Ex. 01
Kansas City

Comments of Craig Volland,
representing the Kansas Chapter of the Sierra Club re:

Case No. EO-2005-0329
KCP&L's Proposed Regulatory Plan
12 noon May 24, 2005 Public Hearing

I am speaking in opposition to KCP&L's plan now before the Missouri Public Service Commission. The company proposes to add some 950 MW of new generating capacity in the next five years. The centerpiece of this plan is the 850 MW Iatan 2 coal fired power plant whose massive cost is the primary basis for their request for a rate increase of up to a 20% by 2010.

Environmental issues aside for the moment, we strongly challenge whether KCP&L's selection of power generating options is consistent with the financial interests of the rate payers of Missouri and Kansas. Last year, Westar, whose service area is in Kansas, solicited and reviewed 17 bids from 13 wind power developers. On Feb. 1 of this year they presented the attached cost comparison of power generating options to the Kansas State Senate Utility Committee. This shows wind power costing only 3 cents per KWH. Actually this is conservative because Westar's website gives a range of *2.5 to 3.0 cents per KWH*. (See Westar website, rate review section, Q&A on environment). This compares to their estimate of *4.65 cents* per KWH for a new coal-fired power plant. This is the best data the public has on this critical cost comparison since KCP&L refuses to make public their own data in this regard.

Note also that the cost of wind power is declining steadily while the cost of generating power from coal is going up. By the time Iatan 2 starts up it is likely that wind power will be significantly cheaper than coal even without the benefit of the federal tax credit. In addition, wind farms can be constructed in 1 to 2 years in sets of 50 or 100 MW to match base load demand when and if it materializes. This compares to a construction period of four years or more for coal-fired power plants.

According to a recent GAO report (see attached wind power fact sheet), as long as wind remains below about 20% of a utility's generating facility portfolio it can be considered equal to coal as a base load option. To sceptics of wind power who claim that wind power is unreliable I simply refer you to KCP&L's Hawthorn No. 5 coal fired boiler which blew up several years ago. I also invite you to spend some time in western Kansas to see for yourself the remarkable quality of the

wind resource there. Finally the Governor of Kansas signed a bill last week creating the Kansas Transmission Authority in recognition of the vast wind energy resources next door to KCP&L's service area. just waiting to be tapped.

According to Dr. Bruce Snead of Kansas State University, who advises the Kansas Chapter on energy efficiency issues, past energy efficiency programs and current market data support the conclusion that a much as 40% to 50% of the nation's anticipated load growth over the next two decades can be displaced through energy efficiency, pricing reforms and load management programs.

According to a recent report, *Natural Gas Crisis in the Midwest*, by the American Council for an Energy Efficient Economy, there is considerable research from leading states that a broad group of energy efficiency programs can save electricity at a cost of 3 cents per kWh which, of course is much cheaper than building a new coal fired power plant.

Now we have the bizarre situation where the Mayor of Kansas City signs on to the US Mayors Climate Protection Agreement which calls climate disruption an urgent threat to the environmental and economic health of our communities, at the same time KCP&L is proposing to build a huge new coal fired power plant that will spew out some 6 million tons of carbon dioxide per year. This, just a few weeks after dozens of US state treasurers met with hundreds of major investors in New York to brainstorm ways to reduce the financial risk of climate change (AP, May 10, 2005). I wonder how long it will be before we see insurance companies suing power companies like KCP&L for putting them out of business from violent storms and flooding.

Given the consensus about global warming, it defies common sense for KCP&L to be adding coal burning capacity at this time. At a minimum the coal option should be delayed six years to give energy conservation alternatives time to work to reduce demand and to give KCP&L engineers some confidence-building experience with wind power.

KCP&L built the no.1 boiler at their Montrose complex in 1958, some 47 years ago. You can be sure that if you approve KCP&L's plan to build Iatan 2, we will be stuck with it for 50 years. You must really think hard before you approve KCP&L's plan because your grandchildren will be baking along with mine. KCP&L's proposal fails the logic test, it fails the economics test and it fails the public interest test. They should be sent back to the drawing board.

New Plant Characteristics

	55 MW Aero-CT (Peaking)	150 MW Combustion CT (Peaking)	500 MW CC (Intermediate)	600 MW Coal (Base Load)	Wind (????)
Capital Cost ($/KW)	$450	$360	$510	$1,400	$1,300
Heat Rate (Btu/kWh)	10,400	10,800	7,120	9,700	N/A
Variable O&M ($/MWh)	$2.75	$2.00	$2.00	$1.40	$5.00
Fixed O&M ($/KW-year)	$6.00	$6.00	$13.00	$40.00	$25.00
Capacity Factor	10%	10%	25%	80%	40%
Total Cost ($/MWh)*	$157.50	$138.20	$84.20	$46.50	$30.00

CT = Combustion Turbine CC – Combined Cycle

* Based on $5.00/MMBtu Natural Gas Prices; $0.75/MMBtu Coal Price

Are there impacts on the utilities?

- Wind Power can be built in 50MW or 100MW sets unlike the huge investments required for 500+MW coal electricity generation plants.
- Wind is free and Wind Power costs are highly stable allowing utilities to hedge future gas prices.
- Reductions in gas usage reduces demand and prices in the gas market, providing significant customer savings.
- Wind Power variability causes negligible impact on utilities if Wind Power is less than 20% of the utility's total generation.[10]

Are there environmental benefits from Wind Power?

- Wind Power emits no air pollution.
- Every 1MW of Wind Power displaces 2,000 tons of CO2.
- Wind Power farms use only 3-5% of the land area leaving the rest for farming and grazing.

[10] Op. Cit. 8.

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Environmental impacts (con't)

- Wind Power impacts on birds is small. If 100% of U.S. power were produced by Wind Power, bird deaths from wind would still be only 1 out of every 250 human activity related bird deaths.[11]
- The cost of coal-based electricity generation doubles when negative health and environmental externalities are incorporated, making wind power even more attractive.[12]

[11] Op. Cit. 1.
[12] Op. Cit. 2.

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Kansas Wind Power

An Energy Opportunity for Today

Meet Future Energy Needs Using Existing Wind Power Technology

Is Wind Power economically competitive?

Wind Power Costs are Competitive[1]

- Wind Power costs have fallen sharply over the last decade and are now one of the cheapest sources of new electricity:[2]
  - » 2.6 ¢ per kWh for high wind speed sites and 4.8 ¢ per kWh for low wind speed sites; compared with
  - » 4.5 ¢ for new coal-powered plants.[3]
- Wind Power is a developing source of energy and costs are expected to fall 40% over the next decade.[4]
- Wind Power costs are reduced when financed by public utilities and investor owned utilities.[5]
- The environmental and health costs of fossil fuel (3¢-6¢ per kWh for coal and 0.5¢ to 2¢ per kWh for gas) are not currently incorporated into fossil fuel electricity pricing.[6]

How does Wind Power benefit state economies?

State Economic Impacts

- Wind Power creates jobs; often in the poorest rural counties. Jobs include project management, implementation, consulting, operations, maintenance, construction, and manufacturing.
- Wind Power provides lease income for rural land owners.

Wind Power Benefits	
CATEGORY	AVERAGE PER 100MW [7]
RURAL INCOME	$293,000
PERMANENT JOBS	35.5

- Wind Power companies often give money to schools and local governments in lieu of taxes.

Is Kansas falling behind in promoting Wind Power?

State Policy Support

- Stable policy supporting Wind Power is critical for development.[8]
  - » 18 states have Renewable Portfolio Standards
  - » 32 states have net metering
  - » 15 states have System Benefit Charges
  - » 20 states have property tax exemptions
- Ninety percent of U.S. Wind Power generation occurs in 10 states.[9] Kansas is not a top 10 Wind Power state even though vast wind resources in western Kansas rank Kansas 3rd among states in potential Wind Energy.
- A strong vision for Kansas Wind Power is needed along with supporting policy in order for Kansas is to succeed in developing its Wind Power resources.

"The cornerstone of this technology and our support is that wind is a clean, renewable source of electricity generation, which can significantly reduce our dependence on fossil fuels, especially coal, a major source of green gasses and other pollutants. Furthermore, wind energy can help preserve precious resources such as natural gas and help limit the further development of nuclear energy." An exerpt from the Kansas Chapter of the Sierra Club position on Wind Energy

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1 ***Wind Powering America: Clean Energy for the 21st Century (revised)***, DOE, EERE, Sep., 2004.

2 ***The Economics of Wind Energy***, AWEA, Mar., 2002. Includes a 1.5¢ per kWh tax credit.

3 **www.gasification.org/Docs/2004_Papers/29BOOR.pdf**. Adapted for burning Wyoming coal.

4 ***Expanding Wind Power: Can Americans Afford It?***, Renewable Energy Policy Project, Research Report #6, 1998.

5 ***Wind Power Costs Depend on Ownership Financing***, Wind Energy Weekly, Aug., 1996.

6 Op. Cit. 2.

7 Averages derived from reported economic impacts from projects around the U.S.

8 Wind Power's Contribution to Electric Power Generation and Impact on Farms and Rural Communities, GAO, Sep., 2004.

9 Op. Cit. 8.