ELECTRICAL PLAN REQUIREMENTS FOR COMMERCIAL SERVICE

In order to process requests for commercial electrical service as quickly as possible, Hawai‘i Electric Light requires customers to submit electrical plans.

The electrical plans submitted must conform to Hawai‘i Electric Light’s tariff, ESIM, Electrical Utility Service Equipment Requirements (EUSERC), the National Electric Safety Code (NESC), the National Electric Code (NEC), and all State and County of Hawai‘i Ordinances. Hawai‘i Electric Light’s Tariff and Electric Service Installation Manual (ESIM) are available to consultants, contractors, and customers who apply for service from Hawai‘i Electric Light.

THE ELECTRICAL PACKAGE MUST INCLUDE ALL OF THE FOLLOWING ITEMS:

1. One Line Diagram
   - Show in standard electrical symbols, pertinent equipment from the utility’s service to the customer’s load.
   - Specify the service voltage, point of delivery, service entrance conductors, meter socket standard and class, terminals, electric rate schedule, and grounding. A self-contained meter socket requires test bypass facilities. Instrument meter sockets require a test switch.
   - Customer’s utility meter must have Company’s approval
   - If applicable, switchgear factory drawings must be submitted to Company for approval prior to fabrication, in addition to consultant’s drawings.
   - If applicable, all emergency and/or parallel generators must be shown

2. Meter Elevation
   - Show all metering/service equipment’s elevation are compliance with ESIM requirements, including working clearances.
   - If applicable, show splice can/instrument transformer cabinet’s size

3. Panel Schedule(s)
   - Furnish panel schedules with individual loads in connected KVA and demand KVA.

4. Location Plan
   - A location plan indicating the location of metering/service equipment relative to the existing roadways and buildings. Include the tax map key (TMK).

5. Service Data
   - Please provide a completed service data summary using the following format:
     Service Data
     1. Service voltage: __________PH, __________/__________V., _____W
     2. Load Data: Connected ___________ KVA, Estimated Demand __________ KVA
     3. Service Conductors: ______ set(s) of _________________
     4. Metering: HELCO Std. B-______; Rate ______
     5. Type: Overhead/Underground
     6. Billing Information: (Include Name, Address)
Include nameplate load rating for wielding equipment, electric motors over 50 horsepower and other large electrical equipment that will be operated as part of the new load (needed to limit voltage disturbances to nearby customers)

HOW HAWAI’I ELECTRIC LIGHT WILL USE THE ELECTRICAL PLAN INFORMATION

1. Overall Purpose
   - The overall purpose of the electrical plans is to safeguard people and property from hazards arising from the use of electricity.

2. Determination of Service Requirements
   - Information establishes the type of service, transformer, and meter needed
   - Confirms appropriate rate schedule
   - Verifies electrical service is in compliance with those stated above
   - Assignment to a project planner based on the KVA requirements and the Tax Map Key. Projects are grouped as follows: 0-10kva, 11-75kva, 76-500kva, and 501 kva and greater loads

If you have any questions regarding these guidelines, please call our Engineering Department at Hilo (808) 935-1171 or Kona (808) 327-0500.
SERVICE DATA

1. 1φ, 120/240V, 3W
2. LOAD DATA:
   METER CONNECTED KVA DEMAND KVA
   1 9.8 7.0
3. SERVICE ENTRANCE CONDUCTORS: 3#2 CU
4. METERING: METER STANDARD B-5: RATE "G"
5. TYPE: OVERHEAD
6. BILLING ADDRESS: JOHN DOE
   P.O. BOX 1027
   HILO HI 96720

SERVICE VOLTAGE
1φ, 120/240V, 3W

LOAD DATA: METER CONNECTED KVA DEMAND KVA

SERVICE ENTRANCE CONDUCTORS: 3#2CU

METER CLEARANCES:
TOP = 7"
SIDE = 6"
FRONT = 4'-0"

METER ELEVATION

ONE LINE DIAGRAM

PANEL SCHEDULE

PANEL L
120/240, 1 PHASE, 3 WIRE, 10,000 AIC

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CONNECTED KVA  9.8
DEMAND KVA    7.0
DEMAND FACTOR 0.7

SUBMIT PLANS TO:
Hawaii Electric Light
Engineering Clerk
P.O. Box 1027
Hilo, HI 96721-1027

Phone (808)969-0311
Fax (808)969-0256

OR
Hawaii Electric Light
Engineering Clerk
74-5519 Keiki Street
Kailua-Kona, HI 96740

Phone (808)327-0510
Fax (808)327-0505