

LOL-HECO-IR-41

Ref: “The Waiiau-CIP lines ... pressures during the design phase for the line resulted in a more compact structure configuration” (Exhibit 7, EDM Report, page 21).

Question(s):

- a. When did the design team operate (starting and ending dates)?
- b. Who asked the design team for a more compact configuration?

HECO Response:

- a. The design team for the Waiiau-CIP project consisted of both HECO engineers and engineers from an outside consultant. The team was organized in the 1989 timeframe. The design team remained in place during the design and construction of the lines and was eventually dissolved with the completion of the project in 1995.
- b. During preliminary engineering and planning, HECO held public information meetings and attended various Neighborhood Board meetings in the areas of Oahu where the alignment of the lines would be located. During these public meetings, HECO received many comments relating to concern of the height of the proposed poles and the possible visual impact they may have on view planes. As a result of the public input, HECO made two design decisions to minimize the heights of the poles. The first decision was to use a “compact configuration” in framing the 138kV lines. This resulted in maintaining a minimum 9-foot vertical phase spacing between each of the three phases of the 138kV conductors. The second was to use an ACSR (aluminum conductor steel reinforced) conductor which could be pulled to higher tensions. Pulling this conductor to higher tensions resulted in less sagging of conductors, which meant that pole heights could be reduced while still meeting minimum clearances between the lowest conductor and the ground.