LOL-HECO-IR-7

Ref: "In general, the 1995 Alternatives Study, as updated in 2000, found that renewable resource generating plants were not a viable alternative due to the ... cost." (HECO Application, page 32)

Question(s):

a. Were these life cycle costs?

b. Did the comparative costs include economic externalities?

c. Did the comparative costs include environmental externalities?

d. Did the cost analysis include the risk of a catastrophic outage due to a massive oil spill or some other disruption to the oil supply?

e. What was the estimated price of oil ($/bbl) used in comparing the price of on-site renewables versus central station fossil-fuel derived electricity?

f. Did the analysis include transmission line losses?

HECO Response:

a. In general, the 1995 Alternatives Study, as updated in 2000, found that renewable resource generating plants were not a viable alternative due to the lack of suitable sites, the large land requirements, the non-firm nature of wind and solar resources, and the costs and need for interconnection lines if suitable sites could be found and battery energy storage systems were added to firm up the resources. The costs considered for the renewable resource generating plants were capital costs in the1995 Alternatives Study and 2000 update. It was concluded that a life cycle cost analysis was unnecessary because there were other significant factors that made this alternative non-viable. These other factors, as noted on page 32 of the Application, included the lack of suitable sites, the large land requirements, the non-firm nature of wind and solar resources, and the need for interconnection lines if suitable sites could be found and battery energy storage systems to firm up resources.

b. Economic externalities were not considered because more fundamental factors, as noted in

the response to subpart a, made renewable resource generating plants a non-viable alternative.

c. Environmental externalities were not considered because more fundamental factors, as noted in the response subpart a, made renewable resource generating plants a non-viable alternative.

d. The risk of a catastrophic outage due to a massive oil spill or some other disruption to the oil supply were not considered in the cost analysis because these scenarios would directly affect the entire power system instantaneously. The purpose of the project is to address East Oahu transmission problems, and not problems that could directly affect the entire system instantaneously.

e. The price of oil was not considered in the cost analysis because more fundamental factors as noted in the response to subpart a, made renewable resource generating plants a non-viable alternative.

f. Transmission line losses were not considered in the cost analysis because more fundamental factors, as noted in the response to subpart a, made renewable resource generating plants a non-viable alternative.