

Water Consumption Case Study

NEXA HELPS HOTEL REDUCE SOFTENER WATER USAGE BY OVER 80%

Context

Nexa sensors were installed to help a New Orleans hotel monitor and reduce their water consumption.

A 1,000+ room full-service hotel located in the heart of the Big Easy aimed to optimize water usage and identify efficiency opportunities within their operations. Compared to similar-sized hotels, the New Orleans location had been consuming over 50% more water per occupied room. To address this challenge, Nexa sensors were installed to monitor water usage throughout the building, providing actionable insights to reduce total water consumption effectively.

Data

Nexa provided real-time water consumption data across various points of the building, enabling the hotel team to monitor usage in each section.

This increased visibility empowered the maintenance team to pinpoint and address opportunities for water conservation through proactive monitoring and optimization. One critical area monitored by Nexa was water consumption from the water softeners discharge, revealing unexpectedly high daily usage patterns.

Insights

The Nexa customer success team benchmarked New Orleans' softener water consumption against expected usage patterns and observed inconsistencies in the backwash cycle.

Nexa's analysis highlighted several issues with the hotel's water softener system. The hourly water consumption from the softeners was inconsistent with typical softener backwash cycles. Furthermore, the Nexa team observed a period of elevated water consumption overnight on February 7th, which indicated a potential leak in the softener system.

These findings suggested potential operational issues that was contributing to inefficiencies and water loss, and a driver of why the New Orleans hotel had higher-than-expected water consumption.

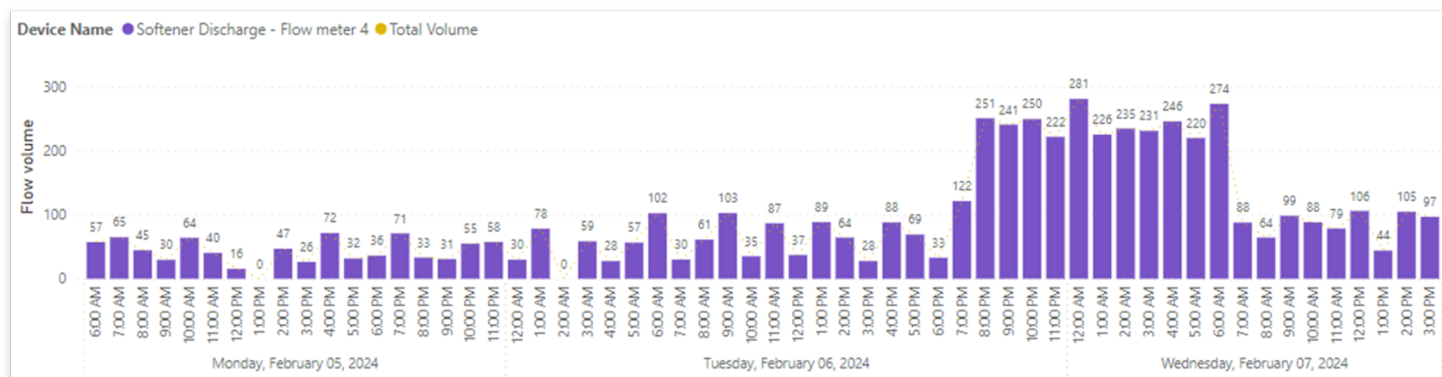


FIGURE 1 – IRREGULAR WATER CONSUMPTION PATTERNS INCLUDING CONSTANT FLOW AND INTERMITTENT SPIKES THROUGHOUT DAY. THESE PATTERNS WERE INCONSISTENT WITH STANDARD SOFTENER BACKWASH CYCLES, AND THE ELEVATED CONSUMPTION OVERNIGHT ON FEB 7TH SUGGESTED A POTENTIAL LEAK.

Action

In response to Nexa's insights revealing high water usage from the softeners, the hotel management staff swiftly brought in their water treatment provider to inspect and repair broken components in the backwash valves.

The maintenance team quickly addressed the root cause of the issue by identifying and repairing a broken gear in the water softener system. As a result, softener water consumption at the hotel shifted back to normal expected levels, thereby reducing water loss and improving operational efficiency. These proactive measures showcased the hotel's commitment to sustainability and operational excellence.

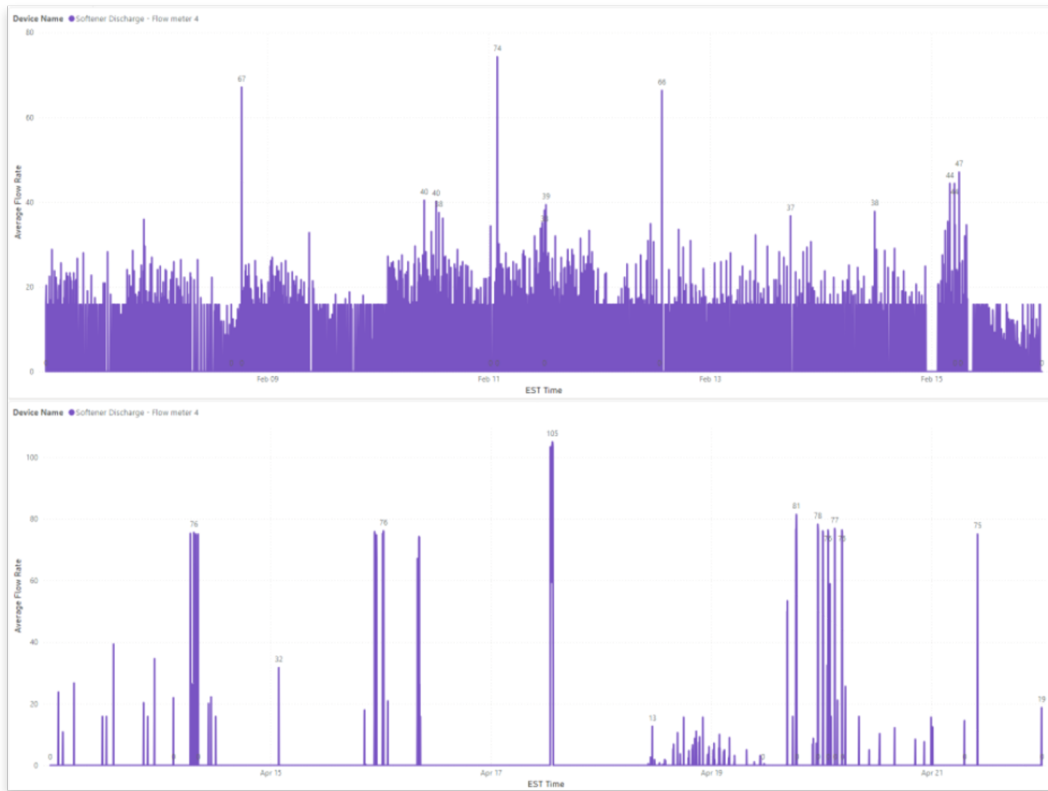


FIGURE 2 – WATER SOFTENER DISCHARGE VOLUME WEEK BEFORE (TOP) VS WEEK AFTER REPAIRS WERE MADE (BOTTOM).

Value

Implementing Nexa's recommendations led to an impressive 81% reduction in water consumption within the water treatment system, translating to an annualized cost savings of \$16,000 in water expenses for this Big Easy hotel.

By monitoring real-time data, sharing insights, and working closely with the hotel team to take prompt action, Nexa was able to contribute to the hotel's sustainability, operational, and financial goals.

Ask how Nexa can assist you in reducing your water consumption