

Exhibit No.:

Issues:

Merger Impact and Commitment by
Joint Applicants (UtiliCorp United Inc.
and St. Joseph Light & Power Co.; and
UtiliCorp United Inc. and Empire
District Electric Co. to Provide Low or
No Cost Weatherization Assistance to
Low-Income Customers, Energy
Efficiency Assistance and Alternative
and Renewable Energy Resource
Development

Witness:

Sponsoring Party:

Type of Exhibit:

Case No.:

Anita C. Randolph
Missouri Department of Natural
Resources' Energy Center
Rebuttal Testimony
EM-2000-292 and EM-2000-369

IN THE MATTER OF THE MERGER APPLICATION OF UTILICORP UNITED INC. AND
ST. JOSEPH LIGHT & POWER COMPANY

AND THE

MERGER APPLICATION OF UTILICORP UNITED INC. AND EMPIRE DISTRICT

ELECTRIC COMPANY

REBUTTAL TESTIMONY

OF

ANITA C. RANDOLPH

MISSOURI DEPARTMENT OF NATURAL RESOURCES

ENERGY CENTER

(Version 4/18/00)

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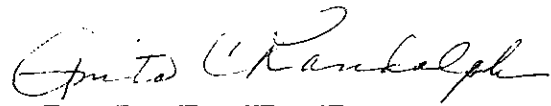
Missouri Public
Service Commission

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Date 2/12/00 Case No. EM-2000-292
Reporter KRM

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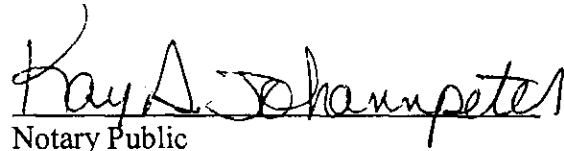
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Anita C. Randolph, Director, Energy Center, Missouri Department of Natural Resources, being duly sworn on her oath hereby verifies that the above facts are true and correct to the best of her knowledge, information and belief.



Anita C. Randolph

Subscribed and sworn before me this 27th day of April 2000.



Notary Public

KAY A. JOHANNPETER
My commission expires: **NOTARY PUBLIC, STATE OF MISSOURI**
MONITEAU COUNTY
My Commission Expires 8-4-2003

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

CASE NUMBERS. EM-2000-292 AND EM-2000-369

1 Q. Please state your name and address.

2 A. My name is Anita C. Randolph. My business address is Missouri Department of Natural
3 Resources, Energy Center, 1659 East Elm Street, P.O. Box 176, Jefferson City, Missouri
4 65102-0176.

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

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

9 Q. On whose behalf are you testifying?

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

12 Q. Please describe your educational background and business experience.

13 A. I attended the University of Missouri and received a Bachelor of Journalism degree in 1974.
14 In addition, I attended the University of Oklahoma and received a Master's in Public Health
15 degree in 1988 with a specialty in environmental management. I have worked as a research
16 analyst in the Missouri House of Representatives' House Research office. In this capacity, I
17 developed legislative approaches for environmental, energy and natural resource issues for
18 the Energy and Environment, State Parks, and Mining legislative committees. Prior to
19 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 three primary issues of importance to Missouri customers affected by the proposed mergers of UtiliCorp United Inc., St. Joseph Light & Power and the Empire District Electric Company. These issues include low-income residential customers served by these utilities and the need for low-income weatherization assistance; energy-efficiency programs relating to utility customers; and alternative and renewable energy resource measures. Other witnesses will address the details regarding low-income residential customers relating to these mergers and the effects on weatherization assistance.

Q. Please provide an overview of the statutory authority of the Missouri Department of Natural Resources.

A. The Department of Natural Resources (herein referred to as DNR) is vested with the powers and duties regarding energy activities pursuant to §640.150 RSMo 1994. These powers and duties include:

- (2) Assessing the impact of national energy policies on this state's supply and use of energy on this state's public health, safety and welfare;
- (3) Consulting and cooperating with all state and federal governmental agencies, departments, boards, commissions and all other interested agencies and

institutions, governmental and non-governmental, public and private, on matters of energy research and development, management, conservation and distribution;

(4) The monitoring and analyzing of all federal, state, local and voluntarily disclosed private-sector energy research projects and voluntarily disclosed private-sector energy-related data and information concerning supply and consumption (of energy), in order to plan for the future energy needs of this state. All information gathered shall be maintained, revised and updated as an aid to any interested person, foundation or other organization, public or private;

(5) Analyzing the potential for increased utilization of coal, nuclear, solar, resource recovery and reuse, energy-efficient technologies and other energy alternatives, and making recommendations for the expanded use of alternate energy sources and technologies;

(6) The development and promotion of state energy conservation programs, including:

(g) Public education and information in energy-related areas;

(h) Developing energy-efficiency standards for agricultural and industrial energy use and for new and existing buildings, to be promoted through technical assistance efforts by cooperative arrangements with interested public, business and civic groups, and by cooperating with political subdivisions of this state;

(i) Preparing plans for reducing energy use in the event of an energy or other resource supply emergency.

The DNR has assigned the implementation of §640.150, RSMo 1994 to the Energy Center.

Q. What is the purpose of your testimony?

1 A. The Energy Center is examining the proposed merger to assess the commitment by the Joint
2 Applicants, specifically UtiliCorp United Inc., St. Joseph Power & Light Co. and the Empire
3 District Electric Co., to provide low-cost or no-cost weatherization assistance to low-income
4 residential customers and to urge the company's support of cost-effective energy- efficiency
5 programs and the development of alternative and renewable energy resources in the event the
6 proposed merger(s) are approved by the Missouri Public Service Commission and the
7 Federal Energy Regulatory Commission.

8 Q. What is the Energy Center's position on these proposed mergers?

9 A. The Energy Center neither opposes nor supports the mergers of these investor-owned electric
10 utility companies, as long as (1) there are no detrimental impacts on the price of energy to
11 low-income and residential customers, (2) the companies make every reasonable attempt to
12 offer and provide cost-effective energy-efficiency programs for both residential and other
13 customers, and (3) the companies evaluate and implement alternative- or renewable-energy-
14 based electric generation projects, in the event the proposed mergers are approved by the
15 Missouri Public Service Commission and the Federal Energy Regulatory Commission.

16 Q. Why would the Energy Center oppose the proposed mergers?

17 A. The Energy Center would oppose the merger if it adversely affects the ability of low-income
18 and residential customers to obtain affordable energy services and/or if the merger lacks
19 cost-effective energy-efficiency programs for residential and other customers including low-
20 income residential weatherization assistance programs and if the companies fail to evaluate
21 and implement alternative- or renewable-energy-based electric generation projects. Joint
22 Applicants' Pre-filed Testimonies, affidavits, exhibits and other related materials addressing
23 the proposed mergers have not provided details regarding the effect of the merger on
24 environmental quality; energy-efficiency commitments; electricity prices, including price

1 effects on low-income customers; and competition, particularly in light of electric utility
2 restructuring taking place nationally and in states in which the Applicants provide electric
3 service.

4 In the absence of direct testimony to the contrary, the proposed merger may adversely impact
5 Missouri citizens, particularly low-income residential customers, in order to achieve
6 potential savings resulting from the merger by the Joint Applicants during the five-year
7 Regulatory Plan. The Joint Applicants have not provided information regarding their plans
8 for continuation, expansion or reduction of energy-efficiency or renewable-energy programs
9 by any of the investor-owned utilities.

10 Q. What is the basis of your previous statement?

11 A. Robert K. Green, President and Chief Operating Officer of UtiliCorp United Inc., in Direct
12 Testimony to the Missouri Public Service Commission states "This Commission has the
13 opportunity to combine three low-cost, privately owned electric utilities in the State of
14 Missouri into an even stronger, more operationally efficient utility. The resulting synergies
15 can only be created if these utilities are consolidated with the customers gaining the
16 benefits." The potential for these benefits or savings, based upon energy efficiency, low-
17 income residential weatherization activities or alternative and renewable resource
18 development, were not identified by the Joint Applicants.

19 Q. Is there an additional purpose for your testimony?

20 A. In addition to our statutory responsibilities, our participation in this case and my testimony
21 are due in part to the relationship of energy to the state of Missouri. It is important to note
22 that Missouri imports in excess of 95 percent of its energy resources from both domestic and
23 foreign sources to sustain our economy, basic day-to-day activities and quality of life. The
24 U.S. Department of Energy's Energy Information Administration reports that Missouri ranks

as the 16th largest consumer of energy per capita in the U.S. Each year, Missourians consume nearly 1,800 trillion British Thermal Units (BTUs) of energy. If all forms of energy used – electricity, natural gas, gasoline and diesel fuel, and wood or other fuels – were converted into petroleum, the 1,800 trillion BTUs would equal 225 million barrels of oil. That means each Missouri resident uses an average equivalent of 42 barrels, or 1,800 gallons per capita of petroleum annually. For the privilege of consuming energy from fossil fuels, Missourians pay more than \$10 billion each year. This purchase does not include costs related to pollution associated with energy production, transportation and use. Missouri citizens spend nearly 11 percent of their total income on energy. Most of this money leaves Missouri because of our dependence on energy from sources outside of Missouri.

Q. Why are these statistics important?

A. These levels of consumption are extremely important when considering recent energy events that have focused attention on the vulnerability of reliance on fossil fuels. Over the past year, consumers have experienced dwindling supplies of energy and rising energy prices. Home heating oil and propane shortages this past heating season drew national attention and resulted in several Congressional inquiries to determine the implications of such energy situations on the welfare of our population and the security of our Nation. In response to this energy crisis, the Energy Center conducted nearly weekly surveys of the price and supply of heating fuels to keep consumers and policy-makers advised of Missouri's winter heating fuel supply situation.

Gasoline supply and price issues have become the newest focus of attention with concerns of limited supplies of transportation fuels this summer and high consumer prices. Because of production cuts by OPEC, we have all seen the prices of fuel increase by nearly 80% from February 1999 to March 2000. Recently, in response to reformulated gasoline shortages in

1 the St. Louis area, the U.S. Environmental Protection Agency issued a waiver to suppliers
2 and marketers of gasoline from Clean Air Act standards through April 5, 2000, to ensure that
3 St. Louis motorists had access to gasoline. The United States now imports more than 50
4 percent of its oil, which is more than before the first oil embargo in 1973 when imports
5 accounted for 34 percent of consumption.

6 Q. Are there environmental concerns regarding the use of fossil fuels?

7 A. Fossil fuels comprise more than 90 percent of all the fuel types used in Missouri. Use of
8 energy improves the quality of our lives, but fossil fuels also create many health and
9 environmental problems. Energy production and use account for more than 75 percent of air
10 pollution. Electric power plants were the state's leading source of carbon emissions from
11 consumption of fossil fuels in 1990. As Missourians use energy, we annually emit about 133
12 million tons of carbon dioxide into the air.

13 Approximately 8 percent of the national energy supply, and only 2 percent of the Missouri
14 energy supply, comes from renewable sources. Large hydropower, which carries associated
15 environmental problems, comprises 54 percent and 37 percent of the national and Missouri
16 renewables totals, respectively. Other renewable energy resources include solar, wind and
17 biomass such as crop waste and wood and wood waste.

18 Q. Why is that?

19 A. Increased availability and use of many of these renewable and alternative energy sources can
20 increase Missouri's energy independence, keep more energy dollars at home and help
21 Missourians make environmentally sound energy choices.

22 Q. What is the mission of the Energy Center?

23 A. The Energy Center envisions a Missouri where all enjoy economic prosperity and a quality
24 environment through the use of safe, reliable and efficient energy resources and technologies.

1 The mission of the Energy Center is to help Missourians use and produce energy wisely and
2 efficiently to protect the environment and foster economic prosperity.

3 Q. How would you describe the role of the Energy Center as it carries out its mission?

4 A. Due to our energy dependency and the desire of Missouri consumers to be more energy-
5 efficient and better-informed consumers, the Energy Center serves the public and policy-
6 makers of this state by providing technical and educational assistance.

7 In 1999, the Missouri DNR's Division of Energy changed its name to the Energy Center for
8 easier recognition by the Missouri public. The Energy Center also restructured its
9 organizational framework to better serve the needs of all Missourians.

10 The Energy Center has completed an Integrated Strategic Plan that addresses many energy
11 issues of importance to Missourians. The Strategic Plan and the services provided by the
12 Energy Center are based on these fundamental principles:

13 Energy, the environment, and the economy are inextricably linked,

14 Energy efficiency and increased use of renewable and alternative energy benefit the
15 Missouri economy by keeping energy dollars closer to home and giving us diverse
16 energy choices that strengthen our energy independence,

17 Energy efficiency and increased use of renewable and alternative energy benefit the
18 Missouri environment by reducing air, water and soil pollutants, and

19 Realization of the goals of the Strategic Plan can be accomplished only through
20 information, partnerships and commitment among varied and diverse citizenry and
21 interests.

22 Q. Regarding these mergers, what is the relationship between home heating bills in Missouri
23 and low-income residential utility customers?

1 A. Winter home heating bills in Missouri impose significant burdens on low-income
2 households. According to the U.S. Department of Housing and Urban Development
3 (HUD), a household that faces a shelter burden exceeding 30 percent of income is over-
4 extended. Shelter burdens include rent or mortgage payments and all utility payments
5 other than telephone. A household that is paying 20 to 25 percent of its income simply
6 toward home heating—again, not taking into account non-electricity use—will not be
7 able to stay below this 30 percent limit.

8 Q. What is the significance of home heating burdens?

9 A. The significance of the home heating burdens imposed on low-income households is
10 even more apparent when one considers the full range of incomes at which low-income
11 residents of Missouri live. Most households qualify for the Low-Income Home Energy
12 Assistance Program (LIHEAP) in Missouri by living at or below 150 percent of poverty
13 live below the ceiling rather than at the ceiling. A household with an annual income of
14 \$0 to \$2,000 will have winter heating burdens of nearly 85 percent; households living
15 with annual incomes of \$2,000 to \$4,000 will have winter heating burdens of nearly 30
16 percent; and households living with annual incomes of \$4,000 to \$6,000 will have winter
17 heating burdens of more than 16 percent.

18 The number of households with these extremely low levels of annual incomes (and thus high
19 heating burdens) is not small. Of the roughly 125,000 Missouri LIHEAP participants, more
20 than 71,000, or 60 percent, live with incomes of less than \$6,000.

21 Q. What is the need for low-income energy-efficiency assistance?

22 A. A significant number of low-income households in Missouri are in need of energy- efficiency
23 improvements. It is difficult, if not impossible, to quantify the precise number of low-
24 income units in Missouri that are in need of energy-efficiency improvements. Some rough

1 estimates can be made. In 1995, there were an estimated 450,000 low-income households in
2 Missouri. According to the state Weatherization Assistance Program (WAP), which is
3 administered by the Energy Center, Missouri has weatherized roughly 31,000 homes from
4 1989 through 1997. However, because of decreased funding levels, the number of units per
5 year has dropped in recent years. In fact, all weatherization production funded through non-
6 U.S. Department of Energy dollars was eliminated in Fiscal Year 1995. By Fiscal Year
7 1996, the number of low-income units weatherized each year in Missouri had dropped to
8 only 40 percent of its 1989 level.

9 Roughly 355,000 low-income housing units remain to be weatherized in Missouri. The
10 Weatherization Assistance Program serves approximately 2,000 units statewide each year. If
11 this rate continues, if no weatherized house ever needs to be re-weatherized, and if no
12 expansion in Missouri's low-income population occurs, these un-weatherized homes will all
13 be treated with energy-efficiency improvements by the year 2109, roughly 109 years.

14 Clearly, on-going and additional sources of low-income energy-efficiency services are
15 needed.

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

17 A. Statewide, more than 3,200 families are currently on weatherization waiting lists.

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

19 A. More than 2,300 households are added to that waiting list annually.

20 Q. What is the number of weatherization eligible households in Missouri not on a waiting list?

21 A. State weatherization officials currently estimate the number of eligible weatherization
22 households at more than 219,000; more than 150,000 are inhabited by elderly people and
23 more than 55,000 are inhabited by disabled persons.

1 Q. What is the status of weatherization assistance in the St. Joseph Light & Power Co. and
2 Empire District Electric Co. service territories?

3 A. Of the 136,000 homes weatherized statewide from 1978 through February 2000, 6,950, or
4 roughly 6 percent, have been completed in the St. Joseph Light & Power service territory,
5 and 19,875, or 15 percent, have been completed in the Empire District Electric Company's
6 service territory. St. Joseph Light & Power Company's service territory has 182 low-income
7 residential households on weatherization waiting lists, with 270 households added to the list
8 annually. The Empire District Electric Co. service territory has 307 low-income residential
9 households on weatherization waiting lists, with 170 households added to the list annually.

10 Q. What is the number of low-income elderly citizens eligible for weatherization services in the
11 St. Joseph Light & Power Co. and the Empire District Electric Co. service territories?

12 A. In the St. Joseph Light and Power service territory, there are more than 18,500 elderly
13 citizens eligible for assistance, of whom nearly 6,000 are handicapped. In the Empire
14 District Electric Co. service territory, more than 23,000 elderly citizens are eligible for
15 assistance, of whom nearly 5,600 are handicapped.

16 Q. At the current rate, how long would it take the state's weatherization program at the local
17 level to meet the needs of these eligible clients?

18 A. At current resource levels, it would take approximately 205 years to serve the St. Joseph
19 Light & Power low-income residential clients and 116 years to serve the Empire District
20 Electric Co. low-income residential clients.

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

22 A. As noted earlier in my testimony, home heating is a high cost for individuals with low
23 income. Low-income households spend approximately 14 percent of their income on energy
24 needs. This percentage compares with only 3.5 percent of non-low-income households. The

1 decision and ability to pay the utility bill competes with other necessities in low-income
2 households. Many low-income individuals live in older homes equipped with less-efficient
3 heating systems and insufficient insulation. A home that has been weatherized can reduce
4 average annual fuel savings per dwelling by up to 13.5 percent, with electricity at 12.2
5 percent and natural gas at 23.4 percent, making weatherization a cost-effective measures to
6 help low-income individuals or families with their energy bills year after year for the life of
7 the energy-efficiency product. Weatherization reduces the amount of state and federal
8 assistance needed to pay higher utility bills, keeps money in the local economy, results in a
9 positive impact on the household's promptness in paying utility bills, reduces arrearages and
10 helps to reduce environmental pollution through energy efficiency.

11 Q. What are the utility benefits from low-income energy efficiency?

12 A. In addition to looking at energy-efficiency from the household perspective, it is beneficial to
13 examine the benefits of a low-income energy-efficiency program from the perspective of
14 energy service providers. Extensive research has found that low-income energy-efficiency
15 programs result in substantial non-energy savings to utilities. These non-energy savings
16 include reductions in working capital expense, uncollectible accounts, credit and collection
17 expenses, and others. The Pennsylvania Low-Income Usage Reduction Program (LIURP)
18 for all Pennsylvania utilities is an example of benefits derived for low-income households
19 receiving energy efficiency services. A payment of less than 100 percent means the specified
20 low-income household did not completely pay the current month's utility bill. In contrast, a
21 payment exceeding 100 percent means the low-income household not only paid the current
22 bill, but paid off its arrears as well.
23 For every Pennsylvania utility but one, the delivery of energy efficiency services improved
24 the payment patterns of the treated low-income households. 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.

Q. Service territories of what utilities are included in the Kansas City area?

A. UtiliCorp United Inc. d/b/a Missouri Public Service Co., Kansas City Power & Light Co. and Missouri Gas Energy.

Q. How would you describe the weatherization services currently provided in the Kansas City area?

A. Expert witnesses will address details regarding weatherization assistance provided to low-income residential customers in the Kansas City area.

However, regarding our intervention in Missouri Public Service Case No. EM-97-515, which proposed the merger of Western Resources and Kansas City Power & Light Co., I provided a summary of the success of the Kansas City Power & Light Company's (KCPL) weatherization assistance program. Our intention in outlining the energy efficiency and weatherization assistance programs of KCPL was to demonstrate that such programs have the support of investor-owned utilities and their customers, have positive effects on the quality of lives of participants, save both money and energy for customers, and reflect the potential commitment to these programs. We asserted that these programs and commitments to energy efficiency and weatherization should continue and even be enhanced if the mergers were approved.

Q. How were KCPL programs established?

A. We brought to the Commission's attention the fact that the establishment of these programs was the result of the Joint Agreement Regarding KCPL's Integrated Resource Plan (IRP) (Mo. PSC Case EO-97-522). On July 18, 1997, the Commission issued its Order Approving Joint Agreement. The Commission's Order became effective July 29, 1997. The Energy Center administers the federal Low-Income Weatherization Assistance Program in Missouri

and works with KCPL through the City of Kansas City's Department of Housing & Community Development. In its Low-Income Customer Service Program Executive Summary, KCPL recommended a low-income service package to meet customer needs, reduce energy costs and provide an acceptable return for KCPL. This package provides vital weatherization assistance to Kansas City area residents. Although the cost of services was limited to \$2,500 per home, the average cost per home was only \$1,911. One of the reasons the average cost remained low was the ability of the Kansas City Weatherization Department to combine several programs for the customer.

Q. How has KCPL evaluated its weatherization program?

A. The KCPL evaluation of the Comfort-Aid program issued in December 1998 summarized the program as a success. KCPL stated that "customers' lives have improved, energy will be conserved, and the program enhances KCPL's image in the community."

In addition, KCPL stated "The following measures should be implemented . . .

1. Expand the program to include all low-income customers who meet the income and home ownership guidelines. Limiting the program to elderly, low-income customers made it difficult to identify and qualify eligible customers. Consideration could also be given to including rental units. Landlords could pay for a portion of the repairs.

2. Expand the program to 100 homes per year with an average repair cap of \$2,500 per home.

3. Continue to use the Mid-America Assistance Coalition (MAAC) to identify and qualify eligible customers based on KCPL's criteria, with the following modifications:

Move the entire process to the MAAC instead of going through MAAC agencies.

(This recommendation was made to reduce the time interval associated with the prescreening and qualification processes.)

- 1 4. Continue to use the City Weatherization Department to administer the energy audits,
2 installation of home improvements and follow-up education.
- 3 5. Continue to use Planergy to supply and recycle refrigerators.
- 4 6. Perform a follow-up survey with customers as soon as repairs are complete to
5 determine if additional steps need to be taken.
- 6 7. Actively promote the program to raise public awareness among customers and
7 promote community involvement, conservation and good will in the Kansas City area.
8 The program could be incorporated as part of the "How Kansas City Are You"
9 campaign because Kansas City is known to be one of the most charitable cities in the
10 U.S. The program would be a good fit for local TV spots on conservation programs.
- 11 8. Enhance awareness among participating customers that Comfort-Aide is a KCPL
12 program. This is particularly critical since KCPL is only one of several conservation
13 programs in the area."

14 Q. Who is funding this pilot program?

15 A. KCPL is fully funding this pilot program as a service to its low-income customers. The pilot
16 program expenses are not included in KCPL's rate base. Once the pilot is completed (2000)
17 and evaluated, KCPL will determine whether to implement a broader version of the Comfort-
18 Aide Program (CP). KCPL concluded that the CP would result in permanent cost savings.

19 Q. Are the Joint Applicants currently involved with low-income residential weatherization
20 programs in their service territories?

21 A. Yes.

22 Q. How would you describe the low-income weatherization assistance programs currently
23 offered by the Joint Applicants?

1 A. Other witnesses will address details regarding low-income weatherization assistance
2 programs currently offered by the Joint Applicants.

3 However, I would like to bring to the Commission's attention Case No. EO-96-56 and the
4 Commission's Order Regarding the Empire District Electric Company's Integrated Resource
5 Plan and Joint Agreement, effective January 21, 1998. The Order addresses Demand-Side
6 Analysis Requirements with a focus on low-income customers. Empire District Electric Co.
7 stated on page 10 of the Joint Agreement attached to the Order that "Low-income customers
8 face many market barriers when confronted with new energy-efficiency measures, the most
9 obvious being high up-front costs. It is not clear that the existing electric marketplace or the
10 perceived future competitive market will meet these customers' need for energy services.

11 Empire proposes taking an initial step toward meeting this need by refocusing its demand-
12 side efforts on this customer segment. Initially, Empire proposes working in conjunction
13 with assistance agencies to identify low-income customers who would benefit from the
14 installation of a Residential Conservation packet.

15 With respect to 4 CSR 240-22.050 and in lieu of its 1998 filing to meet the requirements in 4
16 CSR 240-22.050, Empire agrees to provide the following:

17 (2) . . . Empire will provide to Staff, OPC and intervenors a report on the
18 partnership(s) developed with assistance and a summary of the number of
19 conservation packets installed.

20 (3) . . . Empire will provide a report to the Staff, OPC and intervenors on the survey
21 and research work that it performed in an attempt to identify "Low Income"
22 customers, their demographics, and market barriers.

23 (4) . . . Empire will provide a report to Staff, OPC and intervenors on the analysis it
24 performed to screen demand-side programs for the low-income segment and

1 identify potential market barriers for participation regarding the measures that
2 passed the screening test.

- 3 (5) . . . Empire will present a report explaining how demand-side measures are
4 incorporated into both demand-side and marketing programs. This report will at
5 least include:
6 demand-side measures that are components of all current and planned demand-
7 side and marketing programs;
8 a description of why some measures that did not pass measure screening were
9 included in a program;
10 a description of why some measures that *did* pass the measure screening were *not*
11 included in a program;
12 estimates of the demand and energy impacts of current and planned demand-side
13 programs and marketing programs containing demand-side measures;
14 a description of how the determination is made as to which energy services will
15 be offered for competitive purposes and which will be offered for other purposes;
16 a description of the DSM programs for low-income households that were
17 explored or implemented in partnership with assistance agencies.

- 18 (6) Empire will update Staff, OPC and intervenors in its twice-a-year briefings on the
19 status of its demand-side and marketing programs. These updates will include:
20 Estimated demand and energy impacts of implemented and planned programs;
21 Evaluation results on market barriers and customer market segments;
22 Implementation and evaluation schedules;
23 A description of how Empire determines whether energy services will be offered for
24 competitive purposes or for other purposes;

1 Its list of current and planned energy services that are, or will be, offered for
2 competitive purposes and those that will be offered for other purposes; and

3 Its progress in providing efficient basic service for low-income customers and related
4 programs for low-income customers.

5 These statements illustrate that the Joint Applicant knows the needs of low-income
6 residential customers, now and in a restructured electric marketplace, and took initial steps to
7 address this energy-related issue.

8 Q. How does this relate to the proposed merger of UtiliCorp United Inc. and St. Joseph Light &
9 Power?

10 A. It is important to note that St. Joseph Light & Power Co. was an intervenor in Case No. EO-
11 96-56 and did not participate in the agreement. Instead, St. Joseph Light & Power Co. filed a
12 separate statement that it did not oppose the agreement and waived notice and hearing.

13 Pursuant to the Commission's Rules, St. Joseph Light & Power acknowledged that such a
14 waiver constituted acknowledgment that the proposed agreement was unanimous.

15 Q. What is the relationship between low-income residential customers and the estimated savings
16 resulting from the proposed mergers?

17 A. Other witnesses will address details regarding the relationship between low-income
18 residential customers and the proposed mergers.

19 Q. How would you describe the need for residential energy efficiency?

20 Investments in residential energy efficiency help deliver efficient end-uses to consumers.

21 Energy efficiency recognizes that Missouri households do not seek to consume energy.

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

1 U.S. Housing and Urban Development (HUD) data shows that roughly one of every six
2 Missouri units of housing that are affordable to households living above 80 percent of
3 median income was constructed before 1940. Moreover, of the total of roughly 550,000
4 units affordable at that income level, nearly 90,000 have some type of "physical problem"
5 under HUD's definitions. Finally, nearly 55,000 households living above 80 percent of
6 median income pay more than 30 percent of their income for shelter costs, and roughly 5,000
7 pay more than 50 percent. Electric non-heating consumption represents roughly 45 percent
8 of residential energy usage and nearly 70 percent of residential bills. What happens to
9 electricity bills is important to residential consumers.

10 Q. Who would benefit?

11 A. Funding energy-efficiency investments in the state of Missouri will generate substantial
12 benefits for all sectors of the state. In addition to generating environmental benefits such as
13 cleaner air and water, energy efficiency will promote economic development, increase
14 housing affordability, and reduce the risk of insurable events.

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

20 Q. In addition to economic benefits, are there other benefits?

21 A. In addition to these economic benefits, state investment in energy efficiency tends to protect
22 households against "insurable events." In August 1996, Lawrence Berkeley Laboratory released
23 findings showing that energy-efficiency investments in housing often lead to the correction of

1 conditions that place buildings at risk. Such conditions include fire, carbon monoxide poisoning,
2 and the like.

3 Energy-efficiency investments can promote the affordability of home ownership in Missouri. A
4 study of how energy-efficiency investments affect the affordability of first-time home ownership
5 found that, in the Census Division of which Missouri is a part, a \$3,000 energy- efficiency
6 investment made at the time of home purchase, financed at 9 percent interest, would yield an
7 effective reduction in the price of the home of 6 percent and an effective interest-rate discount of
8 0.48 percent.

9 Finally, the Alliance to Save Energy, a nationally recognized coalition of prominent business,
10 government, environmental, and consumer leaders who promote the efficient and clean use of
11 energy worldwide to benefit consumers, the environment, economy and national security, issued
12 a report addressing energy-efficiency improvements to homes. It was found that residential
13 energy-efficiency improvements could reduce energy consumption by an estimated 567 billion
14 Btu's. The Alliance reported that, of those states that did not have an established energy
15 standard in the U.S., Missouri ranked 5th in terms of potential total energy savings and 5th in
16 energy savings per home.

17 Energy efficiency in the industrial, commercial and residential sectors will be further addressed
18 in written and verbal testimony by an expert witness on behalf of the Energy Center during the
19 UtiliCorp United Inc. and Empire District Electric Co. proceedings. This action is necessitated
20 due to the unavailability of our expert witness under the current Procedural Schedule related to
21 this case. We respectfully request that the Commission consider our expert witness's testimony
22 because it provides this very important information that relates to UtiliCorp United Inc. in both
23 merger cases.

24 Q. What actions should the Joint Applicants take to address energy-efficiency services?

1 A. We request that UtiliCorp United Inc., the Missouri Energy Center and others establish a
2 partnership to market and leverage funds for the development of energy-efficiency programs
3 to serve the interests of their customers and the general public.

4 Q. What activities or programs would this include?

5 A. Actions may include the establishment of a process that determines what utility customers
6 want regarding energy-efficiency services, and in cooperation with the Energy Center,
7 implement cost-effective energy-efficiency programs.

8 Q. How would you summarize the relationship between renewable and alternative energy
9 resource development and these proposed mergers?

10 A. I would like to recognize and compliment UtiliCorp United, Inc. for introducing renewable
11 wind energy to Missouri customers. On November 10, 1998, in Case No. ET-99-241, Tariff
12 File 9900378, UtiliCorp United, Inc., d/b/a Missouri Public Service Co., filed a tariff sheet
13 adding a special contract "green power" rate. In its initial filing, UtiliCorp defined "green
14 power" as used in its proposed tariff to mean "electricity that is generated using technologies
15 that have minimal impact on public health, and the environment." As is commonly defined,
16 green power is electricity derived from renewable energy sources such as solar, wind, low-
17 impact hydropower, geothermal or biomass. Subject to availability, customers may select
18 from the options listed in the Rates section (of the Green Power Electric Pilot Program). The
19 source base reflected in the Rates Code included wind, landfill gas, solar and mixed
20 (resources). The proposed rate would give customers the option of paying a premium above
21 the cost paid for conventionally fueled power, for more "environmentally desirable"
22 generated power. After considerable deliberations on the subject, UtiliCorp presented an
23 amended proposal establishing a green power electric rate for residential customers, effective

1 July 26, 1999. The power source to support electric generation relating to this green power
2 rate is wind energy.

3 Q. How would you describe the wind-based electric generation system?

4 A. Two 750-kilowatt wind energy turbines, which can support the energy needs of more than
5 550 households at full capacity, were constructed at the Jeffrey Energy Center, located near
6 Belvue, Kansas. In September 1999, UtiliCorp launched its wind energy program in
7 Missouri, targeting 320 Missouri residential customers drawn randomly from those
8 customers enrolling in the program. Participants pay an extra \$5 on their monthly electric
9 bills for 100 kilowatt hours of green power. The DNR applauds UtiliCorp United Inc.'s
10 initial efforts to provide green power to Missouri customers.

11 Q. What actions, if any, should UtiliCorp United, Inc. take to address alternative or renewable
12 energy resource development as it relates to this merger?

13 A. UtiliCorp United, Inc. clearly demonstrated its support for green power in Case No. ET-99-
14 241. As a condition of these mergers, the Energy Center requests a commitment from
15 UtiliCorp United, Inc., to offer additional renewable energy to Missouri customers. These
16 actions may include joining and actively participating in utility photovoltaic groups,
17 participating in the U.S. Department of Energy's Million Solar Roof program and
18 determining what utility customers want regarding renewable energy. We request that
19 UtiliCorp United, Inc., the Missouri Energy Center and other interested parties establish a
20 partnership to market and leverage funds for the development of renewable energy sources,
21 conduct feasibility studies and establish and maintain pilot projects to serve the interests of
22 their customers and the general public.

23 These issues will be fully addressed in written and verbal testimony by an expert witness on
24 behalf of the Energy Center during the UtiliCorp United Inc. and Empire District Electric Co.

1 proceedings. This action is necessitated due to the unavailability of our expert witness under the
2 current Procedural Schedule in this case. We respectfully request the Commission consider our
3 expert witness's information because it relates to UtiliCorp United, Inc. in both merger cases.

4 Q. Do you have any final remark comments on the proposed merger?

5 A. Yes. Based upon the matters presented by this testimony, we respectfully request that the
6 Missouri Public Service Commission examine the potential implications of the Joint
7 Applicants' proposed mergers, which may impede low-income weatherization assistance
8 programs, residential and other sector energy-efficiency programs, and the development of
9 renewable and alternative energy resources for the state of Missouri.

10 It is our hope that, if the proposed merger is authorized by both the Missouri Public Service
11 Commission and the Federal Energy Regulatory Commission, the Joint Applicants will work
12 closely with the Missouri Department of Natural Resources' Energy Center to design and
13 implement low-income weatherization service assistance programs, effective energy
14 efficiency programs, and develop additional renewable and alternative energy resources.

15 Q. Does this conclude your testimony?

16 A. Yes. Thank you.

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