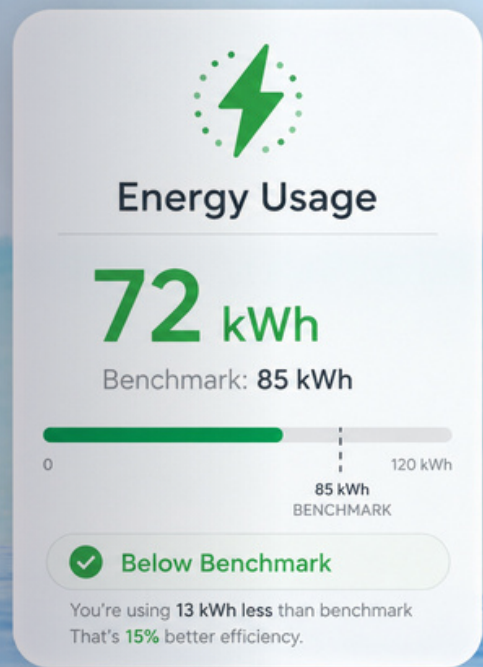


VivoEnergy Powers Pool-Pump Savings at Sheraton Waikiki



Overview

Sheraton Waikiki, part of Kyo-ya Hotels & Resorts, is one of Hawaii's largest and most iconic hotels. Its signature infinity pool and Helumoa pool are central to the guest experience, making consistently clean water, reliable performance, and efficient operations essential.

By partnering with VivoAquatics and implementing VivoEnergy, Sheraton Waikiki gained greater visibility and control over its pool operations while significantly reducing energy costs. The property saved over \$2,000 in the first week alone and is projected to save more than \$105,000 in the first year. The solution also supports longer equipment life, streamlined sustainability reporting, and access to Hawaii Energy rebates covering up to 50% of eligible project costs—all while keeping the pools clear, comfortable, and guest-ready.

THE CHALLENGE

A property of this scale and visibility carries aquatic pressures felt across hospitality — and firsthand at Sheraton Waikiki:

- Immense bather load placing constant demand on water clarity and chemistry
- Large, complex features: one of North America's longest infinity pools and a shared resort pool
- Heavy, continuous energy use on Hawaii's fuel-dependent grid, where power costs several times the mainland average
- Zero-tolerance health regulations and high guest expectations
- VFDs already on several pumps — but no monitoring, so no proof they stayed optimized
- No provable savings figures to report against corporate sustainability goals

Without measurement, a drifting drive looks identical to a perfect one. Pool management stayed reactive, and the energy blind spot went unmeasured.

THE SOLUTION

- 1 Installed seven ABB ACS580 VFDs (5–10 HP) with closed-loop control and safe minimum/maximum speed limits.
- 2 Added Signet flow meters (4–20 mA) to bring true flow (GPM) and turnover into VivoPoint.
- 3 Tuned a time-based schedule, slowing pumps off-peak while holding the 4–6 hour turnover target.
- 4 Integrated all drives on VivoPoint with a fixed savings baseline set June 25, 2026.

THE RESULTS: MEASURABLE ENERGY SAVINGS

In the first week of operation, the optimized drives saved the Sheraton over \$2,000, calculated against the property's actual utility rate of about \$0.37 per kWh. Because the pumps run on a fixed day and night schedule that holds the same flow year-round, and because Hawaii's climate keeps conditions stable across seasons, that weekly rate can be extrapolated with confidence:



The savings figure is measured by the ABB drives themselves – continuously comparing actual motor draw against a full-speed, direct-on-line baseline – then priced by VivoPoint at the property's real utility rate. The first-year number is an estimate that will be trued up as data accrues.

"The installation was quick between Vivo and our engineering team. By having all the pump metrics on VivoPoint we could see the savings after the first week. This is a real step toward running our pools and water features more sustainably."



Harzali Hashim
Director of Engineering,
Sheraton Waikiki

WHAT WE DID

- 1 Installed seven ABB ACS580 VFDs** (5–10 HP) with closed-loop control and safe minimum/maximum speed limits.
- 2 Added Signet flow meters** (4–20 mA) to bring true flow (GPM) and turnover into VivoPoint.
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- 4 Integrated all drives on VivoPoint** with a fixed savings baseline set June 25, 2026.

Per-drive and property-wide visibility. VivoPoint rolls all seven drives into one live view of usage and savings, and lets the team drill into any single pump as it ramps across the day.



WHY IT WORKS – AND WHAT IT COULD MEAN FOR YOU

VFDS Protect the Investment

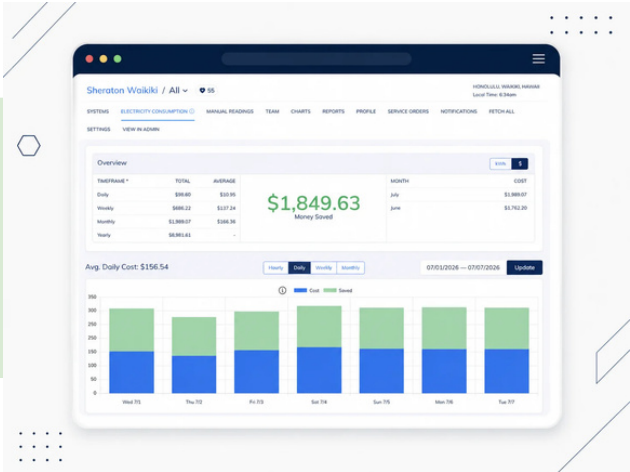
- **Water-hammer prevention** –soft ramp-up/ramp-down ends pressure surges.
- **Safe operating envelope** – speed limits keep flow above turnover and below system ratings
- **Motor protection** – reduced-stress starts extend life and cut emergency service calls
- **Quieter, steadier** operation with less vibration and cycling

Why Monitoring Matters

- **Provable savings** in real dollars against the property's actual rate
- **Early warning** when a drive drifts out of tune or a filter clogs
- **Turnover confidence** – live GPM keeps pumps inside the 4–6 hr window
- **ESG-ready reporting** with hard numbers for corporate
- **Rebate-ready** documentation from a fixed baseline

HAWAII ENERGY – REBATES BUILT IN FROM DAY ONE

- Rebates of up to 50% of project cost, based on provable first-year energy savings
- Involving Hawaii Energy at the outset captured the savings in a form the program accepts
- With first-year savings on track to exceed project cost, payback lands in months – not years



WHAT THIS COULD MEAN IN YOUR MARKET

Hawaii's high rates make the savings dramatic, but the same approach pays off anywhere pumps run on a fixed schedule. Applying the exact energy saved at the Sheraton to other markets' average commercial rates:

MARKET	AVG. COMMERCIAL RATE (¢/KWH)	EST. FIRST-YEAR SAVINGS
California	25.75	\$65,000 – \$80,000
Tennessee	14.07	\$35,000 – \$40,000
Florida	11.56	\$30,000 – \$35,000
Nevada	8.99	\$25,000 – \$30,000
Texas	8.35	\$20,000 – \$25,000

Estimates assume the same installation – seven optimized VFDs saving the same energy – with each market's average commercial rate in place of Hawaii's. Actual savings vary with pump count and size, schedules, and local rates. Rates are April 2026 state averages (U.S. EIA, Electric Power Monthly, Table 5.6.A).

IN THE PROPERTY'S WORDS



LOOKING AHEAD

The partnership has earned deep trust from Sheraton Waikiki's engineering leadership — Harzali Hashim has said he would bring VivoAquatics to any property with a pool. As Kyo-ya pursues efficiency and sustainability across its portfolio, pairing water-quality management with energy optimization gives the team a clear model for doing more with less.

WATER QUALITY & SUSTAINABILITY

- Reliable clarity and chemistry under heavy, sustained bather load
- Fast, direct issue resolution through a first-name partnership
- Hundreds of thousands of kWh kept off Hawaii's grid yearly, supporting its 2045 carbon-neutral target

VIVOAQUATICS' COMMITMENT

- Proactive investment in technology like VivoPoint and VivoEnergy to cut labor, cost, and risk
- Hands-on regional support, including routine site visits and system checks
- Education-first engagement — helping teams understand how and why systems work
- Ongoing service and follow-up, not just installation
- Active participation in hospitality associations



"We're proud to partner with Sheraton Waikiki and support its commitment to delivering an exceptional guest experience while reducing operating costs and advancing its sustainability goals through VivoEnergy."



Willan Johnson
CEO of VivoAquatics



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