ATTORNEY GENERAL OF MISSOURI

JEFFERSON CITY
65102

JEREMIAH W. (JAY) NIXON
ATTORNEY GENERAL

P.O. Box 899
(573) 751-3321

October 24, 2003

FILED

OCT 24 2003

Missouri Public
Service Commission

Public Service Commission
Governor Hotel
Jefferson City, MO 65102

RE: *In the matter of Union Electric Company d/b/a AmerenUE, and its Tariff Filing to Implement a General Rate Increase for Natural Gase Service,* Case No. GR-2003-~~0157~~ 0517 - Pah

Dear Sir/Madam:

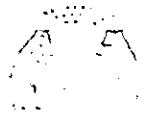
Enclosed for filing please find an original and 9 copies each of *Missouri Department of Natural Resources Affidavits of Anita Randolph and Carla Potts.* Please stamp "filed" on the extra copies for my files. Thank you.

Sincerely,

JEREMIAH W. (JAY) NIXON
Attorney General

SHELLEY A. WOODS
Assistant Attorney General

SAW:pah
Enclosure
c: Counsel of Record



STATE OF MISSOURI
PUBLIC SERVICE COMMISSION

In the Matter of Union Electric Company, d/b/a AmerenUE, and Its Tariff Filing to Implement a General Rate Increase For Natural Gas Service	)))))	Case No. GR-2003-~~0157~~ 0517 Pah

AFFIDAVIT OF ANITA RANDOLPH

FILED
OCT 24 2003
Missouri Public Service Commission

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Anita Randolph, being duly sworn on her oath, hereby states that she has participated in the preparation of the foregoing Testimony in question and answer form; that the answers in the foregoing Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters were true and correct to the best of her knowledge, information and belief.

Anita C Randolph
Anita Randolph

Kay A Johannpeter
Notary Public

STATE OF MISSOURI SEAL NOTARY PUBLIC KAY A JOHANNPETER NOTARY

My commission expires:

KAY A. JOHANNPETER
Notary Public - Notary Seal
STATE OF MISSOURI
Moniteau County
My Commission Expires: Aug. 4, 2007

Subscribed and sworn before me this 17th day of October 2003

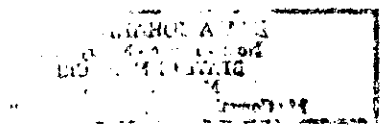


Exhibit No.:	
Issues:	Commitment to Provide Low or No Cost Weatherization Assistance to AmerenUE Natural Gas Low-Income Customers and Energy Efficiency Services to Residential and Commercial Customers.
Witness:	Anita C. Randolph
Sponsoring Party:	Missouri Department of Natural Resources' Outreach and Assistance Center, Missouri Energy Center
Type of Exhibit:	Testimony
Case No.:	GR-2003-0157

AMERENUE NATURAL GAS RATE CASE

DIRECT TESTIMONY

OF

ANITA C. RANDOLPH

MISSOURI DEPARTMENT OF NATURAL RESOURCES

ENERGY CENTER

October 24, 2003

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
TESTIMONY OF
ANITA C. RANDOLPH
DIRECTOR
MISSOURI DEPARTMENT OF NATURAL RESOURCES
ENERGY CENTER

CASE NO. GR-2003-0517

Q. Please state your name and address.

A. My name is Anita C. Randolph. My business address is Missouri Department of Natural Resources, Energy Center, 1659 East Elm Street, P.O. Box 176, Jefferson City, Missouri 65102-0176.

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

A. I am employed by the Missouri Department of Natural Resources as the director of the Missouri Energy Center, a division of state government with its executive office located in Jefferson City, Missouri.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Missouri Department of Natural Resources, an intervenor in these proceedings.

Q. Please describe your educational background and business experience.

A. I attended the University of Missouri and received a Bachelor of Journalism degree in 1974. In addition, I attended the University of Oklahoma and received a Master's in Public Health degree in 1988 with a specialty in environmental management. I have worked as a research analyst in the Missouri House of Representatives' House Research office. In this capacity, I developed legislative approaches for environmental, energy and natural resource issues for the Energy and Environment, State Parks, and Mining legislative committees. Prior to becoming the director of the Missouri Energy Center, I was employed by the Missouri Department of Transportation in its Office of Transportation Planning and Policy Development. In this position I worked directly with Missouri's Congressional Delegation, the Missouri Governor's Office and the Missouri General Assembly on legislative and appropriation issues affecting Missouri's transportation system. On July 13, 1998, I was

appointed director of the Energy Center, formerly the Division of Energy, by Mr. Stephen Mahfood, director of the Missouri Department of Natural Resources.

Q. What is the purpose of your direct testimony in these proceedings?

A. The purpose of my testimony is to focus on the proposed natural gas rate increase, low-income residential customers served by AmerenUE, the need for the company to continue its low-income residential weatherization assistance program established in its last rate case, and opportunities to promote utility-based energy efficiency services for residential and commercial customers.

The Energy Center is seeking commitment by AmerenUE to provide on-going funding for weatherization assistance for its low-income residential customers and utility-based energy efficiency services and programs for residential and commercial customers.

Pursuant to the terms and conditions of a stipulation and agreement filed and approved in Case No. GR-97-393, AmerenUE implemented an experimental weatherization program for a two-year period ending on March 31, 2000 that was funded at the level of $150,000 per year. Following the company's last gas rate case (Case No. GR-2000-512), by Order Approving Unanimous Stipulation and Agreement dated October 17, 2000, the company implemented a new weatherization program, funded by the company at an annual rate of $125,000. The details of the program were determined through a collaborative process among representatives of the company, Staff, the Public Counsel and the MoDNR.

Also, staff from AmerenUE, the Public Service Commission, the Office of Public Counsel, and the Energy Center are currently involved in a collaborative planning process to design and implement a series of energy efficiency programs for AmerenUE's electric residential and commercial customers pursuant to EC-2002-1. In this over-earnings complaint case filed

by the Staff of the Public Service Commission, the company offered $8 million in settlement to support energy efficiency ($4 million for weatherization; and $4 million for other energy efficiency programs). AmerenUE's natural gas residential and commercial customers were not specifically included in any of these energy efficiency programs.

Also, it must be noted that of AmerenUE's proposed rate increase of $26.7 million, approximately $19.4 million or 72.4 percent will be directed to AmerenUE's residential customers and approximately $6.2 million or 23.0 percent is directed to AmerenUE's General Service customers, which includes commercial customers.

Q. Do you have information regarding the success of the experimental weatherization program?

A. The experimental weatherization program was modeled after the statewide Low-Income Weatherization Program administered by the Missouri Department of Natural Resources Energy Center. Weatherization services were provided through community action agencies, which the Energy Center contracts with, to provide weatherization services in the administration of the federal weatherization program. The Central Missouri Counties' Human Development Corporation (CMCHCD) located in Columbia, Missouri participated in the AmerenUE experimental weatherization project established by GR-2000-512. Through June 30, 2003, the CMCHDC weatherized a total of 77 eligible low-income homes under this experimental program. The U.S. Department of Energy's National Energy Audit (NEAT) procedure is used by the CMCHCD as well as other weatherization agencies throughout Missouri to determine the costs and benefits of weatherization investments to a low-income residential household. The 77 homes served by AmerenUE and weatherized by CMCHCD had an average direct savings-to-investment ratio of $1.83 saved for each dollar invested.

The CMHDC reported the savings-to-investment ratio identified by the NEAT procedure was as high as 3.90; in other words, $3.90 was saved for every dollar spent on weatherization. Additional information regarding the benefits of this experimental program and the need to continue to support low-income residential weatherization assistance will be addressed by Ms. Carla Potts, Deputy Director for Community Programs, North East Community Action Corporation on behalf of the Missouri Energy Center.

Q. What is the relationship between home heating bills in Missouri and low-income residential utility customers?

A. Winter home heating bills in Missouri impose significant burdens on low-income households. In a report prepared by Fisher, Sheehan & Colton, Structuring a Public Purpose "Distribution Fee" For Missouri, July 1997, the authors noted that "According to the U.S. Department of Housing and Urban Development (HUD), a household that faces a shelter burden exceeding 30 percent of income is over-extended. Shelter burdens include rent or mortgage payments and all utility payments other than telephone. A household that is paying 20 to 25 percent of its income simply toward home heating—again, not taking into account non-electricity use—will not be able to stay below this 30 percent limit." (Structuring a Public Purpose "Distribution Fee" For Missouri, July 1997, page 6)

Q. Please describe the significance of home heating burdens on low-income households?

A. The significance of home heating burdens was also identified by Structuring a Public Purpose "Distribution Fee" For Missouri. "The significance of home heating burdens imposed on low-income households is very apparent when one considers the full range of incomes at which low-income residents of Missouri live. Most households that qualify for the Low-Income Home Energy Assistance Program (LIHEAP) in Missouri by living at or

below 150 percent of poverty live below the ceiling rather than at the ceiling. A household with an annual income of $2,000 or less will have winter heating burdens of nearly 85 percent. Households living with annual incomes of $2,000 to $4,000 will have winter heating burdens of nearly 30 percent; and households living with annual incomes of $4,000 to $6,000 will have winter heating burdens of more than 16 percent." (Structuring a Public Purpose "Distribution Fee" For Missouri, July 1997, page 6 and 7).

"The number of households with these extremely low levels of annual incomes (and thus high heating burdens) is significant. Of the roughly 125,000 Missouri LIHEAP participants, more than 71,000, or 60 percent, live with incomes of less than $6,000." (Source: Structuring a Public Purpose "Distribution Fee" for Missouri", July 1997, page 7)

Q. Do a large number of low-income homes in Missouri still need to be weatherized?

A. Yes. A significant number of low-income households in Missouri are in need of energy-efficiency improvements. Information gathered from the state Weatherization Assistance Program (WAP) which is administered by the Missouri Department of Natural Resources' Energy Center, from 1978 (beginning of the program in Missouri) through June 30, 2003, approximately 143,000 homes were weatherized in Missouri. The Energy Center estimates that approximately 450,000 eligible homes remain (as identified by the U.S. Census Bureau, Table P93. Ratio of Income in 1999 to Poverty Level by Household Type – Missouri). (In Missouri State Fiscal Year 2001, the eligibility was increased from 125% to 150% of the poverty level in response to the 2000 – 2001 heating crisis, resulting in approximately 100,000 additional homes meeting the eligibility criteria.) Clearly, on-going and additional sources of low-income energy-efficiency services are needed.

Q. What is the estimated number of Missourians currently on weatherization waiting lists?

A. Statewide, more than 3,000 families are currently on weatherization waiting lists.

Q. How many new clients are added to that list annually?

A. On average, more than 2,300 households are added to that waiting list annually.

Q. At the current rate, how long would it take the state's weatherization program at the local level to meet the needs of eligible clients in the AmerenUE service territory?

A. According to the U.S. Census Bureau, of the 458,416 low-income households eligible to receive weatherization assistance statewide, approximately 15.7 percent or 72,208 households (150 percent of poverty as of 2000 census data, all fuel types including natural gas heated homes) are located within the AmerenUE natural gas service territory. At current resource levels, and assuming no additional homes are identified as eligible to receive weatherization assistance, it is estimated that it would take approximately 36 years to serve those low-income households located within AmerenUE's natural gas service territory.

Q. What are some of the general benefits of low-income residential weatherization?

A. As noted earlier in my testimony, home heating is a high cost for individuals with low income. Overall, low-income households that qualify for weatherization spend more of their income on energy needs compared to non-low-income households. The decision and ability to pay one's utility bill often compete with other necessities. Many low-income individuals live in older homes equipped with older, less-efficient heating systems and generally lack energy-efficiency items such as insulation. Weatherization reduces space heating fuel consumption by an average (including all heating fuels) of 18.2 percent. Specifically for homes using natural gas for heat, annual space heating fuel consumption is reduced by 33.5 percent. For homes using electricity for heat, weatherization reduces space heating fuel consumption by 35.9 percent. (Source: "Progress Report of the National Weatherization

Assistance Program," Oak Ridge National Laboratory, September 1997.) Weatherization is a cost-effective means to help low-income individuals or families pay their energy bills year after year for the life of the energy-efficiency product. Weatherization reduces the amount of state and federal assistance needed to pay higher utility bills, keeps money in the local economy, results in a positive impact on the household's promptness in paying utility bills, reduces arrearages and helps to reduce environmental pollution through energy efficiency.

Q. Are there utility benefits from low-income energy efficiency services?

A. Yes. In addition to looking at energy-efficiency from the household perspective, it is beneficial to examine the benefits of a low-income energy-efficiency program from the perspective of energy service providers. Extensive research has found that low-income energy-efficiency programs result in substantial non-energy savings to utilities. These non-energy savings include reductions in working capital expense, uncollectible accounts, credit and collection expenses, and others.

The Pennsylvania Low-Income Usage Reduction Program (LIURP) for all Pennsylvania utilities is an example of benefits derived for low-income households to whom energy efficiency was delivered. A payment of less than 100 percent means the specified low-income household did not completely pay the current month's utility bill. In contrast, a payment exceeding 100 percent means the low-income household not only paid the current bill, but paid off its arrears as well. For every Pennsylvania utility but one, the installation of energy efficiency products substantially improved the payment patterns of the treated low-income households. Indeed, the delivery of energy efficiency generally caused a substantial increase in the payment coverage of the household energy bill. In most cases, the low-income household moved from falling further and further behind by failing to pay the current

bill, to paying the entire current bill and beginning to retire the arrears. (Source: "Structuring a Public Purpose 'Distribution Fee' for Missouri", Fisher, Sheehan & Colton, Public Finance and General Economics consultants, July 1997.)

Q. Please describe recent heating expense increases and the impact on low-income residential customers.

A. The patterns of natural gas price volatility and its impact on all consumers started three years ago.

Beginning with the summer of 2000, natural gas prices began rising across the country. As we entered the 2000-2001 winter heating period, natural gas spot market prices had increased from approximately $2.00 per Mcf (1,000 cubic feet) to over $10. In fact, on July 31, 2001, Public Service Commission Chair Kelvin Simmons relayed his concerns regarding the plight of residential customers in a letter sent to members of the Missouri Congressional delegation. In that letter, Chairman Simmons noted "Even though energy prices aren't in the headlines right now, I want to alert you to the potential for crisis in your district. Some of your constituents face disconnection of utility service because they're living on the edge and can't make ends meet. They're still paying for last year's winter's heating bills, incurring costs for air conditioning and trying to budget for other life necessities." According to the Missouri Public Service Commission, the effects of the coldest November and December (2000) in Missouri history were still being felt in July 2001 by Missourians struggling to pay high heating bills from the winter of 2000-2001. "I am not comfortable with the idea that families who lose gas or electric service will suffer during extreme weather conditions," Chairman Simmons stated in his letter to the Missouri Congressional delegation. "This past winter's high natural gas bills have had a tremendous impact on the already strapped budgets of a

large number of low-income and senior citizen families in Missouri. We simply must find a way to help those in need." Information presented in Chairman Simmons' July 2001 letter indicated many of the investor-owned energy utilities reported higher numbers of residential customers (79,000 natural gas heated households) unable to fully pay for their energy bills. Although Chairman Simmons' concerns were focusing on natural gas heated households, this situation also occurs in electric heated households. Weatherization can help customers to use energy more efficiently and reduce their winter heating bills.

Now in 2003, Missouri's residential and commercial natural gas customers face similar circumstances. Low natural gas reserves drawn down by the 2002-2003 winter heating season once again pressured prices higher at both the wholesale and retail levels. Throughout most of 2003, the average spot price for natural gas was above $4.00 per million Btu (MMBtu), reaching a peak of over $9.00 per MMBtu in late February 2003. In response to natural gas companies that had filed or were filing changes in their natural gas rates in March 2003 to reflect changes in wholesale supplier rates, the Missouri Public Service Commission again advised Missourians of a potential natural gas crisis. According to PSC Chairman Kelvin Simmons, "with natural gas prices spiking to near record levels in late February, it is anticipated that most of the filings will reflect an increase in natural gas rates for Missouri consumers. With the end of the winter heating season near, the impact of those changes are not likely to result in significant increases in the monthly natural gas bills of consumers now. What these changes now may reflect is a significant increase in natural gas rates as we head into next winter."

"There are a number of key factors in the natural gas industry that at the present time cause us a great deal of concern, not only today, but as we look towards the next winter heating

season," stated Commission Chairman Kelvin Simmons. "Those factors include high crude oil prices, significantly lower natural gas storage levels, recent colder than normal weather and a possible war with Iraq."

"Natural gas storage inventories are problematic. We started the 2002-2003 winter heating season with high levels of storage but high demand for natural gas and climbing prices for that commodity have resulted in a rapid draw down of those levels," stated Chairman Simmons. "With about five weeks left in the winter heating season (statement released March 11, 2003), we are approximately 40 percent below the 5-year average for natural gas storage. High market prices and any colder than normal weather will contribute to high storage withdrawals."

"I am very concerned that injection of natural gas into storage this summer at rates higher than the summer of 2002 will mean higher natural gas bills for consumers next winter," stated Chairman Simmons. "That is going to have an impact on the financial health of Missouri families and could very well lead to a larger number of disconnects because of non-payment during these difficult economic times."

To help prepare Missourians for potentially higher natural gas bills this winter, beginning August 2003, the PSC conducted a series of public hearings throughout the state to advise citizens of the current status of natural gas. Other public agencies participated in these public hearings, including the Energy Center, to advise natural gas consumers about actions that they could take to help mitigate a portion of the adverse impacts related to higher natural gas prices by reducing their energy usage through energy efficiency.

Q. Is there additional evidence that identifies the need for weatherization assistance?

A. Yes. Within the settlement agreement of EC-2002-1, AmerenUE committed $5 million to the Dollar More program. In April 2003, AmerenUE announced a bill payment assistance program entitled "Clean Slate" to help customers pay utility bills in arrearage. AmerenUE used $3 million of the $5 million designated to Dollar More to support "Clean Slate". According to AmerenUE, when the program was fully implemented in May 2003, local community action agencies responsible for the distribution of "Clean Slate" funds had depleted the entire $3 million by May 31, 2003 (Data Request, MDNR-7, Molly Martin, AmerenUE, September 5, 2003. Although billing assistance programs such as AmerenUE's "Clean Slate" and the federal "Low-Income Heating Energy Assistance Program" (LIHEAP) have great merit, they do not offer sustainable, long-term benefits to the low-income residential customer as weatherization assistance offers. In the case of "Clean Slate", despite utility payment assistance totaling $3 million, the actual number of residential customers in arrearage and the total monthly arrearage to AmerenUE grew in the following month of June 2003 (Data Request, MDNR-1, Robin Hadley, AmerenUE, September 16, 2003).

Q. Please describe residential utility billing arrearage for AmerenUE.

A. According to AmerenUE, residential customers receiving both electric and gas service from the company have had difficulty in meeting their monthly utility bill.

AmerenUE reports that approximately 257,960 residential gas or electric accounts were in arrears each month during calendar year 2000 (average for the 12-month period) with an outstanding balance in excess of $33 million. In calendar year 2001, approximately 252,558 residential gas or electric accounts were in arrears each month (average for the 12-month period) with an outstanding balance in excess of $34 million. In calendar year 2002, the

average number was 243,455 with an outstanding balance over $31 million (Data Request, MDNR-1, Robin Hadley, AmerenUE, September 16, 2003).

Therefore, the monthly average number of AmerenUE households in utility billing arrears for calendar years 2000 to 2002 was over 250,000 with a monthly average utility billing arrearage totaling approximately $32.7 million.

And this trend appears to be continuing. For the first six months of 2003, (excluding data for March 2003 due to reporting problems) AmerenUE reports the average monthly number of residential accounts in arrears at approximately 181,882. During this period, the average monthly residential arrearage was over $14 million (Data Request, MDNR-1, Robin Hadley, AmerenUE, September 16, 2003).

Of particular interest is the number of AmerenUE residential customers in arrearage for the months of May and June 2003. According to AmerenUE, the number of residential customers in arrearage in May 2003 was 178,052 with an arrearage totaling $14.3 million. In June 2003, the number of residential customers in arrearage actually grew to 200,413, an increase of 22,261 residential accounts in arrears. The total arrearage balance grew by $0.8 million, from $14.3 million to $15.1 million, despite the depletion of $3 million in "Clean Slate" funding to satisfy outstanding residential utility bill arrearage during the month of May 2003 (Data Request, MDNR-1, Robin Hadley, AmerenUE, September 16, 2003).

AmerenUE serves approximately 1.2 million electric customers and 111,000 natural gas customers in Missouri. As such, following the depletion of all "Clean Slate" funds, the number of residential natural gas and electric accounts in arrearage increased by 12.5 percent from May to June 2003, representing approximately 15.5 percent of all of AmerenUE's customers in Missouri.

Since "Clean Slate" *had no savings to investment relationship*, there were *no long-term sustainable benefits gained by either AmerenUE or by the company's residential customers.* If the $3 million dollars had been invested in residential weatherization and presuming an average direct savings to investment ratio of 1:1.83 identified by CMCHCD's NEAT audit procedure during AmerenUE's low-income residential weatherization assistance program from calendar year 2000 through June 30, 2003, AmerenUE's residential customers could have realized energy savings of approximately $5.49 million over the life of the energy investment.

Q. Please describe AmerenUE's gross uncollectible revenues from their residential customers.

A. During the three-year period from 2000 to 2002, AmerenUE reported uncollectible revenue from their residential customers receiving gas and electric service at nearly $4 million (Data Request, MDNR-4, Robin Hadley, AmerenUE, September 16, 2003). Low-income residential weatherization may have helped to reduce the amount of uncollectible revenues by reducing energy demand and lowering monthly utility bills.

Q. What funding level would be required to continue AmerenUE's low-income weatherization assistance program?

A. AmerenUE's last rate case, GR-2000-512, provided $125,000 per year to implement the company's Experimental Low-Income Weatherization Assistance Program. It is estimated that approximately 296 low-income households received weatherization assistance based on total funds allocated and the average expenditure per household from 2001 through 2003 reported by AmerenUE (Data Request, MDNR-13, Molly Martin, AmerenUE, September 2, 2003).

AmerenUE currently provides service to approximately 111,830 residential and commercial natural gas customers in 22 Missouri counties (Data Request, No. MDNR-9 and No. MDNR-22, Thomas Opich, AmerenUE, September 8, 2003). According to the four Community Action Agencies currently participating in AmerenUE's low-income residential weatherization program, approximately 250 AmerenUE low-income residential natural gas only households are on waiting lists to receive weatherization services. In order to meet these customers' needs and additional AmerenUE customers that may be added to the list in future months, we request annual funding of $125,000 for low-income weatherization. It is requested that funds be used to exclusively weatherize AmerenUE's low-income natural gas heated homes.

Q. Did AmerenUE provide weatherization funding in a previous electric rate case?

A. Yes. It is important to note that the company committed $4 million for low-income weatherization assistance as a part of its settlement under EC-2002-1, an over-earnings complaint case filed by the Staff of the Public Service Commission. However, these funds may be used to weatherize *both electric and natural gas heated homes, as long as the low-income household receives electric service from AmerenUE.* There are locations within AmerenUE's natural gas service area, such as Columbia, Missouri, where AmerenUE does not provide electric service. Therefore, low-income households in these areas are not eligible to receive weatherization assistance funded by EC-2002-1.

More specifically, according to AmerenUE, the company provided natural gas service to 100,503 Missouri households through June 30, 2003 (Data Request, MDNR-9, Thomas Opich, AmerenUE, September 8, 2003). However, AmerenUE provided both natural gas and electric service to 58,120 Missouri households through June 30, 2003 (Data Request,

MDNR-10, Nancy Datillo, AmerenUE, September 18, 2003). Therefore, as of June 30, 2003, AmerenUE did not provide electric service to 42,383 households that received natural gas service from AmerenUE. In other words, 42 percent of all AmerenUE residential customers only receive natural gas service from AmerenUE.

As such, low-income households in this group are not eligible to receive AmerenUE weatherization assistance funded by EC-2002-1.

Q. How should the program be designed?

A. This program should be designed to be consistent with federal guidelines for the federal Low-Income Weatherization Assistance Program.

Q. Please describe how the weatherization program should be evaluated.

A. In an effort to monitor the impacts of low-income weatherization, the Energy Center requests that AmerenUE provide natural gas consumption data from a sampling pool of households participating in this weatherization program. Such data would include 12 months of natural gas consumption prior to weatherization, as well as natural gas consumption data for a period of not more than 24 months following weatherization.

The Energy Center requests an additional funding level not to exceed $30,000 to complete a comprehensive evaluation of this weatherization program by an independent consultant prior to AmerenUE's next natural gas rate case. The evaluation report shall be submitted to the Public Service Commission, the Office of Public Counsel and the Missouri Energy Center prior to AmerenUE's next natural gas rate case.

Q. Please describe the need for residential energy efficiency.

Investments in residential energy efficiency help to improve the efficient use of energy by consumers. Energy efficiency recognizes the truism that Missouri households do not seek to

consume energy. Instead, what they seek is to have light, hot water, refrigeration and heating and cooling. If these end uses can be delivered using less energy, the needs of Missouri consumers will have been satisfied.

U.S. Department of Housing and Urban Development (HUD) 1990 data showed that roughly one of every six Missouri units of housing that are affordable to households living above 80 percent of median income were constructed before 1940. Moreover, of the total of roughly 550,000 units affordable at that income level, nearly 90,000 have some type of "physical problem" under HUD's definitions. Finally, nearly 55,000 households living above 80 percent of median income pay more than 30 percent of their income for shelter costs, and roughly 5,000 pay more than 50 percent (Source: "Structuring a Public Purpose 'Distribution Fee' for Missouri", Fisher, Sheehan & Colton, Public Finance and General Economics consultants, July 1997.)

In its August 29, 2001, final report, the Missouri Public Service Commission's Natural Gas Commodity Price Task Force recognized the need for energy efficiency programs by its recommendation that "the (Missouri Public Service) Commission should pursue incentive measures for encouraging energy efficiency." The report included this explanation of the need for efficiency programs: "Effective energy efficiency programs can address the barriers that inhibit customers from making investments in energy efficiency improvements – lack of money or competing demand for available funds, the perception that up-front costs are more important than long-term savings and lack of technical expertise."

Q. Please describe commercial utility billing arrearage for AmerenUE.

A. According to AmerenUE, commercial customers receiving both electric and gas service from the company have had difficulty in meeting their monthly utility bill.

AmerenUE reports that approximately 19,418 commercial gas or electric accounts were in arrears each month during calendar year 2000 (average for the 12-month period) with an outstanding balance in excess of $4 million. In calendar year 2001, approximately 18,364 commercial gas or electric accounts were in arrears each month (average for the 12-month period) with an outstanding balance in excess of $4 million. In calendar year 2002, the average number was 17,429 with an outstanding balance over $3 million. It must be noted that due to a "CIS" system conversion by AmerenUE, data for the period May 2002 through December 2002 is not included in the 2002 figures cited above (Data Request, MDNR-16, Robin Hadley, AmerenUE, September 16, 2003).

Therefore, the monthly average number of AmerenUE commercial customers in utility billing arrears for calendar years 2000 to 2002 was over 18,580 with a monthly average utility billing arrearage totaling approximately $3.8 million.

And this trend appears to be continuing. For the first six months of 2003, AmerenUE reports the average monthly number of commercial accounts in arrears at 9,848 (excluding data for March 2003 due to reporting problems). During this period, the average monthly commercial arrearage was over $5 million (Data Request, MDNR-1, Robin Hadley, AmerenUE, September 16, 2003).

Q. Please describe AmerenUE's gross uncollectible revenues from their commercial customers.

A. During the three-year period from 2000 to 2002, AmerenUE reported uncollectible revenue from their commercial customers receiving gas and electric service at over $1.6 million (Data Request, MDNR-19, Robin Hadley, AmerenUE, September 16, 2003). Commercial energy efficiency may have helped to reduce the amount of uncollectible revenues by reducing energy demand and lowering monthly utility bills.

Q. Briefly describe the benefits of residential and commercial utility-based energy-efficiency services.

A. The Missouri Energy Policy Task Force recommended in its October 16, 2001 final report, that "Missouri pursue incentives funded through various sources to encourage the increased development of energy efficiency and renewable energy to provide for a more secure energy future." The Task Force report cited the following benefits to customers, utilities, the economy and the environment: "Missourians would benefit greatly from investments in energy efficiency and renewable resource programs. Efficiency programs provide assistance to customers by helping to reduce their energy usage and utility bills, which is particularly important when energy prices are high and volatile. System reliability and resilience are improved by reducing vulnerability to disruptions in energy supplies through efficiency and a diversified fuel mix. Long-term costs can be lowered by reducing expenditures by gas and electric utilities to upgrade their infrastructure to meet increasing demand. Investments in energy efficiency and the resulting lower energy costs coupled with the development of domestic renewable energy will improve the ability of businesses to compete, keep energy dollars closer to Missouri, increase customers' discretionary income, preserve natural resources and reduce pollution."

Well-designed energy-efficiency programs have been shown to produce substantial economic benefits for local and state economies. *The Missouri Statewide Energy Study (1992)* prepared by Missouri's Environmental Improvement and Energy Resources Authority concluded that energy efficiency would "sustain more employment opportunities than either the continued current level of energy use or the development of new energy supplies."

In addition to these benefits, state investment in energy-efficiency tends to protect households against "insurable events." In August 1996, Lawrence Berkeley Laboratory released findings showing that energy-efficiency investments in housing often lead to the correction of conditions that place buildings at risk. Such conditions include fire, carbon monoxide poisoning, and the like.

Energy-efficiency investments can also promote the affordability of homeownership in Missouri. A study by Fisher, Sheehan and Colton, Public Finance and General Economics, released in November 1996, documented how energy-efficiency investments affect the affordability of first-time home ownership. The study found that, in the Census Division of which Missouri is a part, a $3,000 energy- efficiency investment made at the time of home purchase, financed at 9 percent interest, would yield an effective reduction in the price of the home of 6 percent and an effective interest-rate discount of 0.48 percent. In other words, in order to generate the same dollar savings as the energy efficiency investment, the interest rate charge on the home mortgage would need to be reduced by 0.48 percent.

A study completed by Lawrence Berkeley Laboratories for the U.S. Department of Energy addressed the economic benefits of commercial efficiency programs. In a comprehensive review of evaluations for 40 large commercial programs that accounted for one-third of 1992 utility demand side management spending, the majority of the programs reviewed, which accounted for 88 percent of utility and consumer spending on programs included in the study, were cost-effective. For all the programs analyzed, the savings weighted average ratio of total resource benefits to total resource costs was 3.2 to 1 (Source: The Cost and Performance of the Largest Commercial Sector DSM Programs, Lawrence Berkeley National Laboratory,

December 1995). Lawrence Berkeley Laboratories found that overall, utilities demonstrated a capability to undertake highly cost-effective energy-efficiency programs.

Q. Briefly describe utility-based energy-efficiency services available today.

A. Several utilities throughout the nation continue to offer energy efficiency services and programs to their customers. These energy efficiency measures include residential and commercial energy audits, consumer education, and rebates or low-interest loans for the purchase of new products such as efficient water heaters, lights, showerheads, air conditioners, and heat pumps. Energy savings of approximately 40% can be realized through energy efficiency improvements. (Source: U.S. Department of Energy.)

Missouri energy utilities including Springfield's City Utilities, City of Independence Power & Light Department, Columbia Water and Light, Kansas City Power & Light and Missouri Gas Energy offer energy efficiency services to their customers as described above (Source: Utility Energy Efficiency and Renewable Energy Programs Survey, Missouri Department of Natural Resources, Outreach and Assistance Center, Energy Center, August 2002). Similar programs are offered by other utilities throughout the nation including, People's Natural Gas (Iowa), a division of Aquila Networks; Northern Minnesota Utilities and Peoples Natural Gas, divisions of Aquila Networks; Wisconsin Public Service Corporation; Portland General Electric, and Northern State Power, to name just a few.

Q. What are some of the statistics related to energy efficiency investments and potential in Missouri?

The Alliance to Save Energy, a nationally recognized coalition of prominent business, government, environmental, and consumer leaders who promote the efficient and clean use of energy worldwide to benefit consumers, the environment, economy and national security,

issued a report in 1998 addressing energy-efficiency improvements to homes. It was found that residential energy-efficiency improvements could reduce energy consumption in Missouri by an estimated 567 billion Btu's, or the equivalent of approximately 100,000 barrels of crude oil each year. The Alliance reported that, of the 34 states studied that had not adopted the 1993 Model Energy Code, Missouri ranked 5th highest in terms of potential total energy savings and 5th highest in potential energy savings per home.

In a report to the Missouri Legislature pursuant to House Concurrent Resolution 16 titled "Economic Opportunities Through Energy Efficiency and the Energy Policy Act of 1992", Missouri specific opportunities and benefits of commercial energy efficiency programs were addressed. The report found that if Missouri had met its mandatory obligation set forth in the Energy Policy Act of 1992 (to adopt a state-wide commercial building efficiency standard by 1995), the result would have been a reduction in the cumulative consumption of energy by new commercial buildings built between 1995 and 2000 by 4 trillion BTUs, the equivalent of nearly 700,000 barrels of oil per year. The cumulative operating cost savings for Missouri commercial building owners would have been nearly $68 million by the year 2000. The report goes on to say that this potential is "dwarfed by the energy consumption of the pre-1995 standing commercial building stock." This existing commercial building stock would benefit from energy efficiency programs.

Q. Does AmerenUE offer residential and commercial energy efficiency services or products to their residential or commercial natural gas customers?

A. No. According to AmerenUE, for calendar years 2000 through June 2003, the company did not provide energy efficiency services or products for their residential or commercial natural

gas customers (Data Requests, MDNR-11, MDNR-24, Greg Lovett, AmerenUE, September 17, 2003).

Q. Please describe residential and commercial natural gas energy efficiency programs that AmerenUE should implement as a component of this rate case.

A. AmerenUE is actively participating in a series of collaborative meetings with the Staff of the Missouri Public Service Commission, the Office of Public Counsel and the Energy Center to design and implement energy efficiency programs for the company's residential and commercial electric customers in Missouri pursuant to EC-2002-1. Energy efficiency programs that have been adopted or still in development are designed predominately for AmerenUE's electric customers. There are, however, opportunities for AmerenUE's natural gas customers to participate in these energy efficiency programs.

For example, AmerenUE has agreed to expand its Internet based residential electric energy audit to include natural gas customers. The company states that the expansion of the audit service may have higher design/implementation costs. "The Residential and Commercial Energy Efficiency Collaborative Team associated with EC-2002-1 discussed the issue of allowing AmerenUE residential natural gas customers access to use the energy audit system. The collaborative team decided to allow AmerenUE natural gas customers the ability to access to the energy audit system with their specific usage data if it did not increase the cost of the project. With this decision, the development of the AmerenUE Internet-based energy audit system is being designed to allow AmerenUE Missouri electric and natural gas customers access to the system with their specific usage data. If the cost of system testing for the natural gas data exceeds $7,000, AmerenUE will fund the additional costs. Therefore, the incremental cost of expanding AmerenUE's Internet-based energy audit for residential

electric customers to AmerenUE's residential natural gas customers that do not receive electric serve from the company is zero dollars." (Data Request, MDNR-12, Greg Lovett, AmerenUE, September 8, 2003).

Since natural gas is used specifically to provide space heating and water heating (including boiler application) for AmerenUE residential and commercial customers, the Energy Center is proposing an Experimental Energy Efficiency Measures Rebate program to be offered to a specific geographic area within AmerenUE's natural gas service area.

The components of this program would include the following:

Residential Energy Efficiency

1) rebates for up to 500 households to purchase automatic set-back thermostats for natural gas furnaces not to exceed the cost of the device or $50 per household, whichever is less;
2) rebates for up to 500 households to retrofit existing domestic natural gas water heaters with low-cost measures including water heater tank insulation wrap, water heater pipe insulation, low-flow showerheads and faucet aerators not to exceed the cost of materials or $30 per household, whichever is less;
3) rebates for up to 250 households to replace existing domestic natural gas water heaters with high efficiency "ENERGY STAR" qualifying natural gas water heaters as rated by the U.S. Environmental Protection Agency not to exceed $100 per household;
4) rebates for up to 250 households to replace existing natural gas furnaces with high efficiency "ENERGY STAR" qualifying natural gas furnaces (including residential boilers) as rated by the U.S. Environmental Protection Agency:

a) 93-93.9 percent Annual Fuel Utilization Efficiency (AFUE) – rebate up to $275;

b) 94 percent AFUE or greater – rebate up to $375;

c) high efficiency gas boilers with 90 percent AFUE – rebate up to $200;

d) mid-efficiency gas boilers with 85 percent AFUE including set-back thermostats – rebate up to $275; and,

e) integrated space and water heating systems (boilers) with a minimum 85 percent Combined Appliance AFUE – rebate up to $400.

Commercial Energy Efficiency

1) commercial customer rebates to replace existing standard natural gas utilization equipment with high efficiency natural gas utilization equipment. The rebate amount would not exceed the incremental cost difference between standard equipment and a high efficiency replacement unit, including installation, not to exceed $1,000 for the first 25 commercial customers.

Q. What funding level would be required to adequately support these residential and commercial energy efficiency programs through AmerenUE?

A. The company currently provides service to approximately 100,503 residential natural gas customers and 11,327 commercial natural gas customers as of June 30, 2003.

The Energy Center proposes funding not to exceed $165,000 to implement the proposed residential and commercial energy efficiency programs as follows:

1) rebates for thermostat set-back - $25,000

2) rebates for domestic hot water retrofits - $15,000

3) rebates for domestic hot water replacements - $25,000

4) rebates for replacement high efficiency natural gas furnaces - $75,000

5) commercial customer rebates to replace existing standard natural gas utilization equipment with high efficiency equipment - $25,000

Q. Please describe effective residential and commercial energy efficiency rebate programs offered by natural gas utilities in the Midwest region.

A. The Final Report of the Missouri Public Service Commission's Natural Gas Commodity Task Force issued august 29, 2001 (PSC Case No. GW-2001-398) presented information regarding successful rebate services or products offered by Aquila Networks' Peoples Natural Gas - Iowa.

Also, during calendar year 2002, People's Natural Gas – Minnesota and Northern Minnesota Utilities, divisions of Aquila Networks, implemented the residential and commercial Conservation Improvement Program (CIP) at both natural gas utilities in Minnesota offering a series of energy efficiency products and services to their customers. The company reported a high participation rate, and in some instances higher participation rates than projected for the year. Energy savings exceeded gas use reduction goals set by the Minnesota Department of Commerce demonstrated a net positive societal benefit to cost ratio of 1.48 for Northern Minnesota Utilities and 1.61 for Peoples Natural Gas for all CIP projects administered by each utility in 2002.

Q. Please describe the specific geographic location where AmerenUE would offer the proposed efficiency programs.

A. For the low-income residential weatherization program, the Energy Center proposes to continue the program established in AmerenUE's last rate case, GR-2000-512, with the cooperation of the four Community Action Agencies that administer the program. These agencies include Central Missouri Counties' Human Development Corporation, Delta Area

Economic Opportunity Corporation, East Missouri Action Agency, Inc. and North East Community Action Corporation.

For residential and commercial energy efficiency, the Energy Center proposes to implement these programs in communities in which AmerenUE has the highest concentration of natural-gas-only residential and commercial customers. These communities would be Ashland, Auxvasse, Blackwater, Boonville, California, Centertown, Centralia, Columbia, Farber, Franklin, Hallsville, Hartsburg, High Point, Holts Summit, Jamestown, Jefferson City, Laddonia, Lohman, Martinsburg, McGirk, Mexico, New Bloomfield, New Franklin, Prairie Home, Rocheport, Russellville, Sturgeon and Vandalia. These communities represent approximately 37,000 AmerenUE gas-only customers or approximately 33 percent of all AmerenUE gas-only customers in Missouri.

Q. Does this conclude your testimony?

A. Yes. Thank you.