

New Device Aims to Solve Energy Perception Problems

From renewables to smart grids, bio-fuels to “going green”, energy is a hot topic. Without a good basic understanding of energy fundamentals, people can get lost in the hype and buzz words of this complicated subject.

To improve this situation, energy companies are taking a proactive approach to educating their employees, customers and even local media about energy principles. Ameren UE in St. Louis is involved with such a program. Tim Slater, Ameren UE Training Supervisor, was looking for a practical, yet fun way to teach the basics of electrical power generation to employees and customers.



Tim Slater prepares RankineCycler™ for a training session.

Rather than boring webinars or uninspiring seminars, he decided to acquire a RankineCycler™ Steam Turbine Power System from Turbine Technologies, Ltd. to teach with a “hands-on” approach. The RankineCycler™ reduces a full-scale electric power plant to desktop size, allowing participants to physically operate the system and learn from it. Even though the miniature power plant is relatively new to the Ameren program, it is already proving its value. Topics like kWh, Btu, therm, demand, efficiency and others are learned through demonstration. Employees discover this hands-on education is very effective in helping their customers make smarter energy related decisions. It is evident that operating a live power plant is an effective experience not soon forgotten.

Perry Kuznar of Turbine Technologies, Ltd. is impressed with the Ameren UE project; “We introduced the RankineCycler™ to engineering universities and technical colleges to give students a real, hands-on power education system.” “It really took off and is now used in schools around the world.” “When Tim called and told us what he wanted to do, we thought the RankineCycler™ would be a perfect fit.”

The RankineCycler™ is configured to operate just like a full-sized electric power plant; heated water creates steam, which spins a steam turbine/generator to produce electricity. After doing its work, the steam is condensed in a cooling tower. Strategically-placed sensors measure and record live operational conditions throughout the cycle for down-line analysis. It arrives from the factory ready to operate.

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About Ameren UE: Founded in 1902, Ameren UE, Missouri’s largest electric utility, provides electric service to approximately 1.2 million customers across central and eastern Missouri, including the greater St. Louis area.

About Turbine Technologies, Ltd.: A United States manufacturer of premier educational laboratory equipment, focusing primarily on energy related turbine equipment.

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