Exhibit No.:	
Issues:	Wind Energy, Voluntary Green Power Program
Witness:	Rick Anderson
Sponsoring Party:	Missouri Department of Natural Resources - Energy Center
Type of Exhibit:	Direct Testimony
Case No.:	ER-2007-0002

AMERENUE ELECTRIC RATE CASE

DIRECT TESTIMONY

OF

RICK ANDERSON

MISSOURI DEPARTMENT OF NATURAL RESOURCES

ENERGY CENTER

December 15, 2006

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

DIRECT TESTIMONY OF
RICK ANDERSON

MISSOURI DEPARTMENT OF NATURAL RESOURCES
ENERGY CENTER

CASE NO. ER-2007-0002

Q. Please state your name and address.

A. My name is Rick Anderson. My business address is Missouri Department of Natural Resources, Energy Center, 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 an energy policy analyst for 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 intervener in these proceedings.

Q. Please describe your educational background and business experience.

A. My post-secondary education has focused on Natural Resources Management, resulting in a Bachelor of Science in Forestry from Michigan State University in 1974 and a Masters of Science in Water Resources Management from the University of Wisconsin-Madison in 1980. Since 1980, I have been employed by the Missouri Department of Natural Resources (hereafter referred as DNR). After serving two years as staff in DNR's Public Information Office, I served as DNR's Budget Officer from 1982 until 1994 when I moved to the Missouri Energy Center within DNR. At the Energy Center my work has focused on energy policy issues. Current duties focus on renewable energy, with specific emphasis on wind energy.

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

A. The purpose of my testimony is to focus on the development of renewable energy resources, especially wind, as part of Ameren's UE generation portfolio by identifying

sources of publicly available wind energy data that AmerenUE should use in its resource planning analysis. The Energy Center is also offering conditional support for UE's proposed Voluntary Green Power Program.

Q. Why should Ameren consider wind energy in its portfolio of generation?

A. Wind energy developments are:

1. Modular
2. Clean
3. Provide a stable energy price for periods of up to 20 years
4. Improve energy security through diversity
5. 5ot vulnerable to future carbon regulations

Q. What actions have other Missouri utilities taken to diversify their generation portfolio to include wind energy?

A. I will note that other smaller electric utilities in Missouri are making business decisions to add wind power to their mix of resources. Several years ago Aquila contracted to purchase all of the power from a 112 MW wind farm in Kansas. During the last two years Empire District Electric Company signed a long-term purchase power agreement for power generated from a 150 MW wind farm in Kansas. This year KCPL purchased a 100 MW wind farm in Kansas; and Associated Electric Cooperative Inc. in cooperation with partners John Deere and Wind Capital Group, are building three 50 MW wind farms in northwest Missouri. In October the City of Columbia announced the purchase of electricity from a 6 MW addition to the first of the three Missouri wind farms.

Q. Does Ameren have ready access to information about the wind energy potential proximate to the UE service territory?

A: Yes. I am aware of the following sources of wind energy data available to UE:

1. Proprietary wind assessments of wind patterns at 40 meters above ground level conducted in Pike and Reynolds Counties by AWS Scientific for UE between 1995 and 1997.
2. A validated map of Illinois' wind energy resources at 50 meters above ground level prepared in 2001 by the National Renewable Energy Lab. http://www.eere.energy.gov/windandhydro/windpoweringamerica/where_is_wind_illinois.asp
3. Maps predictive of Missouri's wind speed patterns at 30, 50, 70 and 100 meters above ground level, including a validated map of Missouri's wind energy resources at 50 meters above ground level prepared in 2003 by AWS Truewind and validated by the National Renewable Energy Lab (NREL).. http://www.dnr.mo.gov/energy/renewables/wind-energy.htm
4. A study of high level wind patterns in northern and western Missouri is being conducted by the University of Missouri -Columbia's Department of Soil, Environmental and Atmospheric Sciences. This Tall Tower study uses an array of wind energy sensors to be installed on ten existing communication towers at levels up to 150 meters above ground level. Data collection is currently underway at seven of the ten towers, and can be accessed at: http://weather.missouri.edu/wind. Initially funded as a one year study, the Missouri Department of Natural Resources is seeking state funding to extend data collection from the towers for up to 3 years.

Q. Do you support AmerenUE's proposed Voluntary Green Power Program (VGP)?

A. Under certain conditions, the MO DNR Energy Center can support UE's proposed VGP Program. However, this voluntary program would be paid for by participating customers on their electric bills, and should not be a substitute for UE's direct investments in the acquisition of wind and other renewable energy sources as part of its energy supply portfolio. If UE's proposed Voluntary Green Power Program meets all of the Green-e certification requirements and if UE contracts with a reputable and experienced third party to administer the program, it could strengthen the market for renewably-generated power and encourage the development of renewable energy in Missouri and in our region, with multiple economic, environmental and energy security benefits.

Q. What conditions do you propose?

A. First, UE should commit to educate its customers about the program and market the program effectively. If UE contracts with a third party, the third party should have a demonstrable track record of effective program education and marketing. In his direct testimony, Mr. Bob Mill indicated UE's intention to contract with Three Phases to provide VGP program education and marketing. (Mill, direct p. 13, lines 8-10) I am aware that Three Phases administers several other utility programs that have been recognized for their effectiveness by US DOE in its "top ten" list and by US EPA's Green Power Partnership in its "top 25" list of green energy programs.

Second, UE should commit to a good faith effort to offer certificates from generation sources that are located as close as possible to Missouri. Mr. Mill states that green energy certificates sold through the VGP program will be Green-e certified and that it intends to contract with Three Phases to acquire the certificates that will be sold.

Green-e certification imposes some geographic sourcing requirements, but they are very broad. The electricity could be generated in Missouri, or in any other state in the Southeastern Electric Reliability Council (SERC) region of the Northeast Electric Reliability Council (NERC), or from a contiguous NERC region if the electricity is wheeled into SERC. Three Phases has a policy of seeking to locate generation as close to the customers who will purchase the certificates and UE should affirm its support of this policy.

Third, UE should commit to full disclosure of the generating source of the certificates sold in the program. By "full disclosure," I mean a breakdown of the geographic location(s) of the renewable generation, type of renewable energy resource and the amount of energy from each provider of the renewable certificates that are being marketed. The information that is provided should fully meet the disclosure requirements for Green-e certification, which is that this source disclosure is updated at least annually and provided in all marketing or information literature directed to eligible customers. Disclosure should not be limited to customers actually participating in the program.

Finally, UE should acknowledge that if it sells a Green-e certified kilowatt-hour of "green energy" to a customer through the VGP program, the "green attributes" of that kilowatt-hour are owned by the customer and the same kilowatt-hour of "green energy" is not available for UE to use for some other purpose, such as meeting a state-mandated renewable energy standard. This simply acknowledges one of the conditions of Green-e certification. It is important that UE make this statement to avoid potential confusion that might arise from the statement in the VGP tariff

proposed by Mr. Mill that the VGP program will be designed to "work in conjunction with any future statewide renewable energy mandates." (Mr. Mill, direct, p. 13, lines 17-19) If UE intends to market the VGP certificates as Green-e certified, this statement should be removed in the proposed tariff.