

Case Study: AquaRecycle Laundry Water & Energy Recycling Project at Westin Bonaventure Hotel & Suites

Los Angeles Better Buildings Challenge

Early this year, the Westin Bonaventure Hotel & Suites partnered with Water Saver Solutions to improve energy and water efficiency in the hotel's laundry facilities. They proposed the installation of AquaRecycle's 125 gallon per minute ECO Laundry Wash Water Recycling System, designed to reduce the Bonaventure's potable water usage by 75%, which is expected to save the Hotel more than \$94,000 annually.

AquaRecycle was able to install the technology in the existing laundry facility at the Bonaventure. In the design of the new system, they were able to incorporate the Hotel's existing lint shaker, leg tank, and hot water holding tank, which led to a \$25,000 deduction in equipment installation costs. Additionally, the system will increase the water temperatures provided by the existing heat exchanger by at least 5 degrees, while decreasing overall energy use. Combined with the fuel-efficiency of the AquaRecycle equipment, this will yield almost \$250 in monthly energy savings. When there is not an existing waste water heat exchanger in place, AquaRecycle systems typically recycle more than 50% of the heat energy in laundry water recycling applications.

Water Saver Solutions estimates a one-year payback for the system, which allows the Bonaventure to qualify for rebates from the Los Angeles Department of Water and Power, Metropolitan Water District, and So Cal Gas. During this 12-month period, the Bonaventure will receive a full warranty, which includes quarterly service evaluations, system monitoring, and savings reporting. AquaRecycle tracks savings with a PLC-modem system that provides both daily and optimization monitoring features. This enables them to provide clients with directly measurable results. At the Bonaventure, Water Saver Solutions expects a 78% return on the investment; as the price of water and energy increases in Los Angeles, annual savings will continue to rise.



AquaRecycle's Control Panel at the Bonaventure.



On June 9, the AquaRecycle team installed the system for the laundry facilities at the Bonaventure.

In terms of sustainability, the project is expected to save 8.8 million gallons of water per year, reduce the quantity of waste water entering the Los Angeles environment by the same amount, and reduce annual CO2 emissions by more than 25 metric tons. AquaRecycle remains the leading manufacturer in Laundry Wash Water Recycling Systems and, along with their commitment to efficiency at the Bonaventure, has successfully implemented systems at Starwood, Marriott International, Hilton Worldwide, Hyatt Hotels and Intercontinental Hotel Group. The Westin Bonaventure Hotel & Suites has chosen to retrofit their laundry system as part of a larger "eco-tourism" initiative, which includes plans to reduce the building's water use 20% and fuel use 30% by 2020.