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September 20, 2004

FILED²

SEP 20 2004

Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge
Public Service Commission
Governor's Office Building
Madison & E. Capitol
Jefferson City, MO 65101

Missouri Public
Service Commission

RE: *In the Matter of Empire District Electric Company's Application for Authority to File Tariffs Increasing Electric Rates for the Service Provided to Customers, Case No. ER-2004-0570*

Dear Judge Roberts:

Enclosed for filing in the above-referenced case are the original and 8 copies of the direct testimony of Rick Anderson, Anita Randolph and Ronald Wyse, each with affidavit, submitted on behalf of the Missouri Department of Natural Resources' Outreach and Assistance Center, Missouri Energy Center. Thank you for your attention to this matter.

Sincerely,

JEREMIAH W. (JAY) NIXON
Attorney General

Ronald Molteni
Assistant Attorney General

Enclosures

cc: All Parties on the Service List

Exhibit No.:
Issues: Commitment to Provide Low or No
Cost Weatherization Assistance to
Empire District Electric Low-Income
Customers and Energy Efficiency
Services to Residential and Commercial
Customers
Witness: Ronald Wyse
Sponsoring Party: Missouri Department of Natural
Resources' Outreach and Assistance
Center, Missouri Energy Center
Type of Exhibit: Testimony
Case No.: ER-2004-0570

EMPIRE DISTRICT ELECTRIC COMPANY ELECTRIC RATE CASE

DIRECT TESTIMONY

OF

RONALD WYSE

MISSOURI DEPARTMENT OF NATURAL RESOURCES

ENERGY CENTER

September 20, 2004

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
TESTIMONY OF
RONALD WYSE
DIRECTOR
RESIDENTIAL AND BUSINESS PROGRAM
MISSOURI DEPARTMENT OF NATURAL RESOURCES
ENERGY CENTER**

CASE NO. ER-2004-0570

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1 **Q. Please state your name and address.**

2 A. My name is Ronald Wyse. 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's Residential and Business program. The Missouri Energy center is
8 a division of state government with its executive office located in 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 Central Missouri State University and received a Bachelor of Science in Business
14 Administration degree in 1969.

15 I have been employed with the Missouri Department of Natural Resources for the past 27
16 years and have managed energy efficiency grants and loan programs over this time including
17 over 9 years managing the federal Weatherization Assistance Program in Missouri. Prior to
18 being employed by the Missouri Department of Natural Resources, I worked in private
19 industry as a plant manager for a Midwest agricultural company.

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

21 A. The purpose of my testimony is to focus on the proposed \$38.2 million annual electric rate
22 increase by the Empire District Electric Company (hereafter referred as Empire); low-income
23 residential customers served by Empire; the need for the company to implement a low-

1 income residential weatherization assistance program consistent with federal weatherization
2 assistance guidelines; and, the need to promote utility-based energy efficiency services for
3 residential and commercial customers served by Empire.

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

7 **Q. Please describe the format and content of your direct testimony as it relates to this**
8 **electric rate case.**

9 A. My direct testimony will first address low-income energy issues and the difficulties low-
10 income customers face in paying their utility bills, the need for weatherization assistance for
11 the company's low-income residential customers and the benefits of weatherization to low-
12 income households as well as other rate-payers and the utility company. Following the low-
13 income issue, I will address residential and commercial energy efficiency and the opportunity
14 to help customers in using energy more efficiently to help reduce the economic impact of
15 rising energy costs ultimately passed on to all customers through higher energy rates. And
16 lastly, I will summarize these issues and propose actions and funding amounts to support the
17 proposals offered in my filed direct testimony.

18 **Q. Please describe the relationship between Empire's current commitment to low-income**
19 **weatherization assistance and energy efficiency services for residential and commercial**
20 **customers and the proposed rate increase.**

21 Empire is proposing an electric rate increase seeking a \$38.2 million annual revenue
22 increase, a majority of which is directed toward residential and commercial customers. Of the
23 \$38.2 million annual revenue increase proposed by Empire, \$17.57 million, or 46 percent is

1 targeted toward residential customers and \$13.14 million or 34.3 percent is targeted toward
2 commercial customers. Combined, this represents \$30.7 million or over 80 percent of the
3 revenue increase.

4 **Q. How many residential and commercial customers does Empire serve?**

5 As of June 30, 2004, Empire served approximately 131,914 residential customers or 84
6 percent of their total customer base and approximately 23,324 commercial customers or 15
7 percent of their total customer base. When combined, residential and commercial customers
8 represent approximately 99 percent of all customers served by Empire (Data Request
9 MDNR-1 and MDNR-14, Cory Carter, Empire District Electric Company, August 10, 2004).

10 **Q. In your opinion, do you believe Empire recognized the adverse impact that a multi-**
11 **million dollar rate increase would have on its customers?**

12 A. Yes. On April 30, 2004, Empire filed new electric tariffs with the Missouri Public Service
13 Commission (hereafter referred as PSC) noting that the proposed increase was due to several
14 factors. As noted by the April 30, 2004 "These include the higher cost of fuel utilized in the
15 generation of electricity, the increased cost of capital investments and other costs associated
16 with providing safe and reliable electric service to Empire's customers." (Mr. James
17 Swearngen; Brydon, Swearngen & England, April 30, 2004)

18 In fact, Empire's original rate proposal would have generated an additional \$52.4 million in
19 annual revenue to the company, a rate increase of 20.2 percent. Recognizing the adverse
20 financial impact such a rate increase would have on its customers, Empire reduced its tariffs
21 by \$14.1 million. Specifically noted by William Gibson, President and Chief Executive
22 Offer, Empire, noted "However, the impact on our customers of a 20.2 % increase in rate,
23 however justified, would be significant. After much consideration, we determined to lessen

1 the impact in this case by approximately \$14.1 million.” (Direct Testimony, William L.
2 Gibson, April 2004, page 5, lines 7-10)

3 **Q. Does Empire currently offer or propose in this rate filing to offer energy efficiency**
4 **programs to their residential and commercial customers?**

5 A. No. Empire does not offer energy efficiency programs to their poorest residential customers,
6 or to their residential and commercial electric customers. Further, Empire does not offer any
7 new energy efficiency service or product through the current rate filing that would assist low-
8 income residential, residential or small commercial customers in reducing their consumption
9 of electricity or their monthly utility bill in light of potentially higher energy bills as a result
10 of this general rate filing. (Data Request, MDNR-10, Terry Oliver, Empire District Electric
11 Company, August 11, 2004)

12 **Q. Does Empire offer a low-income weatherization assistance program to their low-income**
13 **customers?**

14 A. No (MDNR- 10, Terry Oliver, Empire District Electric Company, August 11, 2004). The
15 company does offer a bill credit (billing assistance) program for eligible low-income
16 residential customers.

17 **Q. Please describe the relationship between home heating bills and low-income residential**
18 **utility customers in Missouri.**

19 A. The relationship between home heating bills and low-income residential utility customers in
20 Missouri was addressed in a report prepared for the Department of Natural Resources Energy
21 Center titled “Structuring a Public Purpose ‘Distribution Fee’ for Missouri”, prepared by
22 Fisher, Sheehan & Colton, Public Finance and General Economics consultants, July 1997.
23 The report noted that winter home heating bills in Missouri impose significant burdens on

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

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

8 A. The significance of home heating burdens on low-income households also was addressed in
9 the Fisher, Sheehan & Colton report. The report found that the significance of home heating
10 burdens imposed on low-income households is very apparent when one considers the full
11 range of incomes at which low-income residents of Missouri live. Most Missouri households
12 that qualify for the Low-Income Home Energy Assistance Program (LIHEAP) in Missouri by
13 living at or below 150 percent of poverty live below the ceiling rather than at the ceiling.
14 (Current LIHEAP eligibility is 125 percent of Federal Poverty Level or FPL). In other
15 words, the number of households with extremely low levels of annual income and a high
16 heating burden is significant.

17 **Q. Is a household's ability to meet monthly utility bills related to just heating and cooling**
18 **costs?**

19 A. No. A household's ability to meet monthly utility bills is not necessarily related to just
20 heating and/or cooling costs. Typically, Missouri residential heating bills represent about 30
21 percent of a household's total annual utility bill. Generally, electric bills (other than cooling)
22 represent about 41 percent of a household's total annual utility bill. Annual cooling bills

1 represent about 9 percent of a household's annual utility bill, while domestic hot water
2 represented about 20 percent of a household's energy bill.

3 In other words, the largest part of a residential electric bill is for general use throughout the
4 household. Therefore, as electric utility rates increase in Missouri, poorer households face a
5 greater inability to pay their utility bills. As utility rates increase, more low-income
6 households are unable to pay either a portion or their entire energy bill. This creates a utility
7 bill arrearage situation that many Missouri households are unable to overcome.

8 Utility billing assistance funding has great merit, but does very little to address the need for
9 long-term and sustainable benefits for low-income households. Weatherization
10 improvements help low-income households to use energy more efficiently resulting in long-
11 term benefits to both the customer and to the utility by reducing utility bills and arrearages.

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

13 A. Yes. A significant number of low-income households in Missouri are in need of energy-
14 efficiency improvements.

15 Information gathered from the state Weatherization Assistance Program (WAP) which is
16 administered by the Missouri Department of Natural Resources' Energy Center, shows that
17 from 1978 (beginning of the program in Missouri) through June 30, 2004, approximately
18 144,392 homes were weatherized in Missouri. The Energy Center estimates that over
19 400,000 *eligible* homes remain (as identified by the U.S. Census Bureau, Table P93. Ratio of
20 Income in 1999 to Poverty Level by Household Type – Missouri). (In Missouri State Fiscal
21 Year 2001, the eligibility was increased from 125% to 150% of the poverty level in response
22 to the 2000 – 2001 heating crisis, resulting in approximately 100,000 additional homes

1 meeting the eligibility criteria.) Clearly, on-going and additional sources of low-income
2 energy-efficiency services are needed.

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

4 A. Statewide, more than 3,000 families are currently on weatherization waiting lists and on
5 average, more than 2,500 households are added to that waiting list annually.

6 **Q. How many low-income households exist within the 18 counties served by Empire and
7 how many homes are weatherized annually?**

8 A. According to the 2000 U.S. Census Bureau, 458,416 Missouri low-income households are
9 eligible to receive weatherization assistance statewide. Approximately 70,568 low-income
10 households, or 15 percent of Missouri's eligible low-income households (150 percent of
11 poverty as of 2000 census data, all fuel types including electric and/or natural gas heated
12 homes, including both Empire and non-Empire utility customers) are located in Empire's 18-
13 county electric service territory.

14 The three weatherization assistance agencies (area Community Action Agencies) that operate
15 in Empire's service territory complete weatherization services on approximately 346 homes
16 annually at current resource levels.

17 **Q. Can you identify the number of eligible low-income households served by Empire in
18 their Missouri service territory?**

19 A. Yes. The weatherization assistance agencies identified approximately 384 low-income
20 households on their waiting lists to receive weatherization assistance. Of this number,
21 approximately 145 households, or 38 percent, are served by Empire. Due to limited federal
22 and state resources, many of these homes may wait in excess of a year before they receive
23 vitally important weatherization assistance services.

1 **Q. Please describe changes made to the Weatherization Assistance Program that focus on**
2 **electricity.**

3 A. In addition to electric related energy efficiency measures such as furnaces, water heaters,
4 insulation and replacement windows and doors, just to name a few, the U.S. Department of
5 Energy has added electric base-load (or electric plug-load) measures to the federal program
6 regulations effective January 1, 2001. This is an evolution in the federal and state guidelines,
7 allowing the program to move toward whole-house weatherization. Typically, addressing
8 just the heating and/or cooling cost of a dwelling unit accounts for only about half of the
9 unit's energy expenditures. The addition of cost-effective electric base load measures gives
10 local weatherization agencies greater flexibility to help low-income households reduce their
11 energy costs, and to partner with sources of leveraged funds, including electric utilities.
12 These measures include replacement lighting, replacement electric water heaters and other
13 electric appliances such as refrigerators. Missouri is currently evaluating these measures for
14 inclusion in Missouri's federal Weatherization Assistance plan.

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

16 A. Weatherization reduces space heating fuel consumption by an average (including all heating
17 fuels) of 18.2 percent. Specifically for homes using electricity for heat, annual space heating
18 fuel consumption is reduced by 35.9 percent. For homes using natural gas for heat,
19 weatherization reduces space heating fuel consumption by 33.5 percent.
20 Weatherization is a cost-effective means to help low-income individuals or families pay their
21 energy bills year after year for the life of the energy-efficiency product. Weatherization
22 reduces the amount of state and federal assistance needed to pay higher utility bills, keeps
23 money in the local economy, results in a positive impact on the household's promptness in

1 paying utility bills, reduces arrearages and helps to reduce environmental pollution through
2 energy efficiency.

3 **Q. What are the expected savings that result from low-income weatherization assistance?**

4 A. Presuming that a low-income household's annual heating bill in Missouri is estimated at
5 \$354 (at 2001/2002 winter heating prices), savings of 35.9 percent due to weatherization
6 improvements could help reduce space heating demand. The improved efficiency in electric
7 space heating could result in annual savings of \$127 per year ($\$354 \times .359 = \127). Over the
8 life of such improvements, typically 20 years, the accrued savings would be approximately
9 \$3,900 for the low-income household ($\$127 \text{ annual savings} \times 20 \text{ years} = \$2,542$ at 2001/2002
10 winter heating prices), assuming no further increase in space heating cost. Such savings have
11 been shown to help the low-income household meet its monthly utility bill and help reduce
12 arrearage collections for the utility.

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

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

20 An example of the benefits derived from weatherization assistance is the Pennsylvania Low-
21 Income Usage Reduction Program (LIURP). A payment of less than 100 percent means the
22 specified low-income household did not completely pay the current month's utility bill. In
23 contrast, a payment exceeding 100 percent means the low-income household not only paid

1 the current bill, but paid off its arrears as well. Under LIURP, the installation of energy
2 efficiency products substantially improved the payment patterns of the treated low-income
3 households. In fact, the delivery of energy efficiency generally caused a substantial increase
4 in the payment coverage of the household energy bill. In most cases, the low-income
5 household moved from falling further and further behind by failing to pay the current bill, to
6 paying the entire current bill and beginning to retire the arrears.

7 **Q. Please summarize utility billing arrearage for Empire.**

8 A. According to Empire, residential customers receiving electric service from the company have
9 had difficulty in meeting their monthly utility bill.

10 Empire reports that during calendar year 2002, approximately 12,219 accounts were in
11 arrears each month with an outstanding monthly average balance of nearly \$158,000. In
12 2003, approximately 9,410 accounts were in billing arrearage, with an average outstanding
13 monthly average balance of \$124,000. For the first six months of 2004, approximately
14 13,210 accounts were in arrearage, exceeding the annual total for both calendar years 2002
15 and 2003 (MDNR-4, Cherie Luton, Empire District Electric Company, August 10, 2004 and
16 MDNR-2, Ann Butts, Empire District Electric Company, August 10, 2004).

17 **Q. Please summarize billing arrearage and utility service disconnects by Empire.**

18 A. During calendar year 2002, Empire disconnected nearly 5,500 residential electric customers
19 due to utility billing arrearage with nearly 1,000 disconnects during the month of April 2002,
20 just prior to the summer cooling season. In calendar year 2003, Empire disconnected over
21 4,000 customers and in the first six months of calendar year 2004, Empire disconnected
22 2,478 customers and may experience service disconnects that exceed 5,000. Since January

1 2002, Empire has disconnected 12,604 residential customers (MDNR-7, Ann Butts, Empire
2 District Electric Company, August 11, 2004).

3 **Q. Please summarize Empire's gross uncollectible revenues from their residential**
4 **customers.**

5 A. During calendar year 2002, Empire reported uncollectible revenue from their residential
6 customers at nearly \$2 million (Data Request, MDNR-4, Cherie Luton, Empire District
7 Electric Company, August 10, 2004). Low-income residential weatherization assistance may
8 have helped to reduce the amount of uncollectible revenues by reducing energy demand and
9 lowering monthly utility bills.

10 **Q. Please describe the funding level required to support a low-income weatherization**
11 **assistance program by Empire.**

12 A. As noted earlier, the three community action agencies that provide weatherization assistance
13 within Empire's service territory report approximately 384 low-income households are on
14 waiting lists to receive weatherization assistance. Of this number, approximately 145
15 households, or 38 percent, are served by Empire. In order to meet these customers' needs
16 and additional Empire customers that may be added to the weatherization assistance waiting
17 list in future months, we request annual funding of \$181,250 for low-income weatherization.
18 This utility-based weatherization assistance fund would supplement federal weatherization
19 program funds and allow approximately 145 Empire low-income households to receive
20 weatherization assistance. This is based on a leveraging amount of \$1,250 per household
21 from Empire's weatherization fund (this represents approximately a 50/50 cost share between
22 Empire and federal weatherization assistance funds that would be provided to an eligible
23 low-income household receiving electric service from Empire).

1 **Q. How should the program be designed?**

2 A. This program should be designed to be consistent with federal guidelines for the federal
3 Low-Income Weatherization Assistance Program. The weatherization assistance program
4 should also be coordinated with Empire's Experimental Low Income Program (ELIP) that
5 provides a billing credit to eligible low-income customers. By adding weatherization
6 assistance to billing assistance services, low-income households may address current billing
7 arrearage and potentially avoid future arrearages due to a reduction in their utility bills
8 through improved energy use in the household.

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

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

16 Several Missouri energy utilities including AmerenUE, Aquila Networks, Inc., City Utilities
17 of Springfield, Missouri, the City of Independence Power & Light Department, Columbia
18 Water and Light, Kansas City Power & Light and Missouri Gas Energy offer energy
19 efficiency services to their customers. The Energy Center is currently working with
20 AmerenUE and KCPL on an extensive list of energy efficiency programs to be offered by
21 these utilities.

22 **Q. What are some examples of effective energy efficiency programs?**

1 A. Some primary efficiency programs having the most potential for energy savings include
2 efficient residential heating, ventilating and air conditioning equipment (HVAC), tune-ups
3 and repair; proper installation, maintenance and use of commercial HVAC and other building
4 systems; and commercial and industrial sector lighting retrofits. In addition, energy efficient
5 design and construction of new buildings have significant potential for energy savings in
6 Missouri. To achieve these savings, training for building contractors, developers and
7 architects is essential and could be included in a utility-based efficiency program.

8 **Q. Does Empire offer residential and commercial energy efficiency services or products to**
9 **their residential or commercial customers?**

10 A. No. Empire responds to customer concerns regarding energy use or energy bills. As
11 described by Empire, "The only residential energy efficiency/energy conservation
12 products/services offered by Empire are: responses to residential customers' questions by our
13 Energy Services Representatives (primarily through participation in trade shows); occasional
14 walk-through energy audits (generally due to high bill inquiries); the residential energy
15 management strategies listed under 'Products and Services' on our Web Site." (Data Request,
16 MDNR-8, Bill Eichman, Empire District Electric Company, August 4, 2004)

17 **Q. Do you request Empire to implement energy efficiency programs for their residential**
18 **and commercial customers?**

19 A. Yes. I commend Empire for their responsiveness to consumer concerns regarding energy use
20 and energy bills. I do have suggestions for Empire regarding energy efficiency services for
21 their customers that will have long-term impacts on energy use and energy bills by achieving
22 energy savings benefits for their customers.

1 I request that Empire join the ENERGY STAR Program as a utility partner, a program
2 sponsored by the U.S. Department of Energy and the U.S. Environmental Protection Agency
3 helping businesses and individuals protect the environment through superior energy
4 efficiency. Last year alone, Americans, with the help of ENERGY STAR, saved enough
5 energy to power 15 million homes and avoid greenhouse gas emissions equivalent to those
6 from 14 million cars - all while saving \$7 billion.

7 Energy efficient choices can save families about a third on their energy bill with similar
8 savings of greenhouse gas emissions, without sacrificing features, style or comfort.

9 ENERGY STAR products include new high-energy efficiency household products and
10 appliances, energy-efficient ratings for new homes and tools and resources to help utility
11 customers to plan and undertake projects to reduce energy bills and improve home comfort.

12 For businesses, ENERGY STAR can provide a strategic approach to energy management
13 that can produce twice the savings - for the bottom line and the environment. ENERGY
14 STAR partnership offers a proven energy management strategy that helps in measuring
15 current energy performance, setting goals, tracking savings, and rewarding improvements.

16 ENERGY STAR provides an innovative energy performance rating system which businesses
17 have already used for more than 10,000 buildings across the country. ENERGY STAR also
18 recognizes top energy and environmental performing buildings.

19 I request that Empire provide annual funding in the amount of \$35,000 to promote the
20 Change A Light, Change the World program in the company's service territory. The Change
21 A Light, Change the World program is a national lighting campaign facilitated by the
22 ENERGY STAR program and centered on light fixtures and light bulbs that have earned the
23 ENERGY STAR label. The program would provide a unique opportunity for Empire to work

1 with area retailers, manufacturers and regional partners to tailor a program to promote the use
2 of high efficiency lighting systems, improve energy use and help promote environmental
3 benefits.

4 I request that Empire provide annual funding in the amount of \$100,000 to provide rebates to
5 residential customers that purchase and install high efficiency electric appliances and/or
6 heating and cooling equipment that have received the ENERGY STAR rating.

7 I request that Empire offer a Small Commercial and Industrial Energy Audit Program. This
8 program is offered by other Missouri utilities including Aquila Networks, Inc. and
9 AmerenUE. Empire offers a free walk-through energy audit, however, if a technical or
10 detailed audit is performed, the commercial customer must pay for the service. I request that
11 Empire provide annual funding in the amount of \$25,000 to pay for 50 percent of any
12 technical audit, with a limitation of \$1,000 for any technical audit completed for the
13 commercial customer. The audit subsidy would be subject to an agreement by the
14 commercial customer receiving the technical audit to agree to implement a minimum level of
15 efficiency measures reflected in the technical audit. The program should be structured to
16 provide incentives for commercial customers to implement the energy efficiency measures
17 identified in the energy audit.

18 AmerenUE is implementing a similar program as part of the Residential and Commercial
19 Energy Efficiency Collaborative established in the Stipulation and Agreement in Case No.
20 EC-2002-1.

21 **Q. Please summarize the funding level required to adequately support energy efficiency**
22 **programs for Empire's low-income residential customers, residential customers and**
23 **commercial customers as presented by your testimony.**

1 A. Empire is targeting the largest proportion of this proposed rate increase to its residential and
2 commercial customers. In order to help Empire's residential and commercial customers face
3 these rising energy costs, they should be offered the opportunity to improve the way they use
4 energy and help to reduce their energy expense.

5 **Low-Income Residential Weatherization Assistance**

6 Annually fund through rates, \$181,250 to implement low-income residential weatherization
7 assistance consistent with federal weatherization guidelines through local community action
8 agencies operating within Empire's service territory. Presuming an average savings to
9 investment ration of 1:2.5 as reported by the weatherization assistance agencies operating in
10 Empire service area, low-income households could realize a net benefit of \$453,125 per year
11 or \$9.06 million dollars over the life of this investment ($\$181,250 \times 2.50 \times 20 \text{ years} =$
12 $\$9,062,500$). The cost per customer per month is estimated at \$0.10. This is within the
13 funding range provided in similar weatherization assistance programs offered by other
14 investor-owned utilities including AmerenUE (\$0.13/month/customer), MGE, Aquila
15 Networks, Inc. and Laclede Gas Company (<\$0.05/month/customer).

16 **Change A Light, Change the World**

17 Annually fund through rates \$35,000 to participate in the Change a Light, Change the World
18 program within the Aquila, Inc. service territory. The cost per customer per month is
19 estimated at \$0.02.

20 **Residential Energy Efficiency Rebate**

21 Annually fund through rates \$100,000 to provide rebates to residential customers that
22 purchase and install high efficiency electric appliances and/or heating and cooling equipment
23 that have received the ENERGY STAR rating.

1 The cost per customer per month is estimated at \$0.05.

2 **Commercial Energy Efficiency**

3 Fund through rates \$25,000 in annual costs for a commercial energy audit program with
4 incentives for implementation of energy efficiency measures. The cost per customer per
5 month is estimated at \$0.01.

6 **Q. What is the total amount of annual funding requested for residential and**
7 **commercial energy efficiency programs?**

8 A. Annual funding to support these programs would be \$341,250 and would cost an
9 estimated \$0.18 per month per customer.

10 **Q. Does this conclude your testimony?**

11 A. Yes. Thank you.

