder. This determination requires review of unbundled cost of service data. Such a review has not been conducted by Enron." As mentioned above, TEP opposes increases in the Adder associated with retailing costs.

Q. Enron has proposed that the Adder should reflect savings to TEP, and costs to ESPs, for uncollectibles. What is TEP's position regarding this?

A. TEP's cost-based Adder was the result of a negotiated settlement. The Adder is fair to all stakeholders and will facilitate competition in TEP's service territory. TEP is opposed to any modification to the Adder.

Q. Staff and various Intervenors have asked that the Adder be increased, or an adjustment be made, for various retailing costs including load forecasting, customer service representatives, customer account managers, rate design, financing costs for procuring power from the wholesale market, customer care, marketing, procurement and scheduling, load balancing, alleged differences between "wholesale" and "retail" markets and profit. You testified above that TEP opposes increasing the Adder. Please explain.

A. Staff and various Intervenors generally argue that the UDC will be able to shed portions of certain costs, that these costs will be picked up by ESPs, and that consequently, the Adder should be increased. TEP disagrees. To use a specific example, TEP will not be able to reduce its forecasting budget significantly after the advent of competition. Intervenors have taken an academic approach and have disregarded practical considerations. Clearly, one does not perform half of a forecast if half of the customers choose the competitive option. Another example is customer service. If power is lost during a storm, customers will first call the UDC. The UDC must stand ready to provide the high quality levels of service to which customers are accustomed and entitled.

Q. Various Intervenors have recommended excluding advertising from System Benefits Charge ("SBC") components of the unbundled tariff. What is TEP's position on this proposal?

A. Promotional advertising is already excluded from TEP's rates and, therefore, is not a component of the SBC. This issue is moot. However, TEP is permitted to recover Commission-approved costs relating to DSM advertising or Commission-approved public service informational advertising. Given that DSM programs are still mandated by the Commission and are components of the SBC under the Rules, TEP's methodology is appropriate.

Q. Various Intervenors have suggested that DSM costs (as well as the associated advertising costs) should be excluded from the SBC. Do you believe that this is appropriate?

A. No. Consistent with the previous answer, TEP should be allowed to recover the costs of any Commission-mandated program.

Q. Various Intervenors have asked for an increase in the Adder, or for an adjustment, to account for the possibility that ESPs may offer DSM programs or DSM advertising. Do you believe that this is appropriate?

A. No. The Commission has mandated that TEP maintain its DSM programs regardless of whether customers choose direct access. TEP does not incur those costs on a customer-by-customer basis. DSM costs will continue to be collected pursuant to the Rules through the SBC.

Q. To what extent has Staff or the Intervenors cost-justified their proposals to increase the Adder?

A. No satisfactory cost justification has been provided in any of the testimonies, comments or responses to TEP's data requests. New West has compiled some information from TEP's FERC Form 1, but has not provided the analysis necessary to translate this compilation into Adders.

Q. Please comment on the allegation made that the shopping credit (represented by the sum of the MGC and the Adder, loss-adjusted) proposed by TEP is a complicated, burdensome

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approach that will preclude active residential and small commercial participation in the competitive market.

A. This allegation is untrue. Before addressing the issue of the Adder's simplicity, I first wish to clear up some Intervenors' misconceptions regarding the level of knowledge that a customer must possess to participate in the competitive market. Simply, the customer will need to compare an ESP's claim of savings in relation to the UDC's standard offer rate to determine whether the ESP can achieve savings for the customer. I expect that most customers will be more interested in the overall level of savings under direct access than in the underlying details of how direct access works. From a practical standpoint, the detailed analysis of direct access will be performed by efficient ESPs on behalf of their prospective customers.

TEP carefully chose a simple energy-based Adder mechanism that provides ample opportunities for *all* customer participation. Because Adders are cost-based, no class of service is placed at a disadvantage that would preclude active participation in the competitive market. The proposed Adders are based on the ratio of maximum summer usage to maximum winter usage – a ratio highly correlated with the cost to serve a customer. The summer/winter ratio is not a complex idea. ESPs should also be able to reasonably predict summer/winter ratios based on a few straightforward questions regarding appliance mix and usage patterns. Most customers have an idea of how much they use in one season relative to another, though such knowledge on the customers' part is not required to participate in the competitive market. Adders are based on energy (kWh) data, which are available for all customers. Demand data (kW) are not available for residential and for most general service customers. With respect to the MGC, TEP's calculation based on 100% load factor applies across the board to all classes of service, and its simplicity is illustrated in Exhibit DBE-2.

Q. Ms. Smith recommends that the Adder should be combined with what the Company labels as the MGC to reflect the full shopping credit for generation. Please comment on TEP's position on her suggestion.

A. TEP wants to help reduce the level of confusion that customers may experience, and is receptive to Ms. Smith's proposal.

. . .

Q. On page 8, line 9, of Ms. Smith's testimony, she suggests that the Adder should be increased by at least 0.5 mills based on her statement that "if the MGC is a single number per month, then the Adder must also reflect the difference between peak and off-peak usage by customers." What is TEP's position concerning this position?

A. TEP respectfully disagrees with Ms. Smith's conclusion. The shopping credit for each class is the composite of the following: (1) multiplying the on-peak MGC (as determined by NYMEX futures prices) by the ratio of the California Power Exchange on-peak to off-peak prices to derive an off-peak MGC and (2) shaping each MGC component using an Adder based on class load profiles. In this way, the MGC plus the Adder, which together have been called the shopping credit, reflects both differences between on-peak and off-peak prices and load shaping. Therefore, Ms. Smith's concern has already been fully addressed by the methodology contained in the Settlement.

Q. Mr. Neidlinger recommended a modification to the calculation of Class Fixed Must-Run Generation (Rider No. 2) and to the calculation of the Fixed CTC Rider (Rider No. 4). Specifically, he recommends that the calculation be based using the peak and average allocators approved in TEP's last general rate case. What is TEP's position concerning this request?

A. These riders were components of the negotiated Settlement, and TEP is opposed to this type of modification.

Q. In her testimony on page 5, lines 14-16, Ms. Smith states that she believes that "the Company's estimate of load growth is slightly low, but its estimate of the market generation credit is somewhat low also." Please comment on these statements.

A. TEP bases its load forecast on historical growth patterns given the best available information. Forecast growth in TEP's load reflects, and is consistent with, prior annual average growth (in both demand and energy) and represents TEP's best estimate of future trends in load growth. TEP has confidence in its ability to estimate its load with a reasonable level of accuracy. Likewise, TEP believes that its forecast of the MGC is based on the best available information, and is likely calculated with a reasonable level of accuracy. Notwithstanding the level of accuracy, there are self-adjusting mechanisms in TEP's CTC calculation such as

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the MGC which adjusts for changes in market prices, and the fixed CTC, which is reduced more rapidly with higher than forecasted sales.

Q. Various Intervenors have raised issues regarding how must-run generation will be priced. Please comment.

A. The Commission will oversee pricing for must-run units pursuant to its regulatory authority over the UDC. Additionally, AISA protocols will also address the pricing of must-run generation.

Q. Enron is concerned that an adjustment be made for AISA costs. Please comment.

A. This is addressed in all of TEP's proposed direct access tariffs in the section entitled "AISA Charge," where TEP explicitly states the AISA Charge for direct access and standard offer customers.

Q. Does this conclude your testimony?

A. Yes.

ACC DOCKET NO. E-01933A-98-0471, E-01933A-97-0772 & RE-00000C-94-0165

STAFF'S REQUEST NO. LS-3
SUPPLEMENT 1

REQUEST: Please state TEP's fair value rate base, and the return on that fair value rate base, for purposes of the June 9, 1999, Settlement Agreement.

RESPONSE **By:** Bentley Erdwurm
Title: Supervisor, Pricing Services

Pursuant to Staff's request, the following information from the last general rate case is attached. Rate base, expenses, income taxes and the associated return upon which revenue requirements are based are shown in Attachments 1 and 2. Because functionally unbundled components sum to bundled rates, and because bundled rates are based on the attached data from Attachments 1 and 2, this data is the total TEP functionalized rate base, expense, income tax and the associated return relevant to the Settlement Agreement. Please refer to the original response to this question for transmission and distribution items.

Additionally, the update for the RCND study is provided in Attachments 3 and 4. Specifically, Attachment 3 is the RCND study for 1997 and Attachment 4 is the comparison of previous RCND studies and estimates for 1998.

Response to Staff Data Request LS -3
Attachment 1
Page 1 of 1

Schedule G-1

Tucson Electric Power Company
Rates of Return at Present Rates
Test Period Year Ended December 31, 1994
(Thousands of Dollars)

Line No.	Function / Description	Total (a)	Residential (b)	General Service (c)	Large Light & Power (d)	Lighting (e)	Public Authority Firm (f)	Reference (g)	Line No.
	Revenues								
1	Net Sales To Ultimate Customers (1)	$575,905	$224,111	$231,747	$50,149	$3,601	$8,464	H-1	1
2	Adjustments To Net Sales To Ultimate Custo	0	25,018	25,870	5,598	402	845		2
3	Other Electric Revenue (1)	19,571	7,678	8,442	1,971	92	254		3
4	Adjusments To Other Electric Revenue (1)	0	1,465	1,228	376	17	48		4
5	Total Revenues	595,476	258,272	265,287	58,094	4,112	9,711		5
6	Operating Expenses Excl. Income Taxes	484,511	216,976	205,692	51,004	2,770	8,069	G-4	6
7	Operating Income Before Income Taxes	110,965	41,298	59,595	7,090	1,342	1,642		7
8	Income Taxes	32,093	10,883	18,541	1,753	462	455	G-1, p.2	8
9	Operating Income	78,872	30,413	41,054	5,337	880	1,187		9
10	Rate Base	1,168,473	530,305	507,684	103,310	7,898	19,277	G-3	10
11	Rate of Return	6.75%	5.74%	8.09%	5.17%	11.14%	6.16%		11
12	Index of Return	100	85	120	77	165	91		12

Supporting Schedules	Recap Schedules
G-1,page 2; G-3; G-4; H-1	(none)

(1) Special Contracts and Public Authority - Interruptible account for $55,248 and $2,585 in Net Sales to Ultimate Customers, respectively; and $2,566 and $124 in Other Electric Revenue, repectively. The associated adjustments are the negatives of the items.

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TUCSON ELECTRIC POWER COMPANY		
PROOF OF REVENUE SUMMARY		
TWELVE MONTHS ENDED DECEMBER 31, 1994		
		PRESENT
CLASS		RATES
RESIDENTIAL		224,111,245
GENERAL SERVICE		231,747,311
LARGE LIGHT & POWER		105,398,344
PUBLIC & PRIVATE LIGHTING		3,600,983
OTHER SALES TO PUBLIC AUTHORITIES		11,046,898
TOTAL		575,904,780

APPRAISAL OF PROPERTY

TUCSON ELECTRIC POWER COMPANY

TUCSON, ARIZONA

ELECTRIC PLANT IN SERVICE AT DECEMBER 31, 1997

(Thousands of Dollars)

ELECTRIC PLANT	Original Cost	Current Cost	Original Cost Book Reserve	Current Cost Book Reserve
INTANGIBLE PLANT	9,175	9,473	4,609	4,829
PRODUCTION PLANT	1,124,691	1,860,251	537,015	1,102,474
TRANSMISSION PLANT-EHV	339,636	578,682	151,010	320,526
TRANSMISSION PLANT-LOCAL	131,595	257,655	54,756	166,285
DISTRIBUTION PLANT	562,335	945,902	212,950	597,712
GENERAL PLANT	104,385	144,764	44,311	70,548
TOTAL, ELECTRIC PLANT	2,271,817	3,796,728	1,004,651 **	2,262,374 **
PLANT HELD FOR FUTURE USE	1,013	1,013	-	-
CUSTOMER ADVANCES FOR CONSTRUCTION	5,228	7,130	-	-

** Amount includes Demoss Petrie Book Reserve of $1,535.

APPRAISAL OF PROPERTY

TUCSON ELECTRIC POWER COMPANY

TUCSON, ARIZONA

ELECTRIC PLANT IN SERVICE AS OF DECEMBER 31, 1997

(Thousands of Dollars)

Line No.	Acct. No.	Description	Original Cost	Current Cost	Original Cost Book Reserve	Current Cost Book Reserve	Line No.
		PRODUCTION PLANT					
		Steam Production					
		Irvington					
1	310	Land and Land Rights	509	1,117	0	0	1
2	311	Structures and Improv.	4,351	19,336	3,814	18,546	2
3	312	Boiler Plant Equipment	25,027	75,705	16,219	68,698	3
4	314	Turbogenerator Units	15,988	64,095	13,730	60,239	4
5	315	Accessory Electric Equipt.	3,050	13,687	2,647	10,217	5
6	316	Misc. Power Plant Equipt.	280	1,331	232	1,335	6
7		Total, Irvington	49,205	175,271	36,642	159,034	7
		Irvington Coal Conversion					
8	310	Land and Land Rights	190	190	0	0	8
9	311	Structures and Improv.	5,127	6,153	2,988	2,604	9
10	312	Boiler Plant Equipment	20,215	23,774	11,555	9,850	10
11	314	Turbogenerator Units	16	20	9	8	11
12	315	Accessory Electric Equipt.	3,033	3,791	1,857	1,598	12
13	316	Misc. Power Plant Equipt.	123	150	73	63	13
14		Total, Irv. Coal Conv.	28,703	34,077	16,482	14,123	14
		Four Corners					
15	310	Land and Land Rights	8	8	0	0	15
16	311	Structures and Improv.	1,627	3,428	1,093	2,550	16
17	312	Boiler Plant Equipment	64,994	108,976	49,110	86,144	17
18	314	Turbogenerator Units	7,989	20,186	5,646	15,881	18
19	315	Accessory Electric Equipt.	1,013	3,983	813	3,313	19
20	316	Misc. Power Plant Equipt.	2,029	3,496	953	2,086	20
21		Total, Four Corners	77,660	140,077	57,615	109,975	21

APPRAISAL OF PROPERTY

TUCSON ELECTRIC POWER COMPANY

TUCSON, ARIZONA

ELECTRIC PLANT IN SERVICE AS OF DECEMBER 31, 1997

(Thousands of Dollars)

Line No.	Acct. No.	Description	Original Cost	Current Cost	Original Cost Book Reserve	Current Cost Book Reserve	Line No.
		PRODUCTION PLANT					
		Steam Production (Cont'd)					
		San Juan					
22	310	Land and Land Rights	95	95	0	0	22
23	311	Structures and Improv.	19,990	42,504	13,767	30,330	23
24	312	Boiler Plant Equipment	177,834	358,888	145,928	302,133	24
25	314	Turbogenerator Units	59,526	112,489	36,294	73,277	25
26	315	Accessory Electric Equipt.	16,542	41,798	11,587	31,067	26
27	316	Misc. Power Plant Equipt.	5,924	13,682	3,948	9,234	27
28		Total, San Juan	279,912	569,455	211,524	446,040	28
		Navajo					
29	310	Land and Land Rights	12	12	10	10	29
30	311	Structures and Improv.	7,440	16,016	4,412	9,926	30
31	312	Boiler Plant Equipment	69,918	127,935	25,542	61,550	31
32	314	Turbogenerator Units	14,144	31,092	8,075	19,891	32
33	315	Accessory Electric Equipt.	7,905	19,672	4,700	11,876	33
34	316	Misc. Power Plant Equipt.	1,378	3,830	1,115	3,132	34
35		Total, Navajo	100,796	198,557	43,854	106,385	35
		Springerville					
36	310	Land and Land Rights	5,048	5,048	1,106	1,106	36
37	311	Structures and Improv.	122,212	145,775	33,807	32,551	37
38	312	Boiler Plant Equipment	273,334	320,828	72,551	114,308	38
39	314	Turbogenerator Units	101,956	123,972	23,203	28,189	39
40	315	Accessory Electric Equipt.	55,709	69,630	14,005	17,574	40
41	316	Misc. Power Plant Equipt.	6,203	7,543	1,479	1,800	41
42		Total, Springerville	564,463	672,796	146,151	195,527	42
43		Total, Steam Production	1,100,739	1,790,234	512,267	1,031,085	43

APPRAISAL OF PROPERTY

TUCSON ELECTRIC POWER COMPANY

TUCSON, ARIZONA

ELECTRIC PLANT IN SERVICE AS OF DECEMBER 31, 1997

(Thousands of Dollars)

Line No.	Acct. No.	Description	Original Cost	Current Cost	Original Cost Book Reserve	Current Cost Book Reserve	Line No.
		PRODUCTION PLANT					
		Other Production					
		DeMoss Petrie					
44	340	Land and Land Rights	267	267	0	0	44
45	341	Structures and Improv.	86	99	68	82	45
46	342	Fuel Hldrs, Prod. & Access.	8	17	9	18	46
47	343	Prime Movers	451	1,030	473	1,079	47
48	344	Generators	800	1,466	830	1,527	48
49	345	Accessory Electric Equipt.	1,420	4,294	1,498	4,541	49
50	346	Misc. Power Plant Equipt.	3	6	3	6	50
51		Total, DeMoss Petrie	3,036	7,179	2,879	7,252	51
		Irvington					
52	341	Structures and Improv.	28	68	28	69	52
53	342	Fuel Hldrs, Prod. & Access.	72	190	71	187	53
54	344	Generators	8,050	21,508	7,389	20,038	54
55	345	Accessory Electric Equipt.	914	3,233	894	3,203	55
56	346	Misc. Power Plant Equipt.	51	176	49	171	56
57		Total, Irvington	9,114	25,175	8,430	23,668	57
		North Loop					
58	340	Land and Land Rights	134	134	0	0	58
59	341	Structures and Improv.	494	1,559	492	1,579	59
60	343	Prime Movers	4	10	5	10	60
61	344	Generators	9,535	30,101	9,754	31,334	61
62	345	Accessory Electric Equipt.	1,169	4,093	1,171	4,179	62
63	346	Misc. Power Plant Equipt.	465	1,766	482	1,832	63
64		Total, North Loop	11,802	37,664	11,903	38,934	64
65		Total, Other Production	23,953	70,017	23,213	69,855	65
66		TOTAL, PRODUCTION	1,124,691	1,860,251	535,480	1,100,939	66

APPRAISAL OF PROPERTY

TUCSON ELECTRIC POWER COMPANY

TUCSON, ARIZONA

ELECTRIC PLANT IN SERVICE AS OF DECEMBER 31, 1997

(Thousands of Dollars)

Line No.	Acct. No.	Description	Original Cost	Current Cost	Original Cost Book Reserve	Current Cost Book Reserve	Line No.
		TRANSMISSION PLANT					
		345 & 500 KV (EHV)					
67	350	Land	500	500	50	0	67
68	350	Land Rights	11,372	11,372	5,535	5,535	68
69	352	Structures & Improv.	8,969	18,329	4,242	9,954	69
70	353	Station Equipment	96,760	162,640	38,803	72,938	70
71	353	Irvington Computer	6,015	6,074	2,315	2,338	71
72	354	Towers & Fixtures	144,555	244,501	66,236	153,463	72
73	355	Poles & Fixtures	1,354	2,461	641	2,045	73
74	356	Overhd. Condtrs. & Dev.	65,625	122,636	31,053	69,403	74
75	359	Roads & Trails	4,486	10,167	2,135	4,850	75
76		Total 345 & 500 KV (EHV)	339,636	578,682	151,010	320,526	76
		138 & 46 KV (LOCAL)					
77	350	Land	3,172	3,169	(258)	0	77
78	350	Land Rights	6,612	5,562	2,094	2,094	78
79	352	Structures & Improv.	5,748	8,689	1,743	3,630	79
80	353	Station Equipment	80,751	154,355	31,784	79,833	80
81	354	Towers & Fixtures	9,144	25,754	5,901	23,472	81
82	355	Poles & Fixtures	14,020	31,202	7,344	35,529	82
83	356	Overhd. Condtrs. & Dev.	12,147	28,923	6,148	21,728	83
84		Total 138 & 46 KV (Local)	131,595	257,655	54,756	166,285	84
85		TOTAL, TRANSMISSION PLANT	471,231	836,336	205,766	486,811	85

APPRAISAL OF PROPERTY

TUCSON ELECTRIC POWER COMPANY

TUCSON, ARIZONA

ELECTRIC PLANT IN SERVICE AS OF DECEMBER 31, 1997

(Thousands of Dollars)

Line No.	Acct. No.	Description	Original Cost	Current Cost	Original Cost Book Reserve	Current Cost Book Reserve	Line No.
		DISTRIBUTION PLANT					
86	360	Land (Owned in Fee)	1,146	1,146	0	0	86
87	360	Land Rights (Stated at Invest)	5,671	5,671	1,379	1,379	87
88	361	Structures and Improv.	2,645	7,299	896	3,162	88
89	362	Station Equipment	60,014	140,884	36,320	107,376	89
90	364	Poles, Towers and Fixtures	64,215	140,541	38,877	178,455	90
91	365	Overhd. Condtrs. & Dev.	75,991	164,642	30,347	100,478	91
92	366	Underground Conduit	37,668	55,536	6,232	12,482	92
93	367	Undgrd. Condtrs. & Dev.	118,859	168,347	24,030	45,501	93
94	368	Line Transformers	113,724	138,979	37,897	56,421	94
95	369	Services	49,394	77,414	22,048	61,196	95
96	370	Meters	26,833	34,657	12,094	20,699	96
97	373	St. Lighting and Sig. Sys.	6,174	10,786	2,830	10,564	97
98		TOTAL, DISTRIBUTION PLANT	562,335	945,902	212,950	597,712	98
		INTANGIBLE PLANT					
99	301	Organization	29	29	0	0	99
100	302	Franchise and Consents	148	148	113	113	100
101	303	Software - Mainframe	5,808	6,088	3,475	3,682	101
102	303	Software - P.C.	3,190	3,208	1,021	1,034	102
103		TOTAL, INTANGIBLE PLANT	9,175	9,473	4,609	4,829	103
		GENERAL PLANT					
104	389	Land (Owned in Fee)	738	953	0	0	104
105	390	Structures and Improvements	22,990	44,442	7,009	18,628	105
106	391	Office Furniture and Equipment	7,252	9,444	1,599	2,357	106
107	391	Computer Equipment	11,105	11,483	6,769	7,149	107
108	392	Transportation Equipment	19,986	22,529	11,250	12,224	108
109	393	Stores Equipment	1,431	1,725	670	852	109
110	394	Tools, Shop and Garage Equipment	6,547	9,212	2,168	3,817	110
111	395	Laboratory Equipment	3,740	4,223	946	1,284	111
112	396	Power Operated Equipment	6,613	8,230	1,394	2,377	112
113	397	Communication Equipment	21,973	30,138	12,019	21,218	113
114	398	Miscellaneous Equipment	2,011	2,386	487	644	114
115		TOTAL, GENERAL PLANT	104,385	144,764	44,311	70,548	115

Tucs Electric Power Company
Estimate of Previous RCND Studies
(in 1999 Dollars)

Electric Plant	Original Cost, 1994 Study	RCND Study, 12/31/94	RCND Study, 12/31/94 in 1999 Dollars	Original Cost, 1997 Study	RCND Study, 12/31/97	RCND Study, 12/31/97 in 1999 Dollars
Intangible Plant	10,238	10,338	11,693	9,175	9,473	9,894
Production Plant	1,081,050	1,682,872	1,903,407	1,124,691	1,860,251	1,942,914
Transmission Plant--EHV	336,023	534,857	604,948	339,636	578,682	604,396
Transmission Plant--Local	124,032	238,489	269,742	131,595	257,655	269,104
Distribution Plant	495,336	840,735	950,911	562,335	945,902	987,934
General Plant	81,615	120,297	136,062	104,385	144,764	151,197
Total, Electric Plant	2,128,294	3,427,588	3,876,763	2,271,817	3,796,727	3,965,439
Plant Held for Future Use	644	644	728	1,013	1,013	1,058
Customers' Advances for Construction	4,101	5,242	5,929	5,228	7,130	7,447

Electric Plant	Original Cost, 1994	Original Cost, 1995	Original Cost, 1996	Original Cost, 1997	Original Cost, 1998
Intangible Plant	10,238	10,441	10,608	9,175	20,013
Production Plant	1,081,050	1,091,813	1,098,649	1,124,545	1,148,202
Transmission Plant--EHV	336,023	336,263	338,985	339,636	339,735
Transmission Plant--Local	124,032	124,723	125,130	131,595	137,280
Distribution Plant	495,336	517,998	538,162	562,336	586,150
General Plant	81,615	88,846	95,779	104,343	110,898
Total, Electric Plant	2,128,295	2,170,084	2,207,313	2,271,630	2,342,278
Plant Held for Future Use	644	1,013	1,013	1,642	714
Customers' Advances for Construction	4,101	4,492	5,228	5,268	5,123

Tucson Electric Power Company
Illustration of Calculation of Market Generation Credit
For October 1998

On-peak MGC for October 1998 (Average of three most recent business days)	10/1/98	$28.78
Most recent three business days		
August Price for PV NYMEX October 1998 Futures	8/17/98	$27.92
August Price for PV NYMEX October 1998 Futures	8/14/98	$29.16
August Price for PV NYMEX October 1998 Futures	8/13/98	$29.25
Loss factor		108.11%
Loss-adjusted On-peak MGC		**$31.11**
Ratio of CALPX, AZ3, Off-peak to On-peak power prices for October 1998		29.04%
Loss-adjusted Off-peak MGC		**$9.04**

Notes:

1) 1998 figures for PV NYMEX are substituted for 1999 figures for illustrative purposes only. The MGC would customarily be calculated per the terms of the Settlement Agreement.
2) Aug-15 and Aug-16 fell on a weekend. Therefore, the three most recent days needed to be used in the calculation.
3) Contract prices are shown per MWh
4) Loss factor represents a system average. Rate class-specific loss factors will apply.
5) PV NYMEX = Palo Verde NYMEX
6) CALPX = California Power Exchange