



## Big Sandy Power Plant Monitors Real Time Operations Using High-Speed Internet Connection

**Louisa, Ky.** – Big Sandy Power Plant in Lawrence County is on the cutting edge of technology. The power plant has been serving Kentucky Power customers since 1963. Today, the utility company has 175,000 customers in 20 Eastern Kentucky counties.

Big Sandy Power Plant is the only facility of its kind in Eastern Kentucky and burns approximately three million tons of Kentucky coal each year. The plant has a combined generation capacity of 1,060 megawatts. Its capacity is important to meeting the rising demand for electricity. Each year, electricity demands grow by approximately two percent, said Ronn Robinson, Communications Manager for Kentucky Power.

Big Sandy Plant and Kentucky Power incorporate high-speed Internet capabilities into the technology equation in order to monitor plant activity and operations. Internet and intranet technology allow managers and executives to monitor plant operations in real time whether they are in Louisa or Columbus, Ohio, the headquarters of the American Electric Power (AEP) system.

Using high-speed Internet and intranet connections, information is constantly being compiled and collected. Data information is recorded and saved to enhance plant operations.

If something unusual were to happen at the plant, site data could be tracked throughout the day to help pinpoint the cause of the incident. Prior to Internet and computer technology, it took a significant amount of time to collect data, analyze it and discern problems.

“The system is easy and fast and makes Big Sandy more efficient,” Robinson said. Efficiency is crucial in servicing energy customers. Kentucky maintains the lowest energy prices in the country due in part to the efficiency of plants like Big Sandy.

“AEP, Kentucky Power’s parent company, is constantly learning more and applying technology in a cost effective manner to make Big Sandy more efficient,” said Ken Borders, plant engineer.

“Without the implementation of advanced technology, we could not ensure the longevity of our plants,” Robinson said.

Recently installed Selective Catalytic Reduction (SCR) technology along with other high-tech advancements, will maintain Big Sandy Plant’s presence for many years to come. Legislative mandates, like the Clean Air Act of 1970 and the Clean Air Act amendments of 1990, have required coal burning power plants to address environmental concerns. One such concern is the emission of nitrogen oxide (a contributor to smog) during the summer months.

“Selective Catalytic Reduction provides emissions control to meet environmental standards,” said Borders. SCR is essentially a chemical plant built onto a power plant that removes 95 percent of the nitrogen oxide in the flu gas stream.”

Selective Catalytic Reduction represents an important investment in clean air technology and will allow coal-burning plants to be productive for years to come. It is made possible, in part, by the use of new technology, including internet/intranet data gathering and transmission technologies.

Kentucky Power is a wholly owned subsidiary of AEP, one of the largest electric utilities in the United States. AEP serves more than 5 million customers linked to its 11-state electricity transmission and distribution grid. AEP is based in Columbus, Ohio. Kentucky Power is headquartered in Frankfort.

### About KY 120:

In the fast-paced world of technology-driven business, it should be recognized that best practices can be studied and emulated. As a part of the *connectkentucky* initiative, CiTE (Center for Technology Enterprise) is profiling business initiatives in each of Kentucky’s 120 counties. For more information visit our Web site at [www.connectkentucky.org](http://www.connectkentucky.org) or call 270.781.4320.

**Name:**  
Big Sandy Power Plant

**Internet:**  
[www.kentuckypower.com](http://www.kentuckypower.com)

**Products/Services:**  
Power Plant

**Location:**  
Louisa/ Lawrence County

**Leadership:**  
Mitch Thomas- Plant Manager

**Employees:** 135

**Founded:** 1963

**Reach:** Eastern Kentucky

**Innovative Insight:**  
*“Technology is essential to keep a plant like Big Sandy in the marketplace. Without technology, we could not ensure the plants longevity.”*

**Way Internet Has Made You More Competitive:**  
*“Broadband Internet technology allows us to monitor the plant in real-time at a remote location.”*

**Advice to Growing Companies:** *“Companies constantly need to be in a learning mode when it comes to technology.”*

**Ways to Continue to Attract the Best Workers:** *“Big Sandy Power Plant needs a particular skill set that takes years of training. Employees participate in numerous training programs. We also provide good wage with a good benefits package.”*