

The Valley Group, Inc.

CAT-1™ Transmission Line Monitoring Systems

Increasing Reliability While Decreasing Operating Costs

Real Time Ratings Provides Real Time Benefits to CAT-1 System Users

The following paragraph has been excerpted from a report published by the Tennessee Valley Authority, in conclusion to their pilot project comparing a CAT-1 Transmission Line Monitoring system to other real-time rating technologies (emphasis added):

“These two devices prevented the need to redispatch Shawnee generation to more costly gas turbines located in the system when the line was suspected of being overloaded. This project would also have prevented the need to add line reactors to limit power flow at a cost of \$2,479,000 (See Figure 16). This project prevented a transmission capital investment in excess of \$25,000,000. Also, this line is the only source to three distributors, this avoided direct economic loss and customer dissatisfaction due to power interruptions and inadequate power supply. This was conservatively estimated at \$104,000 per interruption. This project prevented a transmission capital investment from being damaged by overloading. Because of the success of this project, TVA is in the process of installing four more CAT-1 systems on critical transmission lines.”

With multiple CAT-1 Real-Time Rating Systems now in full operational use, TVA is able to maximize system reliability and reduce costs while having recovered the cost of the CAT-1 systems in a matter of days.

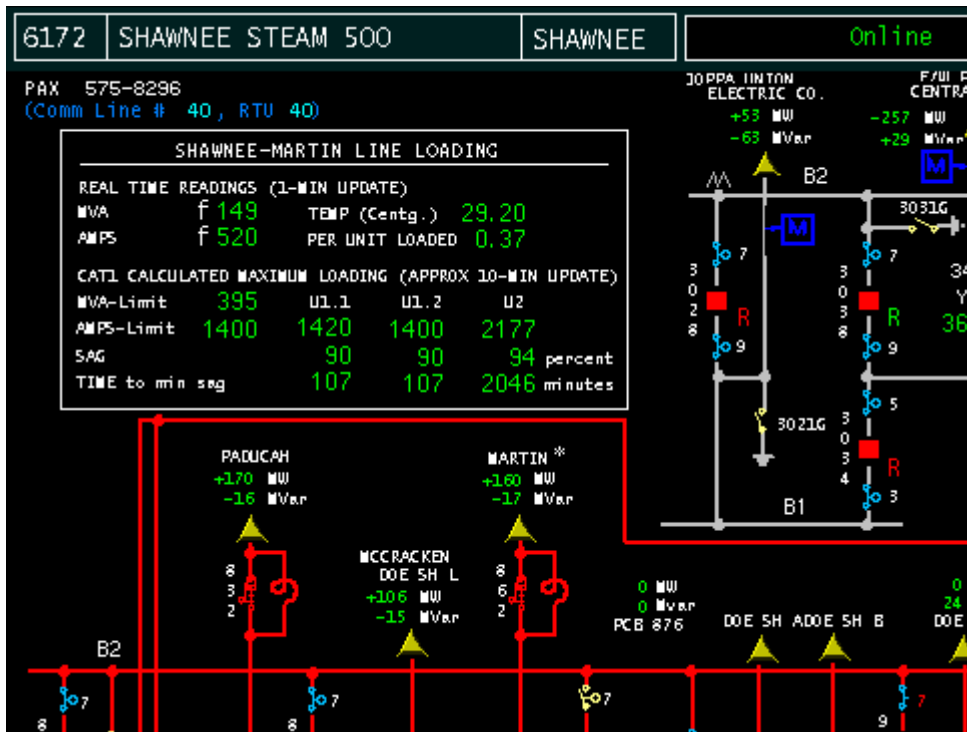


Figure 1. EMS display of CAT-1 real-time data helps operators make informed decisions.