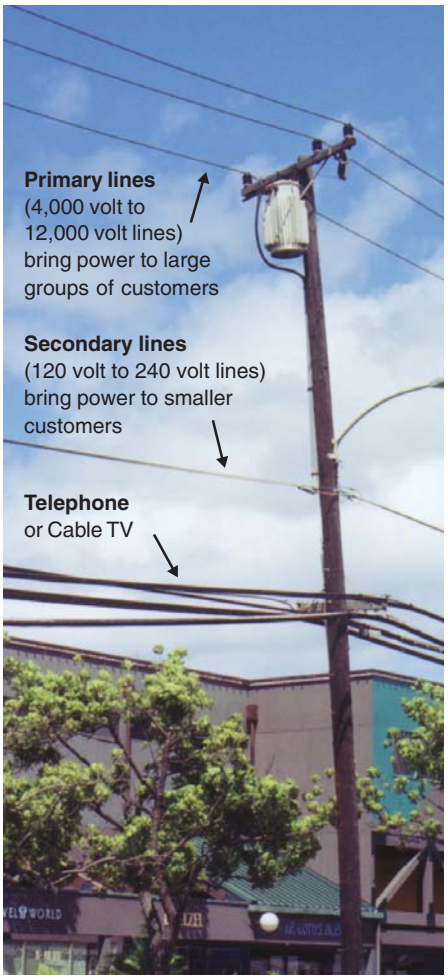
Undergrounding utility lines

Many electric lines are underground

HECO owns about 3,000 miles of electrical transmission and distribution lines. More than 40% of these lines are underground.



Different utility lines share poles

Hawaii utilities — including electricity, phone, and state or city-owned streetlights — jointly own about 55,000 poles. HECO has sole ownership of about 15,000 poles.

The multiple thinner wires, located highest up on the pole are electric lines. The thicker lines located lower down on the pole belong to either the phone or cable TV companies. Sometimes you'll see city or state streetlights and wiring on the pole, too.

When are lines placed underground?

Why do some neighborhoods already have underground lines and some don't?

A City ordinance passed in 1966 requires developers to bury lines in new subdivisions with four or more lots. Developers pass along the extra costs to place the utility lines underground to the property buyers, so people who live in neighborhoods with no overhead lines have paid for the undergrounding costs.

Special areas designated by government as Improvement or Special Design Districts (such as Waikiki) also require underground lines.

We also bury new lines when…

- It is justified for engineering or operating reasons.
- The installed cost for an underground line is comparable to costs for an overhead line.
- The requestor pays for the difference in cost between an overhead and underground line.
- For higher voltage transmission lines, an evaluation of factors, including cost, aesthetics, and environmental impacts, under state law (HRS 269-27.6) supports placing the line underground.
- Under certain circumstances, cost sharing agreement is reached under Hawaiian Electric's cost sharing policy (see "Cost sharing for underground lines").

Which is more reliable?

Overhead lines are more vulnerable to adverse weather conditions and objects contacting lines; utility poles are subject to termite damage and vehicle accidents.

Underground lines are more vulnerable to water penetration, termites and other vermin, and construction dig-ins.

Generally, overhead lines require more frequent repair, but underground line problems are harder to detect, take longer and are more costly to repair.