Energy Conservation. We put our extensive knowledge and experience to work for you by analyzing your electrical usage data, existing control sequences and equipment performance to implement advanced control strategies to maximize energy savings and occupant comfort. We are able to provide independent energy audits by certified professionals to identify additional opportunities to save energy and provide financial projections of cost savings and return on investment (ROI) calculations. We will also work with your local utility representative to determine if there are rebate and incentive programs applicable to your situation.

Electrical System Monitoring. We can install intelligent Power Meters that measure 23 different electrical parameters. Detailed, accurate data is displayed on your system in real-time. Data logs that track consumption and demand provide historical analysis useful for devising energy conservation strategies. Alarms generated on low voltage or phase loss conditions will immediately notify you of the problem and equipment that is susceptible to damage from these conditions can be instantly locked-out. We are also capable of interfacing to existing electrical distribution equipment such as Distribution Panels, Emergency Generators, Automatic Transfer Switches and UPS systems and providing similar functionality.

Temperature Compensated Demand Limiting. With the information that we are able to retrieve from the electrical systems, Automated Building Systems can implement a demand limiting program to reduce the building’s electrical demand while continuing to maintain comfort and safety for the occupants. Fully flexible and customizable, we configure the demand limiting programs to ensure critical areas are not adversely affected while gradually widening operating parameters to mitigate any discomfort on the occupant’s part.

Lighting Control. Lighting is typically the largest source of energy consumption in a building. Often, little or no automatic control of the lighting is present. ABS can provide intelligent control of your interior and exterior lighting with a large selection of hardware and control strategies available. Automatic light sweeps, dimmable lighting, conference room control, ambient light level control – anything you can think of we can do. And you will be using the same Alerton Envision software to view, schedule and control your lights that you use for your HVAC.

Tenant Billing / Cost Allocation. Automatically keep track of all after-hours energy usage through the Tenant Billing feature that is integrated in the Envision software. HES will help you take this information and generate billing data that can be automatically transmitted to tenants or other departments. Alternately, you can use the information to allocate charges between different cost centers within the same organization.
**How can I interface my existing proprietary control system to a new, BACnet open protocol system?** Your first step is to commit to an open protocol infrastructure. With this new platform as a basis, your options become many. You will be able to determine the economics of a wholesale change-out of your existing proprietary components versus implementing one of many open protocol interfaces to your existing proprietary system. Ultimately, our options eliminate the need to remain locked to your existing proprietary system.

Alerton now has a new product, the Alerton Integration Engine, that allows us to interface a new Alerton BACnet front end, including open protocol BACtalk software, to any and all existing, proprietary control systems!

**What do I need to know about my service needs?** HES is anxious to teach you as much as you are willing to learn. Here is a list of 10 questions to ask when determining service needs:

1. Do you have a dedicated control systems operator?
2. Is your on-site staff factory-trained and is their training current?
3. Are you notified when after-hours alarms occur and how quickly can you respond?
4. When was your system last certified?
5. Do you have an effective system backup process?
6. Are your system record drawings current and safely archived?
7. How do you document compliance with IAQ requirements?
8. Have you recently conducted a building performance cost analysis?
9. Are you aware of opportunities for energy cost savings?
10. How do you budget for system replacement cost?

**Do you provide outer island Sales and Service?** HES provides sales and service to all Hawaiian Islands, Guam, Saipan and the entire Pacific Rim. We even have full-time staff and service capability on the Big Island.
**Other notable HES projects**

- PHNS Building #352 Critical Mechanical Repairs, Pearl Harbor, O'ahu
- Guam Navy Submarine Learning Center/Torpedo Exercise Supply Building
- Guam Submarine Learning Center/Multi-Mission Trainer Facility, Guam
- UH Mānoa Campus Center Renovation Phase 2-B, University of Hawai'i, O'ahu
- UH Hilo Student Services Building, University of Hawai'i, Big Island
- Hospice of Hilo, Medicare Inpatient Facility, Big Island, Hawai'i
- Kauhale 'O Iwi Puukapu Ph-2, Hawaiian Homelands, Waima, Big Island
- PHNS Building #400 Electrical and Mechanical Repairs, Pearl Harbor, O'ahu
- Guam Army National Guard Readiness Center, Barrigada, Guam
- Hickam AFB Building #2060 Renovate Consolidated Service Center, HAFB, O'ahu
- Hickam AFB JPAC Joint POW-MIA Accounting Command Facility, HAFB, O'ahu
- Guam Bank Pacific, Air Conditioning Renovations, Tamuning, Guam
- Fairmont Orchid Hotel IBEX to BACtalk Upgrade, Kona Coast, Big Island
- Tripler AMC, WBR Brigade Complex Phase-7A, Building #104, O'ahu
- PHNS Building #622 Replace FCU Unit Controls, Pearl Harbor, O'ahu
- Harbor Court Partial Condo & Office Towers Upgrade, Honolulu, O'ahu
- Guam US Navy 6x Buildings HVAC & Retro-Commissioning Project, Guam
- Diamond Head Health Center Air Conditioning System Improvements, O'ahu
- PHNS Building #9 PHNSY-IMF Air Conditioning Renovations, Pearl Harbor, O'ahu
- BYUH Hawai'i Multi-Purpose Building, Laie, O'ahu
- Schofield Barracks UEPH Phase-2 Additions, SFB, O'ahu
- Schofield Barracks Warriors in Transition Facility PH-2, SFB, O'ahu
- AEGIS Pacific Missile Defense Complex 3x Buildings, Barking Sands, Kaua'i

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**Guam Andersen Air Force Base, 33x Buildings**

Andersen Air Force Base is a United States Air Force (USAF) base located approximately 4 miles (6.4 km) northeast of Yigo near Agafo Gumas in the United States territory of Guam. Andersen is one of four Bomber Forward Operating Locations in the Air Force. These locations provide forward support to bomber crews deploying overseas in Europe, Southwest Asia and the Pacific. The Air Force is establishing forward-deployed bomber beddown support at key locations throughout the world and Andersen is one of two critical bases in the Asia Pacific region. Guam’s almost unrestricted airspace and the close proximity of the Farallon de Medinilla Island, a naval bombing range approximately 150 miles (240 km) to the north, makes this an ideal training environment. New Alerton native BACnet EMCS systems and DDC controls will be deployed among up to (33x) existing AAFB Buildings, as part of a large re-commissioning project, with many more buildings to come in the near future.

**Castle Medical Center, Kailua, O'ahu**

A full-service medical center offering a wide range of inpatient, outpatient and home-based services, Castle Medical Center is a 160-bed facility with more than 1,000 employees and staffed by 292 physicians. Located just outside of Kailua, Castle serves all of O'ahu and is the primary healthcare facility for the Windward side of the island. An Alerton native BACnet EMCS DDC control system was first installed when new cooling towers and chillers were added recently, and has now been expanded to control much of the Hospital’s many HVAC systems including many AHU Units, VAV boxes, and operating rooms. A new Alerton Integration Engine module was also added, which allowed the new Alerton System to do a protocol interface to more than (65x) sets of old, existing Invensys VAV box patient room controls, for complete control and monitoring without needing to change any of the old controls out—the latest in Alerton controls technology at work!

**Marine Corps Base Hawaii 2x BEQ Buildings & Company Command Center**

Marine Corps Base Hawai‘i (MCBH), is a U.S. Marine Corps Base Facility and Air Station, located on the entire 2,951 acres of the Mokapu Peninsula on the Windward side of O'ahu. At the 2000 Census, the base had a total population of 11,827. Marine Corps Base Hawai‘i, Kaneohe Bay is home to Marines, sailors, family members and civilian employees. The United States Marine Corps operates a 7,800 foot runway at the base. A very large Alerton native BACnet EMCS DDC controls system already controls many of the facility buildings on base, and most recently will add a new MCBH Project #P-858, consisting of a Company Command Headquarters facility, as well as (2x) large new BEQ Buildings, each multiple stories and multiple wings of Marine dwellings units.

**Maui High Performance Computing Center, Kihei, Maui**

The MHPCC, located at Kihei, Maui, was established in 1993 and operates as one of the five Department of Defense (DoD) supercomputing resource centers (DSRC) in the DoD’s High Performance Computing Modernization Program. The MHPCC DSRC provides scientific computational resources in support of the DoD’s “Challenge Projects” and other government users. The Center’s Terascale high performance computing resources showcase a wide range of technologies that include a 9,216 compute core Dell PowerEdge M610 system (Mana) with a peak throughput of 103 TeraFLOPS (103 x 1012 Floating Point Operations per second). With Mana as the principal computational platform, the total computational capacity of the MHPCC DSRC is more than 130 TeraFLOPS. The MHPCC DSRC offers an innovative environment for high performance computing (HPC) applications. A new Alerton/Tridiuum native BACnet EMCS DDC control and monitoring system will soon be installed—including high tech 3D color graphics—to monitor all data servers, power systems and environmental systems, provide heavy monitoring and energy usage of this facility, and help execute more efficient energy usage strategies.