

## **SOLUTION AT A GLANCE: SAVING WATER AND MONEY WITH CHEMICAL-FREE TREATMENT TECHNOLOGY FOR COOLING TOWERS**

### **BARRIER**

Identifying or evaluating energy-saving technologies

### **TOOL TYPE**

Case Study

### **TECHNOLOGY**

HVAC, Cooling Systems, Water Heating and Water Efficiency, Waste Water Management, Water Efficient Equipment

### **OVERVIEW**

Cooling towers are an effective means of rejecting unwanted heat from cooling systems and improving overall energy performance. However, cooling towers consume large quantities of water and require water treatment systems to maintain and manage water quality. New water treatment technologies provide 20–50% water savings and reduce or eliminate the use of hazardous chemicals.



An electrolysis water treatment technology from Dynamic Water Technologies and Universal Environmental Technologies is an example of a water treatment system that eliminates the use of chemicals for most water systems and saves 20–50% of water consumption and 50–95% of the wastewater or sewer discharges. It uses a unique electrolysis system that balances the water chemistry to prevent scale formation, remove historic scale,

minimize corrosion, and control biological growth. Beyond the water savings, this system reduces maintenance requirements, extends equipment life, and improves energy performance. Two recent validation studies of this technology in office buildings in Savannah, Georgia and Los Angeles, California showed water and wastewater savings of over 1 million gallons per year with a payback around 5 years. In addition, both sites have seen a strong improvement in water quality and reductions in tower cleaning requirements.

Read the full reports on [Savannah, Georgia](#) and [Los Angeles, California](#).

Photos: *Top left - UET reactors; Below - LA City Hall cooling tower; Bottom left - DWT reactor scale removal; Bottom right - DWT team installation in Savannah*









