



PROJECT PROFILE



Appalachian State University Boone, North Carolina



Project:

One of the universities in the University of North Carolina system and nestled in the Blue Ridge Mountains of North Carolina, Appalachian State University is spread out over 1,700 acres with 54 academic buildings, residence halls, dining and athletic facilities catering to 19,000-plus students and faculty. The University has a Renewable Energy Initiative (REI) that seeks to reduce the environmental impact of the University by replacing their existing sources of energy on campus with cleaner forms of renewable energy technology. The ASUREI subsequently sought out innovative green technologies in support of their 24 condenser systems on campus. SFS worked with the university engineers to install a pilot non-chemical water treatment system on campus.

Application:

The ASUREI awarded Scale Free Systems a new contract to install our non-chemical water treatment system on the heat exchange equipment in the Bookstore Chiller Plant (Building #375). Scale Free Systems was installed on all of the condenser water equipment to protect the equipment from scale, corrosion and biological contamination. The equipment in the system includes two cooling towers (2,850 GPM), two chillers (450 tons each) and one heat exchanger. The installation was completed in December of 2014.

Results/Benefits:

It is too soon for actual data to be assessed, but based on initial statistical analysis of past water and energy consumption data, Scale Free will optimize the building's operational efficiency and is anticipated to reduce its water usage by 50% and energy consumption by 12% over what the chemical water treatment program previously in place achieved.

"The University is excited to evaluate this new water treatment technology on our campus. With the installation of Scale Free on our heat exchange systems, Appalachian State has sent a strong message about the importance of water and energy conservation."

Lee Wilson, Vice-Chair, ASUREI



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