

Navy Electrical System - Iroquois/Puuloa Joint Base Pearl Harbor-Hickam, Oahu, Hawaii

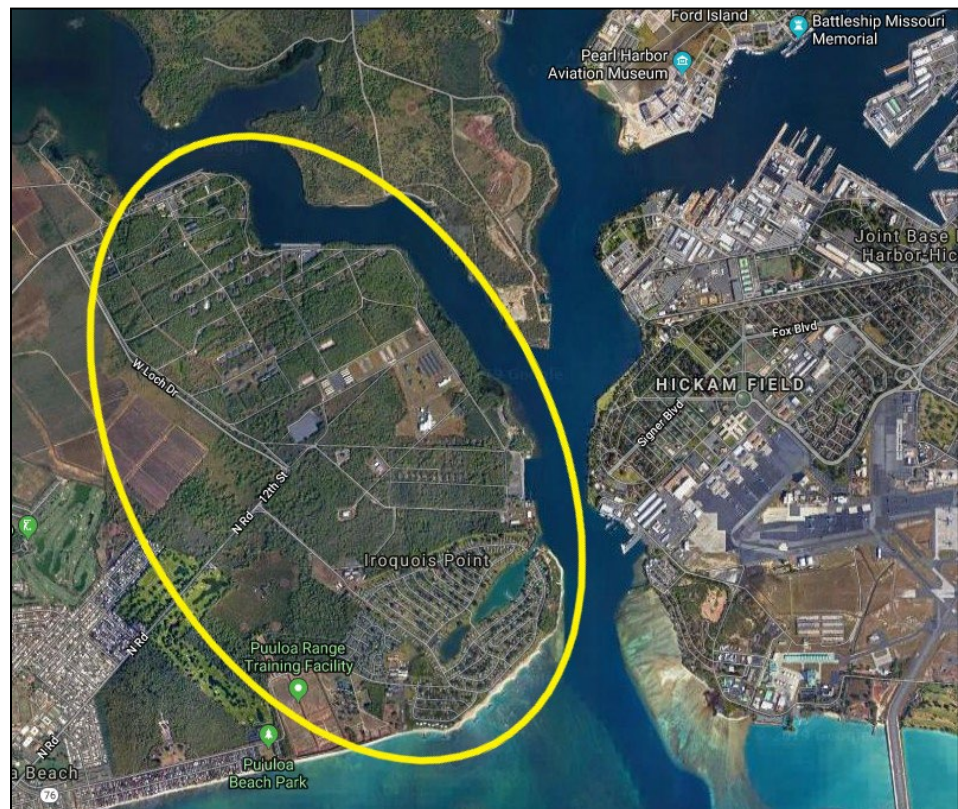
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The Naval Facilities Engineering Systems Command (NAVFAC) Hawaii manages the Iroquois/Puuloa Electrical System for Navy Region Hawaii and Joint Base Pearl Harbor-Hickam (JBPHH). This system powers the former Navy/Marine Corps housing area prior to the Ford Island Master Development Agreement (MDA) executed in June 2003. It currently provides electricity to Kapilina Housing, the JBPHH West Loch Annex, and the Marine Corps Puuloa Rifle Range.

History/Background

In 1941, construction began at the former Naval Air Station (NAS) Barbers Point. The base initially featured two main runways arranged in an X shape, which were later expanded. Over time, the base's infrastructure grew to include roads, rail, phone lines, fuel lines, sewage systems, and electrical systems. Additionally, various buildings were constructed, including personnel housing, hangars, storage facilities, and schools.

During the early 1940s, additional military facilities were established on the Ewa Plain, such as Marine Corps Ewa Field, Puuloa Rifle Range, and ammunition depots at West Loch and Lualualei. In the late 1950s and early 1960s, Capehart Housing (later known as Iroquois Point Housing) was built to support NAS Barbers Point, along with various support facilities, including the Navy's electrical system at Iroquois/Puuloa.



Privatizing Navy Housing

The Kapilina housing project, originally part of the Ford Island Master Development Agreement, was privatized in 2003 when the Navy and Fluor Hawaii (an affiliate of Hunt) signed an agreement that included a 65-year land lease for Iroquois Point and \$84 million in in-kind consideration for Ford Island construction and infrastructure improvements. Under private lease, the Iroquois Point Housing area was renamed The Waterfront at Puuloa.

In 2007, the agreement was modified to transfer ownership of the housing, facilities, and roads (1,446 rental units and 15 administrative/commercial units) to Ford Island Ventures, LLC, an affiliate of Hunt, while the Navy retained ownership of the land and utility systems. In 2009, the land lease was extended from 65 to 99 years. In 2012, Ford Island Ventures sold the lease to CP Waterfront IV LLC, an affiliate of Carmel Partners, which subsequently renamed the housing community Kapilina.

Electrical System

The Navy's Iroquois/Puuloa electrical system, which is approximately 30 to 50 years old, consists of portions constructed at various times. Key components include:

- **HECO Distribution Line** (12.470kV)
- **Navy Distribution Line** (11.5kV), totaling 63,833 linear feet
- **Substations:** 1 main station, 1 substation, and 220 transformers
- **Transformers (In Service):** 42 pad-mounted, 166 pole-mounted, and 11 substations
- **Support Structures:** 2 structures and 454 poles
- **Service Area:** Iroquois Point Housing/Puuloa Housing (Kapilina), NAVMAG West Loch Annex, and Marine Corps Puuloa Rifle Range

Hawaiian Electric Company (HECO) serves as the primary power provider to the Navy's electrical system at Iroquois/Puuloa.

System Operations & Maintenance

The Navy is responsible for maintaining and operating the Iroquois/Puuloa electrical system to ensure reliable service to Kapilina Housing, Department of Defense (DoD) tenants at JBPHH West Loch Annex, and the Marine Corps Puuloa Rifle Range.

The Navy conducts preventive maintenance and responds to all emergency calls and outages. It operates a 24/7 watch station to monitor and address electrical outages. When necessary, the Navy coordinates repairs with HECO. The Navy also conducts annual thermographic scans of pole-mounted transformers to detect potential issues, such as arcing at transformer connections. Past repairs have included the replacement of power poles and transformers. Recently, HECO replaced a substation servicing the Navy's electrical system at Kapilina.

Billing

At Kapilina, the Navy bills the property management company, Kapilina Beach Homes, for total electrical consumption on a monthly basis. The Navy does **not** bill individual residents; instead, the property management company is responsible for determining how much to charge each resident.

For Fiscal Year (FY) 2025, the Navy will charge Kapilina Beach Homes at a rate of approximately \$0.42 per kWh, which aligns with the current HECO residential rate. This rate, effective October 1, 2024, will be assessed with no additional surcharges. Any previous rates charged by the Navy to Kapilina Beach Homes, or questions related to residential energy consumption, are the responsibility of the property management company.

Since FY 2013, the Navy's electrical rate has fluctuated annually, ranging from \$0.59 per kWh in FY 2014 to \$0.20 per kWh in FY 2019. For Private Party Non-Federal customers like Kapilina Beach Homes, a 5.94% surcharge was applied to the bill, funding military assets used to supply electricity to non-DoD customers and contributing to the U.S. Treasury.

Since FY 2020, the electric service rate for residential customers receiving Navy-provided electricity has been aligned with the current HECO residential rate on Oahu. The surcharge for Private Party Non-Federal customers was eliminated in FY 2020. The HECO residential rate has ranged from \$0.47 per kWh in FY 2022 to \$0.27 per kWh in FY 2020. For FY 2025, the Navy's electrical rate will be set at \$0.54 per kWh.

Future Plans

The Navy is working with the General Services Administration (GSA), the statutory transfer agent for government property, to determine the most effective way to transfer or divest ownership and maintenance responsibilities for the Iroquois/Puuloa utility systems, where no Navy or DoD mission exists.

In FY 2020, GSA initiated a study to assess the condition of the electrical system infrastructure and provide an estimated valuation to inform decisions regarding the divestiture of government ownership.

Contact Information

For more information, contact the NAVFAC Hawaii Public Affairs Office:

- **Email:** NFHI_PAO_DL@us.navy.mil
- **Phone:** 808-471-7300

Naval Facilities Engineering Command: The Facilities and Expeditionary Combat Systems Command

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