



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 welding 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

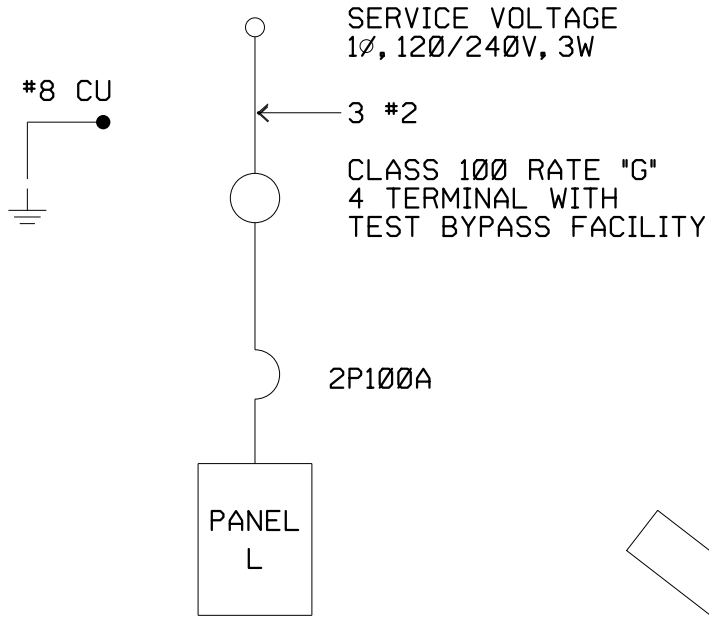
1. Overall Purpose

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

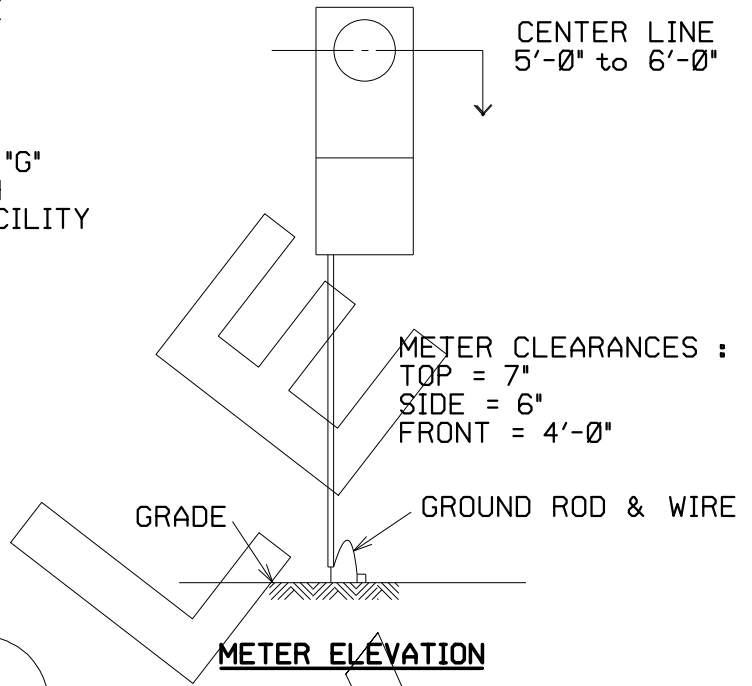
2. Determination of Service Requirements

- 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.



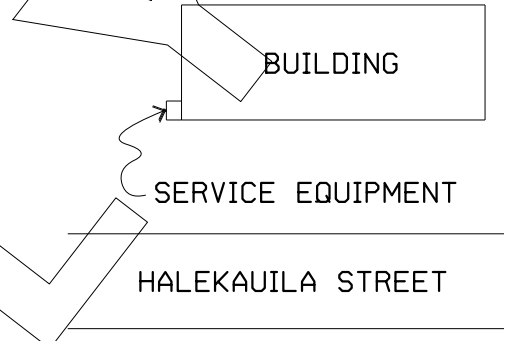
ONE LINE DIAGRAM



METER ELEVATION

PANEL SCHEDULE

PANEL L 120/240, 1 PHASE, 3 WIRE, 10,000 AIC					
CKT.	DESCRIPTION	AØ	BØ	BKR	WIRE
1	LIGHT	1.2		1P2Ø	12
2	RECEPTACLE		1.2	1P2Ø	12
3	WATER HEATER	2.2		2P3Ø	10
4	WATER HEATER		2.2		10
5	AIR CONDITIONER	1.5		2P2Ø	12
6	AIR CONDITIONER		1.5		12
CONNECTED KVA		9.8			
DEMAND FACTOR		0.7			
DEMAND KVA		7.0			



LOCATION PLAN

TAX MAP KEY NUMBER

SERVICE DATA

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

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 Kaiwi Street
 Kailua-Kona, HI 96740

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