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September 20, 2004

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Missouri Public
Service Commission

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

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, Energy Efficiency Services to Residential and Commercial Customers and Wind Energy Assessments.
Witness:	Anita C. Randolph
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

ANITA C. RANDOLPH

MISSOURI DEPARTMENT OF NATURAL RESOURCES

ENERGY CENTER

September 20, 2004

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. ER-2004-0570

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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?

The purpose of my testimony is to address the proposed $38.2 million annual electric rate increase by Empire District Electric Company (hereafter referred as Empire) and the need for Empire to work closely with its customers, shareholders, stakeholders and state agencies in providing the most efficient, affordable and reliable energy service as possible through commitments to energy efficiency and alternative energy sources.

Empire is proposing an electric rate increase seeking a $38.2 million annual revenue increase, a majority of which is directed toward Empire's residential and commercial customers. Of the $38.2 million annual revenue increase proposed by Empire, over $17 million, or 46 percent is targeted toward residential customers and over $13 million or 34 percent is targeted toward commercial customers. Combined, this represents over $30 million or more than 80 percent of the revenue increase.

Q. Would you describe the annual rate increase as substantial?

A. Yes. Although Empire may have incurred greater operating expenses in providing electric service to its customers located in southwest Missouri, Empire had new rates approved by the Missouri Public Service Commission (hereafter referred as PSC) that went into effect December 1, 2002. If approved, new rates for Empire's customers would take effect in early 2005 adding additional utility expense to its customers at a time when Missouri's economy is still recovering and its citizens continue to cope with the rising cost of living. I am particularly concerned about the impact such a rate increase could have on our poorest households and those who are disabled or must live on a fixed-income.

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

A. Yes. Empire originally considered a rate proposal that would have generated an additional $52.4 million in annual revenue to the company, a rate increase of 20.2 percent. Recognizing the adverse financial impact such a rate increase would have on its customers, Empire reduced its tariffs by $14.1 million noting that such a rate increase would, in fact, be significant. (Direct Testimony, William L. Gibson, April 2004, page 5, lines 7-10)

Q. Please describe energy production and use in Missouri.

A. In 2002, Missouri was ranked by the U.S. Department of Energy (hereafter referred to as DOE) as the 17th largest consumer of energy in the nation. We have extremely limited fossil fuel production, mostly high sulfur coal, with no crude oil, natural gas or transportation fuel production. Missouri depends heavily on energy resources from outside the state, importing more than 95 percent of its energy sources in the form of coal, petroleum and natural gas. Missouri's energy expenditures are approximately $13 billion every year. Our dependency on petroleum, coal and natural gas from out-of-state sources diverts billions of dollars from Missouri's economy. The world's present supplies of coal, oil and natural resources are finite and non-renewable. As we consider ways to ensure adequate future energy supplies in Missouri, moderating or reducing demand through energy efficiency and the development of Missouri-based energy resources should be part of the solution.

Q. Is the rising price of crude oil, petroleum and natural gas having an impact on Missouri's consumers?

A. Yes. One of the principle reasons Empire has filed this rate application is due to the rising expense related to natural gas to produce electricity. As of December 31, 2003, Empire's

generation capacity for natural gas was 55.7% of their total generation capacity. (Data Request MDNR-24, Empire District Electric Company, Todd Tarter, August 10, 2004). Natural gas prices continue to be highly volatile and are expected to remain in the $5.00 to $6.00 per million Btu (MMBtu) over the next year and beyond. This is a nearly a 300 percent increase in the cost of natural gas in the last 5 years. And in August 2004, the nation experienced over nine new record prices for crude oil and near record prices for petroleum products. Reducing demand through energy efficiency will help to mitigate the need for higher rates and interim energy charges to the extent they are based on high natural gas prices.

Q. Please describe natural gas expense increases and the impact on both residential electric and natural gas customers.

A. The patterns of natural gas price volatility and its impact on all consumers started several years ago. The volatility of natural gas supply and price has impacted consumers that rely on gas to heat their homes and businesses and has impacted energy utilities that generate electricity through natural gas combustion units. This increasing demand for natural gas places additional pressure on natural gas supplies and prices. Missouri's electric utilities used about 7 billion cubic feet (Bcf) of natural gas in 1997, 16 Bcf in 1998, 19 Bcf in 1999 and 30 Bcf in 2000 – an average increase of 23 percent per year. 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.

Wholesale natural gas prices spiked 287 percent higher during the winter of 2002-2003 than during the winter of 2001-2002, moving from $2.36 to $9.13 per million Btu. The natural

gas spot price has remained high in historical terms. Throughout most of 2003, the average spot price for natural gas was above $4.00 per MMBtu, reaching a peak of over $9.00 per MMBtu in late February 2003. During most of 2004, natural gas prices ranged near or above $6.00 per MMBtu. These costs negatively impact customers. Energy efficiency helps buffer customers and the utility company from these costs.

Q. Please describe the need for energy efficiency.

A. Investments in energy efficiency help to improve the efficient use of energy by consumers. Energy efficiency recognizes the truism that Missourians 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. Essentially, energy efficiency results in improved use in energy by consumers, which helps to reduce their monthly consumption of energy. Efficiency in turn creates a more stable demand pattern and allows the company to provide reliable delivery of energy during periods of greater demand such as excessively hot summers. In effect, efficiency is a demand-side hedging tool that helps the utility control the amount of energy needed to meet demand.

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. Briefly describe the benefits of utility-based energy-efficiency services.

A. Utility-based energy efficiency services provide a win-win opportunity because they benefit consumers, the utility and its investors. Recently the State of Missouri examined energy efficiency as a fundamental component of public policy and found it to be in the public interest.

The Missouri Energy Policy Task Force, chaired by the Director of the Department of Natural Resources and staffed by the Energy Center, 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, demonstrating that energy efficiency and renewable energy is in the public interest: "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 with the assistance of the Energy Center 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."

Q. Are there utility benefits from energy efficiency services?

A. Yes. In addition to looking at energy-efficiency from a customer perspective, it is beneficial to examine the benefits of energy-efficiency programs from the perspective of energy service providers. In addition to improving overall system reliability and reducing exposure to volatile fuel prices, energy-efficiency programs can result in substantial non-energy savings to utilities. These non-energy savings, or what I refer to as utility system benefits, include lower costs associated with building new capacity and infrastructure and environmental compliance, uncollectible accounts, and credit and collection expenses.

Energy efficiency is appropriately viewed as an energy resource like coal, oil or natural gas. Energy efficiency helps moderate customers' utility bills by curbing demand instead of increasing supply. Energy efficiency also provides additional economic value by preserving natural resources and reducing emissions.

Q. What is the cost comparison of energy efficiency to new electric generation?

A. It is difficult to accurately compare investments in energy efficiency measures, often referred to as demand-side management (DSM), to investments in building new generation

plants or supply-side resources. Economic comparisons of efficiency and supply-side investments require that consideration of the life-cycle cost of both demand-side and supply side options are addressed on an integrated basis. For example, the interaction of the change in usage patterns with the generation function of the utility must be considered over the expected life of the options. While cost calculations will vary by region and individual utility, the U.S. Department of Energy (USDOE) has used the cost of energy in cents per kilowatt hour (kWh) saved as an index for making approximate comparisons between the cost of energy efficiency programs and new generation plants.

USDOE data collected from surveys of 63 percent of reporting utilities in 1994 indicated that the cost of energy efficiency programs was competitive with or below the cost of new generating capacity. The average costs of achieving conserved energy were reported at under 3 cents per kWh while the cost for new generation facilities ranged from 2 to 15 cents per kWh on a significant number of days per year. During capacity shortages, prices could increase to 50 cents per kWh or higher, reflecting the cost of building new generation to serve peak loads or the price signals that might be required to match demand to available supply if power must be purchased on the spot market.

In April 2001, the PSC reported that the current long-term wholesale market price for electricity in the Midwest was 4 cents per kWh, or $40 per megawatt, not including transmission costs. Using these cost estimates, energy efficiency investments ranging from 2 to 3 cents per kWh are more cost-effective than building new generation at 4 to 5 cents per kWh without factoring in the additional environmental and system benefits due to less stress on the transmission and distribution systems.

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

A. In a report to the Missouri Legislature prepared by the Environmental Improvement and Energy Resources Authority of the Department of Natural Resources, 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 Empire offer energy-efficiency services or products to their customers?

A. No. Empire should offer residential and commercial energy-efficiency programs that would help these customers use energy more efficiently thereby helping them to control the rising costs of energy use in their homes and businesses and help the company to better control costs related to electric generation and delivery. In light of the fact that Empire customers face yet another rate increase within a 3-year period, they should be provided with the means to help reduce the impact of these rate increases. Ron Wyse, director of the Energy Center's

Residential and Business Program will provide additional information regarding residential and commercial energy efficiency and recommendations in his filed testimony.

Q. Since the cost of electric generation from fossil fuels continue to increase, should Empire consider alternative forms of electric generation?

A. Yes. At present, Empire depends entirely on the use of coal, natural gas and oil to generate the electricity it needs to support its system. Even with this native generation, Empire must continue to rely on purchased power contracts to meet its customers' electric demands. As Empire seeks future methods of providing affordable and reliable electric service to its Missouri customers, the company should evaluate its generation mix to allow the use of new technologies that have made alternative forms of electric generation cost competitive. Rick Anderson, a senior staff member with the Energy Center will address wind energy assessment and development within Empire's Missouri service area in his filed direct testimony.

Q. Does this conclude your testimony?

A. Yes. Thank you.

STATE OF MISSOURI
PUBLIC SERVICE COMMISSION

In the Matter of Empire District Electric Company and Its Tariff Filing to Implement A General Rate Increase for Electric Service	)))	Case No. ER-2004-0570

AFFIDAVIT OF ANITA RANDOLPH

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 Randolph

Notary Public

KAY A. JOHANNPETER NOTARY PUBLIC SEAL STATE OF MISSOURI

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 September, 2004.