

Richland County School District One



Every bit of savings counts.

At least, that is the sentiment of Richland County School District One Chief Architect Miles Hanley.

Hanley, who has been with the district since 2003, was involved with the installation of several M2G boiler-optimization control units in buildings throughout the district.

The project commenced after the district was approached by Greffen Systems, a company that provides energy and emissions saving technology.

M2G devices monitor and record the temperature of the water flowing in and out of the boiler at least every 10 seconds. That data, along with other operating data such as heat transfer rates during firing and interval periods, is used by the device to control the boiler's signal to fire when a demand is made on the system.

"The result is energy savings while ensuring maximum capacity during heavy load periods; this is accomplished with no impact on building comfort levels," according to a M2G Pilot Study Report published by Greffen Systems in 2013. "M2G minimizes the waste heat...while preserving the transfer of beneficial heat into the building."

Nevertheless, Hanley was skeptical. The district at that time, he indicated, was pursuing other energy-efficient measures such as lighting retrofits, not boiler controls.

"We're not a heavy gas district," he said.

However, after reviewing the projected savings and double-checking the numbers, Hanley got on board.

According to Hanley, the devices were installed in late 2011 at a cost of approximately \$70,000. The district was reimbursed for funds spent on the project through the ConserFund loan program, administered by the ORS Energy Office.

Compared to the low installation cost, the savings were substantial, Hanley indicated. We're seeing it," he said.

Three buildings have experienced significant energy savings since the installation: Lower Richland High School, Logan Elementary School, and the Facilities Services building. From 2011 to 2015, Lower Richland's usage decreased by nearly 31%, while Logan saw a decrease of 28%, and the Facilities Services building's usage dropped by 7% .

Richland County School District One was also acknowledged for its overall energy savings this year; the district received the Milestone Recognition Award for meeting the mandatory 20% reduction in energy intensity since the year 2000.

